

Market and Network Analysis of the 60-100 feet Yacht Industry

Master of Science Thesis in the Master Degree Program, Supply Chain Management

Sandra Johansson Lina Johansson Häll Anders Jutback

Department of Technology Management and Economics Division of Industrial Marketing CHALMERS UNIVERSITY OF TECHNOLOGY Gothenburg, Sweden, 2014 Master's thesis E2014:029

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Chalmers University of Technology

Gothenburg, Sweden

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Sandra Johansson Lina Johansson Häll Anders Jutback

Abstract

This report is a master thesis performed at Chalmers University of Technology during the spring of 2014. The thesis consists of a market analysis of the 60-100 feet motor yacht segment within the international yacht industry. The main purpose of the thesis was to study the network of actors around boat builders and to identify the actors in the decision making process for powertrains. Furthermore, this purpose includes investigating how the market is structured, with connections between actors and what activities they perform to meet customer demand.

The frame of reference in this thesis is built on four main parts, where the first part presents findings from previous research on supply chain strategies in the yacht industry. Secondly, marketing management is explored, both from classical and a more developed point of view. This is followed an investigation of the ARA framework presented by Gadde et al. (2010), as a network view on markets and intercompany relations. Lastly, the fourth part discusses development of supplier relationships, how to define the buying centre and the different actors' influence in a purchase decision, which will be used in order to identify what actors that influence the choice of powertrain.

Interviews with relevant people in the yacht industry have been the main source of information for the study, but also boat shows and Internet sources have been used to answer the research questions and hence fulfil the purpose of this master thesis.

The main findings of the thesis concludes that the yacht market can be described as very complex with long and close relationships between the actors, where trust is a crucial factor resulting in high entry barriers. The actors are identified as boat builders, dealers, designers, powertrain suppliers, soft offer providers, end customers and captains, where boat builders are recognized as centre points interlinking all the other actors to form a network. The market is further identified as traditional and conservative but also as currently being in transition towards new customer demands, mainly due to the financial crisis and new customer behaviours. This has changed the power distribution in the network, as new distribution channels are preferred and greater demands are put on the powertrain suppliers.

According to the categories of actors in the decision making unit, the yacht owners are identified as both *user* and *decider* in the choice of powertrain. Captains are found to often be advisors to the yacht owner, giving the actor a role as *influencer*. Dealers who can control its inventory can act as *gatekeepers* in the decision making, by only keeping specific powertrain options in stock and by controlling the flow of information. However, the boat builder is identified as the actual *buyer* of powertrains due to being the one negotiating with the powertrain suppliers, even if both dealers and designers can be *influencers* on the builder's choice of supplier.

Key words: Yacht market, network, decision making unit, marine propulsion system

Definitions

Displacement & semi-displacement boats: Slower moving boats that are designed to glide through the water, why these boats are heavier and more stable compared to planning boats.

DPS: Stands for dynamic positioning system, which holds the boat's position and direction, independent of winds and currents.

Easy boating & driving aids: Applications, such as the joystick, that make it possible for less experienced customers to feel more comfortable to drive larger boats themselves.

Engine rating: Is a classification for an engine given by the manufacturer, which specifies the engine's designed rate of use in both operating hours and load factor as well as warranty terms.

Gyroscope: A device with a freely spinning wheel that make use of angular momentum and moment of inertia of the wheel and can be used to stabilize large vessels when lying at anchor.

Leisure market: Boats that are used recreationally and are not income generating for the owners.

Operator: An actor that operates the boat, which in this thesis is a captain, crew or a yacht management firm.

Planing boats: Faster moving boats that are designed to rise up on top of the water, why they need to be light.

Pod propulsion: Inboard system with propellers mounted on individually steerable pods located under the stern of the boat, which result in that the engine room is further aft for a pod propulsion system compared to a shaft propulsion system.

Shaft propulsion: Inboard propulsion system with a straight shaft that connects the engine and the propeller.

Soft offers: Products and services sold to a customer that heightens the customer's experience and satisfaction, other than the sale of the vessel. Soft offers can hence be both aftermarket products and service offerings, which can be provided by any of the actors in the yacht market.

Tender: A tender is a smaller motorboat mainly used for transportation of people and luggage to and from a yacht, when lying at anchor. Depending on the size of the yacht, the tender can sometimes be stored in a garage in the stern or in the side of the yacht when not in use.

Yacht: When referring to a yacht in this thesis, this is a 60-100 feet motor yacht unless otherwise is stated.

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1 Introduction

This master thesis will investigate the market of 60-100 feet motor yachts, where relevant actors in the boat builder network will be identified and analysed. In the market analysis, the decision makers in the choice of powertrain supplier will be identified in order to understand what actors in the network that influence the powertrain decision and in what way they influence. Since the powertrain is a key component that a yacht often is designed around, the market analysis will especially investigate the choice of powertrain in yachts on this market. The three main powertrain suppliers who are offering inboard shaft installation on the 60-100 feet yacht market are Caterpillar, MAN and MTU. However recently, new powertrain suppliers, mainly Volvo Penta, have entered this market with a new technical propulsion solution, the pod propulsion system. This has increased the competition in the market for powertrain suppliers and there have been different strategies by boat builders whether to adapt the new technology.

The market for 60-100 feet motor yachts is focused around a fairly low number of boat builders and is strongly centred in Europe, with makers from Italy clearly dominating the market. This is also where the main part of the buyers is located according to Boat International Media (2014). The market of 60-100 feet yachts was unfortunately affected a lot by the financial crisis in 2008, which has increased the competition on the market. Boat International Media (2014) however mean that the market now is on recovery; between 2013 and 2014 building of yachts 80-100 feet was up 15.5 percent to 246 new orders. Likely, the recovery will include an interesting development on the market, where the actors will make increased efforts to find new customers and to offer new solutions.

There is limited previous research performed on the yacht industry, why this study should be particularly interesting and valuable. However, Caniato et al. (2008) has done a study of Italian luxury firms, where one of the firms was a yacht builder. The yacht builder did describe some of the characteristics of the yacht manufacturing industry to be long product lifecycle, high contribution margins, customized products and long lead times. Furthermore, Ponticelli et al. (2013) describe the yacht industry to be characterized by high end customer influence on decisions such as specific subcontractors. Caniato et al. (2011) have identified engine manufacturers for motor yachts as an example for what is termed renowned brand suppliers. These suppliers are mainly selected for their brands, where the supplier names have a direct impact on the customer's perceived quality, innovation and performance of the final product. Furthermore, Caniato et al. (2011) have identified the boat builder, dealer, architects and designers to be involved in the dialogue with the end customer during the yacht selling process. These actors will thus be the point of departure for this study, when investigating the network of actors in the market of 60-100 feet yachts.

This introduction is followed by the purpose of the thesis. Thereafter, the frame of reference is presented, which is completed with a problem discussion that leads to the research questions of the study. The following chapter then describes what method that has been chosen to answer the research questions as well as how reliability and validity issues have been handled. Furthermore, the data collection is presented in the empirical data chapter, followed by an analysis where the empirical findings are

connected to the theories presented in the frame of reference chapter. Lastly, the main findings will be presented in the conclusion chapter.

1.1 Purpose

The purpose of the thesis is to perform a market analysis on the 60-100 feet motor yacht segment in order to study the network around the boat builder and to identify the actors in the decision making process for powertrains. Furthermore, the purpose includes investigating how the market is structured, what connections there are between the actors and what activities they perform to meet customer demand.

2 Frame of Reference

This chapter describes different frameworks that will be used when analysing the empirical findings of this report. First, findings from previous research about supply chain strategies in the yacht industry will be presented to be able to compare with the findings made in this market analysis. Theory regarding marketing management will thereafter be described, where both classical marketing thinking and development of marketing thinking will be discussed. The tools presented in the marketing management framework will be used to analyse the different actors' offers and strategies in the network. This is followed by a presentation of the ARA framework that stands for activities, resources and actors, which will be used when analysing the relationships between the actors in the market of 60-100 feet yachts. Furthermore, theories regarding developing supplier relationships will be presented as well as how to define the buying centre and the different actors' influence in a purchase decision, which will be used in order to identify what actors that influence the choice of powertrain and how much influence they have. The chapter ends with a problem discussion that leads to four research questions that the study should answer in order to meet the purpose of the report.

