For Egypt to Join Club of Economic Tigers

Analytical Study

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Introduction:

Agriculture left its imprint on the life of the Egyptian society, giving it a special style for thousands of years. A prominent evidence of this is the concentration of social life on the two banks of the River Nile, the source of irrigation for agriculture.

Moreover, depending on the Nile as the source of irrigation entailed the presence of a unified administration for setting up irrigation utilities and edifices, organizing irrigation and distributing water.

In turn, this entailed holding the country under strong centralized governance. Thus, agriculture gave Egypt a centralized style of governance, on one hand.

On the other hand, because of its vital importance, the state sought to monopolize the ownership of agricultural land for itself. This rule has been adopted by all those who governed Egypt over thousands of years, before 1842.

Moreover, the importance of agriculture urged some governors to grant concession of agricultural land to eminent men of religion, prominent army officers and statesmen, as a token of friendship, in order to win their devotion. Consequently, agriculture managed to enhance and enforce the state.

During the first half of the 19th Century, when Mohamed Ali thought of industrializing Egypt, he focused on promoting agriculture and developing it into a strong base for industrialization.

Up till 1973, the agricultural sector in Egypt was a major source of foreign currency for the Egyptian economy, where the agricultural trade balance enjoyed a great surplus, amounting up to EGP 155.2 million in 1969/1970 and EGP 71.6 million in 1972/1973.

As of 1974, the phenomenon of a deficit in the agricultural trade balance started appearing. This is attributed to more than one reason, the most important of which is fall and deterioration in rates of self-sufficiency (production / consumption) in many agricultural commodities and products.

This led to a reduction in surplus quantities available for exportation, concomitant with a rise in imports of agricultural needs, due to dwindling local production, such as chemical fertilizers, insecticides, agricultural tractors, irrigation pumps, drainage machinery, etc.

Once industrialization was launched in Egypt, focus started being made on light industry, i.e. consumer industrial commodities. This led to directing part of the limited resources of Egypt towards importing production means of consumer items. Egypt had no choice but that, given its limited resources.

This hindered the process of building and developing the industry of producing means of production, which – in turn – hindered, on the whole, the sustainability of social development.

This also hindered the sustainability of developing consumer items, shouldering the balance of payment with growing burdens, due to importation of means of production for consumer items, together with their spare parts.

There is a sort of consensus that the future of economic development in Egypt is based primarily on industry and services. This is attributed to the unavailability of agricultural land, together with the scarcity of water.

Also, agriculture, by nature, is an activity repellant to population, as less than 10% of the population could cover the needs of the rest. In the USA, less than 5% of the population is engaged in agriculture. Still, all needs are covered, in addition to a great agricultural surplus that acts as a reserve, with part of it offered as food assistance.

On the other hand, industry could rise and grow at quickly, due to modern means of agriculture and abundance of manpower, which is a relative asset for Egypt, when compared to many other Arab and African countries.

Also, Egypt has a history and acquaintance with many light and heavy industries, having set up and operated numerous factories in various domains. This has vested it with the expertise needed to proceed on sound basis towards the future.

Egypt also enjoys a wide base of services needed for industry, as well as resources and projects for services, energy, transportation, together with potentials in fields of education, training and scientific research. All these are basic components for industrialization, which distinguish Egypt from many other similar countries.

Economic development cannot be achieved at rates surpassing overpopulation and consumption, except by raising production, quantitatively and qualitatively.

Given the conviction of the government of the importance of this objective, we find that raising production falls on top of the list of priorities of our national

action. In order to achieve a quantitative and qualitative rise in production, it is necessary to mobilize all resources available within the Egyptian economy and exploit them efficiently.

The government has covered great steps in the realm of economic reform, as evident from all economic reports and studies, as well as from the tangible results of a better investment climate in Egypt and the appropriate atmosphere for development.

Still, the government is proceeding forth in its steps towards achieving better rates of economic development.

