Strategy for Maritime Training in Higher Educational System in Developed Society

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I. Introduction

One of the most serious and persistent problems facing all the developed maritime nations is in persuading young people to enter maritime schools.

Although the existing maritime schools in developed society wish and intend to continue maritime training, they are still under pressure due to the necessity of retaining adequate student numbers and some of them have already experienced a shortage of intakes.

There are several reasons why young people are reluctant to go to sea. These include the instability of job security due to the employment of hawse-pipe ship's officers and the wage structure of the sea-based job. This reluctance has further been strengthened by the radical changes in young peoples' values and attitudes due to the rapid industrialization of society.

So long as these factors are out of educational control, schools have to find a way of how to make the school viable in developed society by developing training programs and policy.

By focusing on these social realities, this paper intends to design a new strategy for maritime training in the higher educational system which would overcome the prevailing shortage of entrants and train future nautical professionals who will satisfy the need of the shipping industry and maritime administrative fields.

This paper deals with findings from comparative analysis data from the social organization of the maritime schools in the U.K., U.S.A., Japan and Korea, as well as looking at interactions between such findings and the internal viability of higher maritime education in these countries. This information is based on the references related, observations of students' campus life and interviews with maritime executives.

This paper also aims at developing a clearer understanding of the educational policy oriented to the students' individual self-realization which endeavours to widen non-maritime vocational training programs so that experienced sea personnel can easily transfer to land-based jobs.

II. Procedure of Maritime Education Development

Maritime education has been influenced by the progress of ship engineering, changes in the shipping environment and the values of young people.

The British maritime school has been chosen as a sample case in order to scrutinize the evolution of an education system. This is because its system has been developed through trial and error method in a very conservative fashion so that the interaction between the factors of the educational environment such as education standards, education viability, non-maritime vocational programs and external sponsorship can be easily recognized.

From this view point, the progress of the overall British maritime education system can be subsequently outlined as follows:

In the first place, maritime education commenced by satisfying the needs of shipowners by using an apprentice system where the aim of education was restricted within skill training for ship operation.

Secondly, as ships become equipped with more sophisticated systems, the educational system in vocational school had to be developed in order that the educational goal focused on transmitting technical skill to students which would protect the interests of both the state and shipowners.

Thirdly, as ships needed to be operated efficiently, safely and with commercial awareness, the educational system had to be changed into a polytechnic school system where a wide range of basic science programs was available.

Finally, as a seafaring career has become less attractive to young people, schools now have to confront these problems in order to enhance the internal viability of education. This in turn should satisfy the expectations of young people who wish to possess the ability to transfer to land-based employment following their sea service.

To sum up, although maritime education in the U.K. started with an apprentice system to satisfy the needs of shipowners at the very beginning stage, it now has to maintain a comparable educational level to the college education system so as to satisfy the employment requirements of young people.

III. Maritime School Contexts in Developed Society.

Maritime school contexts seem to be different due to the interaction between the following internal and external factors :
  1) Perception of the maritime school :
     Whether the school has been recognized as an enterprise subordinated to shipping companies or as an independent institution.
  2) Level of the school :
     Whether the school is able to confer a bachelor's degree together with the ship's officer licence.
  3) Decision making autonomy for education policy :
     Whether the school has enjoyed the autonomy of making a decision in changing educational programs in an effort to enhance the viability of the school.
  4) Emphasis of the practical training program :
     Whether the practical training program is emphasized or not.
  5) Development of sub-major programs :
     Whether the scope of non-maritime vocational training is extended as sub-major program with flexiblility.
  6) Extent of engineering-oriented programs :
     Whether the engineering training is emphasized or not.
  7) Atmosphere of the campus :
     Whether the student campus life is regimental or liberal.
  8) Encouragement of the culture of maritime education :
     Whether the maritime-educational culture is encouraged or not.

By focusing on the above eight factors of the educational environment, maritime school contexts in four countries can be outlined as follows :

1. Maritime School Contexts in the U.K.

The maritime schools' principal sponsors are shipping companies. They subsidize the students who agree to remain employed by their sponsoring companies. Shipping companies also pay a significant portion of the operating

costs of schools. The school is defined as a commercial enterprise rather than an educational institution.

In the early years, schools provided a cram form of short-term education like a trade school which was designed to transmit a minimum-level of education in order that the apprentices were awarded certificates.

During the late 1960s, an effort was made to raise the educational standard of these schools to a comparable college level. However, this was not completed due largely to increased economic pressure in rationalizing the intake and output of ships officers.

As a consequence of the conflicting interests of individual shipping companies and the national education system a new training system was designed which allowed the students to have access to junior college education and qualifications.

The training offered is strictly limited to those basic sciences and practical applications which lend themselves specifically to the tasks and duties of a ship's officer. The non-maritime vocational component of the training syllabus is primarily neither to provide a specific avenue for entrants into a land-based occupation nor to imprint a highly competitive future social status on the students. As far as occupational transferable education, the students are taught to get the same social status they might otherwise have acquired had they never been to sea.

