

THE PERCEPTION OF THE VALUE OF HIGHER EDUCATION AMONGST TANKER OFFICERS

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Abstract

Current international maritime legislation requires professional qualifications to be attained, in order for seafarers to be employed as senior officers on merchant ships. There is no requirement for higher educational qualifications to be held by these staff. Nonetheless, it is apparent that many officer employees are conscious of the desirability of possessing recognised educational qualifications. Several have, entirely voluntarily, taken steps to advance their higher education simultaneously with their sea-going careers. This is not a new phenomenon but an opportunity has been taken to gauge current attitudes toward the matter.

The paper has been composed as a result of empirical research from a random sample of sea-going officers, whom have attended the Specialised Tanker Training Programmes at Warsash Maritime Academy, since the autumn of 2009. A sample, consisting of 61 course participants, was asked if any had undertaken, or had considered undertaking, higher education study. Of these, 21 had indicated such a preference and were then presented with a series of ten open-ended questions. The results of this survey are presented in this paper and the rationale behind their answers discussed. The paper has also endeavoured to place the findings within the broader context of on-board quality and resource management within the shipping industry.

Key words: Career Planning Higher Education Student Motivation
Quality Management

Introduction and the Rationale

In the UK the option of taking a bachelors degree as part of a professional qualification, for sea-going officers, is a relatively new one. Foundation Degrees, as they are known, for deck and engine room officer trainees have only been around for 5 years or so. In fact, qualifications attained by trainees had traditionally been exclusive to the Merchant Navy. With few exceptions, it was only in the 1970s and 80s that these professional qualifications had started to include some elements of more universally recognised educational qualifications, such as Ordinary and Higher National Certificates and Diplomas. Even then, examinations particular to shipping had to be attained in order to receive the appropriate certification. These shipping exclusive elements were regulated and monitored by the flag state administration whilst the other elements were regulated by broader national educational authorities. The current STCW (Standards of Training Certification and Watch keeping) legislation, despite its perceived frailties (McCarter, 1999), stipulates no requirement for higher educational qualifications for seafarers.

This has not necessarily been the case in the wider world, where Merchant Navy apprenticeships, training and qualifications have long been associated with degree programmes, India being an example.

The reason why the UK flag state administration has avoided the requirement of higher educational qualifications in the past, is a matter of speculation. Maybe the shipping industry was after staff with a particular aptitude, whom chose not to go to university, 'doers' rather than 'thinkers'. Certainly the academic requirements to be recruited by a shipping company were by no means as rigorous as those for a university. This issue was addressed implicitly during this survey.

There certainly appears to have been a perception that the UK method of Maritime Education and Training is acceptable (Carruthers 1993);

“Training of marine crews that is thorough and up to today's prevailing standards is available in the UK and in Europe. UK crews may receive adequate training, but the consistency of education offered by other countries is questionable”.

Nevertheless, it is still quite possible to rise to senior ranks in the Merchant Navy without any form of higher education degree. Therefore a quite reasonable question might be if a degree qualification is not necessary in order to achieve this, why would anyone voluntarily put themselves out to gain such qualifications, whilst progressing through a sea-going career?

It is on this basis that the small survey was carried out. Clearly, as can be seen from some of the answers, the notion of higher education is important to the career aspirations of a number of respondents.

Aside from the objectives of the survey, another pertinent question might be related to why such technical mechanisms as cargo ships do not require degree qualified staff to operate. Considering the wider context of the skills required to operate these machines and indeed, manage the on-board teams of staff, would it not be rational to require a degree level of education?

These were the points raised in the survey questionnaire upon which significant credence is based. This is largely due to the apparent dearth of literature pertaining to the perception of maritime education and training (MET) of ships' staff.

It is not difficult to identify literature related to the subject of MET or even initiatives to reduce accidents aboard ships, especially tankers (Wang, Zhang 2000).

Yet the effectiveness of the MET delivered has rarely been analysed and the related literature has, until comparatively recently, tended to concentrate on studies *reactive* to accidents and incidents, rather than *pro-active* in terms of avoiding such incidents. As Squire (2005) points out there is also in shipping operations

“the need for operators to maintain the competitive edge”.

The aforementioned STCW regulations first appeared in 1978 but did not include any requirement for mandatory non-technical training (Crisis Management and Human Behaviour) until its major overhaul in 1995. Once again, the emphasis is on emergency situations. Yet very little emphasis seems to be placed upon efficiency and knowledge management. Akerde (2009) maintains that knowledge management and quality management are unrelated and that

“their interaction has not been fully explored”

This is a view shared by the author, though (Celik 2009) argues that quality and safety management systems may be assessed together. However, quality and safety management systems in shipping tend inevitably to refer to accident avoidance rather than efficiency (Pun, Yam et al. 2003). The phrase *Total Quality Management* appears to have escaped the shipping industry, as far as ships' staff are concerned, though I cannot find a plausible explanation why (Powell 1995).