The coming phase is very promising. We all aspire that Egypt would grow to be an economic tiger, like the Asian tigers.

This study tackles three important fields in the realm of mobilizing available resources, in order to turn Egypt into an economic tiger:

- Investment in human beings. How could this be a major national wealth?
- Solving the problem of unemployment and raising production, quantitatively and qualitatively, while turning Egypt into a source and supplier of outstanding labour.
- Defining, distinguishing and encouraging the Egyptian industrialist and magnifying the phenomenon of creating the so-called legal person of the industrial society, while dealing with industrialists in a manner that would bring out the best in them.

- Small industries and their major role in glorifying the Egyptian economy.

First: Investment in Human Beings

How could it be a major national wealth?

Solution for the unemployment problem

Promoting production, quantitatively & qualitatively

How to render Egypt a source & supplier of outstanding labour

Plain unemployment & its impacts:

The crisis of plain unemployment in Egypt has aggravated and has become depressing, after a long period of economic stagnation. Every year, large numbers add up to the force of labour, without finding work to absorb their energy. Plain unemployment means individuals capable and keen on working, but finding no jobs.

Thus, they waste their time, although time is the only thing that can neither be saved nor kept for later, not like water, oil or agricultural crops that be stored as they are, or after being transformed into other storable forms, such as juices. Either you make use of time, immediately, or you lose it for ever. Hence, unemployment is a great invisible loss.

Probably, a new trait conceivable in the phenomenon of plain unemployment in Egypt is the high rates of unemployed university graduates and graduates of higher institutes and intermediary technical and vocational institutes. Lately, unemployment has struck all professions, even those that no one ever dreamed of, such as medicine and engineering.

Plain unemployment has its economic, social and political dimensions and costs, as well as its negative psychological impacts, not only on the unemployed youth, but also on their families.

Undoubtedly, fathers and mothers feel sad and anxious, when they see their children joining the lines of the unemployed and wasting their time, while agonizing and despairing about their future.

The youth are incapable of proving themselves, being deprived of a chance to do so through work, despite the fact that proving oneself is a basic human urge. Furthermore, parents fret and worry that their unemployed children would turn into delinquents, in addition to their being a financial burden on the parents.

The parents were dreaming of the day when their children would graduate, get employed, earn their livelihood and stop depending on them, economically. This would have raised the standard of living of the family, instead of slackening it, due to rise in prices at rates that surpass any raise in salaries and wages.

Naturally, all this has a negative impact on the productivity of parents. Furthermore, amidst the aggravating crisis of unemployment, those employed start fretting about their future, as they could be easily replaced by more efficient or less paid persons.

Moreover, the whole establishment could cease to function, or cut down on its activities, because of bad prevailing economic conditions, due to the aggravating problem of plain unemployment.

In other words, aggravation of plain unemployment has a negative impact, as well, on the disposition of employees and on their productivity, casting its shadows on their social lives.

It is well known that the vast majority of graduates become recruited long after their graduation, which makes them out of touch with a large part of what they have studied at their faculty or institute. They could also find themselves way behind with the latest professional developments that took place during their period of unemployment. Thus, plain unemployment in Egypt has a great negative impact on our march of national productivity.

Masked unemployment and invisible loss:

Masked unemployment, i.e. excessive labour, represents another type of invisible loss, where the productivity of this excessive labour is not only nil, but also negative.

If we dispose of this excessive labour, the size of production within sectors in which they work will not diminish, but might even rise, as they often hinder the work process.

For example, if we compare the size of labour in the Egyptian government to that in a developed country of more or less the same population, such as the United Kingdom, we shall find that, in Egypt, it is six times that in England.

This astronomical difference is, in fact, attributed to the use of labour-saving technology in governmental offices of the United Kingdom. In Egypt, such technology is used in the strictest sense, in addition to the masked unemployment from which our governmental sector in Egypt is greatly suffering.