The number of entrants is adjusted according to fluctuations in the shipping business as well as by the employment situation within the seafaring job market. This in turn is affected radically by the out-flagging of vessels and the hawse-pipe officers from developing countries.

To sum up, the U.K. had a tradition of being too financially dependent on shipping companies so that the schools did not enjoy the autonomy or flexibility in developing maritime education towards the interest of the individual student. So long as maritime schools are recognized as polytechnic schools, and not able to offer students sufficient programs to enhance occupational transferability from sea-based to land-base employment, maritime schools will become less attractive to young people.

Those are the main reasons why the U.K. maritime school system began to

collapse so rapidly. The number of cadets under training has fallen by 87% over the past five years from some 5300 in 1981 to some 700 in 1986. Since then many schools have had to give up maritime training. In 1987, cadet recruitment numbers were less than 100. Once the schools decline, government subsidies seem to be of no use. Today nobody expect the U.K. will be able to supply sufficient seafarers who are to succeed in the nautical profession both onboard and ashore, even if the government made up its mind to aid maritime studies financially. Namely, even if there is long tradition of shipping in the U.K., there is no maritime educational culture where the value of seafaring education is highly appreciated.

2. Maritime schools contexts in U.S.A.

The schools' principal sponsors are state governments. However they exercise little control over review and monitoring of the academic curricula. The schools enjoy considerable autonomy and self-direction which means they can make an effort to maintain themselves as viable institutions by deemphasizing the nautical vocational component of the programs and instead train the students for land-based maritime careers with stress on vocationally transferable skill and general education.

Since the early 1970s, programs were increased to permit the graduates to obtain a bachelor's degree and a ship's officer license.

By their own initiative, these schools have radically altered the nature of the training programs and have changed the definition of their graduates from merchant marine officers to college graduates capable of entering a variety of land-or sea-based careers.

Thus the schools have been able to take complete responsibility for goal determination such as deciding what outcome to pursue and how to bring this about. The school has been viewed as a resource center designed to satisfy, not only the national interest but also the interests of the students.

The schools, therefore are not maintained specifically for the interests of the sponsoring state goverments or private shipping companies but to provide meaningful and useful training for students themselves.

The schools provide the students with the greatest number of advantages in enhancing the potential occupational transfereability by offering the students a wide range of instruction in the sciences and liberal arts.

There is a strong emphasis on both naval decorum and training. Moreover, through the program of residential training stemming from the dean of students, a military mode of life is imposed : close order drill, rifle drill and the like.

In the U.S.A. school system there is strong upward mobility element in the training offered so that the graduate can reenter into the land social system higher in occupational status than he might have occupied had he not gone through maritime training.

3. Maritime school contexts in Japan

Maritime schools were some of the most attractive in the world before the end of World War II. Since then, the schools have had to stop military-like training after the laying down of Japanese arms carried out by the U.N. forces.

In addition, the younger generation began to pursue freedom and greater liberty in their own life rather than following the traditional way of life. Naturally, in the nautical school, student refused to accept regimental campus life rules such as the compulsory wearing of uniforms. They commuted daily from the homes of their parents or from apartments individually or in small groups. Since the structure and stresses which normally attend a residential form of education had been missing, there were few rules and little authority in controlling the attitudes and the daily life of students. They come to class in civilian clothes, wearing sandals and chewing gums. Since they refuse to enroll in compulsory onboard training courses, the school had to empahasize only maritime academic programs.

But the graduates of this school did not satifsty the needs of the shipping companies. The shipping companies could not but hesitate to put their vessels under the control of such young people whose activities and attitudes onboard were so disobedient and liberal. Once the problem of securing a job for the graduates became known to be unstable, the popularity of the school began declining. At last Japan had to establish a new junior Maritime College where traditional maritime training was available.

To sum up, Japanese maritime college, although once a famous institution, had to relinguish its position in maritime training to the junior college due to the radical changes undertaken by both students and faculties.

4. Maritime school contexts in Korea

Maritime school was founded after the end of World War II. The major cost of attending the school is borne by the government. There is no tuition fee. The students are provided with quarters, meals and uniforms. The regimental programs at this school has been a vital part of education. It has been defined to provide students with leadership training and to develop professional personality as seafarers by enhancing self-discipline, responsibility and obedient attitudes.

And the school awards the graduate a bachelor's degree and ship's officer license. Up untill the middle of 1980s, entrance to this school has been highly competitive. Since then, the difference in wages between an onboard job and a shore side occupation has widened, and the school has become less popular with the candidates and the viability of school has become a cause for concern.

As far as education policy is concerned, there has been conflict between the shipping industry and school. The former always insists that the school should not give non-maritime vocational programs so as to consolidate the graduates stay at sea as long as possible, while on the other hand the latter recognizes the job transferability is one of the ways to enchance the viability of schools in developed society. Nonetheless, recently school had to change to provide sub-major programs, because of a fierce demonstation by the students against the existing education system in 1990.

