

## **Egypt's Way to the Asian Tiger Club**

### **Analytic Vision**

#### **Introduction:**

Imbuing it with its own impression, agriculture has its effect on the formation of the life of Egyptian society.

It is even indicative in the concentration of population around the two banks of River Nile, the source of irrigation. Indeed, the matter does not cease at this, as depending on the Nile for irrigation entails unified administration to set up facilities, irrigation's necessary foundations and systems, and undertake the responsibility of distributing water.

Thus, it was necessary to keep the state under a powerful central government. Agriculture then gave Egypt its own character as a central state, on one side, and due to its paramount importance, on the other side, the state was keen to hold the possession of agricultural lands, a rule never violated by any of Egypt's rulers regardless of their different trends throughout thousands of years.

Before 1842, the importance of agriculture even pushed some rulers to grant usufruct of farming land to some of the religious, military, civil leaders of the state to court them and have their loyalty.

Thus, agriculture contributed to establishment and stability of the state. Striving to make an industrial progress, Mohammad Ali gave his attention to the development of agriculture to set the proper base for industrialization.

Until 1973, the agricultural sector remained the evident source of foreign currency for the Egyptian economy and development. The agricultural

commercial balance was distinguished with the big surplus amounting 155.2 million pounds in 1969/1970 and 71.61 million pounds in 1972/1973.

However, in 1974, the passive balance of agricultural trade began due to many causes including, which is most important, the decrease and decadence of self-sufficiency (production/consumption) in many agricultural goods and products.

Therefore, the available amounts for export decreased along with continuous increase in the imported requirements for the agricultural sector owing to the regress and shortage suffered in the local production. Goods like chemical fertilizers, insecticides, agricultural tractors and machines, irrigations and drainage machinery, etc. were all needed and imported.

In the beginning of Egyptian industrialization, light industries e.g. consumptive industrial goods, took precedence. Thus, a part of the state limited resources was directed to import production means for manufacturing these consumptive goods. It was not a matter of choice for Egypt, a country of limited resources.

This procedure hindered the process of building and developing the production means industry and then hindered the continuity of social development as a whole.

The continuation of production means industry for consumptive goods, but this is even interrupted when being linked to the international production means. This is because the balance of payments has had growing burdens as a result of importing the production means and spare parts of these industries.

There is almost consensus of opinions that the future of economic development in Egypt depends essentially on industry and services due to the limited agricultural land available in addition to the rarity of water.

Furthermore, the nature of agriculture is an activity that drives population, for only 1% of them can provide them all with food. For example, less than 5% in the United States work in agriculture.

However, it achieves self-sufficiency with surplus agricultural amount as reserves directed in the form of food aids. Moreover, industry may develop in great rates for the availability of agricultural possibilities in modern methods along with the necessary manpower that should be directed and trained for better efficiency and productivity.

Indeed, manpower is an important element of the relatively good characteristics of Egypt unlike many Arab and African countries. Egypt has also its history and experience in light and heavy industries. Wide experience is practiced in founding and operating several industries in different fields.

Much knowledge and experience were gained and they are enough for founding a true course of action toward the future.

Additionally, Egypt has a sufficient base of services necessary for industry; resources, service, energy, and transport projects, and educational, training, and scientific research abilities. Unlike similar states, Egypt has these factors that are all essential for industrialization.

The economic development rate will not exceed the population increase rates; consumption, unless the production quantity and quality increases. Believing in the significant importance of this goal, the government places production increase on the top of the national work priorities.

It is necessary to mobilize all the available resources in the Egyptian economy and improve the quality of use to achieve production increase quantitatively and qualitatively.

The government took big steps in the economic reform as assured by the economic studies and reports. It is also realistically touched in the improvement achieved in the investment atmosphere in Egypt where good environment for development is secured.

The government is still following on the track to better rates of economic development. The upcoming stage is truly optimistic and hopeful. The hope drives us all to dream of Egypt, the economic tiger like the Asian tigers.

This study deals with three main fields in the area of mobilizing resources available for Egypt to be an economic tiger:

- Man investment, how to make them a great national treasure?
- Resolving the unemployment problem by raising the production in quantity and quality to make Egypt a source of good and distinguished employment.
- Identifying and encouraging Egyptian industrialists and backing the phenomenon of forming the legal personality of industrial community treating with it in a manner that magnifies its positives.