2.1 Supply Chain Strategies in the Yacht Industry

Ponticelli et al. (2013) describe yacht building as a one-off luxury project that involves production of extremely large and complex systems. The combination of luxury and project environments however results in supply chain implications due to high product uncertainty and a complex network of subcontractors. According to Ruuska et al. (2013), "a large project can be viewed as a dynamic network of organizations that combines the resources, capabilities and knowledge of the participating actors to fulfil the needs of the owner". Choosing the most optimal supply chain strategy is hard for a one-off low volume project, since it has no comparable past and future state but only a present state (Sanderson & Cox, 2008). A temporary supply chain is hence formed for each project and involves many organizational actors with different and conflicting objectives. The major part of value activities is furthermore provided by external actors, which increases the importance of coordination and supplier collection in the supply chain. The boat builder acts as a network coordinator and manages the supply chain members as well as evaluates the performance after the project completion. (Ponticelli et al., 2013)

The yacht industry uses make-to-order approaches, due to the unpredictability of high variety, complexity as well as low selling volumes (Caniato et al., 2011). Yacht builders can have different production strategies and either make semi-custom yachts or full-custom yachts. Ponticelli et al. (2013) investigated four large Italian yacht builders in a study, where two of them mainly produced semi-custom yachts and the other two mainly produced full-custom yachts. Semi-custom yachts production is when the yacht builder starts the production without an assigned customer for the yacht. In the study, the companies with semi-custom yachts had successfully implemented a mix between lean and agile strategy by positioning the decoupling point at the completion of the hull. Hence, the customization process took place after this decoupling point. A full-custom yacht is however completely unique, why decoupling is not possible (Ponticelli et al., 2013).

Ponticelli et al. (2013) found that all yacht companies in the study focused on protection of knowhow capabilities by identifying suppliers and subcontractors that provide the highest value for the customer and establishing partnerships with these. Protection of design capabilities of designers and architects was however also in focus for the full-custom yacht producers (Ponticelli et al., 2013).

According to Ponticelli et al. (2013), different yacht builders specialize in different subsets of Critical Success Factors (CSF), such as environmental sustainability, navigation comfort and technical performance. Caniato et al. (2008) has investigated the main CSF of Italian luxury firms, including one yacht builder. The yacht builder listed premium quality as a very relevant luxury CSF, while exclusivity, brand building, style and design, emotional appeal, country of origin, uniqueness, performance and innovation was listed as relevant luxury CSF. Furthermore, costs, quality, delivery lead time, flexibility and service level was important traditional CSF to the yacht builder (Caniato et al., 2008).

One common distribution channel in the yacht industry is multi-brand independent dealers and often is a direct marketing channel used in order to reach the final customer directly. An intense dialogue takes place during the selling process among customer, boat builder, dealer and other actors such as architects and designers before the yacht takes its final shape (Caniato et al., 2011). Many yacht builders experience increased competition as a result of a globalized market and responds to this by focusing on differentiation of the final product (Ponticelli, 2013).

2.2 Marketing Management

Kotler and Armstrong (2008) define marketing as "the process by which companies create value for customers and build strong customer relationships in order to capture value from customers in return". Further, McCarthy (1960) describes the main task of marketing as "The marketing job comes down to trying to satisfy a particular group of consumers with either a good or a service". How the company aims to target this particular group of consumers is defined by a market strategy, which is usually developed by the marketing management. The process in which the marketing strategy is developed consists of two phases, where the first phase includes defining the market target. The market target means what group of customer the company aims to attract and build a relationship with. The second phase consists of determining the marketing mix, which is a set of controllable tools that can be combined in several ways and hence constitute different marketing strategies (McCarthy, 1960). According to Kotler and Armstrong (2008) the marketing mix can be decribed as "a company's tactical tool kit" used for building customer realtionships and for making them profitable.

There are two different types of a marketing mix, where the first one is the standardized marketing mix meaning when the same type of marketing mix is used for every market targeted by a company. The second type is the adapted marketing mix, which implies when the marketing mix is modified for different targeted markets e.g. use of different marketing mixes for different market locations (Kotler, 2003).

In the year of 1960 Edmund Jerome McCarty reduced the tools in the marketing mix into four main groups and termed these the four P's of marketing. The traditional four

P's of marketing consists of Product, Place, Promotion and Price, where each of the four P's contains tools that can be used in order to influence the customers and thus the company's level of sales (McCarthy, 1960), see figure 1.

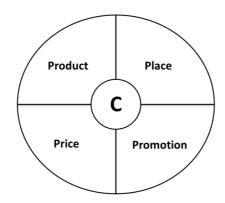


Figure 1. The original Four P's (McCarthy, 1960).

The first group, Product, implies the mix of goods and services that a company has to offer in order to satisfy the demand of the targeted market. Further, Place concerns where, when and by whom the good or service should be offered. Hence, Place concerns all activites that a company must accomplish to make the products and services available for the targeted market. Price, includes all the variables that can affect the price the customer has to pay for the product (Kotler & Armstrong, 2008). The price is of great importance since it should be attractive for the customer and simultaneously profitable for the company (McCarty, 1960). The fourth group, Promotion, includes all the methods of communication to provide the targeted market with information about the products or services. Each of the four groups contains a set of variables that can be used by the seller in order to influence the customer and achieve the intended positioning. Examples of these variables within each P can be seen in figure 2 below (Kotler & Armstrong, 2008).



Figure 2. The four P's of the marketing mix (Kotler & Armstrong, 2008).

Further, Kotler (2003) means that the four P's model only concerns the seller's mind-set and how the targeted customer can be influenced. Lauterborn (1990) presents another view where the four P's concept is modified to a more customer oriented version, the 4 C's of marketing: Customer solution, Customer cost, Convenience and Communication. In this version the mind-set is moved from the seller to instead focus on taking the customer's point of view. According to Lauterborn (1990), it will be easier to set the combination of the four P's if the four C's are treated in beforehand. In addition, Kotler (2003) claims that the most successful companies are those who can meet customer demands economically and conveniently together with an effective communication.

Moreover, Kotler (2003) describes that the combination of the marketing tools is also influenced by the product's lifecycle. Hence, different P's are of different importance during a product's lifecycle e.g. promotions may have a larger effect in the beginning of the lifecycle.

2.2.1 Development of Marketing Thinking

During the last decades the complexity of marketing has increased from being an interaction processes between most often only one buyer and one seller, to processes that include many different interacting businesses and their interconnections. In the book Rethinking Marketing, Håkansson, Harrison and Waluszewski (2004) confront classical marketing thinking with empirical observations of the main characteristics of contemporary marketing. Håkansson et al., (2004) claim that there is a large gap between the classical marketing mind-set and the contemporary marketing.

When it comes to classical marketing thinking the actors are seen as independent and there are clear boundaries between different business units, which easily can be identified. Further, the market is seen as rather static and anonymous. In this classical marketing view the exchanges are seen as separated transactions, which Håkansson et al. (2004) describes as "the nature of transactions is such that an object of value (e.g., a good) is exchanged for another (payment)". The empirical observations done instead exhibit that the actors in today's market situation are interdependent and the interaction atmosphere can been described as dynamic with recognized counterparts. The observations also showed that the boundaries between different business units are more difficult to distinguish between, due to the emergence of for example joint ventures and logistics partnership. As mentioned above, in the classical marketing thinking the exchanges are seen as separated transactions while the empirical observations indicates interaction repeated in time and long term relationships. The empirical observations also show that even when the parties are not legally or formally dependent, companies are focusing on replacing transactions with long term relationships with help of for example customer retention programmes.

