

Developing the Skills and Capacities of Human Capital

An Analytic Study

Dr. Eng. Nader Riad

Introduction

First:

The Importance of Human Resources

Second:

Reasons and Motives for the Growing Concern and Attention to Managing Human Resources and Developing its Skills and Capacities

Third:

Factors Affecting Managing Human Resources and Developing their Skills and Capacities

Fourth:

The Importance and Objectives of Structuring the Skills and Capacities of Organizations' Business Managers

Fifth:

Education and its Importance in Developing the Skills and Capacities of Human Capital

Sixth:

The Importance of Training in relation with Education in Developing the Skills and Capacities of Human Capital

Seventh:

The Importance of Information in Developing the Skills and Capacities of Human Capital

Eighth:

The German Experience in Preparing the Labor Force to Deal with the New Trends of this Age and the Market Variables

Conclusion:

Developing the Skills and Capacities of Human Capital

Introduction

Human resources occupy the top ladder of concern and attention in today's world as the key element for development, bearing in mind that the labor force is the basic pillar for the national economy of any state or country.

There is no doubt that the appropriate organization and usage of the human resources as well as equipping those people, improving their skills and enhancing their capacities, have a tremendous impact on maximizing the use of the national wealth and uplifting the standard of living of the nation.

Therefore it is elementary to focus on preparing comprehensive and ambitious human development programs based on well calculated scientific criteria.

The World Bank report on world development in 1991 was titled "The Challenges for Development". The report argues that there has been a tremendous progress in providing luxurious life for the human beings during the twentieth century. Such progress was achieved side by side with economic growth.

Many governments in the world paid a lot of attention to improving the quality of life of people by providing education, health care, clean water, feeding programs, family planning clinics as well as other forms of investing in human beings "mechanisms".

The development indicators of the world tell clearly that intensifying the investment in humans is very rational, logical and desirable, not only on human basis, but also regarding its mere economic return.

Under the current enormous scientific and technical revolution touching all aspects of life and reshaping the future of human beings, the formation and enhancement of skills and capacities of human capital became an elementary tool for making the people more capable of understanding the facts of modern life and developing it in the way that meets the human desire for improvement and the accompanying challenges.

Due to this era of information technology revolution, the world (the globe) became nothing but a small electronic village where barriers and borders are diminished.

Also due to the current global modern technology revolution, the issue of forming and enhancing the skills and capacities of human capital became on top of the list of national concerns of many nations in an attempt to arrive at a full harmony and tight coordination between the level of current enormous development and the increasing human potential and capabilities under new industrial production circumstances where self-automated machines and equipments steer the industrial production ruled by enormous mega computers and advanced giant servers and technology apparatus.

The economic progress is nothing but an outcome to the increase of productivity of the individual in both quantity and quality.

The individual's productivity is the natural outcome of this person's skills and capacities. Therefore, the formation of skills and capacities of human capital is the decisive factor for achieving economic progress, as well as allowing this state or nation to take off in the global industrial map and occupy high status in global economy.

The growing attention to the human resources has shifted from the government's agenda to that of the business corporations – both small and

large. Intelligent managers and entrepreneurs are now much more aware of the fact that achieving excellence and winning in the markets as well as making profits is basically bound to the existence of trained high caliber, high quality, and efficient, motivated individuals.

People now believe that no matter how the material and financial production resources are available the capable individuals are the decisive factor for achieving success and making the appropriate use of such.

Therefore, the conventional concern on administrating individuals (which was mainly focused on the procedural matters of employment administration) shifted towards a more developed and expanding concept to involve the human resource as such, bearing into consideration the behavioral aspect in maximizing the use of human potential and human energies, putting them into the most possible appropriate organizational framework.

Therefore, there has been lots of literature recently using the term "administration of individuals" in a more comprehensive and flexible way to reflect the true content of this aspect of modern management which is "human resources management".

The Federation of Egyptian Industries bears its responsibility towards this issue and believes in the importance of taking the initiative towards restructuring and enhancing the skills and capabilities of human capital in Egypt, as well as introducing dramatic radical necessary changes to the various processes concerned with qualifying, planning and training the human resource. The perspective of the Egyptian Federation of Industries is represented through this study.

First: The Importance of Human Resources

The administration of any business organization is basically aiming at achieving certain objectives, on top of which is to produce goods and services that would be forwarded to the market and to the consumers at reasonable prices, leading to a considerable profit for the firm.

And thus, the administration would be able to continue receiving the appropriate resources to continue its work.

In order to achieve these goals, the administration of the business organization must be provided with the capable and qualified human resources to do the job.

Those personnel should be placed in the planned applications and processes working according to specific rules, systems and instructions, and thus become able to produce the required goods and services in the due quantity and desired quality.

If the human resources were not properly qualified to do the job, a very different outcome would take place, which could be totally contrary to the desires of the administration. Many negative aspects could arise out of this situation, such as:

- Production that does not meet the required specifications and criteria.
- Producing less quantity.
- Production at higher cost.
- Production at an inappropriate timing (time consuming production).

- Overuse of resources and exceeding the anticipated limit of waste while using the resources.

This would lead at the end to less marketing capability of this organization, i.e. less profit and less ability to continue in the market or even to survive. This is exactly the gravity of the situation of not having equipped and qualified human resources.

Therefore, the full activities are truly elementary to enhance the quality of human resources:

- Planning the human resources.
- Preparing and qualifying the human resources.
- Training and capacity building for human resources as an organized on-going process.
- Continuous evaluation of the performance of human resources.
- Comprehensive development of human resources at the corporate level.
- Providing appropriate wages and salaries to human resources.
- Providing social and psychological care to human resources.
- Specialized investment in human resources and directing the employees towards investing their expertise and successes.