### **First: Man Investment**

**How to make them a great national treasure? The Resolution of the unemployment problem and the improvement of the production in quantity and quality. How to make Egypt a source of good and distinguished employment?**

The crisis of express unemployment grows worse in Egypt throwing bleak shadows after a long economic slackness. Huge numbers of those who are yearly added to the work power find no work where they can use their energy. Express unemployment refers to those who are able to work but find no job, thus they waste their time in vain manner.

Unlike water and oil resources, and agricultural products that may be reserved in its original state or after transformational process saving it in forms of juice or beverages, time is the only thing that cannot be reserved for future use. Thus, unemployment is a great invisible loss.

The increase in numbers of graduates of universities, high and average institutes, technical or professional, constitutes the most striking characteristic of the express unemployment in Egypt.

Furthermore, unemployment expands to reach professionals who once thought far from the ghost of unemployment, I mean the graduates of the top colleges such as medicine and engineering.

Express unemployment has certain dimensions and economic, social, and political cost in addition to the negative psychological effects left not only on youths but also on their families.

Fathers and mothers feel great grief and worry for their unemployed children who live aimless life and bearing anxious souls for their future in sorrow and sadness.

This is admittedly true when they find themselves lacking self-assertion and have not the least hope of achieving the success expected, as they have no job opportunity. Self-assertion, as known, is an essential human

need. What worsens the case with fathers and mothers is their fear lest their children should deviate.

At the same time, the lack of work opportunity for sons and daughters means that parents shall continue undertaking their expenses.

It is a long awaited day when their children graduate and have jobs and salaries to improve the family living standards in stead of their continuous deterioration due to the high increase in prices on a yearly basis exceeding the salary annual increment rate.

It is natural for all these facts to leave bad effects on the productivity of fathers and mothers.

At the same time, even the employees and workers are anxious, for they fear that they may lose their work due to the unemployed troop waiting outside (some may have better efficiency /some may accept lower salaries with the negative effect expected).

They also may fear lest the institution should suspend work or stop it due to any decline in its activity ensued from the prevalent economic circumstances bestirred by the drastic express unemployment.

The drastic express unemployment affects the morale of the employees and then their productivity leaving dismal shadows on their social life.

It is well known that the sweeping majority of graduates are not appointed but after a long period that may expand for years, thus it is natural that their productivity are affected when they get work opportunity.

They finally got a job but they now remember very little of the knowledge they once had and practiced in colleges and faculties. The memories are now empty and they lag behind the new professional innovations that took place when they were jobless.

Evidently, express unemployment in Egypt has a very bad effect on the national productivity course.

### **The Disguised Unemployment and the Invisible Loss**

Disguised unemployment, namely, unneeded unemployment is another kind of the invisible loss where the productivity of those employees is nonexistent and even sometimes negative. Excluding them from their places will not affect the productivity quantity and may even increase it, as they often hinder the work.

Comparing the employment in the Egyptian government to the employment in a developed country whose population is similar to that of Egypt e.g. the United Kingdom, unveils that the governmental employment in Egypt is more than six-fold of that of England.

This great difference between the two countries is originated from the use of the technological means that save employment in the governmental authorities in the United Kingdom.

The Egyptian authorities only use these means in the least scope in addition to the disguised unemployment badly suffered by the governmental sector in Egypt.

Undoubtedly, if Egypt decides to develop work in the governmental sector by use of the up-to-date technology, the disguised unemployment will be doubled three times.

The outbreak unemployment in the governmental and the public sectors in Egypt is a natural consequence of the yearly appointment of huge numbers in these sectors to alleviate the sharp growth in the express unemployment and lighten the bad economic, social, and political problems caused by disguised unemployment, though there is no real need for the majority of them in work.

The same is equally applied to the agricultural sector, if the primary methods are replaced by the modern technological methods in Egypt, the disguised unemployment will increase greatly!!

Thus, it is necessary to change these states to turn this problem out to be a major relative characteristic. It is also necessary to make the human element a national major treasure, for the human element, at all levels, is the most important element in the production process, as it has great development possibilities and abilities to operate other elements.

Reviewing the history of progress and regress, it is strongly dependent on the value man can offer. Man is the maker and operator of technology and the pivot of development, thus the national future, progress, or regress is wholly dependent upon man's experience, efficiency, performance rate, and work ability, love and acceptance.

Generally speaking, man is the maker of development and its objectives at the same time, for if the goal of development is man's welfare, then man is the means to achieve this welfare.