Concerning the view on value creation and innovation, the classical marketing means that the value creation process only exists during the manufacturing process and is complemented with help from intermediaries that ensures time and place utility. No others are assumed to be included in the value creation process in the classical marketing view. Regarding the empirical outcome, it shows that in contemporary marketing the purchasers are playing an important role in the value creation process. The contemporary marketing can include both buyers as well as consumers in the

value creation and innovation process. Håkansson et al. (2004) gives IKEA as an example of this, who includes the consumer to finalize the last step in the production of the product.

According to Håkansson et al. (2004) some of the changes in the more contemporary market exchange process are easier to distinguish such as joint ventures and logistic co-operation while the more informal co-operations evolving are more concealed. Further, the same authors claim that the traditional marketing was before most often a transaction between a buyer and a seller, where all activities were performed in-house while marketing today is an issue of exchanges between actors organized in a network structure. Today, establishing relationships are of high importance in marketing and Håkansson et al. (2004) even claim that "relationships have become a key phenomenon".

Håkansson et al. (2004) further explain that there are three main economic reasons for why companies gain from evolving this network structure. The first argument considers that companies can benefit from establishing relationships due to linking together activities across business boundaries and hence reduce costs in terms of for example production and other handling costs. The second argument is that development of relationships may enhance innovation and technical development. Companies may gain from establishing relationships since the parties' resources and investments could be merged and hence create additional development not impossible for one single party. The third argument is built on relationship's ability to influence others, where Håkansson et al. (2004) mean that the other two arguments may be created from such influence.

2.3 The ARA Framework

The ARA framework is presented by Gadde et al. (2010) as a network view on markets and intercompany relations. ARA stands for activities, resources and actors, which are the three main parts when analysing business networks. The three parts are described more in detail in the following sections.

2.3.1 Activities

The total activity layer of a network consists of activities that are interlinked with numerous other activities. The activity pattern consists of both internal and external activities, which result in complexity for understanding the pattern as well as coordinating it. The efficiency for individual activities and activity patterns are greatly affected by the interdependences among activities and can be increased by reconfiguration. Reconfiguration of activities can be focused on increasing efficiency for individual activities or focused on overall performance by improved synchronization among activities. (Gadde et al, 2010)

The performance of the activity layer is affected by the interplay between adjustments and interdependence, which are important factors in an activity configuration. Adjustments improve the joint performance and enhance the functionality between activities, which also create further interdependence (Håkansson et al., 2009). Purchasing has a central role in the configuration of activities, where continuity, interdependence and diversity are taken into consideration for each decision, see

figure 3. Activities can be set up in many different ways, depending on supply processes and purchasing behaviour. The supply process will for example focus on the synchronization of serially interlinked activities in a build-to-order production system, since customized products requires other means of interdependence handling compared to standardized products (Gadde et al., 2010).



Figure 3. Three steps to connect internal activities with supplier activities in purchasing (Gadde et al., 2010).

According to Gadde et al. (2010), there are different types of interdependence, which affect the configuration strategy. Activities can be serial interdependent, which means that they have to be done in a specific order. Serial interdependence is common in interlinked manufacturing or distribution processes, where activities have to be conducted in a stepwise manner. Activities could also be dyadic interdependent, which is the case when specific adjustment has been made between two activities. Dyadic interdependence is common in customization strategy, where mutual adjustments of activities are made for each customer. Joint interdependence is the third type of interdependence and is common for the operations at a construction site. In this case, two activities are interdependent due to the relationship to a third activity. According to Gadde et al. (2010), joint interdependence can be managed by rules, routines and standards.

Efficiency can be reached by standardization and economies of scale, which increase the so-called similarity of activities. Similarity means that the activities use the same resource (Gadde et al., 2010) and these activities are characterized to the end product as general activities (Dubois, 1998). However, there is a trade-off between increased similarity, heterogeneity and diversity that needs to be balanced. Activities are however called complementary when the different activities need to be done in a predetermined order in a process. Furthermore, an activity becomes closely complementary when the activities are done in a specific order depending on customer specific activities (Gadde et al., 2010), i.e. customization. In this point, the activity chain turns from general to specific (Dubois, 1998), which is called the decoupling point in logistics or the customer order point. Customization results in reduced similarity of activities and hence reduces opportunities for economies of scale. Performance can however be improved by making changes in complementarity, which requires changes in activity coordination. Modularity is one example of how customization and standardization can be combined (Gadde et al., 2010).

2.3.2 Resources

As part of the ARA model, resources can be identified in networks of suppliers and customers (Gadde et al., 2010). These resources can be both internal and external and should be exploited by the companies in the network. To be able to do so, the resources must first be identified, characterized and accessed, which is possible

through partnerships, outsourcing and other business relations. Further, resources can be both tangible and intangible and appear in many different forms, such as know-how, brand value, financial means, product range, manpower, equipment or access to raw material.

According to Gadde et al. (2010), what makes resources interesting is how their features are never set, but varies for every new business interaction they take part in. This fact creates both possibilities and problems, as new connections between resources, e.g. a change of supplier, can create unexpected abilities but also tensions as other resources in the network can be negatively affected by the new features. By understanding how relations affect the resources, a supplying company can identify how it should develop its resources in such way that they become favourable to the buying side. A buying company can in turn understand how to make most out of its suppliers by altering its own internal resources (Gadde et al., 2010). Consequently, a long-time supplier relationship is likely to have affected many of the resources in both companies, explaining why a switch of supplier can become increasingly harder with time.

For each company in a network, the main task thus becomes to combine the various resources found in and around the company (Gadde et al., 2010). There are however several challenges in this task, named by Gadde et al. (2010). One is to successfully combine resources new to the company with those already in use, which can be exemplified with the launch of a new product into an established infrastructure. Another is to combine internal and external resources, to make fully use of supplier's knowledge and capabilities in the buying firm's processes. A third is to manage to combine the resources on the producing side with the ones on the using side, since an optimal production of resources not necessarily makes for an optimal use of them. Furthermore, the combining and recombining of resources can be done by mutual development through co-operation or innovatively and disruptively through confrontation. Either way, important resource connections needs to be handled with care, preferably through key account managers (Gadde et al., 2010).

2.3.3 Actors

Gadde et al. (2010) mean that "an actor is defined by its behaviour in the interaction process with business partners who endow the actor with specific characteristics". Both activities and resources require the involvement of actors in order to be configured and combined. The actor layer describes how the companies are positioned in relation to each other as well as the identity of each actor. According to Gadde et al. (2010), there are three central features of the actor layer. The first feature is that the actor layer can be seen as the creation of a map, where relevant context of the focal company is described. Secondly, activities and resources of actors directly or indirectly affect other actors, which mean that no actors are isolated from each other. The third feature is that opportunities for resource combining and activity figuring across company boundaries are identified through interaction between actors, which hence is the base for performance improvements.

Modifications of the actor layer occur both on individual actor level and in the interaction between actors. Individual actors can affect the layer by changing the activities they conduct and resources they control. Furthermore, changes in activity

links and resource ties as well as changes in relationships will change the bonds between the actors in the network. It is hence important to be aware and have knowledge about the actor layer in order to understand how modifications affect the network of actors. (Gadde et al., 2010)

The connections between actors, called actor bonds, can be seen as a reflection of activity links and resource ties in the network as well as for modifications in the network. According to Gadde et al. (2010), the actor bonds consist of social exchange, composed by mutual orientations, obligations, commitments and selective preferences, between individuals in the interaction process. These bonds thereby indicate how active an actor is in comparison to others. Furthermore, the identity of any particular actor is multidimensional, since it is determined by the specific interaction situation. For example a central individual at a company can be considered to be a relevant actor in some cases. (Gadde et al., 2010)

The position of an actor is according to Gadde et al. (2010) determined by its interaction with others, where the number of business partners as well as the content of the relationships are important factors. Furthermore, the conditions for the interaction between actors are provided by the current position, i.e. previous interaction affects the possibilities for future interaction. The interaction atmosphere is characterised by both collaborative features, such as trust and commitment, as well as confrontation, such as power and conflict. Both collaboration and confrontation will be tensed when an actor make an attempt to change position in the network and the opportunities for repositioning will be enhanced or reduced by the power of the actor. Power is based on dependence, which can be avoided by actors by having "many-but-thin" connections, compared to having "few-but-heavy" connections (Gadde et al., 2010).

