

Maritime Academies as Community Services Agents: With Special Reference to the Arab Academy for Science, Technology & Maritime Transport

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Abstract Maritime academies are not merely established for education and training. Academies play a central and crucial role in identifying the maritime as well as social community needs of their societies, providing suggestions and solutions and contributing to the development of the environment protection. The strength of links between these academies and their societies, whether civil or marine, and the services provided comprise the solid foundation of the maritime culture of these communities. The Arab Academy for Science, Technology and Maritime Transport has had as a prime objective to qualify marine and marine engineering cadets and to serve the community in a sincere obligation towards society as well. The Academy is an affiliate of the Arab League of States; in this respect it is considered a nonprofit organization for the education and training of marine cadets.

The Academy, with all its sectors, educational, research and training, and all its different branches in Egypt and the Arab countries, enables all members of civil, marine society to achieve the maximum possible benefits of these services, using means and methods of modern technology. The colleges and academic centers of the Arab Academy in their different specialties are nationally and internationally accredited, fostering bonds with regional as well as international universities and institutions. Moreover, there is partnership and collaboration between the Academy and such international organizations as UN, UNDP, IMO, and World Bank. In this respect the Academy is considered a centre of radiation and a driving force to assessing the civil and maritime institutions, providing suggestions and solutions to all issues. The faculty members are regarded as scientific and intellectual bodies, representing high civil society groups, and are leaders and experts in all disciplines of all industry in general and maritime industry in particular. Seminars and conferences are continually held at the national and international levels on related marine issues of interest with a view to strike a balance between community services and the marine ecosystem. The important role the Academy adopts in the service of civil society and the sea inside and outside Egypt will be handled in full text in the paper presented to the congress.

Keyword: *community services, AASTMT, academia, collaboration, coordination, market, environment, youth*

1. Introduction

Developed communities consider higher education institutions and their research centers, whether universities or academies, as the driving force behind developing these communities via their innovative ideas, creations and cultures which allow further development and refinement of tools of production, and also as the powerful tool that preserves the cultures of these communities and enhances their performance.

These institutions, considering their higher education, is the locomotive of change in communities that want to progress involving plenty of unique international experiences in which education was one of the most important pillars of progress and transformation. Higher education is therefore, directly associated with the future of any society, not only because it is a cognitive process through which students receive required knowledge and technical skills, but also due to its growing role in the preparation of generations that are capable of actively and consciously participating and planning for the future, armed with the highest values, life skills and right directions that all lead to improving life quality.

Interest in education, higher education in particular, remains to be the key essence to moving any community forward since it is capable of changing the fabric of society in different dimensions and various visions towards the prosperity and advancement of any work system. There is no doubt that community renaissance has always been subject to the development in its education.

The role of universities and academies in community service is one of the vital issues that has an enormous social significance, not to mention that their role is not merely restricted to learning but it comprises a radiological, enlightening and educational side that is connected to, interactive and correlated with production and service institutions.

2. Higher Education: Goals, needs, and expected roles

Institutions of higher education trigger change processes in any community since their role in the society – in addition to the educational and training role – is to innovate and implement innovations, and to transfer knowledge by providing the means to gaining it in the first place and then to making use of it in both the present and the future; in addition to initiating and supporting research and providing assistance to all activities in the surrounding community.

Everywhere universities, as well as maritime academies, try to meet and carry out some objectives, namely welfare, social systems, intent, and truism. Thus, these objectives combined represent the reason behind the presence of these educational institutions. First, these institutions focus on the welfare of the community by preparing its students for constructive integration within the labor market through the acquisition of knowledge and skills which are the means to achieve progress and development, and through developing fields of research and innovation in these communities to enhance the economic force of a particular nation.

As for the social system, these educational institutions help the community to be a "harmonious society" in which different groups exchange references, and also make science, knowledge and technical skills relevant and appropriate. With regard to intent, these academic institutions study life assumptions as defined by the community, looking at it from the different world views, old and new, and reorganize data according to the new and different standards. Consequently, these institutions have the ability to indicate possible reforms in the society, which is considered the basis for any ushering carried out by nations through their universities and academies to serve their communities. In addressing truism, these institutions will explore the unknown as it is the ordinary system of which humanity is an indispensable part.