If manpower is assured as a governing element for success, it is because man is the most important resource available in Egypt. We do not mean to compare man to other resources such as land, capital, and natural resources.

We only consider man as the ever renewing element whose energy is inexhaustible and at the same time man is the maker of transformation of all other resources.

Moreover, Man is the most important element of investment and again we do not mean to compare man to production machinery or equipment. Such concept divests humanity of their human nature.

It is only a confirmation that investment in man element is not consumptive and it has certain returns that surpass that of material investments on the long term.

The proper vision for the future making, the present reform, and the identification of the defects is greatly dependent on our ability to plan working manpower.

It is inevitable to invest in man power providing good preparation that befits the time spirit and requirement. It then appears that the importance of responsible management and its ability to manage the human element and plan the working power is so necessary.

Management should free and reform man and equip him with science and faith, principles and rational rules that direct activity, movement, and activation. The management shall also provide open area for intellect to listen, discuss, negotiate, analyze, compose, induct, infer, compare, and produce.

Planning for rehabilitation and preparation of the working power is indisputably one of the most serious national issues in this stage. The top experts of planning must undertake this responsibility especially the educational planning and training.

It is blameless to seek the help of foreign and international experts. Here, I record some ideas concluded through study and experience in the working power planning and preparation in a manner that befits the time:

It is necessary to reconsider the concept of working power planning, as it is part and parcel of the economic and social plan of the state. Thus, it is indispensable to set plans for the working power and equip them with specialties, skills, cultures, and good behaviors for better progress course towards the achievement of development goals. Economic and social development is composed of two essential elements: the material element and the manpower element.

The mixture and activation of these two elements provide for the society welfare and no economic or social development is expected unless these two elements are integrally connected.

**Planning the working power shall carefully consider the policy adopted by the state and the body responsible for planning:**

- Shall our policy submit human resources planning to economic and social development?
- Or shall our policy submit the plans of economic and social development to human resources planning?

The goal of the first policy is economic and the goal of the second is social but the two policies shall be integrated.

**It is essential to consider seriously the following governing elements when reconsidering the working powers planning:**

- The existence comprehensive, stable and long term development strategy depending on realistic foundations in terms of needs and available investments. Thus, we can define the required work period both in quality and quantity, and then education and training may take advantage thereof in drawing their policies.
- Providing good and reliable information system for employment plan to help the planner know of the accurate and latest statistics and data about the professional frame of the working power in all sectors and activities in addition to their distribution according to the economic activities and the educational and training requirement.
- Identifying the role of the participating authorities in the planning process to secure integrity and unity.
- Adopting performance rate and functional curricula systems to face the deficit and surplus in the different specialties. These studies shall be submitted to and considered highly by the education and training officials.
- Paying attention to training as a supplementary part and dynamic mover of education. Training shall be connected to the core of education process to be sure that the traditional statically originated side does not overdue the dynamic and renewing side by means of training under different names and levels.
- Creating balanced and new professional groups and specialties continuously in the job market. Indeed, the continuous development of production and service methods invades new fields for exploitation and

investment, thus the size and rate of employment necessarily increase with new professions to meet the ceaseless expansion in inventions and inventiveness.

- Founding, preparing, rehabilitating, and developing centers for the preparation of teachers and trainers at all professional levels and in the highest level under new concept and philosophy in accordance with the unprecedented international changes in the relevant field and the requirement of time.
- The necessity of flexibility in the rates and averages of gradual levels of skills.
- It is necessary to provide and prepare the workshop concept that can cope with the requirements and goals of the advanced professional training.
- It is also necessary to draw connection between mind and hand in training processes in a logical and harmonious unit governed by specific ideal schedules for ideal performance and more effective style in resolving whatever hardships or problems may emerge.
- Necessity of connection between the trainees' periodic tests and creativity.
- Establishing new channels for the practitioners of some conventional specialties in order to reshape them— through training— to get the urgently required new skills in short term.
- Multiplying the number of “blue collar” workers who represent activity and productivity in the society at the expense of “white collar” workers who

are a great part of the disguised unemployment and specialties of low or limited demand.