As we emphasize the importance of the human element as a key factor for achieving progress and development, it comes with the idea that the human element is the first available resource at hand. Still this does not mean equalizing or comparing the human element to other production element, such as land, capital or natural resources.

But still the human element is the only creative and ever-renewing resource that has unlimited potentials and capabilities in case its skills and capacities are well formed and maximized.

The human being is the creator of shift and change and it is the element that transforms all other sorts of resources. Moreover, the human being is the most elementary element of investment.

The human aspect cannot be compared to the tools or machines of production because doing so would deprive the human being of its human quality. Still it is elementary to emphasize that investing in humans is not a sort of consumption, it is an investment that has an assured return which exceeds the return on investment for any other material resource on the long run.

Second: Reasons and Motives for the Growing Concern and Attention to Managing Human Resources and Developing its Skills and Capacities

Egypt and the world have witnessed during the last two decades of the twentieth century enormous unprecedented changes and transformations leading to triggering the attention towards developing the skills and capacities of human capital due to the following reasons:

- The growing size of business establishments.
- The development and complexity of production tools and styles.
- The ferrous competition.
- The higher cost of labor.
- The changing nature and composition of the labor force

- The high level of cultural awareness in the society.
- The growing anticipations and desires of workers.
- The strength of the syndicate and labor movement.
- The growing trend towards political democratization.

All these factors led to more complexity and intensity of problems of administrating the human resources. The key solution to this is developing the skills and capacities of individuals through growing intellectual development in order to assure advanced performance efficiency.

Third: Factors Affecting Managing Human Resources and Developing their Skills and Capacities

(A) Internal Factors

- Philosophy of higher management at business organizations.
- The organizational setting of administration.
- The efficiency of the people in charge of administration.
- The resources available for administration.
- The authorities granted to the administration.
- The composition of the labor force.

(B) External Factors

- The legislation, the laws and regulations on work and workers.
- The impact of industrial development.
- The impact of technology development.
- The society awareness of the importance of management.

The impact of general awareness of the importance of management

- The degree of general awareness of management as a distinguished profession that needs qualification and training.
- The degree of awareness of the complexity and integration of managers' responsibilities.
- The impact of the conventional governmental administration on management in business associations.
- The impact of university managerial education on the general attitude of university graduates.
- The degree of accepting the managerial post and its holders on the societal level.
- The degree of believing in the importance of preplanning and programming before implementation.
- The degree of spread of awareness of modern management techniques and their requirements.

- The degree of belief in the responsibilities of management and its social function.

The impact of technology development:

- The degree of using mechanization in the production processes.
- The degree of complexity of production operations.
- The type and quality of quality and control systems used in the production operations.
- The degree of accessibility and volume of information as well as the swift propagation of information in the production processes.
- The degree of application of computers in planning and monitoring operation.
- The degree of direct and indirect contact to the external business spheres (locally or internationally).
- The possibilities of self-development of production operations.
- The degree of reliability and dependency of the production operations on external resources for technology experience.
- The degree of integration of computers and information technology into the hardcore of the managerial business.
- The degree of integration and adaptation of computers, communications and electronics technologies in the managerial business.

The impact of industrial development:

- The importance of mid-term and long-term planning.
- The importance of providing the production requirements beforehand.
- The inevitability of running the production according to a preplanned scheme.
- The inevitability of stability and integration in labor force.
- The importance of coordination of relations between the human factor and the machine.
- The importance of providing suitable physical work conditions for the human worker.
- The impact of the mechanization and technology level on the efficiency of the human being and vice versa.
- Developing the systems for wages, salaries and incentives in the industrial sector.
- The importance of preparation, training and retraining of workers.
- The degree of clarity of the importance of comprehensive quality assurance as an elementary general concept for the industrial facility and all its elements.
- The degree of realization of the importance and value of research and development (R&D) as the base for creating competitive advantage in the markets.

Fourth: The Importance and Objectives of Structuring the Skills and Capacities of Organizations' Business Managers

When studying the formation and development of skills and capacities of human capital, it is elementary to start by structuring the skills and capacities of organizations' managers.

The manager is the one who sets the goals, investigates the present to understand where he stands and predicts the future, setting the future plans and objectives for the periods to come.

The organizational management is the entity that sets the steps that should be carried out to move forward from present to future, and the manager is the one in charge of planning and preparing the activities as well as initiating the constructive and creative force of people motivating them towards the company's objectives.

The manager plans, regulates, motivates, directs, instructs and monitors as parts of his job. In addition, the manager should be equipped with a strong foresight and a great ability to organize, take care of things, assemble the efforts and initiate the required efficiency, gathering the efforts of others into one stream.

The concerns of a modern manager should be extended beyond his workplace, involving the vendors, the clients, the shareholders, the customers and the whole society. His work must be positively linked to the needs, hopes, desires and feelings of all those people he interacts with, as well as dealing with them as a friend, neighbor, partner and fellow citizen.

The manager in fact is the most elementary component of the human capital development process. He is the one who watches the actual behavior of other personnel and uncover their potentials and deals with their problem. In short, he is the one who can specify the training needs and lead things forward.

The manager is in charge of the following:

- Selecting the individual for a certain job (which is the first correct step towards individual development).
- Monitoring the actual performance and evaluating it in addition to providing directions, instructions and the necessary assistance if needed to overcome the performance problems.
- Determining the training needs of the personnel (the fields where those workers need external assistance to improve their performance or develop their behavior).
- Training on-the-job and setting an example for the other individuals in performance, behavior and the way things should be done.
- Using the systems of awards and punishments to guide the actual behavior towards the correct orientations.

