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Cost cuts can hurt, higher earnings can heal

An efficient cargo system can significantly increase a ship's revenue compared with a standard ship concept, so increasing earnings should take priority over cutting costs to maximise profitability

A ship's income depends on how efficiently it loads, stows and discharges cargo. "Maximise the earning ability of a ship's cargo handling system, and you maximise your profits," says **Ari Viitanen**, Director for MacGregor Solutions Sales.

"An efficient cargo system can increase a ship's profit by several million dollars per year compared with a shipyard's standard offering. This knowledge is not new, but it has been a challenge to quantify the magnitude of these higher earnings. And now that we can do so, it is increasingly apparent that they are substantial.

"Combining high quality products with tailormade services is fundamental to attaining these earnings. With these in place, we are able to offer customers the productivity improvements which are so important in today's challenging economic environment. You can only cut costs so much before you starve, but increasing your income can heal a business."

"MacGregor's business is to make a ship's earning curve steeper and make it last longer!"
– Ari Viitanen

The potential of these productivity improvements has been on MacGregor's agenda for several years, and led the company to establish a project at the beginning of 2013 to systematically develop its services and product portfolio in a way that brought the maximum cumulative cash flow to its customers. "We realised that we can help our customers to improve their ships' productivity as a system supplier because we already have an invaluable resource: our in-house knowledge.

"However, we do not know everything, so we also enlisted the help of project partners". These included several Finnish institutes: PBI Institute; Åbo Akademi; the Turku School of Economics; and also Safety at Sea, in Glasgow, Scotland.

Cargotec is a shareholder in FIMECC, the Finnish Metals & Engineering Competence Cluster, which aims to increase research cooperation between companies, universities and institutes. Last winter FIMECC had a technology and innovations project under way, in which Åbo Akademi University was also participating. Synergies were identified right away in the first discussions between Åbo Akademi University and MacGregor, and the timing was perfect for MacGregor to join this project.

"We believe that an integrated approach delivers maximum efficiency, so we offer cargo system solutions as well as stand-alone deliveries," Mr Viitanen says. "A system solution is essentially a package of related products and services that are considered as a whole over the lifetime of the vessel, so that they are inherently designed to work most efficiently together. This efficiency improves the cargo system's profitability and a ship operator's cash flow.

"For this to happen to maximum effect, we need to be involved when the cargo system requirements are specified. It is helpful to think of the process as a curve. The beginning of the curve is the point at which the shipowner decides to order a ship. Costs start to accumulate during ship planning, design and construction, and the curve starts to 'dive'. When the ship is delivered the curve starts to 'rise'. At this point the ship starts making money, but when is payback? This depends on how much profit the customer will make, and how soon. We are now talking about the steepness of an 'earning curve'. The steeper the upward curve and the longer it lasts, the better. So our business is to make the curve steeper and make it last longer!

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"We can influence the earning curve in several ways, but two are particularly significant: first, by using our existing product portfolio and R&D to improving the lifetime earning potential of a MacGregor system; and second, through the services that we offer. Furthermore, we have to consider how to make the system benefits work in reality, and how to get the most out of a particular cargo system. This is achieved through smart concept design, matching the ship's cargo profile and through a process called 'productivity care."

"Productivity care means that after we have delivered the hardware we are still there for customers, providing support such as training and productivity gap analysis, and we spend the next five years working hand-in-hand with owners to utilise the full earning potential of their new ships.

"Once the ship has made some voyages it is possible to undertake a 'gap analysis' comparing the actual cargo capacity utilisation with what it should have been. We can help bridge any gaps between theory and practice, and advise the team operating the ship about corrective steps.

"Creating the potential is one thing," Mr Viitanen says. "But a proper analysis of use and improvements based on the results of such an analysis, and guidance on how to operate the cargo system, is what brings the additional earnings."

There is more to business than costs – there are also the revenues

Shipowners should talk to cargo system suppliers who have the expertise to increase earnings, and the ship owners' purchasing organisations should challenge shipyards for improved solutions, Dr Magnus Gustafsson, PBI Research Institute, explains

MacGregor's approach to developing new business and better customer solutions is an ideal example of the way this should be done. The merit of the multi-disciplinary technology and innovations project that studied MacGregor's approach to business development has been the wider understanding that there is more to business than costs – there are also the revenues.

The newbuilding (Fig. 1) and docking business cases (Fig. 2) both show clearly why we should focus on a customer's earnings and business environment from a practical point of view. The figures are also a good example of why a shipowner considering a newbuilding should start concentrating on a ship's earning ability, productivity and ability to influence the profitability of his investment instead of the price of a tonne of steel.

An extra million spent on a ship being built is a relatively small sum compared with the total newbuilding cost, but the impact on the ship's earning ability can be huge – so huge that the earnings improvement figures could actually seem absurd if seen without the calculations to support them. I must admit that I have made many similar case studies in other industries, but seldom have I come across a solution that is this good and that can bring so much profitability.

This is why shipowners should talk to cargo system suppliers, who have the understanding and the expertise to increase these earnings. Secondly, the shipowners' purchasing organisations should challenge the shipyards for improved solutions. With MacGregor solutions you can't reduce the system building costs drastically. But the more containers the ship is able to carry, the lower the costs and emissions per container carried. So it is not only a way to increase revenues but, better still, a way to do it in a sustainable manner.

The docking case makes this exceptionally clear for a certain size of vessels, especially in cases where the shipowner is deciding whether to order a newbuilding or to increase the capacity of an existing vessel. It is much more profitable to increase the capacity of the existing vessel, assuming that the ship has a reasonable number of years of operation ahead.

From PBI's studies we have noticed that across all industries the emphasis is more often on cost savings rather than reasonable and efficient operation. There is nothing wrong with cost savings, but it is not the only solution. And the path of savings can only be taken for so long.

But thinking outside the box, about earnings, brings more productive results. However, it has been noticed during this project that the benefits in shipbuilding and subsequently in shipping are exceptionally clear. Purely for this reason it is important to see this way of thinking enter the market.

One could say that this approach combines the strong technical expertise of product thinking and a strong customer focus of services thinking. This is characteristic for this solution – the benefits cannot be reached by inventing and selling new products, nor by blindly following the customer's desires. The key is to combine two strengths: the customer's expertise and knowledge of their own business, and the system supplier's understanding of solution sales.

Solutions are not made by sitting behind an office door and inventing them, and they are not made by blindly following all customers' every wish. Solutions are made by intelligent conversations with the customer.

This way of working is a challenge both for the system supplier and for the customer, and a big step because they both have to challenge themselves and their ways of working as well as each other – and be prepared to be challenged. Sometimes it can be a big step for a customer to accept that the system supplier can actually turn the customer's earnings policy from cost cutting to revenue generation and suggest something new.

Dr Magnus Gustafsson is a partner in PBI Research, an independent institute that focuses on heavy industries, founded in 1993. It favours long-term customer and cooperation relationships with companies.

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THE CUSTOMER'S INVESTMENT LOGIC

FIG 1: 1st cycle CAPEX investment

FIG 2: 2nd cycle CAPEX investment