Undoubtedly, if Egypt decides to modernize the governmental sector by using the latest technologies, this will lead to a rise in masked unemployment within this sector up to threefold of the actual figure.

The spreading of masked unemployment in governmental and public sectors in Egypt is a natural outcome of engaging huge numbers of graduates, each year, within these two sectors.

Most of these graduates are not needed, but this is merely to reduce the size of plain unemployment and alleviate the unpleasant economic, social and political problems arising from plain unemployment.

The same applies to the agricultural sector. If primitive modes of agriculture in Egypt are replaced by modern technology, the size of masked unemployment would again rise astronomically!

All this needs to change. This problem could turn into a major relative privilege for Egypt, where the human element could become a major national wealth.

At all levels, the human element is the most important element in production, given its potentials and ability to operate all other elements. Upon reviewing the history of advancement and backwardness, we find it closely related to what man provides.

Man is the maker of technology and the axis of development. The future of his country and its advancement or backwardness all depends upon his expertise, efficiency, rates of performance and ability and desire to work.

In general, we can say that man is both maker and object of development, because if development seeks man’s prosperity, man is development’s tool and means of achieving such prosperity.

When we emphasize the importance of man as a governing element in success, it is because human beings are one of the most important resources available in Egypt.

We are not comparing man to other resources, such as land, capital and natural resources, but we consider man a creative power with endless potentials. Man alone is capable of transforming all other resources.

Moreover, we view man as the most important investment element. Here, we are not comparing man to production kits and machinery, as this would deprive him of his humanitarian qualities, but we are merely emphasizing the fact that investment in man is not a loss, but brings guaranteed revenues that surpass, by far, all revenues of material investment.

Hence, the right path for the future of our industry and for determining our points of weakness depends on our ability to plan our labour. We should invest in human beings, preparing them in the appropriate way for the requisites of our times.

Here comes the importance of departments of human resources. Man should be re-shaped and re-eqipped with science and faith, with rational principles and rules that guide his steps and moves. Man should listen and debate.

Man should feel secure, mentally and intellectually. Man should be praised for his success, without being punished for mental errors. Man should practice thinking, debating, discussing, analyzing, deducing, comparing and concluding.

Planning for the rehabilitation and preparation of labour is definitely the most important issue of our national action within this stage. This responsibility should be assumed by the highest and most genius categories, who are

capable of planning for it scientifically. There is no harm, here, in resorting to foreign and international expertise.

Following are some ideas in the field of planning for labour and preparing the human element, in accordance with the spirit of our times, as derived from studies and experiences.

We should reconsider the concept of planning labour. It is to be an integral part of the socio-economic plan of the state. Labour should be vested with skills, cultures and rational behaviour, in order to proceed forth towards achieving objectives of our development plan.

In fact, socio-economic development consists of two major elements, namely material element and human element. These two fuse and interact within society. No development can be achieved in any economic or social activity, without the fusion and integrity of these two elements. When planning labour, the policy adopted by the state and by the planning sector should always be taken into consideration.

- Is our policy to submit plans of developing human resources to plans of socio-economic development? or

- Is our policy to adapt our socio-economic development plans to plans of developing human resources?

If the first policy has an economic objective, the second has a social objective. Still, both policies should complement one another.

We should set before our eyes the following governing elements upon reconsidering planning of labour:

- Presence of a long-term comprehensive and well-established development strategy, built on realistic bases, concerning needs and available investments. Upon this strategy, the work period needed could be determined, qualitatively and quantitatively, where educational and training agencies could make use of it when laying down their policies;

- Presence of a good and dependable information system for setting a labour plan. The planner should have access to accurate and updated statistics and data on the professional setup of labour in all sectors and activities and its distribution, according to economic activities and educational and training requirements;

- Determining the role of agencies participating in the process of planning labour, so that they integrate, rather than duplicate;

- Adopting the system of performance rates and employment reports to confront the problem of surplus and deficit in different fields of specialization, while making these studies accessible to members of the educational and training system.