Therefore, there is a great need to develop the skills and capacities of higher management in business organizations to equip those managers with the following:

- The ability to create the appropriate organizational climate.
- The ability to use advanced techniques in selecting individuals, qualifying them and giving them the appropriate jobs, as well as providing all the material and organizational prerequisites that allow them to do the job and achieve excellent performance. This goes in addition to creating the spirit of partnership throughout the organization.
- Comprehensiveness and integrity in trends, orientations and the perspective of things and how to deal with problems.
- Moving towards more decentralization and democratizing management.
- Seeing the organization as a live entity that develops and evolves interacting with the surrounding environment.
- The ability to adopt the logic of leadership in its broader sense by means of encouraging, directing, instructing, assisting, evaluating, improving and developing a mode of leadership that is based on mutual understanding with the clients, co-workers and other staff, considering every one as partners in success.
- Believing in the importance of human relations with all other parties (workers, consumers, vendors, etc...) working for understanding their backgrounds and orientations aiming at having an impact on these behavioral components of those people.

- Believing in collective work and action and its importance.
- Working for liberating the people and the organization from the strict and rigid rules, systems and procedures.
- The ability to monitor the performance and follow the indicators as well as analyzing the new phenomena and coping with the variables, as well as focusing the attention on the promising fields.
- Believing in the importance of making the requirements, desires and expectations of consumers (internally and externally).
- Paying more attention to education, training, guidance, instructions and other means, as the key factors for developing the skills and capacities.
- Moving towards globalization.
- Believing in technology development.

Fifth: Education and its Importance in Developing the Skills and Capacities of Human Capital

Each environment has its problems. The Egyptian society, as a developing one, has an environment that is rich in problems, obstacles and grave challenges.

Therefore, the issue of education for such environment is an elementary one having an enormous impact on this setting because education has lots of direct and indirect reflections on human capital (bearing in mind that this human capital is the main objective of any development). In fact, the appropriate education is the solid base for developing the skills and capacities of the

Egyptian citizen and if this is done, the Egyptian would be able to play a vital role in creating development.

There has been a growing care and attention regarding education in Egypt in the past few years. More criticism was voiced against the current philosophy, system, policy and curriculum used in education. Many conferences and seminars were held discussing the various issues and problems of Egyptian education.

The uncontested conclusion out of all these conferences, seminars and meetings, was that education in Egypt has been very much behind and falling short regarding responding to the growing needs of the Egyptian contemporary society. It has been also unable to provide the appropriate values system that would govern the behavior of its students and preserve its cultural and civilization specificity.

It was found that the Egyptian education is dominated by quantity rather than quality, and very much incapable of coping with the accelerated changes in today's life. It is highly defected regarding qualifying the new generations with the tools and methods that would make them more capable of confronting modern life and comprehending the sciences of the future.

Therefore, the Federation of the Egyptian Industries believes that there is a dire need for revising all educational systems in Egypt. Here, we summarize the conclusions of the studies we made regarding this vital and important sector.

(A) The overall perspective about education:

- Education is the cornerstone for progress and the principal element for coping with global variables in order to face the challenges of the current age.
- Introducing a massive shift in education to develop it to new horizons should not be pound to the will of one individual, but through a conviction of everyone in this nation and through the participation of all capable forces in the Egyptian society so as the education would reflect the hopes of this nation and meet the requirements of this age.
- Proper education is the base for liberty, freedom, democracy and harmony with self, with environment and with the society.
- Education is the base for economic prosperity because the productivity of the individual is the logical outcome of the integrated care he or she receives during childhood and young age as well as before taking the job and along the life-time career.
- Education is not about "services", it is an upgrading and a continuous addition to the human potential and energies all the time. The human element is the most precious investment that guarantees the security of the nation.
- There is also a need to pay a close attention to the Arabic language as a national one. Children should be accustomed to thinking and expressing themselves in a sound and correct language. At the same time, there is a need to enhance learning foreign languages among our children as a mean for developing their knowledge and enabling them to learn about the new developments in the world.

- The negative manifestations of extremism, violence, addiction, apathy and carelessness are all the logical consequences for a bad and failing education.
- Education should allow smooth and easy transition from one type of education to another, which the student would find suitable. This is elementary to get the real anticipated return on education and so as the student would not feel stuck into a certain corner unable to break loose.
- A close attention to the sound religious education is elementary in order to enhance the sublime values and principles, which should be translated into practical behavior.
- Education should also equip the individual with the necessary skills and experiences that would allow him to venture into the world of production and find himself a suitable job opportunity. It should also allow the individual the ability to move swiftly and easily from one job to another and from one production line to another.
- Vocational education should equip the young men with the opportunity to work where they learn, and learn more in order to work better. Skill in doing the work should be the basic criteria for those graduates.
- A close attention should be paid to the excellent and talented children and young people. The educational system should work for enhancing their excellent capabilities and make use of them as they represent a national and human wealth.
- There is a need for expanding the university education and uplifting its standards and qualifications. There is a need to make a distinction

between obtaining the academic degree (which is the right for every citizen) and obtaining a job (which is the duty for every citizen).

- There is a need to set a system for full dedication of teaching staff so as to provide them with a comprehensive opportunity to do their research and innovation activities. They should be compensated financially for their works and activities outside the university so that they can focus and dedicate themselves to the university and the academic activities.
- Illiteracy is a disgrace for any nation. Unfortunately, illiteracy is very high in Egypt. Therefore, efforts of all sincere Egyptians should be joined together in order to eliminate this problem through active means.