Relationships are built on trust and commitment, which are time consuming processes that can dissolve fairly quickly. Conflict can be a result of an actor who attempt to exert influence (Gadde et al., 2010). Gadde et al. (2010) however mean that both cooperation and conflict is required in order to create an effective relationship interaction. Individual relationships are furthermore perceived as crucial when building trust and commitment, since the business relationship often can withstand some strain as long as the personal interaction atmosphere is good.

According to Gadde et al. (2010), it is important for a company to not only consider the positioning in relation to its current interactions, but to also have a broader view when analysing the network in order to identify future opportunities. For example regarding purchasing, new opportunities can be found by looking for actors with other resource combinations and activity configurations, such as suppliers of new technology. A broader view can furthermore be achieved by expanding sourcing geographically and thereby also consider suppliers located in other countries or regions. (Gadde et al., 2010)

2.4 Developing Supplier Relationships

Gadde and Snehota (2000) states that the role of purchasing in buying companies more and more has changed into supply management, as more companies gain their competitive edge in relationships with external parties, such as suppliers. However,

suppliers cannot be valued only on the commodity they are offering, but the technical development, volume, product quality and performance the supplier brings to the buying firm has also affect the importance of the supplier relationship (Gadde & Snehota, 2000).

Gadde et al. (2010) explains that in getting the most out of supplier relationships and external resources, there is a clear benefit in having high-involvement relationships with the suppliers. These kinds of relationships are however more complex as activities needs to be synchronized between the parties. Thus, when a buying company has many suppliers, high-involvement relationships will lead to less standardization in purchasing and supply management routines and subsequent coordination difficulties within the buying company (Gadde et al., 2010). This can be a dilemma for a buying firm that needs to choose between single and multiple sourcing for a commodity. Gadde and Snehota (2000) say that the use of multiple suppliers on the one hand can reduce dependency for the buying firm, but that single sourcing on the other hand can reduce costs by gaining benefits of economies of scale. Gadde et al. (2010) state that single sourcing makes close relationships easier to maintain and that multiple sourcing most commonly is associated with less involvement between the buying and selling firms. It is however also stated that highinvolvement relationships with many suppliers is indeed possible to achieve and in some case even favourable, e.g. when the buying firm's customers demand a freedom of choice in component sourcing (Gadde et al., 2010).

Even if high-involvement relationships can be seen as beneficial in many aspects, Gadde and Snehota (2000) add that the interdependency that these kinds of relationships bring increases the potential for conflicts. Further, Håkansson and Ford (2002) point out that a close supplier relationship not only can be a source for development and efficiency, but also something that limits the buying firm's ability to adapt and change to other market forces.

2.5 Purchasing Decision

Hutt and Speh (2010) describe the buying centre as the unit of people in an organization, who takes decisions in a purchasing process. This group can vary both in size and composition, i.e. background of those involved, depending on type of organization and purchasing situation. Inside and outside of the purchasing department, there are individuals who directly or indirectly affect the work of the buying centre and thus the outcome of the purchasing situation. These persons have been identified and categorized by Webster and Wind (1972) as users, gatekeepers, influencers, deciders and buyers.

According to Hutt and Speh (2010), the user is the one who is intended to use the product or service after the purchase, but who's involvement in the purchasing decision can vary greatly. The user might in some cases simply be provided with the purchased commodity, while in others be the one initiating and driving the purchasing process. Gatekeepers are in one way or another controlling the information flow to and from the buying centre, making them able to shape the buying centre's decision making (Hutt & Speh, 2010). This could be a person within the purchasing organization who, regardless of intentions, decides what supplier's sales personnel will get in touch with the buying centre. Influencers are usually people brought in as

technical experts in the purchasing process, who often get to set the specifications for the product or service. These can come from departments within the company or be external consultants (Hutt & Speh, 2010).

The deciders are the individuals that are the hardest to identify in the buying centre, according to Hutt and Speh (2010). They are the ones taking the real decision in the purchase, either directly by use of authority or indirectly by limiting the range of alternatives. Lastly, there is someone acting as buyer and is making the formal buying decision. This role is usually known and can therefore easily be targeted by other people outside the buying centre, who want to affect the outcome of the purchasing process (Hutt & Speh, 2010).

2.6 Problem Discussion

The market of 60-100 feet yachts has recently been introduced to the pod propulsion system, which has gained market shares from traditional shaft installations. The pod system has previously only been offered for smaller leisure boats, but is now available for larger vessels since these powertrain suppliers have been able to move up in power range. Furthermore, triple and multiple installations are possible when power still not is sufficient. This has resulted in new powertrain suppliers entering the market, which affect current powertrain suppliers on the market who need to consider their position and strategy. At this moment, Volvo Penta is the only powertrain supplier that has entered this market with the new technology and Cummins is a potential entrant in the future.

The pod propulsion system has met both praise and scepticism from end customers, boat builders, designers, dealers, operators and other powertrain suppliers. Some boat builders have been early adopters of the system, while others have chosen to stay with traditional shaft installation. For example, some actors find it risky to change system and are not convinced that the pod propulsion system is robust enough. Other actors however see benefits such as increased manoeuvrability and lower fuel consumption with the pod propulsion system. Furthermore, there is still a gap in power if comparing the different powertrain propulsion systems and the solution of installing more than two engines to bridge this gap has not yet been acknowledged on the market.

In order to understand if there is a potential technology shift in powertrain systems offered on the 60-100 feet yacht market, a deeper knowledge and understanding of the market is necessary. Insight into the decision process for sales and development of yachts is required in order to understand what factors that influence the choice of powertrain and who the different decision makers are. Furthermore, general information of the 60-100 feet yacht market is needed, such as investigation of market trends and the usage of yachts, to be able to understand the demand and expectations on the powertrain from different actors.

There is limited previous research found on the 60-100 feet yacht market, why a market analysis needs to be conducted in order to understand the decision making process as well as the role of the different actors. The market analysis has to include what actors there are on the market, what their offers are, what resources they have as well as what relationships there are between the different actors. This market analysis

will thus be the base for identifying the decision makers in the choice of powertrain supplier.

Based on this problem discussion and the purpose of this thesis, which was presented in the introduction of the report, four research questions have been created. By answering the research questions, the purpose of the thesis is considered to be fulfilled.

- Who are the actors on the yacht market and how are they related?
- Which are the main markets and what are the customers' demands and expectations on powertrain?
- What are the requirements on the powertrain suppliers by the other actors in the network?
- Who are the decision makers in the sales process of a yacht and how do they influence the choice of powertrain?

3 Method

This chapter presents the methods used in the thesis, regarding research design and the data collection process. Methods for interviews as well as a description on what information sources that have been used are presented. The chapter ends with presenting methods used in order to ensure validity and reliability of the report.

3.1 Research Design

Systematic combining is a research approach presented by Dubois and Gadde (2002), where one of the main characteristics is that the empirical framework, the case analysis and theoretical framework is developed in parallel. According to Dubois and Gadde (2002), this research approach consists of two main processes where the first process refers to matching theory and reality by constantly alternating between framework, data sources and analysis. The second process relates to direction and redirections of the study, which may be necessary in order to achieve matching. Further, there are four additional important factors that influence the research; the reality, the theory, the case and the analytical framework that both have effects on and are affected by the matching and the direction and redirection processes, see figure 4.

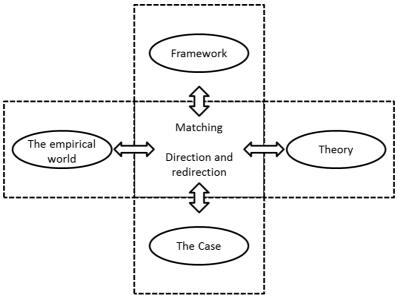


Figure 4. Systematic combining (Dubois & Gadde, 2002).