- Paying heed to training as a complementary factor to education and as its dynamo. Training should be linked to the core of the educational process, in order to make sure that the traditional static aspect will not overshadow the renewable dynamic aspect through training at all levels;

- Continuous and balanced creation of new professional groups and fields of specialization within the employment market. Given the continuous development in modes of production and services, together with the invasion of new domains of investment and exploitation, we find that the size and rates of jobs and new professions are always on the rise. This is consequently met with an incessant flow of new inventions and creations;

- Establishing, rehabilitating and developing centres for preparing highly qualified cadres of teachers and trainers at all levels of vocational training, with an altogether new concept and philosophy, according to the unprecedented global variables in this domain and the spirit and requisites of our era;

- Applying flexibility in rates of mounting the scale of skill;

- Introducing the concept of workshops and ateliers, which could meet the needs and aims of advanced vocational training;

- Achieving a well-governed synchronization between mental and manual work in training processes, according to performance schedules, where any problem is to be surmounted and solved;

- Linking between periodic testing of trainees and their creativity;

- Opening new channels before certain traditional fields of specialization, in order to re-shape them through training and allow them to acquire new skills that are in demand, especially in the near future;

- Raising the number of blue collars, who represent the productive force, vis-à-vis white collars, who suffer a great deal of masked unemployment;

- Encouraging big factories to adopt the experience of a (factory school), where the factory would set up a school for children of its workers, in order to acquire skills and expertise needed for the production of the factory;

- Encouraging the adoption of the principle of (competitive teams) in each productive branch (under similar circumstances), where creative minds and perfectionists, who achieve the principle of saving and of reducing losses to the minimum would be compensated;

- Encouraging the principle of creativity and innovation to the utmost, in order to motivate workers to develop, improve, economize and design, even if little, within the productive process, provided that their ideas are feasible, economically, socially and psychologically, upon implementation. (This could also lead to better working conditions);

- It is important to hold periodic meetings and gatherings for officials of the educational sector, training sector, businessmen, industrialists and syndicates, in order to discuss important issues, such as development of educational curricula and introduction of modern equipment and facilities within the educational and training process at all levels;

- Setting up prizes and awards for distinguished elements.

In this way, the human element would turn into a major force that would bring prosperity to the country.

This could also help distinguish Egypt as being capable of well preparing its children. Moreover, Egypt could export its qualified labour to the outside world, which would be beneficial to it and to the hosting country.

In this way, there would be no more unemployment and the Egyptian economy would prosper, due to rise in productivity and performance, qualitatively and quantitatively.

The surplus of labour could be exported, which would alleviate pressure on locally available job opportunities.

Second: Defining, distinguishing and encouraging the Egyptian industrialist and magnifying the phenomenon of creating the so-called legal person of the industrial society, while dealing with industrialists in a manner that brings out the best in them

Who is the industrialist? What is his role? What motivates him? How does he succeed? These are pivotal questions that should be answered with precision.

In spite of our concern with the issue of industrialization and its importance, and in spite of considering it a priority for our national action in Egypt, still, we usually focus on certain elements in the process of industrialization, such as financing, training and technology, neglecting the major element that controls all endeavours of industrial development in one concerted, harmonious and effective system, namely the industrialist.

Actually, we find that former generations that have encouraged industrialization in Egypt, in the wake of World War I, were aware and acknowledgeable of the role of industrialists in transforming our inert agricultural society into a society capable of providing its basic needs from manufactured commodities.

However, the role of industrialists slipped our minds and an unintentional misunderstanding befell the role of industrialists, amidst the problems and issues of our open-door economic policy in the 70's.

This calls for reconsideration and re-evaluation of the role of industrialists today, given the importance of the role of individuals in making history. There are always outstanding men and women, capable of changing the lives of

nations. Their genius lies in their ability to exploit all surrounding social, economic and political circumstances for the sake of achieving contemporary objectives. With a great deal of effort and incessant work, our present generation has succeeded in achieving honourable successes in the realm of industry, in spite of the difficult circumstances.

