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Embracing technology change

Tanker Operator spoke with Synergy Marine Group’s founder and CEO, Capt Rajesh Unni about running a third party service company in today’s fast changing market.

“**A**t Synergy, we believe that if we continue to provide solutions that satisfy our clients, then our growth will be organic. This has been our strategy since we started in 2006 and it continues to remain our strategy. We have been fortunate in this aspect and have grown every year so we’re not about to change course,” Capt Unni said.

Size, he said, was always secondary to service. Whether one is talking about 100 ships or 500 ships, the key consideration is what is deliverable on service and quality.

If expansion results in a loss of management efficiency and a deterioration of customer service, then we are in the realms of dis-economies of scale. If there are too many layers of management, a lack of effective control or too many locations then it becomes unsatisfactory for us and our clients. Big is only beautiful if economies of scale are achieved and tailored services can be delivered.

“I also think the supposed benefits of fleet growth in terms of purchasing cost reductions are hugely overstated. Operational & resource capacity and flexibility are far more important in terms of delivering for customers. That is especially true if the client is expanding. A good negotiator is far more important than fleet size in determining purchasing outcomes,” he explained.

“We view our fleet size and its relevance to clients in terms of liquidity, meaning how flexible we are in being able to meet their needs. For example, if a major investor or owner was looking to buy into tanker markets, say, by purchasing 25 tankers, they will need management and crewing options. And they will need to meet the requirements of oil companies and an avalanche of regulations all in a short time frame.

“Our liquidity comes from the fact that not many companies could take that management contract on. But for us, we have the capacity, structure and resources in place to make that type of contract entirely manageable, even at short notice,” he added.

Synergy has a dedicated team

of superintendents who look after tanker operations and separate team of superintendents who look after LPG carriers.

The company also provides many different services to the tanker owning community, for example, crewing, training, technical, newbuilding supervision, insurance, accounting and many other back office functions.

A more commercial role has been introduced for some clients, including recently setting up N2Tankers with Reederei Nord and Nissen Kaiun, which is proving to be a great success and something that the market really needs at this moment, Capt Unni stressed.

In the tanker team, technical superintendents manage two to four vessels and the marine superintendents manage between six to eight vessels

Synergy’s tanker fleet consists of VLCCs, Suezmaxes, Aframaxs, MRs, VLGCs, MGCs and chemical tankers. Two years ago, the company prepared and trained specialist crew to operate the world’s first very large ethane carriers (VLEC).

“As a technical partner for shipowners, we need to be prepared to take on the challenges posed by new technology. As a modern shipmanagement company, we are about preparing the next generation of crew to face these challenges and put in place processes that work seamlessly for these new kinds of vessel operations, he explained.

Digitalisation

As for the march of digitalisation, Capt Unni said that in terms of fleet size and the pros and cons of expansion, this equation might change in the future, due to digitalisation.

“From a management perspective, I think we will soon have game-changing solutions that will soon be mature enough to run a 600-ship platform. It’s not there yet, but this technology can help manage scale a lot better. The key challenge is marrying scale with tailored service. That’s a management challenge as much as a technology challenge,” he said.



Synergy’s founder Capt Rajesh Unni

He added that he didn’t believe digitalisation had transformed the heart of shipmanagement yet, as so much is about customer service and this element will not change. However, change is inevitable. Internet of Things (IoT), machine learning and cloud-based big data science will be transformative in terms of all shipmanagement processes. The benefits for clients in terms of efficiency and transparency are already apparent, he said.

Synergy is addressing this head on. For example, in 2017 the company invested in Alpha Ori Technologies (AOT). AOT has developed SMARTShip solutions to serve the shipping industry. This is an Internet of Things (IoT) platform that enables the on board operation of several systems with varying degrees of autonomy. It accomplishes this by gathering thousands of data points from various vessel systems and feeding the data into a powerful on board server that analyses the information and enables decision support for the crew.