3. New Cultures and the absence role of scientific and educational institutions

Scientific and educational institutions take on the larger and more important role of helping communities rise, clarifying the culture of objects and the need for humans to recognize them so they would not fall prey to ideas and cultures changing their performance and development in a negative direction. Cultural differences between peoples have been and will remain the strong motive behind accomplishment as long as there are new ideas that do not throw communities into turmoil.

Universities and academia must also have the ability to clarify the impact and role of education, of globalization culture and of the challenges of new global system on communities. There is a wide array of lexical items that entered the language during the nineties and has quickly spread, thanks to modern means of communication and knowledge revolution, which facilitated the movement of people, capital, goods and services. These have become the driving force behind the rapid spread of globalization, which aims at increasing economic, commercial and investment ties among the parties of the world, bringing cultures closer and removing boundaries between states.

The openness of these institutions to public life and rejecting the idea of constraining their role to lecture theaters and laboratories, in spite of the fact that the results of such a role have proven well to the whole community, have argued that the role of these institutions, besides education and training, is an enlightening role that helps lead the transfer of society to what is better and more positive; thus we can establish a rule of thumb that science is in the service of society.

4. Basic premises about society and institutions of higher education

4.1 The first tenet: On educational institutions and society

Institutions of higher education should be able to declare its opinion on the ethical and social problems of the surrounding community as totally independent and fully responsible institutions, exercising a kind of intellectual power that can be needed by the community to assist reflection, understanding and taking action. Higher education institutions should also have the ability to adapt to modern trends in society and the ability to spread openness values and mutual understanding with others in the surrounding community.

4.2 The second tenet: The changing roles of educational institutions

There are new roles for educational institutions such as the rehabilitation of human cadres in several disciplines that serve the needs of the community; needs that have been imposed on the community by recent developments since the speed at which economic change is taking place constitutes a challenge even for developed countries, in addition to the growing role of science and technology in developing societies. The roles of higher education institutions in community service and environmental development includes a set of service roles, a set of productivity roles, a set of consultancy roles, a set of enlightening and culturing roles, and a set of educational roles.

4.3 University and community service: Levels, objectives, action pivots and implementation mechanisms

4.3.1 Levels for the role of higher education institutions in community service

There are three levels for the role of higher education institutions in community service. The *first* is the foundering role level that is achieved via the educational role, i.e. providing human cadres, and via the role of research, i.e. providing knowledge that is the basis for progress. The *second* is the evaluation role level where higher education is responsible for monitoring and assessing the movement, growth and development of society. The *third* is the executive or performance role level which is carried out via specific mechanisms, i.e. centers and units of special nature.

4.3.2 Objectives

In light of the changing careers and roles of groups in society, it became necessary to develop connections and coordinate exerted efforts of higher education institutions and the different sectors of society in addition to government agencies in order to achieve a set of objectives:

- 1 - Maximizing the national capacity through organizing participation and coordinating exerted efforts of institutions of thought, science, and knowledge, on one hand, and production and services institutions on the other hand.
- 2 - Cultural development.

3 - Economic development.

4 - Environmental development and reduction of environmental risks.

5. Expected roles of higher education institutions in community service

Our goal is to have a regional backer for every educational institution, i.e. a region with which the institution interacts and which thrives on providing environmental, social and public cultural services where the institution is the means to the development and promotion of life in this region or the back region.

The specific expected roles of these institutions in community service is summed up in their contribution in improving the quality of life and creating a well-being society through the continuous and comprehensive development of community in several areas. Some of these areas are strengthening the links between the educational system and the labor market, identifying local problems, strengthening public participation, developing different scientific and technical skills, preparing feasibility studies for economic projects, providing counseling services to certain sectors, e.g. workers and women, providing advanced employment training, being integrated with the production and service institutions, marketing innovations and research findings, following-up graduates in the labor market, preserving the environment and reducing risk, raising youth awareness of society problems, providing basic competence for all citizens to understand and use information and communication technology as means to learning, research, work and leisure, providing expertise in communication between different cultures, improving professional skills, teaching languages, and introducing foreign cultures.