In order to interpret and enhance the legislative requirements of the STCW Convention, the International Maritime Organisation (IMO) contracts tasks out to commercial consultancies to compose 'Model Courses'. Though there may be a mandatory condition for sea-farers to successfully complete many of these courses, the detail and methods of running such training courses may still be open to some interpretation.

Baht (2009) talks of the model courses as *“prescribed minima”* rather than opportunities *“where higher standards can be applied”*. It is this very point that this small survey was endeavouring to address.

Another term commonly banded around the industry, which appears to encapsulate the narrow minded approach identified by this paper, is this 'culture of compliance'. It infers that compliance of the *“prescribed minima”* is all that is necessary for ships to operate safely and efficiently. Yet in a commercial environment, safety alone will not guarantee commercial success. It is the efficiency, though not at the expense of safety, which will manifest a commercially competitive enterprise.

Hitherto, it seems the topics of quality management have been purely in the domain of the head office of shipping companies, or their contracted management companies. What does quality management mean to ships' staff? Is it the same as safety management?

The International Safety Management ISM Code requires a company Safety Management System, with the emphasis, reasonably, on safety and the protection of the environment. Speak to any sea-goer and they equate this form of 'quality' with filling in checklists. But what does the 'customer' look for in terms of quality? Not simply compliance with regulation. Who are the customers, in this context? They are the cargo owners or charterers. They are looking for such qualities efficiency, attention to detail, reliability and confidence. These qualities are not generated by legislation alone.

It seems to me that when so-called quality systems such as the ISO standards were developed, only selected parts were applied to the function of ship staff, whilst the business of managing the financial prosperity of the ship was left entirely within the domain of head office management staff. Yet which group of company staff actually operate the ships? Chan et al (2002) tells us that

“Adopting the ISO 9000 standards, the QMS provided a framework for the Corporation's quality, safety and environmental management systems, linking and standardizing all work processes from the top management down to the shopfloor”

when speaking generally about Quality Management.

Willoughby & Wilson (1997) echoes the sentiments of just about every STTP Course delegate I've spoken to over the last 12 years whom have asked.

“Some practitioners maintain that the main problem with introducing a quality management system such as ISO 9000, is the amount of paperwork required to maintain it. Many believe it is purely a bureaucratic paperwork exercise and managers are so busy chasing paper that they do not find time to concentrate on genuine quality and business improvement”,

though he is speaking specifically about his colleagues within the motor trade. So the core of this small survey was to determine the perception of the value of higher educational qualifications amongst cargo ship, specifically tanker, staff. Do the ships' staff need higher education in order to understand how quality systems work on board?

Why tanker officers?

The reason why tanker officers were chosen as the source of data is simply because these are the sea-going staff I encounter routinely in my work. I considered them eminently suitable as a data source because of the technological nature of their craft. Similarly the high risk nature of their cargo work in respect of the environment, meant that as soon as the ISM regulations were introduced into the industry, tankers were amongst the first ship type to have to establish a documented and approved SMS. Without question quality is required in terms of the approach to tanker work adopted by their crews. By 'quality' in this context (Hackman & Wageman 1995) I mean attention to detail, effective communication, leadership, decision making and the willingness to check and double check each action. Which part of the ISM Code deals with these 'qualities'? I'll tell you; none. It is of some bewilderment to me that business concerns are rarely discussed in the arena of the seafarer; it is kept in the domain of the head office ship managers.

Yet, as mentioned earlier, who operates the ships? Why cannot quality management be utilised in the same commercial context as do other transport industries, as cited by Thai (2008).

My own experience of tankers led me, erroneously, to believe that these were by far the most challenging type of cargo vessel to work. The dexterity of eye and aptitude required to maintain control of the loading, carriage and efficient discharge of a bulk liquid cargo, incorporating safety, environmental sensitivity and cost efficiency seemed more difficult than the same concerns could possibly be on any other form of cargo vessel. Further experience of my own demonstrated that this was not so. It is commonly accepted in the shipping trade that each type of cargo bears its own characteristic challenges and that those provided by tanker work are not necessarily more or less taxing than other forms of cargo. However, the nature of concerns, whilst working a tanker, are significant enough in variety and magnitude to require very capable individuals and teams to manage them. One core element of this survey, was to establish whether the capability of these individuals could be measured in terms of academic ability, related to higher educational aspirations. Bonsall even espouses a Graduate Skills Initiative in association with the well established work-based learning in a Merchant Navy apprenticeship. More specifically, though the point is related to training and education more than 'higher education' the acquaintance of the participants with being trained or educated, was perceived to be of significance at the outset.