There is a great feeling of optimism, concerning Egyptian industry. Egypt will succeed with the help of its loyal people, as success in industry depends on a set of ethics that are enjoyed within the Egyptian society.

So, the matter is up to those who have the determination and resolution to succeed.

Who is the Egyptian industrialist?

There is a big confusion between an industrialist, who is the dynamo of the development process, and a businessman.

This last term extends now to include investors, industrial directors, real estate speculators, traditional promoters, authorized agents and even middle-men and brokers.

Expertise of developed countries have shown us that economic development and shifting from the phase of an agricultural economy to a dynamic industrial economy depends on a group of industrial pioneers, who possess an ability to create and take initiatives, while taking risks.

Hence, some consider that the success of countries in achieving an economic boom and development depends on their ability to produce those

capable of directing all elements of production, such as work, land and capital, towards new domains, which meet the changing and evolving needs of society.

Traits of an industrialist:

The most important trait of an industrialist is creativity and innovation. He should be able to see what others cannot, concerning new scientific discoveries and means of production.

In most cases, an industrialist is non traditional (although his social background could be traditional). On the other hand, a businessman seeks to fall within the existing socio-economic context of the society and is usually conservative and cautious.

Thus, an industrialist is far-sighted and links between his success and a specific structural change in the national economy. European or American industrialists have linked their success to a great technological change, such as introducing vapour to industry, evolution of railways, new inventions, private cars and, finally, computers and all their different uses.

In return, a tradesman or broker seeks quick profit. His initiatives are to discover the needs of consumers or the status of the market, in order to attain his objective.

Also, an industrialist risks part of his capital, as well as money collected from others. Although, his own contribution might not be a lot, still, he might give up alternative chances or a secure salary, in pursuit of his ambitions.

One of the important traits of a successful industrialist is his full awareness of the product he is trying to manufacture, as well as the market for it. It is not enough to have a new idea that enjoys certain technical privileges. This idea should be acceptable on the market.

In other words, it should be in demand, or else it should be able to reduce the cost of production and improve the product, thus raising demand on it.

Historical evolution of the Egyptian industrialist:

The Egyptian industrialist is a relatively new phenomenon in the history of our country, as we belong to a traditional society that is not bent on new ideas. In fact, we tend more to simulate and reiterate. Our society is also not bent on individualism and creativity.

An industrialist did not clearly exist in the experience of Mohamed Ali, at the beginning of last century. It was the state that assumed this role. Again, colonization obscured the emergence of industrialists, up till the 20's of this century. After a short period of private industrial initiatives, the socialist experience emerged.

Here, the state considered itself the leader in the realm of industry. Instead of taking initiatives and being creative, it was necessary to abide by planning, and instead of having industrialists, there were technical research centres, governmental enterprises, etc.

Then came the open-door phase, where matters got confused and the role of industrialists got mixed up with that of financiers and businessmen.

Each phase had its cons and pros, but, here, we are trying to review all facts, in an attempt to acknowledge the type of industrialist needed within this phase, and to define the dimensions of his role and his personality.

Where does the Egyptian industrialist come from?

Undoubtedly, the Egyptian social traditions and the educational system, influenced by the political philosophy, came concomitant with the phase of socialism. These circumstances have hindered the emergence of the Egyptian industrialist.

Our Egyptian society has its deep roots in agriculture. It is a society that fights taking individual initiatives and going against traditions. We focus on civil service. We laud academic success to the utmost, to a degree where Egyptian holders of Masters and doctorate degrees surpass in number their peers in advanced countries.

Furthermore, those who venture to embark on commerce or industry have been considered, till recently, as reckless adventurers.

Undoubtedly, these values are changing fast, now that the economic system is guaranteeing new opportunities and offering great facilities.