Dubois and Gadde (2002) stress that a large advantage of this way of designing research is that a more profound knowledge is gained through moving between theory and the empirical world as well as frequently alternating from performing one research activity to another. When using systematic combining the initial analytical framework will not be the same as the final, but will develop successively over time and change direction according to what is found in the empirical world as well as through interpretation and analysis.

This thesis has been based on the systematic combining approach described in the previous paragraphs. The theoretical framework and the empirical framework have been developed in parallel with an aim of matching reality and theory. Due to empirical observations the study has been redirected over time and the framework developed during the progress of the thesis according to the systematic combining

approach presented by Dubois and Gadde (2002). During the development process of the thesis the purpose has been redirected. Initially, the purpose only included identification of decision makers in the choice of powertrain but has been developed to also include an investigating how the market is structured, how the actors are related to each other as well as the activities performed to fulfil the demand of the customers. Also, a decision was made that this thesis should be focused on investigating the market of 60-100 feet motor yachts and vessels outside this range was therefore not treated. Furthermore, only planing and semi-planing monohull yachts have been analysed, as it was seen that these make up 90 percent of the leisure market that was in focus in this thesis (Draper, 2013).

Further, as both Ponticelli et al. (2013) and Ruuska et al. (2013) describe the yacht building process to include a complex and dynamic network of organisations, a network perspective was taken in this thesis. Initially, based on Caniato et al. (2011), actors thought to be included in the network were designers, end customers, boat builders and dealers. But meanwhile, also soft offer providers and captains were added as potential actors that may have an impact on the decision of powertrain, based on information subsequently gained from key informants, which will be explained more in detail below. Furthermore, Ponticelli et al. (2013) claim that the boat builder acts as a network coordinator that manages the other supply chain members. Based on this, the boat builder was placed in the middle of the network, why the network has been called the boat builder network in the thesis. It was important to identify and map the network in order to create a clearer view of the actors involved, to be able to answer the research questions stated above. Figure 5 provides an overview of different actors that are part of the boat builder network and thus can influence the decision of powertrain.

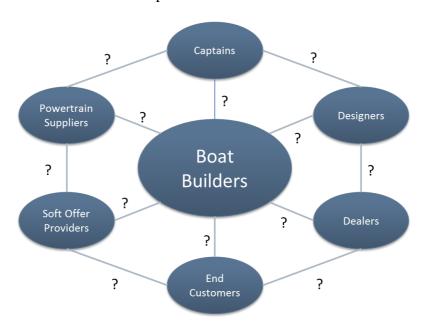


Figure 5. Possible actors that may impact on the powertrain purchasing decision.

3.2 Data Collection Process

In order to answer the research questions of this thesis, a data collection has been conducted where information has mainly been based on desktop research and

interviews. At first, in order to gain knowledge about the investigated area a desktop research was performed, where data was collected by searching the Internet and databases for information regarding the 60-100 feet yacht market. The data gained from the desktop research constituted a valuable foundation when conducting the interviews, since the secondary information could validate the primary information and vice versa (Patel & Davidson, 2011). Further, around 60 interviews have been performed in order to gain knowledge about the 60-100 feet yacht segment, where information about solutions available on the market was desirable as well as identifying customer demand for powertrain solutions, regarding both product and service offerings. Different boat shows, such as the Boot Düsseldorf International Boat Show 2014 and the Gothenburg Boat Show 2014, have been visited in order to establish contacts with different actors on the market. Contact details to interviewees have also been gathered through company websites and with help from actors contacted in the yacht market.

Qualitative interviews have been used during the data collection process. Interactive conversations between the interviewer and the informant were considered most appropriate, since the aim has been to achieve detailed information (I-Tech, 2008) about the 60-100 feet yacht market. The interview form used in a qualitative interview can be formed with open questions or themes (Patel & Davidson, 2011). Semi-structured interviews were considered to be the most useful tool in this study, since this structure allows the interviewer to move between proscribed and unstructured questions. Specific details could thereby be obtained, even though comparison between responses from a larger group of informants was possible (I-Tech, 2008).

Each interview lasted between 30-60 minutes. A master questionnaire was created in the beginning of the study, containing all the questions that the study should answer in order to fulfil the purpose of the thesis. The master questionnaire was then tailored to each actor category, by selecting issues where the actor category was considered to be able to respond. Hence, each category received the same questions to answer.

According to I-Tech (2008), key informants and specialized informants are in general two types of informants used in qualitative interviews. Key informants are often well connected with their communities and thereby have a lot of knowledge to share regarding social, cultural and political factors. Other characteristics of the key informants are that they are willing to share information as well as help the interviewer further by introducing to other contacts in the organization that may be of interest. Hence, the key informant can serve as a local gatekeeper. Specialized informants however have more knowledge about the specific research subject. Informants should be selected so that they represent a larger group of individuals that the interviewer is trying to understand as well as representing a diversity of knowledge in order to reduce the bias. (I-Tech, 2008)

Key informants were approached in the beginning of the study, since they could contribute to understanding the overall picture as well as communicating valuable contacts for further interviews, such as specialized informants. Boat shows and Internet searches have been methods used for finding key informants.

The aim has been to interview someone from each actor category, but at least every actor who was found to have some sort of influence on the decision. There has been a

focus to understand the different aspects of customer demand from each actor in the network, both regarding product and service offerings. During the interviews, there was not only a focus to find out everything about the interviewed actor but also to receive information regarding other actors in the network as well. Thereby, it was possible to gain a better understanding about the relationship between the actors, the resources they have and the activities they conduct. Based on the information gained from Caniato et al. (2011) as well as key informants, the interviewees were divided into eight main categories; experts, boat builders, designers, dealers, end customers, operators, soft offer providers and powertrain suppliers.

Experts

In order to obtain information about market characteristics and an overall view of relationship between actors, some market experts were identified, such as industry journalists. This part of the data collection was done early in the process in order to get an overview of the market and understand what actors to approach for the remaining data collection. A desktop study has also been performed, where articles from yacht journalists were reviewed. The articles furthermore assisted in identifying market experts that were contacted for an interview.

Boat Builders

Ten interesting boat builders in the 60-100 feet motor yacht segment have been listed to be included in the market analysis. The boat builders to study were set to be Princess, Sunseeker, Azimut, Ferretti, Sanlorenzo, Prestige, Monte Carlo Yachts, Wim van der Valk, Horizon and Lazzara. These boat builders have been chosen by volume and geographical location to get an overview of the global yacht market. Figure 6 shows that Ferretti, Princess, Sunseeker and Azimut together made up half of the global sales in 2012 and can thus be seen as the main yacht makers. Sanlorenzo, Prestige, Monte Carlo Yachts and Wim van der Valk (not shown in figure) are all active on the traditionally strong European market, where Wim van der Valk also has been progressive in the use of pod propulsion. American boat builder Lazzara and Taiwanese Horizon have been chosen to give the study a more global perspective.

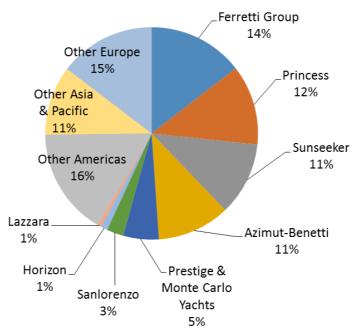


Figure 6. Global volumes by boat builder 2013 (60-99 ft) (Draper, 2013).

Powertrain Suppliers

Caterpillar, MAN, MTU, Volvo Penta and Cummins are five companies that have been in focus in the data collection for powertrain suppliers. Their solutions for engines, propulsions and aftermarket services were investigated and how the selling process looks like. Information was collected by a desktop study and interviews. The interviews did not only treat the powertrain suppliers' products, but also their views on the 60-100 feet yacht market since this can provide additional information about the relationships in the networks. Hence, several interviews was conducted per supplier in some cases to get information regarding both product and market views.