6. Vision for activating the role of the Arab Academy for Science, Technology and Maritime Transport "AASTMT" in community service and environmental development

6.1 Introduction

No one can deny the role played by AAST-MT in serving, improving and developing the community. AASTMT is a monument of high scientific status. It is a pioneer in the training and education in the field of maritime transport in Egypt and Arab world as well as some African countries in addition to the various specializations of engineering, computer and information systems, management, and logistics. This confers upon its administration the burden of maintaining the status quo on one side and upgrading it on the other.

Developing AASTMT institutional performance is the first and topmost challenge that faces the Academy in light of the new environmental changes. No one can underestimate the impact of globalization and the advances in information technology and communications, among other variables on the educational process at the Academy in terms of form and content.

The only truth is that the real success of the Academy should be built on the foundations of strategic planning based on correct understanding and accurate analysis of the reality of AASTMT and its potentials. AASTMT is a pioneer in its vision, mission, and strategic objectives all of which it thrives to achieve and which reflect the ambition of its administration for a better future in the field of specialization mentioned above as well as in research and community service. It is no longer an acceptable strategic option whether to maintain the status quo of the Academy or not, rather accepting the strategic challenge to reach a better future has become a matter of fact. There is no doubt that the coordination of efforts among the colleges, institutes, service centers and the management of the Academy would be a complex process because of the need to assemble the scattered efforts in an integrated form.

6.2 AASTMT's strategic plan

AASTMT's strategic plan is based on the following assumptions:

- AASTMT has been and will remain a beacon for maritime education and training in Egypt, the Arab region and Africa through the substantial scientific, intellectual, and training contributions it made and offered to them.
- AASTMT is to keep its programs up-to-date with unprecedented academic scientific progress in the fields of science, technology, education, maritime training, research, and community service.
- AASTMT realizes that competition in the field of education, in general, and in maritime education and training, in particular, has become a reality and that the only way to deal with this competition is to develop its competitiveness.
- The demand to enroll in education programs that are part of community service programs at all levels and disciplines will remain on the rise.
- AASTMT will seek to create an educational environment that is characterized by dynamicity, challenge and the desire to excel.
- AASTMT's target progress must be achieved through the consolidation of relations with the outside community and all stakeholder parties.
- AASTMT will employ its potential human and material resources as one important element in the development of the competitiveness of the Academy and its different branches.
- AASTMT shall achieve its strategic objectives through the development of intellectual capital.

6.3 AASTMT's Colleges, Institutes and Centers

The Academy incorporates 6 main colleges: College of Maritime Transport and Technology, College of Engineering and Technology, College of Management and Technology, College of Computing and information Technology, College of International Transport & Logistics, and Graduate School of Business offering M.Sc and PhD in some specialties in addition to research and consultancy programs for executives and businessmen.

The Academy offers its educational, training, and research as well as community services through:

- The headquarters in Alexandria.
- The Academy's branches in Cairo, Upper Egypt "Asswan", Port Said, and Latakia "Syria".

Also through its sophisticated institutes and centers:

The Institutes: Productivity & Quality Institute, International Transport and Logistics Institute, Technical and Vocational Institute, Institute for Language Studies, Port Training Institute, Investment and Financial Institute, Arab Institute for Trade and Commodities Exchange, and Marine Safety Institute.

The Centers: Project Incubation Center, Industry Services Center, Marine Hotel Center, Information and Documentation Center, Multimedia Center, Computer Services Center, Computer Networks and Data Center, Research and Consultation Center, Regional Center for Disaster Risk Reduction (under construction), Arab Center for Transport Studies (under construction), and Arab Center for Media (under construction).

6.4 Technical Assistance to Developing Countries

Since its establishment in 1972, one of the main goals of the AASTMT has been to develop maritime education, training and supplementary industries on both Arab, African as well as Asian levels. One of the most important achievements in this field was the establishment of a regional centre for inland and maritime transport in Bangladesh. Additionally, participating in the development of maritime and engineering education in both Ghana and the state of Ivory Coast, providing technical assistance and human resources management to Kuwait, Saudi Arabia, Qatar, Sudan, Libya and Syria are other achievement along the same line.