In order to answer the question: Where does the Egyptian industrialist come from?

First, we should state that the contemporary Egyptian industrialist has been greatly influenced by the political, economic and social framework of the country. Egyptian industry during the 20's and 30's was quite different from today.

In this study, we do not aim to speak of a generation of giant Egyptian industrialists, such as Talaat Harb, El Sayed Yassine and Ahmed Aboud, who carved their path through harsh conditions during the years that fell between the two world wars. Here, we seek to determine tributaries of modern Egyptian industrialists.

These are:

A- Industrialists in the public business sector;

B- Industrialists in the private business sector;

C- New Egyptian industrialists;

D- Banks and financing channels.

We shall go swiftly through each one of them.

A- Industrialists in the public business sector:

The expertise of these is linked to the great industrial experience of the 50's & 60's, which took place under the industrialization programme and development plans. Some organizers of this sector have successfully introduced advanced administrative systems within their enterprises, in spite of the usual restrictions hindering the public sector.

At the outset of the open-door era, some industrialists – in spite of their success – decided to magnify their revenues, by quitting the public sector and launching their own private projects.

This transformation followed an organizational pattern, when some public sector enterprises started entering into joint ventures, within the framework of the Investment Law No. 43 for 1974. Here, chairman of public sector enterprises, whether retired or still in function, started chairing these new joint ventures.

B-Industrialist in private business sector:

There are a limited number of examples of Egyptian industrialists, who succeeded to evade nationalization and sequestration and to continue operating their productive units.

Later, they expanded and updated such units, when the economic and political climate changed. There are also some examples of specific industrial expertise and know-how that was handed down from fathers to sons, who started functioning under the open-door policy.

C- New Egyptian industrialists:

This category includes a group of young elements, who have gained industrial, scientific and administrative expertise in record time and have succeeded in proving themselves and forced their way to the very front lines.

Their success remains incontestable and they stand as pioneers, with an experience that is worthy of admiration and appreciation.

D- Banks & financing channels as new industrialists:

During the open-door era, and in the absence of active industrialists, many investment banks found it necessary to assume the role of industrialists (following the steps of the Banque Misr experience).

These banks started recruiting managers and technicians capable of carrying projects in the phase of conception or study into the phase of implementation.

Components of a successful industrialist:

1- Being aware of scientific and experimental knowledge;

2- Taking calculated risks and pursuing promising adventures;

3- Being vested with ethics, values and professional code of honour;

4- Applying democracy in management;

5- Caring about human relations with workers and personnel to consolidate their affiliation;

6- Opening up to experiences of others.

Third: Small industries and their major role

in building the Egyptian economy

Small industries play an important and tangible role in the national economy. For any country, the small industry sector – due to its nature – is considered a fertile field for developing technical and administrative skills and potentials.

The importance of small industries and their occupying a major position within the sector of intermediary industry is because of their high number of establishments and labour and their contribution to raising production, as well as added value. Performance of the small industry sector and its impact on the national economy varies from one country to another, according to how far the state sponsors this sector.

Importance of small industries in achieving socio-economic development:

Small factories represent a great percentage of industrial units, worldwide. The importance and vitality of small industries in socio-economic development is incontestable.

Countries that have achieved swift growth are those that have adopted a general framework of a policy that allows small industries to grow and prosper.

Small industries are distinguished by a capacity and efficacy to do the following:

- Small industries could integrate and fuse with big factories, leading to the evolution and development of the industrial sector, as a whole;
- Small industries are an effective way of industrial geographic expansion. They are capable of creating competitiveness and producing a social and political evolution in the country;
- Small industries are adaptable and flexible to needs of the market;
- Small industries create lots of job opportunities at different levels of skills and at low capital costs. This leads to absorbing labour of different levels of skill and productivity.

Role of small industries in creating lots of job opportunities and magnifying the industrial output:

One of the most important national objectives is to create lots of job opportunities and magnify the industrial output. This depends on the capital coefficient.