Designers

Designers were considered to be important sources of information since they can give other perspectives on the demands that are put on the powertrains for yachts. Interviews with these actors did map out the design process of yachts in the segment as well as if the design or designer can steer the decision of powertrain. Some of the designers are independent firms working for many different boat builders and were therefore able to provide details on different builders' views on design as well. However, for many builders the yacht design is handled in-house and the importance of design on the choice of powertrain can thus be hard to separate from other development and production related issues. There are three main types of designers, naval architects, exterior designers and interior designers, but are in this study all seen as one kind of actor.

Dealers

Since it is very common for the boat builders to use a network of dealers to promote and sell the yachts to the end customers, these actors were considered most likely be able to provide good input on what is preferred and demanded on the market. Interviews with dealers did also aim to determine their insight and influence on the powertrain decision for the yachts, as well as the selling process of a yacht. The aim was to interview at least one dealer for each boat builder in the study and to use the interviews to get a better view on each builder and what differences there are between them.

Soft Offer Providers

Some of the services offered to yacht owners by third party suppliers are connected to the yacht's powertrain and can therefore be thought to influence the powertrain decision. Interviews were held with these third party soft offer providers to map their connections to the other actors in the network, such as builders, dealers and powertrain suppliers, and to investigate what difference soft offers make when customers are buying their yacht, especially for the choice of powertrain.

Operators

This category of interviewees includes crew agencies, yacht management firms and captains, which all were considered to be able to provide information on the usage of yachts and the demands that the yacht owners put on the products and on the different actors in the industry. As these interviewees have handled several owners and yachts, often over many years, they were thought to be able to provide more reliable information on said topics than an equal number of yacht owners would be able to do. Further, interviews were held with operators on several different yacht markets around the world, thus providing information on differences in yacht ownership between different markets.

End Customers

It is important to understand how a yacht is used in order to recognise what demands there are from the end customer's point of view. Interviews with end users was however difficult to obtain, as these was difficult to reach. The usage of yachts and customer behaviour has hence mainly been identified through other sources. Market experts were thereby one important source as well as crew agencies, which have lot of experience from yacht usage. Interviews with other actors in the boat builder network did furthermore provide information about the end customer. Market statistics and articles regarding market trends did also give an idea on customer demand and the usage of yachts.

3.3 Reliability and Validity

According to Roberts et al. (2006) reliability and validity are two ways of demonstrating and communicating the rigidity of research process and the trustworthiness of research findings. Reliability relates to how reliable the findings of a research are, i.e. if the research would present similar results during other circumstances and influences of randomness (Roberts et al., 2006). Validity refers to the closeness of what the researchers believe they are measuring and what they have in view to measure (Roberts et al., 2006).

The data collection in this thesis has mainly been conducted qualitatively by interviews with different actors on the 60-100 feet motor yacht market, which furthermore has been compared with quantitative data in form of e.g. sales figures concerning the yacht market. In order to increase the reliability of the interviews, several methods can be used, where one example is to record the interviews to be able to review them afterwards to ensure that the answers are perceived correctly. A further method is to let several interviewers be present at the interview in order to observe in parallel and thereafter compare the answers to ensure that the answers have been understood in a similar way and thereby ensure a high reliability of the research (Patel & Davidson, 2011). Both methods have been applied in this thesis, where many interviews have been recorded to complete interview notes and there have always been several interviewers present to observe in parallel.

According to Bryman (2003), triangulation can be used in a research in order to increase the reliability. Triangulation refers to the use of more than one approach to the research in order to increase confidence in the research findings. Further, Bryman (2003) presents four different types of triangulation. The first type of triangulation is data triangulation, which refers to that data should be gathered from as many different sources as possible, such as different times, social situations and from a large variety of people. The second type is investigator triangulation that relates to that the reliability of a research can be increased by use of several researchers that gather and interpret data. Next type is methodological triangulation, which refers to increase the reliability by use of several methods for gathering data. At last, there is theoretical triangulation, which relates to the use of more than one theoretical position in interpreting data (Bryman, 2003).

Triangulation has been used in this thesis by using different approaches in the data collection. For example, data have been gathered from many different actors in the boat builder network, with different positions in the network. There has also been a

large variety of people interviewed with different work titles and experience. Investigator triangulation has also always been done, since three researchers have collected and analysed the data. Furthermore, methodological triangulation has been used as far as possible, but has not been possible in all cases due to lack of other sources of data. Theoretical triangulation has been applied by using several sources in theoretical framework of the thesis.

3.4 Methodology Reflections

Using semi-structured interviews proved to be a suitable method to collect data in this study, since this encouraged interviewees to describe relationships between actors, which otherwise is hard to grasp. The interview method would however not been as successful if the number of interviewees had been fewer, since the answers then would not have been comparable in the same way. The sequence of the interviews was hard to influence, but is not perceived to have affected the outcome of the study since the questionnaire was set in the beginning. As expected, market experts turned out to be important key informants, why it would have been rewarding to have more interviews with this category. More focus could hence been submitted on this interview group in the beginning of the study.

The ARA framework was chosen as it was seen to give a more contemporary and dynamic view of a market, compared to more classical market views. The framework can also be seen as suitable when the number of actors on the market is low, since this makes it easier to identify relationships and activities between the actors. This also turned out to be true for the yacht market, as the number of actors showed to be relatively low and relationships were seen as important. Further, the network view of the ARA framework made it possible to get information on most of the actors and to perform a well-covering research on the market without conducting interviews with all actors, since the actors could provide information on each other's activities as well as their own. Of the selected interviewees, Ferretti Group was the only boat builder that did not take an active part in the study. Since this is one of the main players on the market, it impacts the study. However, the semi-structured interviews together with using a network view did allow the interviewees to describe the other actors in the network and thereby provide information about Ferretti Group anyway.

4 Empirical Data

This part of the thesis contains information that has been gathered through conducting interviews as well as use of Internet sources. The chapter consists of three main parts, where the first one provides an overview of the yacht market such as how these yacht are used, what market trends there are as well as what soft offer that are available. Furthermore, the second part discusses the actors and relationship on the yacht market followed by the third part that provides a picture of the selling process and different actors' influence on the powertrain decision.

4.1 Yacht Market Overview

It is hard to put a single label on the boats in the range from 60 to 100 feet, since it covers all from series production powerboats in the bottom of the range up to greatly customized yachts in the top of the range. The yacht and superyacht terms do not have any official definitions, but can be said to be defined by both the length and the degree of customization of the vessels. Traditionally, superyachts have been everything over 80 feet in length overall, but many claim the definition has grown to now only apply to boats over 100 feet. Further, some mean that superyachts are defined by their high degree of customization, but as the production processes in the boat building industry, such as modularization and mould designs, has progressed, also large semi-custom boats can be said to be superyachts. Also, from 80 feet many regulations start to apply for the boats, such as requirement of licensed captain and crew, which is why some say this is where life onboard changes and the boat should be classed as a superyacht (Maltby, 2014). Further, boats less than 100 feet in length are mainly privately owned, while boats over 100 feet more often are part of the luxury charter market, which also sets requirements on the vessels and their crews.

There are other differences mentioned within this range of boats as well. Whereas it is more competition between the brands in the 60-80 feet range, there is more cooperation between the boat builders in the 80-100 feet range. This is explained by the fact that boat sales in the lower range are more price-focused, while projects in the upper range more often are customized and niched to a specific part of the market and therefore not in such tough competition. Which size of boat that is easier to sell is not absolutely clear. When it comes to used boats, one dealer states that powerboats up to 80 feet sell very well, while it is harder to find a buyer for a boat in the 80-130 feet range. For new boats, another dealer claims it to be easier to sell bigger yachts over 80 feet and smaller boats to be tougher to sell.