- Encouraging large factories to adopt the trial of “School Factory” for its workers' children in particular and for those who graduated from the industrial schools to teach them the skills and experience required for the factory production.
- Encouraging the principle of “competing groups” in each separate branch of production under similar conditions to reward the innovators who achieve surplus — along with mastery — and reduce the rates of loss as much as possible.
- Encouraging the principle of creativity, renewal trend and innovation to the maximum and possible level. Accordingly, positive motives created to drive every worker and trainee. In the course of time, they became qualified to participate in developing, improving, abbreviating and designing even a new part of the details of the productivity process and in a way that affirms its economic, social and psychological benefit when it is applied. This also improves the conditions of work.
- The importance of holding periodical joint meetings among the officials of education and training sectors, businessmen, industrialists and unions to discuss very significant issue such as development of curricula, and introducing new equipments and facilities in the different levels of educational and training processes.
- Paying attention to award prizes and orders for the distinguished workers. Consequently, the human element becomes a great power that leads to the welfare for the country. By doing so, Egypt could be distinguished by the good preparing of its children. Moreover, Egypt could export

distinguished labor that result in the prosperity of Egypt and of the recruiting countries for such labor. In this case, there will be no unemployment. Rather, this will result in the prosperity of the Egyptian economy through the increase of productivity, the development of performance in terms of quality and quantity, exporting the remaining labor after the supplied labor and the demanded labor in the local labor-market and reducing the pressure on the locally available work opportunities.

**Second: Identifying and encouraging Egyptian industrialists and backing the phenomenon of forming the legal personality of industrial community and treating with it in a manner that magnifies its positives**

Who is the industrialist? What is the role he plays? How can he succeed? These are pivotal questions that we shall endeavor to answer them quietly.

Though we are greatly occupied with industrialization; its importance and priority in the Egyptian national work, we sometimes highlight specific elements in the industrialization process such as finance, training, and technology and forget the controlling element that combine all the efforts of industrial development in harmonious and symmetrical active system, namely, the industrial organizer; the industrialist.

The former generations that encouraged the industrial transformation after the World War II were quietly aware of the role of the industrial organizer in the process of transforming the dull agricultural society to an able society that can provide its own essential communities of the manufactured goods.

Indeed, the role of industrialist was badly neglected and unintentionally mistaken due to the issues and problems of economic liberation in the seventies. So, it is necessary to reconsider and evaluate this role.

This is originated from the importance of individual's role in history making as there are many men and women who were able to change the life of nations when their genius guided them to use all the social, economic, and political circumstances to achieve their goals.

Our generation, by means of hard labor and struggle, was able to achieve honorable successes in the industry though the circumstances were so difficult.

There great optimism regarding the Egyptian industry, for the sincere Egyptian men are here. Industrial success depends on a group of intermediate values in the Egyptian community and it is available for those resolved and hardworking people.

### **Who is the Egyptian industrialist?**

Great confusion rises between the industrialist who organizes the development process and the businessman. The latter has become a general and comprehensive term given to capitalists, industry managers, real estate shareholders, traders, and even brokers.

The experience of the developed countries showed that industrial development and transformation from the agricultural economy to the dynamic and industrial economy is greatly dependant on the shoulders of the pioneering industrialists or the industrial organizers who have the economic thought and embody the powers of inventiveness, initiative, and venture.

Thus, some maintain the view that the success of countries depends on their ability to give rise to a group of the able organizers who can gather the production factors including labor, land, and capital together for new fields that can serve the society's changing and ambitious requirements.

### **The Characteristics of industrial organizer**

The most important characteristic is to have the seed of inventiveness and deep foresight to predict benefits and applications of certain scientific discoveries or new productions means.

Thus, in most cases, he is not traditional person (even if his social background is traditional). This is contrary to traders and businessmen who aspire to congruity with the existent social and economic frame in preservative and precautionary manner.

The industrial organizer should also have long-term foresight drawing connections between his success and that of certain change in the national framework.

For example, the European and American industrial organizer connect their success to the big technological changes like the use of steam, the railway progress, inventions, private cars, and most recently the appearance of computer circles and its several uses.

On the other side of the fence, traders and brokers are only interested in rapid gains and their initiatives only appear in the discovery of consumers' needs or the market status to get their goals.

The industrial organizer may also take the venture of a part of his capital and those collected from others especially when the shareholding of the industrial organizer is not big. However, he sacrifices alternative

opportunities or secure salary to achieve his goals. It is necessary for successful industrial organizer to have good knowledge of the product he tries to manufacture and its market.

It is not enough that the new idea has certain technical traits and technologies; it must be acceptable and demandable in the market to lead to reducing the cost and improving the product, thus better demand follows.