Since small industries tend to apply the system of a relatively intensive production of work, with a small invested capital in workers, thus, they are more capable of magnifying the industrial output and industrial labour, when compared to large industrial establishments that apply the system of intensive capital production.

In spite of the growing productivity of workers within large establishments, yet the capital invested for them is also growing. Additional increase in capital invested in workers within large establishments is not proportional to the increase in the workers' productivity.

In the light of the foregoing, and by taking into consideration the large labour supply in Egypt, which is expected to continue on the long run, due to present rates of population growth, we could definitely state that the development of small industries could play a vital role in magnifying the labour and industrial output, same as what happened in Japan, China, etc.

Role of small industries in magnifying the economic surplus for our society:

The Egyptian economy is also characterized by its low domestic savings rates. This leads to our depending on external funds. Since we seek to achieve ambitious growth rates by depending on our own financing sources, hence, the matter calls for magnifying the economic surplus for our society. This is through investing a certain amount of money.

Within this context, the development of small industries could play a major role. The economic surplus of a worker within an industrial establishment depends on his productivity and his wages.

Some opinions state that large industrial establishments are more capable of creating an economic surplus, because of the high productivity of its workers, when compared to small industrial establishments.

However, this opinion overlooks an important factor, namely the relation between the capital invested in workers and the economic surplus achieved by workers, which leads to the economic surplus achieved by the society, through investing a certain amount of money.

Undoubtedly, the economic surplus that is achieved by the worker is in proportion to the size of the establishment. However, if we link between the capital invested in the worker and the economic surplus achieved by him, it becomes evident that small industrial establishments are more capable of magnifying the economic surplus for our society.

Probably, one of the most important factors lying behind the success of Japan in achieving high savings rates is represented in the great concern displayed by the state in developing small industries.

This means that the great supply of labour in Egypt, today and tomorrow, could play a vital role in magnifying the economic surplus for the society, once enough attention is paid to the development of small industries.

Undoubtedly, small industries are capable of contributing effectively to greater production, labour and an economic surplus, once the produced commodity falls in line with the circumstances of production, and once a proper management is present, as well as all requisites of production, such as raw materials, funds, etc.

Role of small industries as feeding industries in developing exports:

Among problems encountering the Egyptian economy is the great deficit in our trade balance. Thus, it deems necessary to magnify the net revenue from exports resulting from realized investments.

Within this context, the enhancement and development of small industries in Egypt could play a vital role, as follows:

a- The small industrial establishments engaging less than ten workers, which are more like ateliers, could modify their production programmes, according to needs of external markets, given their flexibility that is represented in their modest invested capital. They are more capable of meeting the needs of export markets. On the other hand, manual products are more in demand in markets of advanced countries, due to the rising standard of individuals and the relative extinction of such industries in these countries;

b- Small establishments that engage a relatively big number of workers could effectively contribute to the development of exports, directly or indirectly. The indirect role is represented once we link these small industrial establishments to larger ones, where the former can furnish the latter with fully or partially manufactured items that enter in the final products of the larger establishments. This would take place at competitive costs, which would allow competition in external markets. Within this context, we find many examples of experiences of industrially advanced countries, such as the USA and Japan;

In the USA, high rates of development and high-quality products are achieved within the sector of intermediary industries, by depending basically on small industries. Most giant enterprises have many small factories, acting as their satellites.

For example 64% of the suppliers for “General Motors”, amounting to 26,000, are small industrial establishments, engaging barely 100 workers. Also, 93% of the suppliers for “Dupont”, amounting to 30,000, are small industrial establishments.

Another major electronic establishment buys 56.6% of its needs from small establishments and 45% of its operations that are handed to major companies are subcontracted to small establishments.

In Japan, small industries perform many industrial operations for major industries. The percentage of such small establishments amounts up to 72% for mineral products, 76% for machinery and 79% for electric appliances.