(B) Commitment, funding and structures:

- The Kindergarten stage (from age 4 till 6) is a critical and sensitive one, because during that time, the basic personality characteristics are developed, and the child starts seeding his future capabilities at this age. Therefore, this stage should be added to the compulsory education phase (which involves the primary and preparatory education) under state supervision.
- There is a need to consider many things regarding the school buildings, as the ones which are not suitable for human life or educational life should be replaced with other true proper school buildings.
- There is a need to provide the necessary investments for education, because no matter how much good intentions we have and no matter how committed we are aware of the importance of education, nothing will change and we would be only involved in all sorts of wishful thinking if we

do not provide the necessary investments for education, especially when taking into consideration the very deteriorated conditions of education at the moment.

(C) Teachers:

- It is elementary to admit that teachers have been ignored and neglected for a very long time. The society used to pretend to be giving the teachers their due right while the teachers tended to pretend to be doing their job. This two-way deception led to catastrophic consequences. It is inevitable to reverse this situation immediately. The financial and moral conditions of teachers must be enhanced in the way that can allow them to regain their self-confidence and feel that they are the owners of the most honorable profession in the world, which is the profession of prophets and messengers of God.
- The colleges and institutions for educating the teachers must be developed in order to provide a higher level program to create a better educator and teacher, there those future teachers are introduced to the latest state-of-the-art techniques and developments in pedagogical and psychological sciences. The future teacher must be qualified and trained to master his or her specialization, as well as the proper teaching tools and techniques and the state-of-the-art techniques and developments in pedagogical and psychological sciences, in addition to the ability to develop curriculum and extra-curricular school activities.

(D) The school curriculum:

- There is a need to change the style of education from the current great sum of information filling the brains of children and young ones towards a different concept. This means shifting from the quantity policy to a quality one that aims at equipping the students with concepts, capabilities, skills and ways of thinking to deal with the people, resources, information management, systems and modern technology, as well as comprehending the facts of modern life and developing one's life in the way that serves the ultimate goal of development.
- Shifting from word learning based on negative reception to active learning and a capacity building one. Hence, the learners would become an active and interactive party throughout the process of teaching and learning.
- Learning should not be confined to the location of the school premises or a certain phase of human life. It should be a continuous process that is based on equipping the individual with the ability of self-learning as an elementary pillar of modern education.
- Changing the concepts, techniques and tools of evaluation that are currently used in order to replace them with new ones that would serve the real goals of evaluation and measure correctly the real skills and capabilities.

(E) Integrating the adult learning curriculum and program in the universities to prepare specialists on this type of education:

- The adult learning movement cannot be separated from the overall move towards change and progress in the society. It is an active and interactive movement that interacts with the society, affecting it and being affected by it. As the progress of any society is bound to the education of its individuals, the adult learning is elementary as well as providing opportunities for making use of such adult learning programs to all citizens of the society. This is one of the key elements for the survival of the society and preserving its socio-economic well-being.
- The accelerated change in the upcoming generations is a very important characteristic because each generation faces new variables, intellectual and technological orientations and new ways of life that are different in their content from the previous one. Therefore, the programs of adult learning, rehabilitation, training and retraining became an elementary prerequisite for developing the society, enhancing its integration and securing moral and psychological balance for the individual. Such programs became a socio-economic factor in equipping the individual with the tools and methods for achieving the psychological balance and stability, coping with the various variables, and the ability to change his or her social roles and functions according to the changing trends and orientations of the life they live.
- The human being is the creator of development and the one reaping its fruits. The human being is the focus of interest of any educational effort. If the twentieth century is called the century for knowledge and technology, the twenty-first century is the time where the human being reaps the fruits of this progress, i.e. it will be the age of providing all sorts of services to the

people. There is no doubt that adult learning provides various aspects of flexibility and comprehensiveness, making this educational service on top of all services provided in today's world.

- Diversity of various patterns of university education and the diminishing barriers between the university and society stipulate making the objectives of adult education curriculum more diverse, flexible, and capable of change and amendment to cope with the new demands of the society and the new specific changing needs at the present and in the future.
- The great advancement in information technology has made the world a small village and allowed the Egyptian citizen to be contacted directly to the world east and west. This stipulates that the adult learning objectives and curriculum in universities should pay a close attention to enhancing the value system of the Egyptian human being of today.
- The diversity of concepts and fields of adult learning leads to a great deal of diversity and multiplicity in the human resources related to it. This emphasizes that there is a common denominator that should gather all these people involved in adult learning despite their diverse intellectual and professional affiliations, as they all should meet on the objectives to achieve and the methods to use to enhance adult learning.

The justifications of integrating adult learning curriculum in universities:

- Despite the crucial importance of adult learning and the existence of many institutions providing this service to adult learners, Egypt still lacks the leadership and the specialized frameworks for planning, organizing and

administrating the programs and projects dealing with this matter. Egypt is still lagging behind regarding the scientific research and study of this sector. As universities are by default involved in preparing and training specialized human resources in scientific research and community service, they become the most qualified institutions to play this scientific and specialized role in adult learning.

- Despite the various definitions of illiteracy, Egypt suffers greatly a high percentage of illiterate citizens nationwide, which negatively affects the path of development in this country. A dire need for putting this issue into perspective and seeing it through a scientific viewpoint as one of the elementary fields where adult learning could function. There is no doubt that Egyptian universities have the equipped specialized scientific cadres that can contribute actively in this regard.
- Egypt has been witnessing in the past few years deep socio-economic transformations that would have their impact on the path of development of this country whether on the short or the long run. Bearing in mind the role of adult education in achieving development and the role of the universities in developing the community, the Egyptian universities are now demanded more than ever to integrate the adult education curriculum into its basic study programs in order to achieve sustainable development in Egypt in a scientific and well calculated way.