Furthermore, the AASTMT offers, on an annual basis, academic scholarships to students from African Countries such as Djibouti, the Comoros, Ghana, Nigeria and others. The AASTMT also opened branches

in some Arab Countries to enhance the integration of maritime and engineering training processes to comply with the international maritime requirements set by the IMO.

6.5 Specialized Institutes and Centers:

6.5.1 Institutes:

6.5.1.1 Productivity and Quality Institute (TQM)

In a sincere attempt to promote cooperation with the industry, the TQM institute has been founded introducing ISO and Total Quality concepts to the local market and demonstrating the implementation of T.Q. standards in educational institutions. The TQM now offers MSc. and PhD degrees, research and consultancy services both locally and to the whole Arab World.

As a specialized unite, it offers integrated services in productivity and quality improvement and conformance with international standards through 3 major activities: Training programs; Consultation services; and Graduate Studies.

The Institute conducts a large number of *training programs* in various fields including: Quality Management; Management & protection of environment; Productivity improvement; Managerial & financial skills; Health care & safety management; Statistical methods; Information technology; Personal & behavioral skills.

The Institute offers *consultation services* in various fields of quality improvement and total quality management, in addition to conformance with international standards.

The institute gives graduates of universities and high educational institutes of various specializations the opportunity to continue their higher educational in quality management through offering the following degree programs: Diploma, Master, and Doctorate in Quality Management.

6.5.1.2 Technical and Vocational Institute

The Academy developed its specialized center of technical studies formerly known as the Seaman Training Center. The development covered all aspects of the center including its name that changed to the Technical and Vocational Institute in order to reflect the Academy's objectives and plans. The institute provides opportunities for vocational training in various professions, in addition to technical training for Egyptian and Arab as well as African.

6.5.1.3 International Transport and Logistics Institute

The mission of the institute is to preparing management leaders to work efficiently in the field of commerce, law, transportation and logistics, providing consultation and scientific research related to commercial, industrial, and economic activities in the field of logistics and modern transportation in the frame of the sophisticated systems of Global Supply Chain, and reaching high levels of development in the art of logistics management, uni-modal and multi-modal shipping, business legal transactions, and logistics.

6.5.1.4 Port Training Institute

The mission of the Institute is to provide training and qualification opportunities for local and regional maritime transport and ports personnel.

6.5.1.5 The Institute for Language Studies (ILS)

The main objective of ILS is providing high-quality language related services to the Academy's students, staff, and Institutions as well as the Egyptian and Arab community at large. The Institute also aims at facilitating the communication with other regions in the world through providing training courses in a variety of fields like translation, editing and preparation to International Exams in: Arabic, English, French, German, Italian, and Spanish.

The Institute also provides the following academic services for Egyptian communities in Alexandria; Cairo; Upper Egypt and to Arab countries as well: Linguistic revision of correspondence, economic and feasibility studies, tenders, bids, etc., translation of correspondence and research papers in a variety of

specializations such as engineering, tourism, business administration, etc, and translation and interpretation in conferences and symposiums.

6.5.2Centers:

6.5.2.1 Multimedia Center "MMC"

MMC is an integrated multimedia production house specialized in the development of educational and training multimedia courses on the internet, CD-ROM, and DVD-ROM. MMC in Alexandria is considered one of the largest specialized centers that produces interactive educational programs in the Middle East serving educational systems in the Academy and the school community in Egypt and Arab Countries.

E-Learning & E-Training Work Experience and Community services: The MMC executed a variety of training and educational projects for Kingdom of Saudi Arabia, United Arab Emirates, Kuwait, Lebanon, the UNCTAD (United Nations Conference on Trade and Development), and the UNESCO (United Nations Educational, Scientific and Cultural Organization).

One of the latest projects in the center was developing an on line (Internet) interactive school website (www.madrastvonline.com) for students of the Egyptian schools, covering the Egyptian subject curricula. Also developing the School Management System "Madrasty Online", which features a web-based "School Management System" that covers all aspects of student management and addresses the needs of the entire school educational enterprise.