### **The historical development of the industrial organizer**

The Egyptian industrial organizer is relatively new phenomenon in our national history, as we are traditional society whose tendency to the new ideas is weak. It is inclined to imitation and repetition, not to uniqueness and inventiveness.

Thus, the industrial organizer had no place in the experience of Muhammad Ali in the beginnings of the part century when the state played the role. Later, the occupation forces oppressed its appearance until the twenties of the current century.

After a short period of industrial initiatives, the socialist experience came when the state led industry and instead of inventiveness and invention, abiding by the plans was the foremost duty and instead of the industrial organizer, there were the technical research centers and the governmental companies etc.

The economic opening period then came where confusion took place regarding the industrial organizer and his role as an inventor and endeavoring striver and the other roles of businessmen and capitalists.

Every stage has its advantages and disadvantages; however we will review the facts to recognize the industrial organizer required in this stage and the dimensions of his role and personality.

### **When will the Egyptian organizer come?**

Undoubtedly, the social traditions and educational system of Egypt are affected by the political philosophy of the socialist period when the industrial period appearance delayed.

The Egyptian society has its agricultural roots and even fights the individual initiatives avoiding untraditional ideas. Thus, the governmental job and university degrees are most important. Now, the rate of MA and Ph.D. holders of the university graduates is even more than that achieved in the developed countries.

At the same time, those who adopt trade or industry as a means of life are seen as reckless. It is no doubt that these values are swiftly changing after the new opportunities secured by the economic system and the great facilitations.

However, to answer the question: whence comes the Egyptian organizer, it is necessary to identify that the Egyptian organizer in the modern age has greatly affected by the economic, social, and political framework of the state. The Egyptian industry in the twenties and the thirties is not similar to that of our days.

This study, however, does not mean to state the biography of the economic giants of Egyptian industry such as Talaat Harb, Al-Sayyid Yasin, and Ahmad Aboud who made their difficult way in the hard years between the two world wars. The study only means to identify the resources of the Egyptian organizer in the modern age.

**The resources are as follows:**

- Industrialists of the public sector.
- Industrialists of the private sector.
- The new Egyptian industrialist.
- Banks and finance channels

**Briefly, we shall highlight these resources:**

**A. Industrialists of the public sector**

The experience of this category depends on the big industrial experience in the fiftieth and the sixties carried out in the industrialization program and development plans.

Some industrial organizers introduced new and developed administrative means to their companies, despite the traditional obstacles surrounding the public companies.

At the beginning of the open-door policy, some industrialists decided, in spite of their success, to leave the public sector and magnify their personal returns starting their own projects.

This transformation was systematical when some companies of the public sector initiated joint projects under the investment act (no. 43/1974) and the chairmen of the public sector companies who were retired used to lead the new joint companies.

**B. Industrialists of the private sector**

There are limited examples of the industrial organizers who managed to escape insurance and law eyes controlling some productive units which they expanded and renewed when the political and economic atmosphere

changed. Other examples and certain industrial experience transformed from fathers to sons who tried to apply them in the new circumstances of the economic opening.

### **C. The new Egyptian industrialist**

This category includes a group of youth who formed some industrial and administrative experience and were able, in short time, to prove their position and make their way to the leading rows with indisputable successes. Thus, they have the pioneering places and get the due respect when their experience is introduced as an ideal for adoption.

### **D. Banks and finance channels**

Many investment banks sensed the opening period and due to the absence of the active industrial organizers, they saw it incumbent upon them to undertake the role of the organizer (they took steps in the footsteps of Egypt Bank) and appoint the managers, technicians, and able cadres who can set forward the project from the idea or study to execution.

### **The basic characteristics of the successful industrial organizer:**

1. Caring for science and empirical knowledge
2. Love of considered adventure and pursuit of promising invisible success.
3. Abiding by the deeply rooted ethics and morality, and adhering to the profession rules and ethics.
4. Democratic management and means
5. Caring for human relationships with workers and employees to magnify their loyalty and affiliation
6. Availing of others' experiences

### **Third: the great role of small industries in constructing Egyptian economy**

Small industries play an important role in the national economy of any country. Small industries sector in any country is considered a field for developing administrative and technical skills and capabilities.