Goals of adult education programs in universities:

- The role of the Egyptian universities must be developed so as they become more involved in the process of development throughout the society. This can be carried out by means of training and qualifying specialists on different fields of adult education.
- Human development must be enhanced and Egypt should contribute to enhancing human knowledge by means of qualifying capable researchers who can add to the process of adult education.
- The Egyptian universities must contribute to adult education, especially illiteracy eradication. This can be carried out by means of training and qualifying specialists on different fields of adult education through advanced university programs.
- The Egyptian universities must forward technical consultation to various societal institutions involved in adult education and other relevant fields.

Sixth: the Importance of Training in relation with Education in Developing the Skills and Capacities of Human Capital

- The true efficiency anticipated from education can only be achieved if combined with appropriate training. The optimum educational curriculum should be bound to the best possible training program. Training is not only an issue for enhancing the practical application capacities of individuals. It can do more for bridging any gap or defect in the educational curriculum and enhancing the theoretical education in a practical way that helps upgrading the level of specialization of the individual and adding more

dimensions that would uplift his or her level of skills and capacities. This can also enhance the trends of innovation in an unprecedented way.

The importance of training in developing the skills and capacities of human capital is manifested through the following:

- Training can help in amending, developing or correcting the various aspects of the individual knowledge about the work done or the job performed.
- Training can help in amending, developing or correcting the various aspects of the individual skills, capacities and ways of doing the work done or the job to be performed.
- Training can help in amending, developing or correcting the various aspects of the individual behavior as well as the motives, trends, beliefs, as well as perception of the job circumstances and the relations with the colleagues, superiors and subordinates.

Therefore, there is a need for clear and well calculated policies as well as specific objectives for the training in order to cover all issues and aspects that relate to this issue, and also to answer the following practical questions:

Who are the beneficiaries of training? How will they be selected (the issue of specifying the training needs)

How and when will the training take place? What is the content of the training process and how is it selected and delivered? (the issue of designing the training process)

How much is spent on training? What are the parameters for deciding the training budget? How can we measure the return on training out of this expenditure? (the issue of training economics)

Who is in charge of the training? What are the conditions and prerequisites which the trainers should have? How to qualify and train the trainers? (the issue of training the trainers, TOT)

How to measure the return on training and the impact of training on productivity, performance and behavior change?

Efficiency and quality of training should be assured by means of providing and applying the appropriate mechanisms that link the training to the real need of the individual and convince that trainee of the value and necessity of the training.

The Federation of Egyptian Industries believes that the following aspects should be well served and cared for regarding the issue of training:

- Planning for the training considering it complementary to education and a catalyst for the educational dynamics.
- The necessity of linking training and instruction in an organic way and getting them to be in the hardcore of the educational process itself so as the static conventional aspect does not overwhelm the dynamic

one. This can be achieved by means of providing training at different levels and in different forms.

- There is a need for balanced and continuous creation of new professional groups and introducing new specializations to the employment market.
- There is a need for a comprehensive revision of the industrial education tackling its strategies, objectives, plans and curricula.
- There is a need for a comprehensive revision of vocational training regarding its strategies, objectives, plans and curricula.

Seventh: The importance of information in developing the skills and capacities of human capital

As we emphasize the importance of education as the leading factor for developing the skills and capacities of the human capital believing that there is a need to introduce dramatic and radical transformation in this sector regarding its strategies, philosophies and objectives to ensure a growing and everlasting intellectual and knowledge development of the graduates so as their capabilities and skills would cope with the accelerated technological variables, and as we emphasize the inevitability of coping the appropriate education with the appropriate training, as well as introducing dramatic transformations to the strategies, philosophies and objectives of training in order to build a solid base of human capital in Egypt that would enable this country to achieve an enormous future breakthrough, we still need to emphasize that we need to develop the existing capabilities and resources present at the moment as soon as possible.

Therefore, there is more and more call for emphasizing the importance of training and continuous training for the current existing human capital and human labor. In fact, such development can never be achieved unless an information network is provided which could serve the goals of the present and become a solid base for activities of the future.

There is a dire need for establishing an information network on labor information that would clearly and precisely contain all the data and information about the Egyptian human capital in order to provide such information for the purpose of planning, implementing, monitoring and evaluating the activities concerned with developing the skills and capacities of human capital. Among the data that are elementary and necessary to be included comes the following:

- The number of facilities and their geographical and sectors distribution.
- The number of the labor force and their classification (male/female, technical/administrative, leadership/executive, etc...)
- The specializations and qualifications of the labor force.
- The size of the facilities.
- The technical level of production (handcraft – half-mechanized – mechanized etc.)
- The training resources available in the facilities.
- The training resources available at other specialized entities concerned with training (governmental – private).
- The training needs assessment.

Such data is very crucial as a solid base for any activity concerned with developing the skills and capacities of human capital.

The validity and efficiency of the training is dependent on the accuracy and comprehensiveness of such data and information.

Planning for gathering, preparing and classifying such data and information as well as setting unified criteria for this purpose should be undertaken under the supervision of specialized experts on this field. We might need to use the assistance of some foreign experience or foreign experts to help laying the foundations and the criteria for this work.

Eighth: The German experience in preparing the labor force to deal with the new trends of this age and the market variables

Germany went out of the Second World War with a crushing defeat in the mid forties. The nation was totally wrecked especially from the economic side after it was divided into two Germanies.

The efforts of the allies destroyed by the end of the Second World War all the important industrial centers in Germany that used to lead the German industrial engine especially in the Roar River Basin.

The industrial facilities at that area used to be the backbone of the German industry and economy both in the military and civilian fields.