6.5.2.2 Regional Informatics Center

To continue playing its pioneer role in informatics, which was confirmed by all services offered to Egyptian and Arab citizens, and being keen on spreading information technology in the Arab World and Africa, the Academy established the Regional Informatics Center in 2002. This Center is the first informatics center affiliated to the International Federation of Informatics in the Middle East and Africa.

6.5.2.3 Computer Services Center

AASTMT established this center to meet the needs of labor market in the fields of information technology and communications, through offering the services of training and accredited examinations to its community.

6.5.2.4 Research and Consultation Center (MRCC)

Implementing the terms of the Academy's agreement of establishment, the MRCC was established in 1984 to develop and enrich scientific research and to provide innovative consulting services, applied research studies and best practice solutions in different fields in order to promote and to support the development not only in maritime community but also to any other communities in Egypt, Arab World and Africa to reach and maintain an international level.

MRCC provides the following services in the fields of Maritime Transport and Logistics: Business development; Project planning and implementation; Economic and financial feasibility studies; Applied research and Consultation; Information Technology solution; Knowledge and technology transfer; and Engineering project management.

6.5.2.5 Regional Center for Disaster Risk Reduction (under construction)

The United Nations Secretary-General submitted his annual report to the General Assembly of the UN on the implementation of the International Strategy for Disaster Risk Reduction at its sixty-third session which was held on 10 September 2008. The report commented on the efforts and contributions of AASTMT in promoting Disaster Risk Reduction in West Asia and North African Region. UN and AASTMT signed a MOU in February 2008 which resulted in a strategic technical partnership with the Academy at regional level.

AASTMT is also partnering with World Bank in implementing regional projects on climate change adaption in North Africa. AASTMT has become a "Center of excellence" on climate change for the region.

6.5.2.6 The Integrated Simulators' Complex

The complex consists of the following Simulators, laboratories and Centers:

- 1- Simulators: Oil Spill Crises Management; Environment Crises Management; Ship Handling; Liquefied Natural gas "LNG" Cargo; Liquefied Petroleum Gas "LPG" Cargo; Very Large Crude Cargo Vessel "VLCC"; Oil Product Carrier Simulator "VLCC Terminal, LPG Jetty and Oil Chemical Tanker"; Global Maritime Distress and Safety System "GMDSS"; etc.
- 2- Laboratories: Oil analysis Lab; Environmental Lab; PC Lab; Multimedia & Audio/Video Production Lab.
- 3- Technical Services Centers: Development and Maintenance; Database Modeling; Geographic Information Systems; Multimedia.
- 4- The Complex plays an effective role in executing training and research missions to serve the Maritime Transport Sector, Petroleum sector, and State Ministry of Environmental Affairs in Egypt.

6.5.3 Programs

6.5.3.1 IGCSE/GCE Program

One of the educational activities AASTMT undertakes is offering secondary school certificate organized and supervised by Cambridge University through program that started in 1990.

6.5.3.2 Community Services Programs and Continuous Education

Due to the AAST-MT's belief in the role of the educational institutions in serving the Community, it has been started offering various educational programs to service the community of Alexandria. The aim of these programs is to further develop and enhance the skills of those who did were denied the opportunity of being well qualified or distinguished in the fields of language, computing, secretarial work, aviation tickets reservation, marketing and management. These programs also grant them a chance for continuous education, and open new tracks for them to pursue other fields of specialization should they use it. These programs start over every three months, and they are ongoing all year round. These courses attract a considerable number of those who aim at developing and enhancing their vocational skills, as well as gaining new ones. In addition, these courses are sometimes especially designed for groups of employees in a certain company or organizations. The estimated number of those benefiting from these programs, through the year, ranges from 15000 to 20000 Alexandrians. Furthermore, there are summer courses for the education of children which benefit around 5000 children. The center offers various activities and services to the customers in all fields:

6.5.3.2.1 Training

Training is provided through:

1. Long Term Programs which aim at educating and training leading to vocational certificates and diplomas.
2. Professional certificates which aim at acquiring specialized knowledge and address executives and technicians to cope with the fast development and sever competition in the field of labor market such as: various Computer Programs, executive secretary, modern and advanced accounting, marketing and sales, human resource management, computer skills, English language skills "20 levels".
3. Special programs: Due to the need for programs addressing special requirements, training was developed to take the form of special programs that help support competitive advantage through improving the performance of personnel. Those programs include:
 - Translation and Interpretation.
 - Computer and various software programs.
 - Professional banking course in insurance, financial evaluation, etc.
 - Ticketing and tourist services (Marketing and sales- Business Administration- Human Resource Management).