The market of 60-100 feet yachts is a very global one, with historically strong customer bases in Europe and the US east coast. As the main boat builders are based in Europe (Draper, 2013), the market spread has increased the pressure to also create a global presence, e.g. through local dealers. On the other hand, the global market also means new opportunities for the builders, as one market can struggle while another might thrive. However, there are further challenges as the customers' demands are very different in the markets. New strong markets are Russia, South America and the Middle East.

China as an emerging yacht market is also debated a lot within the boat industry. Many have little doubt that there are a great deal of potential yacht buyers in China, but many also claim that the actual growth has not been following the high predictions that was made earlier and that China at the moment perhaps is not a market to rely on. It is expected by many boat builders that yacht sales in China will take off, but predictions on when that may happen vary from 10 to 30 years into the future. The long process for China to become a matured market is explained by a lack of a yachting infrastructure in the country, such as marinas, restaurants and golf courses. Other also state that the waters in China often are polluted and have to be shared with governmental boats and that a boat owner will have to pay for licences to move their boat between harbours. When it comes to yachts, Chinese customers often prefer European brands and product quality. Some established boat builders are although still concerned that the inexperienced Chinese customers will buy their first boats from local builders, which have products of low quality according to established boat builders. Furthermore, these customers are said to not fully understand how to properly maintain their boats and in this way get bad first impressions of yachting.

4.1.1 Yacht Usage

The yacht owners' boating experience on the 60-100 feet market varies, some of the owners are completely new to the market while others have had boats for many years. Several of the boat builders mention that most of their customers are quite experienced and mean that very few buyers start with a yacht in the 60-100 feet range. Many in the industry however claim that today's yacht owners are becoming less and less experienced.

It can be seen that the experience differs between different markets for example customers in North America and Western Europe usually are more experienced compared to those in Asia and the eastern parts of Europe. Further, the experience also varies with the size of the yacht, where owners of boats in the upper part of the range are often more experienced compared to owners in the lower range of the segment. The Chinese potential buyers are very inexperienced in boating and do not want to use a yacht in the same way as yacht owners in other parts of the world, as they have less interest in sunbathing and using the yacht as a status symbol. While American and European yacht owners use their boats to take friends and family out on the sea to swim and sunbathe, Chinese yacht owners instead tend to keep the boat at the dock, as a floating office or house to invite people for parties and business meetings. However, the Chinese buyers who are experienced and interested in boating use their yachts in the Mediterranean.

On the market of 60-100 feet yachts a 'yacht career' is common, where customers grow with their yachts, which mean starting with a smaller yacht and trade up gradually. A captain and a designer mention that one reason for this is that customers tend to get wealthier and are willing to upsize their boat as soon as they can afford a larger one. Others also mean that this depends on the financial situation, during the crisis some owners tend to choose or change to a smaller boat in order to decrease the cost of the boat as well as to avoid the costs of captain and crew.

The end customers commonly own the yachts for around five years on average but according to several of the interviewees this period has been extended to up to around

ten years, due to the economic situation. The owners have a hard time selling their boats to the right value and hence hold on to them for a longer period of time. It can also be seen that the owners of larger boats tend to change boats more often, which also can be seen for owners of trendier boats compared to more classic styled boats.

Geographic Location of Yacht Usage

The boats on the 60-100 feet market are most often used in the seas around their home marina and usually do not go across to other seas. A crew management firm however claims that yachts move all over the world, for example spending winter in the Caribbean and summer in Mediterranean. If the boats in this range are used in other seas then they are usually transported to that place. One of the reasons why it is hard for boats in this range to drive longer distances is their limited fuel range, even though the boat can be used anywhere in the world if it has correct licences. One builder also mentions that their boats are built with a capacity of 300 nautical miles but that their boats usually move maximum 200 nautical miles from their home marina. Others even claim that some of the owners do not go anywhere with their boats, they just keep their boats in the marina as a trophy.

In the Caribbean, such as The British Virgin Islands and Saint Barts, the yachting season is during winter and in the Bahamas, United States and Mediterranean, the season is during the summer, see figure 7. Owners from Europe usually use their boats in the Mediterranean, where the largest harbours are Antibes, Cannes, Ibiza and Palma. The boats not used in the Mediterranean often visit south of Florida and the Caribbean in the winter and thereafter drive up to New England in the summer, where they often spend time in New York, Boston and other parts of the north east of US. The season in Maine is from May to September and in Florida all year around except for the hurricane season during summer. Further, since the boats usually do not leave the area they are in, it limits the use of the yachts in the Mediterranean to only one season. The season in the Mediterranean varies for around six months from May until October. In the Mediterranean it is popular to go to islands such as Fuerteventura and the Balearics.

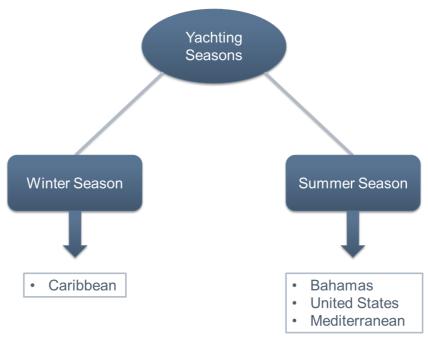


Figure 7. The yachting seasons at various locations.

Yacht Usage per Year and Duration of Trips

The perception of the amount of weeks these yachts are used per year differs between the interviewees but on average it is around five weeks per year. If speaking in terms of operating hours, the boats seem to be used from 50 hours per year up to 400 hours per year. It is seen that the amount of hours of usage differs between boats used in the Mediterranean, where the yachts seem to be used less hours per year compared to yachts used in the United States and the Caribbean. The boats in Europe are more often used for shorter trips compared to the yachts used in the United Stated and Caribbean, see figure 8. The usage of yachts went down during the crisis due to high operating costs but has now started to increase again.

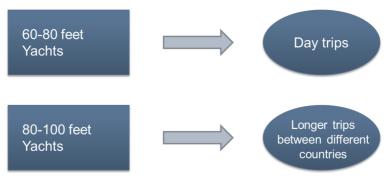


Figure 8. Example of differences in usage between different areas.

In Europe, the yachts are used mostly on weekends and in the United States on weekends and vacations. How much these yachts are used often depends on where the owner lives in relation to where the boat is situated and it varies from one week per year up to everyday if the owner lives nearby. Two interviewed European owners live in the same town as they have their boat and use the boat around 2-4 months per year. Further, one designer explains that yachts up to around 20 meters are often like toys to the client and compare it to a sports car and means that the yachts are not used so much. It can also be seen that it is a difference in usage of yachts near the 60 feet limit compared to yachts near the 100 feet limit. The larger yachts travel more and hence are doing more hours while a 60 feet yacht is used more locally. Further, one interviewed captain of a boat from the brand Lazzara describes that Lazzara owners often are more interested in boating and hence spend more time on their boats. The CEO and founder at Lazzara agrees that owners of Lazzara yachts often use their boats a greater amount of time every year and that the average for Lazzara customers is around 400 hours per year, which is at least 30 per cent more than most of the customers of the other American builders¹.

The duration of each trip and stop in harbours varies a lot for the yachts on this market but a difference can be seen for 60-80 feet yachts compared to 80-100 feet yachts. 60-80 feet yachts are most often used for daytrips or at a maximum a couple of days per trip, while the 80 to 100 feet boats are more often used for longer trips, where they often move between different countries. A captain of a 68 feet long Azimut motor yacht mentions that he drives this boat from its home port on Ibiza to

¹ Dick Lazzara (President and founder, Lazzara Yachts) interviewed on March 21, 2014

Palma as longest. One dealer further states that boats over 80 feet often have a crew onboard and hence are used in a completely different manner. Further, some also mean that the larger yachts are able to take longer trips due to the different layout with more space compared to a 60-80 feet yacht. One of the owners of a boat in the Mediterranean usually use his boat for daytrips but sometimes also does longer trips to Mallorca and Sardinia.