Among the heaviest burdens of the German Government that took office immediately after the war in very dark and bad circumstances was to rebuild the country and start from scratch, restructuring everything that was demolished and bombed during the war.

In fact, the Germans had to plan to regain their industrial renaissance all from the start through a totally new policy.

They had to start from the very early step of the education and training ladder and taking it all the way up to the top till they get fine specialization centers bound to higher management.

Such management would be in charge of achieving new economic successes and developing new investments in all sectors of production for both the capitalist and the consumer commodities.

This required starting again to build advanced infrastructure and services that cope with the spirit of the new age because there was no room for replicating the old patterns. They had to go towards the future trends all the way.

The very difficult – almost impossible – problem before the planning and organization authorities in Germany was to start the initiative of filling the gaps of severe shortage of certain industrial crafts and professions which were demolished because of the excessive recruitment policy of the German military leadership during the Second World War.

There has been enormous shortage in all industrial professions at that time as well as the basic crafts such as carpentry, plumbing, ironsmith, welding, electricity, textiles, construction and the finishing works.

It was truly a very bad situation and it required starting directly to lay the foundations of basic institutions, training and education centers required for initiating the first start in the wheel of activity and production in order to regain life again, and graduate the required labor cadres.

Those new laborers were trained and equipped according to totally new bases and curriculum that would be meet the new characteristics and features of the new orientations of that time, resulting from the post-war circumstances.

The new work force in Germany had to build from the start all the technology tools and methods and work for building new theories and applying them in various aspects of life, bearing into consideration that the new world is ruled by computers and their advanced complicated programs.

The significance of this experience is that there is a necessity to introduce dramatic and comprehensive change or even transformation to the educational and training programs altogether.

The new curriculum and programs should be totally devoted to the vocational training philosophy and strategy because of the crucial role vocational training would play in developing and enhancing the skills and specializations required for development on one side and for productivity on another. In the sense, the two aspects (development and production) would be integrated and interacted in a way that assures the efficiency of both.

If we happen to focus more relatively on the implicit or explicit objective of all such foundational policies that governed the German industrial and economic renaissance, we would find that the dynamic vital objective of these policies is based on the commitment to the following considerations:

- The necessity of following, monitoring and evaluating the rates of gradualism of the levels of experience among workers (in addition to the know-how experiences that are gained usually in the higher later stages).

- The necessity of introducing and enhancing the concept of the workshop which can cope with the needs and objectives of advanced vocational training (on the basis of the know-how experiences in particular).
- The necessity of tight organic linkage between the teaching, instructing and training, i.e. between the mind and the hand in one consistent logical ever-growing unit that is governed by timetables for optimal performance and the most effective style as well as acting to solve any problems or difficulties facing the teaching and training process.
- The necessity of linking the periodical tests of teachers and trainees to the fields of novelty and creativity and make these tests quite away from the conventional traditional pattern. This is a very vital element and it is the only one that would assure the continuity of developing the workshop, and helping it to develop its training programs on one side and upgrade its equipments and tools on the other. If this element is not emphasized, we would not consider this as a workshop according to the contemporary German conception of the culture of vocational training. In addition to that, there is another element that is quite complementary to the training and educational cycle, which is the staff of teachers and mentors, as well as the teaching assistance that provides the modern training programs. The German experience tells us that Germany pays lots of attention to preparing and equipping such staff in highly specialized institutions to graduate the middle management people who would work in the various factories, companies and workshops.
- There is a need to believe that the human being is the maker of technology, and thus he is the mind behind developing the technological applications that are introduced and customized to the

environmental needs and the new features of the modern time. Therefore, technologies became sort of very important secrets where countries compete to keep for themselves. Based on this, a very harsh race is launched among all countries of the world to create the most appropriate environment for harboring the technology in every possible mean starting with the educational workshop (as the elementary founding stage to reaching the concept of developing cadres and experts of know-how). Therefore it was not astonishing to see the top graduates of academic colleges starting their careers in workshops (even for the graduates of practical colleges that have many laboratories and workshops). These graduates used to receive their scientific and technical training in the workshops which would direct them to other professions different from the ones they studied in universities, as they shift to the jobs that are more required in the labor market, and try to equip themselves with the necessary tools and knowledge for that.

Conclusion

Developing the Skills and Capabilities of Human Capital

Labor force is considered the elementary support to the Egyptian national economy. Therefore, organizing the labor force and properly using it in addition to enhancing its skills and capabilities would have the greatest impact in maximizing the Egyptian opportunity for using its national human wealth and raising the standard of living of its citizens.

The estimates of the third five-year plan for economic and social development (1992/93-1996/97) point that the labor force in the first year of the plan 1992/93 would be around 15.7 million workers compared to 15.3 in the basic year 1991/92 (which is the last year of the second development plan). This would represent an increase of around 480 thousand workers.

The labor force is expected to reach 17.7 in 1996/97 (the last year of the third five-year plan) with an increase of around 2.4 million workers from the basic year 1991/92.

Consequently, this growing volume of Egyptian human capital can represent a huge national wealth that would open great opportunities for development of business sector in Egypt, maximizing its investments and exports.

Also the volume of unemployment can be reduced tangibly and continuously if this labor force is equipped, trained and assisted to enhance skills and capabilities by means of certain mechanisms that would lead to inducing tangible achievements on the short way and the mid-way.

This can also help in establishing the foundations and systems of the future that would cope with the new age and the new models and requirements of production, administration and various transactions in today's world.

Egypt has exerted enormous efforts in the past few years to develop the skills and capabilities of its human capital. Still the accelerated sharp variables in the world are much greater than the efforts exerted so far. That is why these efforts have not led to tangible results as anticipated and needed.