As for France, we find the car factory of “Renault” buying more than 30,000 items, needed for its production lines, from small establishments and resorting to more than 5000 subcontractors and suppliers. Furthermore, it allocates 46% of its resources for purchase operation from others.

This has helped the Company to multiply its production, without having to introduce new industrial systems, but through benefiting from improvements introduced by its suppliers to their production.

In Switzerland, industries depend to a great extent on small industries for the production of electronics and assembly lines. Many major companies depend on the product of specialized workers in small ateliers that produce

specific items. Also, a lot of production takes place at home by productive families. These small factories have succeeded in invading the world.

In Italy, the government managed to overcome the problem of excessive labour in productive sectors through spreading small industries that enjoy intensive labour.

This took place according to the so-called VANONI plan, which lasted from 1955 till 1964 and aimed and succeeded at absorbing and engaging excessive labour within these sectors.

As for India, it sought to spread small industries within all industrial activities. Small factories in India produce nearly 38% of the overall industrial production, and labour in these factories represent 50% of the total industrial manpower.

In an industrially advanced country like Korea, small industry exports represent 35% of its total exports.

Role of small industries in developing local technology:

Encouraging small industries helps develop technology and local productive techniques of the society that have proven to be economically feasible.

Not all inherited means of production are obsolete or out of fashion. On the contrary, some should be studied, analyzed and developed.

The challenge facing planners is how to modify the mixture of different factors, such as the financial, human and technological, in order to reduce the use of capital and raw materials and to create a more productive work force, which would ultimately lead to developing these small industries and rendering them competitive.

As for the challenge facing scientific and technological researchers, it is how to find the optimum technology that would suit our circumstances and society. This could be through starting with the traditional methods that prevail in our small industries.

These could be updated and modernized through science, knowledge and acquired expertise. Otherwise, we could resort to modern methods applied in advanced countries, after modifying them to suit our circumstances. Another way is to analyze and study technological problems through planned projects for improvement and development through scientific initiatives and new technologies.

Role of small industry in creating industrialists:

Small industries contribute to creating industrialists and developing those in charge of industrial development operations. In fact, investment rates depend on the efficacy of these people. What counts is how to use our savings, not just the size of our savings.

Capital formation is more influenced by demand, on behalf of industrialists, than by supply, on behalf of depositors. When successful industrialists assume their leading role, funds follow up in their steps.

Forming this category is basically dependent on the sector of small establishments, which is the nucleus that gives rise to giant organizations. Such industrialists were the nucleus of giant global foundations like Siemens and Ford.

Most effective economic activities for small industries:

Drawing comparisons, abstractly, between small industries and big industries, concerning rates of contribution of each to magnifying the labour and economic output & surplus has its limitations.

These are attributed to the fact that efficacy of small industries depends on the types of industry and industrial operations that are more suitable for such establishments.

Within this context, we could say that small industrial establishments are capable of assuming a leading role in developing many industries, whether directly or through the production of semi-manufactured items.

The most important of these industries include textiles & clothes, foodstuffs, woodworks, furniture, metal products, parts of electric and non-electric machinery and appliances and electronics.

This is attributed to the fact that these products could be produced through intensive work methods, such as small industries, or through intensive capital methods, such as large industrial establishments.

As explained earlier, industrial establishments play a role in magnifying the labour and economic output & surplus. They also play a leading role in

magnifying exports, developing local technology and creating pioneers in fields of industrial and economic development.

Since the productive activity of small industries in Egypt is still confined to a handful of traditional industries, hence, development of small industries could be a vital domain for promoting our national economy.

The state, represented in the government, is exerting tangible efforts. Still, this is not enough for creating the required thrust for the promotion of small industries.

However, the development of these industries upon specific bases and according to a national strategy, through a national authority to be in charge of the process, would definitely bring forth its good results and radical changes to the Egyptian economy, once adequate care and potentials are provided both qualitatively and quantitatively.