Now the school can provide vocational transferability training in an effort to ensure their graduates that they will be able to find land-based jobs, should they decide to leave the sea after finishing 3-year compulsory sea service. Today, the students can have the flexibility of selecting sub-major courses so that they can develop vocational transferability to a land-based job as a professional not only in the shipping industries but also in maritime administrations and the Coast Guard.

IV. Summary and Conclusions

This paper is interested in interaction between the environmental factors of maritime education which affect the viability of higher maritime schools in the developed societies respectively.

In scrutinizing the maritime school contexts, the following eight factors are set

up as examining standards.
1) Perception of the maritime school
2) Level of the school
3) Decision making autonomy for education policy
4) Emphasis of the practical training program
5) Development of sub-major programs
6) Extent of engineering-oriented programs
7) Atmosphere of the campus
8) Encouragement of the culture of the maritime education

Whether the above examining standards works as favorable roles for the development of the school in each country is outlined as follows :

In the case of the British maritime schools, they have not been recognized as independent institutions. All interested parties in the school have been ungenerous not only in allowing the school to have autonomy and flexibility in making decisions in educational directions but also in raising the standards to college level. Consequently, the school can neither provide non-maritime vocational training nor a marketable bachelor's degree. In addition, deck-oriented training has been more emphasized than engineering-oriented training.

These internal factors of the educational environment are the main reasons why the British school has not been able to give the graudates job transferability at the termination of a seafaring career. This in turn causes the rapid collapse of the school.

In the case of the American maritime school, it has been recognized as an indepedent institution with decision making autonomy in extending the training programs for job transferability.

The level and scope of the students' training opens up numerous possible alternate employment opportunities for them and does not lock them into a career as a merchant marine officer. The school has attained college standards to enable the school to award a marketable bachelor's degree with a ship's officer licence. The balance between academic and training programs is reasonably maintained, while on the other hand, engineering-oriented programs were more emphasized. In reference to the school atmosphere, the American school has a regimental system. These factors work as favorable roles to retain the school's attractiveness to the young people even if they were

brought up in a highly developed society.

In the case of the Japanese maritime school, it has been recognized as an independent institution with autonomy and flexibility.

Nonetheless, immediately after world War II, the existing conventional system of maritime education had to be changed into an absolutely liberal school which started to focus on transmitting only academic programs disregarding practical training and character-building programs.

Thus, the school began to lose its position as a reliable supply source of good seafarers, because the shipping companies were once reluctant to employ the graduates of this school for the fear of the possible instability of ship's safety management caused by their liberal attitudes and disobedient activities onboard.

In the case of Korean maritime school, it has been regarded as an independent institution and designed to be able to award a bachelor's degree with a ship's officer license. The school atmosphere is quasi-regimental. The school has not had any autonomy and flexibility in expanding education programs, because of implicit pressure from outside interested parties. Since the school is losing its attractiveness to young people, today it has to look for a viable way in its own direction by establishing sub-major programs and a coast guard training course, irrespective of the conflict between the school and interested parties, especially shipping companies.

My comparative analysis of the maritime school contexts of these countries has led me to the following conclusions on the assumption that the American school is the most viable and the Korean is the second most successful and the British unsuccessful.

1) The maritime school has to be recognized as an indepedent institution so that it can make an effort to enhance its viability in developed society in its own direction.
2) The maritime school has to enjoy autonomy and flexibility in decision-making in education policies irrespective of conflict between interested parties.
3) The maritime school has to obtain college level standards where a bachelor's degree is awarded so that the graduates can achieve a higher social status.
4) The scope of non-maritime training programs has to be extended so that the graduates may enjoy job transferablilty after sea service.

5) Engineering-oriented training programs have to be more emphasized in an effort to enhance graduates' marketability.
6) Regimental campus life has to be observed for the purpose of building the disciplined professional personalities for the students.
7) Imbalance between the academic and practical training programs is harmful in maintaining the viability and reliability of the school.
8) All the interested parties have to encourage the maritime-educational culture where the graduate and experienced seafarer can be highly evaluated as maritime professionals.

To sum up, the maritime school has to emphasize both practical training and character-building programs irrespective of the change in the shipping and social environment. The level and the scope of maritime education must be defined so as to open up a large variety of job transferability at the termination of sea-service.

All the interested parties have to be cooperative in order to implant the maritime-educational culture where the graduates and the sea-experienced can have a high marketability in the field of land-based industries and administrations.

In the long term view, enhancing job transferability and marketability for the seafaring in the developed society must be accepted as one of the effective ways in retaining the nautical professions as pivoting human resources for the national shipping and administrative fields. Globally, it must be recognized as one of the recommendable ways to keep the sea clean and vessels safe for the protection of the marine environment.

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