Egypt is now more equipped than any time before to launch an economic take-off and it still has lots of opportunities to do so. Recently, Egypt has been able to enhance stability and solve a number of serious and difficult problems as well as facing other challenging ones, such as the debts and the poor infrastructure.

Egypt also ventured into introducing new solutions for the problem of education, considering it the basic issue and element for developing the society. As we have managed to solve these problems, we now can start thinking of human investment especially as the external world regards Egypt in a new perspective now, because Egypt supports peace and it is a rational State, using a rational logical means in making decisions and contributing to the international arena. This would definitely help the internal Egyptian efforts for growth and development.

The Egyptian human composition is very much ready for training, rehabilitation and development. The Egyptian human potential is known to be launched at the time of crises. It is elementary to make use of these elements and invest these qualities.

When discussing the issue of "formation of skills and capabilities of Egyptian human capital", we must face the reality about this issue and recognize the fact that the currently used mechanisms are no longer valid, and have not been able to prepare the Egyptian young men entering the labor market every day to the level where they can venture into the business and production world in the

various sectors. Most of those graduates have received typical traditional conventional models of training which are not of high demand in today's world. This makes it very unlikely that this conventional labor would present to the businessmen and industry people the energies and capabilities that could help their business and allow the industries and businesses to gain a real added value because of those workers at the time where the cutting edge of competition is very high. It is usually called the age of global challenges.

On our side, we, at the Egyptian Federation of Industries, studied this issue thoroughly. I can present briefly some of the outputs of our study:

First: Developing the skills and capabilities of business organization managers

There is a great necessity for introducing active mechanisms to structure and develop the skills and capabilities of business organization managers because those people represent the decisive factor in this kind of business. They are the ones who should have the ability to identify the goals and objectives, deal with the present and predict the future objectives for the upcoming times.

Those managers are the ones who will make the decisive decisions and identify the necessary steps to take to shift the tools and means being used at present to become equipped for meeting the challenges of the future.

They are also in charge of motivating the creative capabilities of individuals in order to achieve the goals as well as using the most elementary tools to achieve a human capital development. They should be able to observe the

actual behavior and screen the potentials and capabilities of every employee in addition to identifying his training needs.

It is not a secret that the elementary axis of human development is precisely focusing on dealing with the individuals in order to develop their skills and capabilities to make them equipped for creating the conducive administrative climate and use the modern techniques for enhancing the performance of the employees, as well as providing all the material and organizational requirements that allow the workers to excel in their work and provide an excellent performance.

It is also elementary to work for creating the spirit of participation and enhancing more democratization of administration and collaborative work in addition to paying close attention to the human relations among all parties in the institution and setting the rule of liberating people from the strict old-fashioned rules, measures and systems. This would also invite providing a sufficient component of education, training, guidance and mentoring as basis for developing the collective skills and capabilities.

Second: Education

Proper education is the base for forming and developing the skills and capabilities of the Egyptian human being. Education is the element that would make the Egyptian capable of playing a vital efficient role in achieving human development.

The overall prospective about education:

The anticipated education should develop the following elements which are elementary pre-requisites for introducing the anticipated change:

- Education should be regarded as the cornerstone for progress to face the challenges of the current age. It should also be the base for liberty, freedom, democracy and harmony with self, with environment and with the society. Education also means a continuous addition to the human potential and energies all the time.
- Introducing a massive shift in education to develop the education to new horizons through a conviction of everyone in this nation about the necessity of doing so and through the participation of all capable forces in the Egyptian society so as the education would reflect the hopes of this nation and meet the requirements of this age.
- Education should allow smooth and easy transition from one type of education to another. It should also equip the individual with the necessary skills and experiences that would allow him to venture into the world of production and find himself a suitable job opportunity. It should also allow the individual the ability to move swiftly and easily from one job to another and from one production line to another.
- Vocational education should equip the young men with the opportunity to work where they learn, and learn more in order to work better. Skill in doing the work should be the basic criteria for those graduates.

- A close attention should be paid to the excellent and talented children and young men. The educational system should work for enhancing their excellent capabilities and make use of them.
- There is a need for expanding the university education and uplifting its standards and qualifications. There is a need to set a system for full dedication of teaching staff so as to provide them with a comprehensive opportunity to do their research and innovation activities. They should be compensated financially for their works and activities outside the university so that they can focus and dedicate themselves to the university and the academic activities.
- A close attention to the sound religious education is elementary in order to enhance the sublime values and principles. There is also a need to pay a close attention to the Arabic language as a national one in addition to learning foreign languages as a mean for developing people's knowledge and enabling them to learn about the new developments in the world.

Commitment, funding and structures:

- The Kindergarten stage (from age 4 till 6) is a critical and sensitive one, because during that time, the basic personality characteristics are developed, and the child starts seeding his future capabilities at this age. Therefore, this stage should be added to the compulsory education phase (which involves the primary and preparatory education).
- The school buildings that are not suitable for human life or educational life should be revised and replaced with other true school buildings.
- There is a need to provide the necessary investments for education.

Teachers:

- The financial and moral conditions of teachers must be enhanced in the way that can allow them to regain their self-confidence and feel that they are the owners of the most honorable profession in the world, which is the profession of prophets and messengers of God.
- The colleges and institutions for educating the teachers must be developed in order to provide a higher level program to create a better educator and teacher.

The school curriculum:

- Shifting from the quantity policy to a quality one that aims at equipping the students with concepts, capabilities, skills and ways of thinking to deal with the people, resources, information management, systems and modern technology, as well as comprehending the facts of modern life and developing one's life in the way that serves the ultimate goal of development.
- Shifting from word learning based on negative reception to active learning and a capacity building one.
- Equipping the individual with the ability of self-learning.
- Changing the concepts, techniques and tools of evaluation that are currently used in order to replace them with new ones that would serve the real goals of evaluation and measure correctly the real skills and capabilities.

