Digital Ship

Best Practice in Shipmanagement Software

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Introduction

Panos Nomikos, an independent IT consultant working in shipmanagement and president of the Association of Maritime Managers of Information Technology and Communications (AMMITEC), describes the uptake of IT among Greek shipowners. “Everyone realises that IT is now part of shipmanagement, even if this just means using MS Office, but few ship operators are really exploiting it fully”, he says. “About 20 Greek owners (all majors with more than 20 vessels apiece) regard IT as a key part of their business strategy. The remainder (approximately 680) are only using IT for back office functions such as accounting”. In terms of use, it seems, IT has some way to go to achieve its potential in shipmanagement.

There are lots of reasons for this: shipowners are very cost-conscious (they have to be in an industry where profitability is so volatile); they may sell their vessels and buy new ones or move them in and out of third party management, making it difficult to plan IT investment; owners may come from a maritime background where IT was not used and view it with suspicion. In the meantime, technology keeps changing, encouraging a stance of wait and see.

The range of vendors can be confusing for the shipping IT manager. There are numerous software providers, some specialising in particular functional areas, some with comprehensive applications suites; and they come in all shapes and sizes. For example, although Xantic has been the market leader for some time, it is not a large company by any standards and there are many small providers.

The table below shows approximate numbers of staff, customers and vessels with software deployed for some of the larger players.

Company	Staff	Customers	Vessels with software aboard
Xantic	250	1200	7000
Danaos	100	400	2000
ShipNet	71	312	300
BASS	52	86	500
Ulysses	60	19	402

Table 1: Software provider scale

The ownership of these companies varies: Xantic is jointly owned by two telecommunications companies: the Dutch KPN and the Australian Telstra; BASS is a subsidiary of Barber, Ulysses and Danaos are part of wider shipping groups; ShipNet is independent, owned by long-term Norwegian investors.

Among the smaller software providers, there are many independents. Typical of these is the Norwegian company Star Information Systems. Started by staff from the former Rast organisation, the company now has 23 staff and 52 customers. The Danish Logimatic is similar with 31 employees and 15 customers. A surprising feature of many of these companies, in view of their small size, is how long-lived they are. Another Scandinavian company, Tero Marine, which has specialised in planned maintenance software, has only 12 employees but has been in business since 1986.

Given this bewildering array, how does the IT manager begin to approach this market place?

This review of shipmanagement software aims to help: first, by giving a guided tour of the main issues and functional areas; and second, by giving information about the software providers and describing the scope of their offerings.

- In Section 2, Doing IT Right, three leading shipmanagers, Barber Shipmanagement, V.Ships and Wallem, describe the methods and disciplines they use in making decisions about IT

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- Section 3 looks at the development of Enterprise Software in shipmanagement and describes the scope of these integrated packages

- Section 4 discusses what is needed to make software successful onboard

- Sections 5-7 review software for the key functional areas of planned maintenance, procurement, crew management and safety

- Most software companies have pursued a traditional functional software design. Section 8 describes the different approaches to the design of shipmanagement software adopted by Ulysses and Vector

- The development and growth of e-commerce in ship supply is described in Section 9

- Section 10 studies how owners and managers are making greater use of the data gathered by IT systems in monitoring vessel performance providing information to customers

- Sections 11 and 12 contain profiles of 25 shipmanagement software providers covering all areas of technical and crew management

It is hoped that the report will provide the reader with a useful compass with which to navigate the shipmanagement software maze.

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1. Doing IT Right

Steve MacFarlane, IT Manager at V.Ships, the world's largest shipmanager and marine services provider, has some advice for shipping IT managers charged with finding new software: "Don't start by having a look round the market", he says. "First, make sure you are absolutely clear about the business objectives you are trying to achieve; second, work out in detail the business processes you are going to use. Only when you have done this will you have a clear idea of what you need and only then should you start looking at candidate applications".

As MacFarlane points out, the dangers of an unstructured wander around the shipmanagement software market are considerable. The applications are complex and difficult to evaluate: features that seem particularly attractive during a demonstration might turn out to be of little use in real life, and key functionality might be missing. It appears that the old adage "Marry in haste, repent at leisure" applies. Only when the right preparatory work has been done, can the buyer properly evaluate a possible software purchase.

Barber Shipmanagement takes a similar view, pursuing business process redesign as an integral part of its IT strategy development. Shaj Thayil, General Manager of Barber Shipmanagement, India, describes the approach as an integration of the business process, the IT and the users. In practice this means that the beginning of the discussion about IT development is a detailed review of the underlying business processes. This includes highly structured mapping and analysis of existing processes and a detailed debate about how they could be improved, and how performance should be measured and monitored. Only when this is complete, do development sessions with BASS, Barber's software company, follow.

The process review work is valuable in its own right, and can lead to important innovations. One result of Barber's work was the decision to move all its purchasing activity to a central hub in India, realising administration cost savings and improving the management of supplier contracts and the planning of spares logistics.

"IT for its own sake is no use", says Patrick Slesinger, CIO at Wallem, which is a software development business as well as a shipmanager. "When you look at a piece of software you must start by asking 'what is this for?' and what benefit will it bring?'". A quick way to find the answer to these questions is to find out the output of the system, see who uses it, and what benefit they get from it. "In the old days of centralised IT, this was easy to check", says Slesinger. "If you were producing a report of doubtful value, you just stopped producing it to see if anyone noticed. If they didn't, you canned it permanently; if they did you had a vigorous debate about its real value".

Slesinger says this is particularly relevant when IT work is being done to support reporting to clients (e.g. the owners that a shipmanager is working for). "When you are producing reports for a client, it is essential to understand how they are going to use that information internally", he says. "Only when you have understood this thoroughly can you be sure you are producing something that will be really valuable and will fit efficiently into the way the client works".

So, the first steps are to define the business objective and to determine the business process that is going to be used. Wherever possible, the benefits sought from any IT investment should be quantified in terms of cost savings, staff productivity gains, process cycle times, etc. Sometimes, however, benefits can be difficult to measure: customer satisfaction, for example, is not easy to put a number to, but is still of enormous importance. These soft benefits should also be recorded.

The rationale for all this work on defining the benefits is twofold: first, it keeps the IT buyer focused on what is actually needed and reduces the risk of seduction by fascinating software features that add nothing to the business; second, it documents the commitment of both the IT buyer and his colleagues in the business to the mutual achievement of certain aims. This commitment, and its enforcement by senior management, is absolutely essential to the success of any IT project.

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