Methodology

A short ten questionnaire was handed to those respondents who had undertaken, or who were considering undertaking, higher education. Whilst the questionnaires were being completed, discussions were held and further details related to subject areas of study were noted.

In a sense, a triangulation methodology was adopted, rather than setting out to quantitatively analyse a series of ranked questions, the questionnaires were used as a guide for an informal semi-structured interview. However, simple quantitative results may also be gleaned from the survey. Results were noted rather than recorded, the intention being simply to gauge opinion rather than be mathematically analysed. The benefit of this was to engage discussion, though the limitations of this approach meant that the responses were not explicitly recorded. The methodology chosen appeared to engage the participants whom were willing not only to describe the rationale behind their decisions but to reflect on them as well.

Limitations

Though not explicit in this small research pursuit, the author could not help but feel an ethnographic association with the participants, bearing in mind his own industrial experience mirrored many of them.

Yet perhaps it is this very idiosyncrasy which undermines the chosen methodology, where the participants' answers were given an individual interpretation by the interviewer, as opposed to the meaning intended by the interviewee. Furthermore, the interviewees may have chosen to answer the questions in terms of what they thought the researcher was after rather than their genuine views - perhaps a form of Hawthorn effect (Robson 2002).

One must also take into account the possibility that some delegates may not, for whatever reason, wished to discuss their educational aspirations. Therefore the statistics declared here merely relate to those staff whom *chose* to declare their interests.

Ethics

With entire classes present, during the various STTP courses, the researcher requested those delegates who had undertaken, or had considered undertaking, higher educational study to indicate themselves. A number of points were made by the researcher at the time, in the interests of ethical procedures;

- a) the nature of the survey, being purely on the premise of empirical research
- b) the fact that identities would be protected, in fact not even noted
- c) that delegates who had not chosen higher education were by no means compromised by the decision
- d) that only the nature of the study and the rationale behind the decisions to study at the higher educational level would be recorded
- e) that a standard university research ethics document had been completed and signed for the purpose of the survey

The response of the delegates was encouraging though point c above had to be emphasised during a number of classes. It was also apparent, as inferred earlier, that once the individuals had been identified and spoken to in small groups, they were extremely open and willing to discuss their plans and perceptions. It was partly for this reason that the methodology of open-ended questions prompting semi-structured interviews, was chosen. It was anticipated that once started, interviewees would be willing to elaborate on the topic, therefore a purely statistical, quantitative analysis was rejected.

The Questions and Qualitative Analysis:

- 1 Have any of you started or considered starting under graduate or post graduate study?

21 course delegates of 61 questioned responded YES = 34.4%
- 2 What has been the purpose of this consideration, toward a career away from the sea?

20 of 21 respondents intended to remain within shipping = 95.2%
- 3 If so, work associated with shipping or not?

20 of 21 respondents intended to remain within shipping = 95.2%

- 4 Will you leave the sea to complete this study?
16 of 21 respondents expected to be able to study whilst at sea = 76.2%

- 5 If undergraduate, would you consider progressing to postgraduate study?
18 of 21 respondents said YES = 85.7%

- 6 Is the idea of distance learning options important to you?
18 of 21 respondents said YES = 85.7%

- 7 Do you see the value of obtaining graduate / postgraduate qualifications whilst still at sea?
18 of 21 respondents said YES = 85.7%

- 8 Or in associated work, that is, shipping related?
20 of 21 respondents said YES = 95.2%

- 9 If you have, or have embarked on a Foundation degree, did you see this option as attractive?
3 of 3 respondents who took a Foundation Degree said YES = 100%

- 10 If on an HND programme, does your sea-going career path appear clear without the need for graduate study?
15 of 15 respondents who had taken an HND as part of their apprenticeship said YES = 100%

The results

Of the 21 course delegates over the period specified, whom declared their activity in higher educational study, it should be stressed that three of them were on or had been on, a Foundation degree programme. The implication of this is that having left school and considered a sea-going career, a degree programme was offered as part of the apprenticeship, rather than the three individuals choosing a degree as an additional option, as others had.

The completed questionnaires have been appended to this paper and rather than analyse them purely statistically, the author has chosen to take a more qualitative approach toward their analysis.

One striking impression from every single respondent was that it was not considered necessary for higher educational qualifications to be gained in order to attain senior rank in the merchant service.

No flag state administration requires this anyway and it was clear those respondents who were satisfied with their career outlook were conscious of this.