These solutions are already available at Synergy. ‘Trammo Dietlin’, a Singapore-registered vessel in the Global United Gas Carriers fleet, recently became the first ship in the world to carry Lloyd’s Register’s cyber AL-SAFE notation [AL-SAFE means ‘autonomy level safe’] that certifies the safety of on board autonomous systems. She was

constructed by Hanjin Heavy Industries in collaboration with AOT, which supplied the SMARTShip autonomous control system.

From Synergy’s perspective, this type of solution is just the first step on the path. Essentially, AOT was established because it was recognised that shipboard operations can be made more efficient and cost-effective by bringing in relevant and customised technology to cater to the specific needs of the industry and the exact needs of Synergy clients. An AOT Center of Innovation has been opened in Singapore, which operates a Network Operating Centre to remotely monitor and control digitally enabled ships.

The team collects >5K data points from all parts of the ship with the ability to refresh data every 1-3 secs. It enables Synergy to create a platform that provides for a plugged-in feel of the entire ship. Disparate systems can now be connected into one common platform to allow the technology to continually monitor data and make rules-based decisions.

“I don’t think technology changes the essence of what third party shipmanagement is, as clients need a partner they can trust. It may sound like a cliché, but this business really is about integrity, safety and transparency.

“This is still a ‘people’ business. As a third-party shipmanager, you need to be a reliable partner. You need to have a fantastic workforce that is constantly upskilled to keep pace with the changing environment, including changes related to new technology,” he said.

Digitalisation is not an event, it’s a constantly changing landscape. To be an effective manager you need to adapt to this landscape every day, and you need to predict and prepare for how it will change in the future. This is one of the reasons why Synergy invested in Alpha Ori, as it is a window into the future, as well as providing solutions for the here and now.

“We see the ship as a digital enterprise, this is the essence of our thinking. The idea is that if you can digitally connect the entire ecosystem within the ship, then plug this ship into a digital cloud that connects to many other ships, you create the system, tools and business process that are needed to activate remote monitoring and control of these digitally connected ships, while using collected data as a strategic weapon to drive economic value for the business.

“By building a true 360 deg view of all this maritime data, this enables us to discover hidden relationships, dependencies,

and correlations amongst non-obvious and non-intuitive data sets. Using Alpha Ori’s systems, we can process over several hundred Terabytes of data with more than several trillion relationship possibilities.

“We then use advanced analytics and high-performance computing capabilities to bring the most relevant insights to the forefront. That is absolutely vital information for shipmanagement. It opens up all sorts of performance gains and it establishes a platform for effective predictive analytics, effectively allowing us to affect future outcomes by efficiently controlling those dependent operational parameters for the benefit of our clients,” he explained.

Training

As for training in the digital age, Capt Unni said that there is a lot of virtual reality being used in innovative training programmes. Placing seafarers in realistic scenarios under similar pressures as faced on board via training games is a memorable and fast learning means of improving training.

He thought that the best simulations allow seafarers to be trained for worst-case scenarios on board, which don’t happen often but require a clear-cut plan. It’s costly to replicate an environment for training based on situations on board, which rarely happen. This method of training is improving in quantum leaps with the technology and he foresaw this process continuing benefiting everyone.

“There are many applications for technology in training, but I think the approach - the philosophy behind using technology in training - must be consistent and well thought out. Crew must understand and buy into the benefits of digitalisation. They must understand how it helps them.

“If you look back to ECDIS, for

example, there was seafarer resistance to this. But we now know that the introduction of ECDIS has helped ease the paper workload and facilitated easy planning and monitoring, real-time information availability, etc.

“Digitalisation is more of an evolving landscape than an event like ECDIS, but in the end, both call on the seafarer to adapt, which means every seafarer must receive top class training and support on an ongoing basis,” he said.

He also stressed that a modern seafarer must not be treated as a mere content consumer, but as a resource, capable of sharing inputs that enhance learning for seafarers and the facilitator. Empowering seafarers – providing them with the tools, resources, processes and enabling them with new technology - is the future of seafaring and maritime training.

“As shipping becomes more technical, the demands for highly skilled and specialist crew will intensify. More learning will need to be done on the job, and all of us will have to be prepared to develop new skills outside our comfort zone,” he concluded.

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