Integrating the adult learning curriculum and program in the universities:

- Illiteracy is a disgrace for any nation. Unfortunately, illiteracy is very high in Egypt. Therefore, adult education should not be separated from the move towards better life, progress and changing the society. Therefore, eliminating illiteracy and carrying out programs for adult education, rehabilitation and training become an economic and social necessity for the development of the society and creating a better psychological balance for every human being, as well as enhancing self-confidence.
- The role of the Egyptian universities must be developed so as they become more involved in the process of development throughout the society. This can be carried out by means of training and qualifying specialists on different fields of adult education.
- Human development must be enhanced and Egypt should contribute to enhancing knowledge by means of qualifying capable researchers who can add to the process of adult education and forward technical consultation to various societal institutions involved in adult education and other relevant fields.

Third: Training

- The true efficiency anticipated from education can only be achieved if combined with appropriate training. The optimum educational curriculum should be bound to the best possible training program. Training is not only an issue for enhancing the practical application capacities of individuals. It can do more for bridging any gap or defect in the educational curriculum and enhancing the theoretical education in a practical way that helps

upgrading the level of specialization of the individual and adding more dimensions that would uplift his or her level of skills and capacities. This can also enhance the trends of innovation in an unprecedented way. Training can also help in amending, developing or correcting the various aspects of individual behavior and it can serve as an important tool for human resources development.

Therefore, there is a need for clear and well calculated policies as well as specific objectives for the training in order to cover all issues and aspects that relate to this issue, and also to answer the following practical questions:

Who are the beneficiaries of training? How will they be selected (the issue of specifying the training needs)

How and when will the training take place? What is the content of the training process and how is it selected and delivered? (the issue of designing the training process)

How much is spent on training? What are the parameters for deciding the training budget? How can we measure the return on training out of this expenditure? (the issue of training economics)

Who is in charge of the training? What are the conditions and prerequisites which the trainers should have? How to qualify and train the trainers? (the issue of training the trainers, TOT)

These policies and objectives of training should be dealt with on the national level as well as on the institutional one.

Analysts believe that the following aspects should be well served and cared for regarding this issue:

- Assuring and emphasizing the efficiency of training by providing and using the appropriate mechanisms that link the training to the real need of the individual and convince that trainee of the value and necessity of the training.
- Planning for the training considering it complementary to education and a catalyst for the educational dynamics.
- The necessity of linking training and instruction in an organic way and getting them to be in the hardcore of the educational process itself so as the static conventional aspect does not overwhelm the dynamic one. This can be achieved by means of providing training at different levels and in different forms.
- There is a need for balanced and continuous creation of new professional groups and introducing new specializations to the employment market.
- There is a need for a comprehensive revision of the industrial education tackling its strategies, objectives, plans and curricula.
- There is a need for a comprehensive revision of vocational training regarding its strategies, objectives, plans and curricula
- There is a need to open new channels for the conventional specializations to be restructured regarding its skills and capacities by means of an efficient training that would enable those people to acquire new and market needed skills and qualifications.

- There is a need to increase the number of the blue collar people who represent the symbols of vitality and productivity in the society on the expense of the white collars because lots of those educated deskwork people represent a masked unemployment in their companies and institutions, and there is a very low demand on such specializations nowadays.
- Major factories should be encouraged to adopt the idea of the factory school
- There is a need to invent new organizational plans that are bound to developing phase objectives of production models so as to venture into a new stage of modernity and novelty all the time. This will have a very positive impact on productivity, on the quantitative and the qualitative levels, in light of the new variables of this age.
- There is a need for consistent interactive and continuous enrichment of the professional expertise background of all workers and employees. People need to accumulate more professional expertise on the issues they were trained upon with the condition that this enrichment should involve all parties of the training process (including those who receive the training programs in order to encourage them for making remarks, objective proposals and developing their own opinions. They should also be granted generous awards and incentives when they do so).
- There is a need to encourage adopting the principle of competitive chamber in every production sector separately and under similar conditions and circumstances. This would facilitate awarding the hard workers who would serve the principle of saving in addition to properly

doing the job. This will encourage people to reduce the rate of wasted resources as much as possible.

- The principle of creativity and developing new things should be highly encouraged in order to create new positive motivation for every trainee and to enable those trainees to be more equipped to contribute to developing and improving as well as designing and implementing various elements of the whole productive process. In the sense, this trend can help making the training of a social and economic value as well as a psychological one for the trainers. This will help in general in improving the workplace conditions and circumstances.
- There is a need for a strong linkage between the training orientations in general and the new developments and variables in the scientific theories as well as the economic thoughts and technological applications. This is truly elementary in order to assure the efficiency of the change and development in the productive field and to make this change more prominent and yielding positive results all the time.
- There is a need to hold regular joint meetings involving the officials in charge of the educational sector, the top State planners, the businessmen, the industrialists, and the representatives of the trade unions and labor syndicates. Such meetings should tackle all elementary aspects of concern such as developing the educational curriculum, introducing new equipment and modern facilities to the educational process at various levels, creating new educational spirit and linking it to the appropriate training.

- There is a need to encourage developing a system for prizes, awards and merits for the excellent achievers in the training programs as well as in the field of design and innovation.

Fourth: The Information Sector

- There is a need to establish an information network on labor data that would clearly provide all the necessary data and information for the purposes of planning, implementation, monitoring and evaluation of the various activities concerned with developing the skills and capacities of human capital.