The importance of small industries' sector, which plays a key role in the processing industry sector, lies in the fact that it has a large number of facilities and workers and contributes to boosting production and value-added. The small industries' sector and its effect on the national economy differs from a country to another according to the extent of care paid by the State for this sector.

### **Importance of small industries in bringing about economic and social development:**

Small facilities represent a large percent of industrial units all over the world. There is no doubt that such facilities are important and vital in the economic and social development. The countries that have achieved rapid growth are the ones that adopted a general framework, paving the way for small industries to grow and prosper.

Small industries are characterized of their capability and effectiveness in the following:

- Integration with major plants in a way that leads to the development the industrial sector as a whole,
- An effective way for geographical expansion and can create competition, hence bringing about social and political development in the country,
- This sector can easily adapt to market needs,

- This sector provides great opportunities for labors with gradual levels of skills and low cost, thus absorbing workforce with all its skills and production levels.

**Role of small industries in maximizing labor opportunities and industrial output:**

One of the most important national goals is to maximize productive labor opportunities and industrial output. This depends on the capital coefficient: the more capital invested in labor the more industrial output and vice versa.

Since small industries are concerned with relatively intensive labor and low capital invested in labor, they are considered the most capable of boosting industrial output and labor in comparison to large industrial facilities that use intensive capital approach.

Despite the fact that labor output increases if the size of the industrial facility is big, the capital invested in laborers also increases so long as the size of the facility gets larger. The additional increase in the capital invested in laborers in larger facilities is not proportionate with the rise achieved in the labor's output.

In light of this and taking into account the abundance of job opportunities in Egypt and what is expected at the long-run due to direct population growth rates, we can say that the development of small industries can play an effective role in maximizing laborers and industrial output, as was the case with Japan, China and others.

### **Role of small industries in maximizing economic surplus to society:**

One of the characteristics of the Egyptian economy is low local saving. This leads to dependence on foreign finance. Since we are making efforts to achieve ambitious growth rates through depending on our self-finance resources, this requires maximization of the economic surplus of the society through the investment of a certain amount of money.

In this respect, the development of small industries can play an important role. The economic surplus of a laborer in industrial facilities with different sizes depends on his output and pay.

Some say that large industrial facilities, unlike small ones, are more capable of making economic surpluses, thanks to high laborer's surplus. However, this opinion prefers an important factor: the relationship between the invested capital in laborers and the economic surplus that he achieves and then the economic surplus achieved by the society through investing a sum of money.

Undoubtedly, the bigger industrial facility, the more economic surplus achieved by a laborer is.

However, if we link between the capital invested in laborers and the economic surplus they achieve according to the sizes of facilities and then the economic surplus achieved by the society on the basis of investing a sum of money, it turns out that the small industrial facilities are more capable of maximizing the economic surplus of the society.

Perhaps one of the most significant factors behind Japan's high saving rates is represented in the State paying great attention to the development of small industrial facilities.

This means that the availability of work supply in Egypt currently and in the future can play an important role in maximizing the economic surplus of the society if the small industries are given due attention to be developed.

Certainly, small industries can – since the commodity needed to be produced conforms with its production circumstances, in addition to available effective management and all production requirements of raw materials, finance and others – contribute effectively to maximizing production, laborers and economic surplus.

### **Role of small industries as feeding industries in boosting exports:**

One of the problems faced by the Egyptian economy is the trade deficit. So it is necessary that the net revenue of exports, resulting from realized investments, should be maximized. In this respect, boosting and development of small industries in Egypt can play the following important role:

A- Handicraft small industrial facilities with less than 10 employees can amend their production programs in accordance with the needs of foreign markets, due to their flexibility. They are the most capable of meeting export markets' needs. On the other hand, the products that depend on manual work are increasingly demanded in the developed countries' markets due to high income rates and relatively disappearance of these industries in such countries

B- The small facilities that employ a relatively small number of workers can effectively contribute to boosting exports of different products whether directly or indirectly. The indirect role is represented in linking small industrial facilities with the larger ones. This will enable small industries to supply larger ones with fully manufactured or semi-manufactured

products, which are used by big industries as input for end products. This will be done through competitive prices, thus enabling large industrial facilities to compete in foreign markets. In this respect, experiments of developed industrialized countries, including the United States, Japan and others, gives us many examples of this.

High development and production quality rates in the United States occur in the processing sectors, depending mainly on small industries. Most giant companies have several small facilities around them.