However, another striking factor was that each of the respondents was also very conscious of the idea that they may not stay at sea for the duration of their careers. Despite their apparent current enthusiasm, many used the words 'value' in association with their professional qualifications in comparison with higher educational qualifications. It was felt that even Foundation Degrees, did not bear much 'value' and that a wise move would be to 'top up' such a qualification at an early opportunity to 'honours' level. The word 'insurance' was also used by a number of respondents, in terms of having more widely recognised qualifications than their existing professional certificates, in the event that they chose to leave their sea-going careers at a later date. However, several emphasised that the attainment of their senior professional qualifications was more important to them than graduate or post-graduate study at the time.

Several also recognised the value of post-graduate qualifications and expressed an interest, if not firm plans, to continue in such study. One experienced seafarer had attained a postgraduate degree whilst in the military in an earlier career path but valued the qualification even though his current work was apparently secure. Two others had enjoyed the sponsorship of the military again in earlier career paths and also valued them at their current stage in their respective careers.

One other noticeable feature was the perception of distance learning facilities whilst on board. Most respondents made it clear even as a junior officer, they find little spare time whilst on board their ships at sea. So the idea of distance learning facilities would be of little interest to these staff. More than one respondent claimed that a year or two away from the sea, to study full time, would be of more practical value to him, than the option of distance learning facilities on board.

Predictably and perhaps in line with the celebrated Hawthorn effect (Robson 2002), one respondent explained that rather perversely, in the light of this survey, he saw his current sea-going career as a means of enhancing a different, yet to be selected career, away from shipping. Whilst higher education would play a significant part in his future career aspirations, he had no intention of prolonging his sea-going career path as soon as a suitable alternative career opportunity came up ashore.

Interpretation of the results

One characteristic that is abundantly clear from the survey is that none of the seafarers questioned believed that higher education was required for a career in the Merchant Navy. At least two of the respondents had sailed in senior positions at the time of the survey and for what it's worth, this fits in with my own interpretations. More relevantly to the core of the survey is that these staff and in some cases senior staff, do not believe higher education is necessary in order to maintain quality system management on board a commercial cargo ship.

The rationale behind the choice of taking higher educational study is also salient, in the vast majority of cases, as 'insurance' and added 'value'.

A consistent sentiment was that these seafarers did not feel their existing professional qualifications bore much universal 'value' as a graduate or postgraduate degree.

This leads into two further points related to the issue. Firstly, the 'Extra Masters' and 'Extra Chief (Engineers)' qualifications, the highest possible professional certificates, have disappeared from the UK flag state administration portfolio. This was largely, reportedly, as a result of such a low uptake of this option and this leads into the second relevant point. There appeared to be a feeling amongst the more educationally ambitious seafarer that 'Extra Master's and Extra Chief's' certificates had little recognition amongst shore side employers, rather like the less senior certificates.

Therefore the perception amongst seafarers appears to have been that if they are going to put the effort in to study for an Extra Master's or Extra Chief's certificate, they might just as well study for an under graduate or postgraduate degree. They would require to devote arguably less effort but have a more universally recognised qualification afterwards.

There is another related point to be made. Not every apprentice in any department joins the Merchant Navy in order to reach senior rank status. Employers expect a percentage of staff to leave their sea-going career before gaining promotion to a senior rank. As this survey has suggested, many respondents seriously consider leaving the sea but continuing in a shipping related capacity. This is the very rationale upon which Foundation Degrees have been offered as part of an apprenticeship.

Conclusions and suggested further study

It is clear that a significant percentage of seafarers think about their careers in the long term just as much as their short term employment. Otherwise, there would be no reason to go to the expense and effort of entering into higher educational study.

Both employers and educational establishments have anticipated this by offering a Foundation Degree within an apprenticeship. In a sense this might be interpreted as being somewhat fatalistic, conceding that a company's expense on training would be wasted on staff they know full well will not continue as a seafarer. However, another interpretation may be that with such a degree in their possession, individuals would continue within the industry and not be lost to it. That in itself, would be an achievement.

A useful further study would be to examine shipping company staff, whom have perhaps taken the decision to leave the sea in the past, in order to determine how they saw their career path during their apprenticeship.

The perception of the value of higher education would also be of interest in association with the survey described in this paper.

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Author's Biography

Quentin Cox started his sea-going career with BP Tankers, rising from apprentice to Chief Officer. After brief interludes on other forms of cargo ships, ferries and dredgers, during which time he sailed as Captain and a spell as a consultant (vetting and cargo expediting) he entered academia. As a Senior Lecturer at Southampton Solent University he is now involved in the management, development and delivery of postgraduate programmes in addition to tanker training. He attained his Master of Arts in Open and Distance Education in 2003. He has had conference papers delivered at the Royal Institution of Naval Architects (2004), the International Maritime Lecturers' Association (2008 and 2009) and the International Association of Maritime Universities (2009). He has also co-authored a technical book on oil tanker safety and operations, due for publication in 2010 by Brown, Son and Ferguson.