6.5.3.2.2 Consultation

Utilizing the Community Service Center's expertise and responding to the demands of many business organizations, training, vocational, and technical consultation services came to existence, with a set of expert consultants in various fields, in addition to a selected group of qualified trainers and lecturers.

6.5.3.3 Arab International Women's Maritime Forum (AIWMF)

The mission of AIWMF is to promote female involvement into the marine industry in MENA & Africa and empower women decision-making in full collaboration with IMO. The main objective of the forum is to function as a lobbying and advocacy body on women's concerns at the national, regional and international levels. Also, the Forum aims to build on and deepen the IMO gender mainstreaming approach, especially when addressing such challenges as the achievement of women's full participation in leadership and decision making in the maritime sector in most of Arab countries.

6.5.4 Others

6.5.4.1 International Arab forum for Maritime transport industry "A partnership between the Maritime Transport Industry & AASTMT"

The objective of this forum is to establish a unified maritime entity to serve the maritime transport industry which shall be entrusted with the task of utilizing maritime education and training to meet the needs of the regional and international market and cope with technological developments.

6.5.4.2 Supporting Job Opportunities Affairs

Supporting Job Opportunities Affairs was established in order to assist the graduates and postgraduates from different Colleges and Institutes of the Academy in finding jobs through contacting companies and foundations for vacant jobs opportunities, in addition to organizing job fair twice a year.

All these centers and sites exclusively serve the Alexandria, Cairo, Asswanian and Arab Countries societies both civil and maritime.

7. Proposed mechanisms for development

- The role of academia in community service must be reinforced by linking modern scientific research with the needs of the production sector and public services, and by emphasizing the need to utilize modern technology to achieve sustainable development. Thus, it is proposed to allocate places inside these academies for a number of productive and industrial companies and enterprises as their headquarters. This presence would allow cooperation between these entities with faculty members and teaching staff assistants to study the problems that face these institutions and impede their development, and then working on providing them with scientific and practical solutions.
- Joint strategic plans must be established between the organizations of society and academia to manage crises and disasters from a scientific perspective and in accordance with needed requirements and to recognize maritime academies - which is one of the systems of higher education - as expertise consultancy organizations in the field of environmental impact assessment. These academies can also be entrusted to some required studies to approve the establishment of new projects and facilities.
- Seminars should be held on the importance of water bodies and how to protect and manage them, as well as seminars on the role of women in community service.
- Academies should encourage young graduates and society youth to establish their own small and medium projects (incubators); pervade among them the concept of self-employment in all fields; and coordinate with society officials about graduates' and youth's training and consultancy needs

and demands in the various fields in order to attain remarkable achievements in the field of self-employment so they would become a model to follow.

- On the crisis of finding a job and the dream of employment that caress the imagination of all graduates, there should be extensive dialogues between the academies and the community about the employment of graduates. In this context, I propose that academies should pursue policies that target a rational relationship between education, training and employment in coordination and cooperation with the companies and institutions of different sectors to provide job opportunities on the basis of a direct correlation between the theoretical study and practical application.
- Intensive training courses must be prepared and held in each academy to improve the skills of its faculty members who wish to participate in the political and social arena and to prepare them well to join all election councils starting from community development associations ... etc.
- Different sources of funding should be found for these academies to support the provision of university and academic education as well as scientific research; and to ensure their quality so it would reflect positively on the services provided to the society and on the methods necessary for environment development. Therefore, coordination among businessmen, civil society organizations, companies and economic entities in the community must be established to promote the culture of social responsibility of capital and to enlighten them on how to fund academies and how to offer scientific scholarship grants that are spent in the correct paths of research and educational process in all disciplines.
- Full coordination between the community service sector, the Environment Development sector, Education and Student Affairs in maritime academies should be maintained to prepare academy students to actively participate in community service and environment development.

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