For example, 64% of General Motors suppliers are small facilities, 26,000 in number, whose laborers are less than 100 each. Some 93% of De Bonne's suppliers are small facilities (30,000 in number). Raytheon, a major electronic company, buys 56.6% of its needs from small plants and 45% of its operations that are awarded to big companies have been given to small subcontractors.

In Japan small industries carry out many industrial operations for major companies. Small industrial facilities that produce for larger ones contribute 72% of metal industry, 76% of equipment industry and 79% of electric appliance industry.

In France, Renault buys from small companies more than 20,000 items needed to its assembling production lines. It also employs more than 5,000 subcontractors and suppliers. It allocates 46% of its suppliers to operations for buying from a third party.

This orientation helped the company to double its production several times without the need to introduce new industrial methods. However, the company makes use of the improvements introduced by those small suppliers to their products.

In Switzerland, industries depend to a great extent on small ones to produce electronic and assembling industries and others. Many major companies depend mainly on the production and operation carried out by specialists who produce at small workshops small parts of different industrial equipment.

A reasonable part of production is done at homes by specialized families. These small plants managed to invade the world.

In Italy the government has overcome the problem of labor redundancy in production sectors through the promotion of small industries of medium labor intensity.

This was done in accordance with a plan called "VANONI" during the period 1955-1964 with a view to absorbing and employing redundant workers in these sectors. The plan managed to achieve its goal.

India also promoted small industries in different industrial activities. Small plants in India produce about 38% of total industrial output and employ 50% of total industrial workforce.

In an industrialized developed country like South Korea, industrial exports manufactured by small plants account for 35% of total exports.

### **Role of small industries in developing local technology:**

The encouragement of small industries helps develop local technology and production that have not been proven economically disabled – that is, not all traditional and inherited production methods are out-of-date or should be scrapped. Rather, they should be studied and analyzed.

The challenge that is facing designers lies in how to amend different factors, such as finance, human workforce and technology, to reduce the use of capital and raw materials and create more productive labor; hence the development of small industries and boosting their competitiveness.

The challenge that is facing research and technology is the most suitable technology for our circumstance and society, taking advantage of the cutting-edge sciences. Implementation can be through the following:

- Starting with the traditional methods in our small industries and update them with knowledge and gained experience or by the use of modern methods taken from developed countries and adapt such methods to cope with our circumstances.
- Analyzing and studying the technological problems through planned projects for improvement and development. This can be achieved through new scientific and technological initiative

### **Role of small industries in creating industrialists:**

Small industries contribute to the creation of industrialists, industrial organizers and development of pilot businessmen, who lead the industrial development processes and on whose efficiency investment rates and effectiveness depend. It is a matter of how to use savings not what their size is.

The creation of capital is affected more by the attraction and demand on the part of industrialists and industrial organizers than the supply on the part of savers. When successful industrialists assume their pioneering role, finance follows.

The formation of this layer of specialties is mainly contingent on the small businesses' sector, which the main subsidiary of this resource that represents a nucleus of gradual development to giant organizations. Men, such as Siemens, Ford and others, have been the nucleus of giant global organizations.

**The most effective economic activities on small industries:**

Holding a comparison between small and big industries in terms of contribution to the maximization of laborers as well as economic output and surplus implies some restrictions.

This is attributed to the fact that the effectiveness of small industries depend on the type of industry and the industrial operations that are suitable for these facilities.

In this regard, it can be said that small industrial facilities can play a pioneering role in the development of many industries whether directly or indirectly. This can be seen in the production of semi-manufactured commodities.

Perhaps weaving, ready-made clothes, foodstuffs, wooden products, furniture, metal products, parts of electrical and non-electrical appliances and electronic products are among the most prominent small industries.

The reason is that these products can be produced by intensive labor methods as small industries or intensive capital methods as big industrial facilities.

Since industrial facilities contribute, as we explained, to the maximization of labor as well as economic production and surplus, they can also play a

pioneering role in boosting exports, developing local technology and creating industrial and economic development pioneers.

Since small industries in Egypt are still limited to the production of a few number of traditional industries, the development of these industries may be one of the vital fields to upgrade out national economy.

The State, represented in the government, is exerting a tangible yet insufficient effort to create the momentum needed for the development of small industries.

However, the development of such industries on certain bases and a national strategy – through a national authority to be in charge of this – will definitely bear fruit and bring about radical change in the Egyptian economy if there is sufficient care and capabilities in terms of qualitative and quantitative.