In general, motor yachts tend to drive shorter distances compared to sailing boats due to the higher operating costs. During trips the motor yachts often stay around 4-5 days in one place and they are never on their way for more than around four hours. The boats used for daytrips often go outside the marina to find a nice bay to drop the anchor and at the end of the day go back to the home marina. However, one dealer in the United States mentions that the majority of the boats that they sell go to Bahamas for one or two weeks or go up and down the east coast in the United States, where they run for 8-9 hours, pull in for the evening and the next day drive for 8-9 hours more before pull into another port.

Budget for Yacht Ownership

The three largest costs for boats on this market are crew, dockage and maintenance. The budget depends on the size of the boat but a rule of thumb is that 10 percent of the boat's value is needed for reparation and maintenance each year. The price for dockage of boats depends on the marina, but is around 200-500 dollars per day. To give an example, one of the interviewed captains currently drives an Azimut 68 feet from 2001 with two MTU engines with 1675 horsepower each. For this boat the budget is on 1.5 million SEK per year, where crew, dockage and maintenance represent around 0.5 million SEK each, as seen in figure 9.

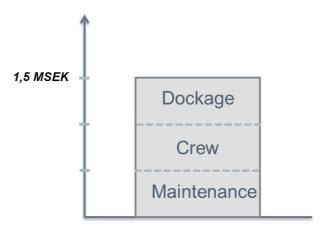


Figure 9. Example of annual boating budget for a 68 feet Azimut from 2001.

4.1.2 Market Trends

The last years have been extremely difficult for the entire industry, which has gone down around 80 percent during the crisis. Many customers have left the market but Russians, Turks and Argentinians still tend to buy a lot of yachts. The market is now starting to recover and owners have started to upgrade their boats in terms of size. However, buyers are more cautious now after the financial crisis and since a yacht is a want and not a need, it is the first thing to let go during crisis, according to some interviewees. This has led to today's buyers are searching for good deals and looking

for the greatest value in boats. To give an example, a more expensive new boat can be a better deal in a long term perspective than a cheaper used boat that needs a lot of refitting. The market in the United States is not back at its former level but has recovered much stronger than the market in the Mediterranean.

Developments in Yacht Characteristics

Concerning recognized trends on this market, many of the people mention that the yachts in general tend to become larger and that the average length of yachts delivered increases. Further, one of the builders mentions larger yachts are built today since buyers demand larger boats but want to stay with the same builder. Only a few of the interviewees claims that buyers are coming down in size instead of moving up in order to save money on crew and operation.

When it comes to speed, several of the interviewees mean that fuel economy and efficiency today are more important to the customers than to go fast. Hence, buyers tend to look for lower running cost instead of power. But some of the people also mention that many customers still want to know that they are able to go fast and hence have a powerful engine. Before the crisis the customer wanted high power and high speed and did not care about fuel consumption but nowadays the customer looks more critical on costs and thereby do not go full speed when driving and appreciate the comfort more. Sometimes, these boats are driven with only one engine in order to keep the fuel consumption down according to one captain in the Mediterranean.

There are however some few interviewees that still claim that the market demands faster boats. One of the builders means that the customer still wants to go fast and that the average speed has increased over the last 20 years. Further, the same builder means that the customers still demand for speed but with efficiency. Therefore, 35 knots are still normal with their boats but at the same time efficient cruising speed between 10-25 knots seem to be more important². Another builder says that the market for high performance boats is suffering and means that today's customers want to cruise around 20-22 knots and not over 35 knots because the fuel consumption is too high. Therefore, this builder has concentrated their products around 25-35 knots³. Another builder also sees a movement in interest from faster yachts to full displacement type of yachts, where the customers would most likely be satisfied with smaller engines in terms of power. Further, the builder means that they get more and more requests to put commercial engines in these types of yachts, which are similar or even bigger in size in terms of dimension⁴.

Moreover, several people also mention that there is a new green approach on this market and an increased demand for more environmental friendly solutions. One dealer believes that this greener focus comes from not only the importance of an

² Carl Richardson (Director of Communications, Princess Yachts) interviewed on March 31, 2014

³ Alessandro Rossi (Chief Project Engineer, Azimut Yachts) interviewed on March 10, 2014

⁴ Yoeri Bijker (Marketing Manager, Wim van der Valk Continental Yachts) interviewed on April 3, 2014

environmental image but also due to costs. Further, one powertrain supplier mentions that emission regulations will definitely give a trend of technical solutions.

Ownership and Usage

Concerning trends in ownership and usage for this market, one expert in the industry mentions that owners use their boats like they always have, while other interviewees claim that there is a drop in operating hours per season the last years and that owners may sometimes even skip a weekend on the boat due to the high fuel price. Another expert also mentions slower boats with greater range and living space to be a trend. One builder claims that their customers today use their boats primary in business purposes and not that much for pleasure as it was some years ago. Another builder means that besides buying larger yachts their customers are becoming more educated, involved and ultimately demanding of quality. When it comes to service providers, one of them mentions that there is a trend in having more technology on the boats such as pods and dynamic positioning systems.

Many of the interviewees also mention chartering as a big trend and an increasing industry on this market. Hence, more and more yachts are managed by yacht or charter companies. Some mentions that customers want to charter or be a member of a boat club to be able to go boating without the responsibility. One captain working in Florida describes that charter is more common in the Mediterranean than in the United States. There are higher taxes in the Mediterranean, but when the yacht becomes commercial a tax deduction is given and makes chartering more beneficial. It is however easier to charter in the United States due to less complicated rules, lower tax and less paper work than in the Mediterranean.

A further trend seen is that boats on this market have more sophisticated navigation equipment today and thereby also become more complex. One dealer mentions that customers walk on their boat and expects their tablet to log on to the boat's system. Many monitor their boat systems from their tablet at home, which is possible due to connectivity through the Wi-Fi at the marinas. It is also seen that the customers have a lot of other equipment and toys onboard in order to enhance the experience. This has resulted in that some customers use escort boats, where they keep their toys and in some cases even their guests.

Design Trends

When it comes to design trends, the biggest changes have been materials and the exterior styling due to changing fashion. One of the designers also mentions that the relationship between the crew and the owner has become closer, which means that it is easier to locate the crew cabins closer to the owner. A further trend mentioned is that people want to be closer to the water and therefore the demand of folding balconies has increased. Also bigger cockpits and sunbathing areas are recognized trends as well as more protected boats with features such as hardtops and canopies.

One of the builders also claims that owners are becoming more aware of the design and styling issues of the boat and therefore this builder has become more adept at tuning their yachts and offering bespoke interior designs⁵. Further, some of the people in the industry have recognized that there is a general trend on this market to maximize accommodation and interior space at the expense of sea keeping and performance. When it comes to the interior design, there are trends for more traditional and classic interiors.

Easy Boating

According to some of the interviewees, the customers' knowledge is very different compared to ten years ago, when people used to have more marine experience in terms of for example navigation. Today, new applications such as the joystick have made it possible for less experienced customers to drive larger boats themselves. Several in the industry mention that this development in technology has led to that more owners drive their boat themselves and that it helps them to feel more comfortable to buy larger boats. One service provider further says that a captain still will be used, but that this development makes it possible for the owner to drive and that the captain can do other work while the owner drives. Two of the Mediterranean captains however claim that the owners on this market are not interested in driving the boat. Instead they want to sunbathe on the quarterdeck, while drinking champagne. Further, these captains mean that motor yachts in this size are more of a luxury transport, where the captain has the role as taxi chauffeur. If the owners drive it is just for a very short time in order to impress their friends.

The view on new technology that simplifies driving a boat, such as joystick technology, pod drives and dynamic positioning systems, seems to be viewed differently among captains. Some captains enjoy the possibilities of easy boating, as this simplifies their work, while other captains perceive the new technology as complicated compared to the old and more reliable technology. Experts are usually needed to come if something goes wrong with the new systems, which is very expensive, compared to the old technology where the captain has more possibilities to solve the problem himself.

There is however a generation shift in the captains' view of easy boating technology. Older captains are more conservative, have more professional pride and are not so interested in easy boating, while younger captains are much more positive to new technologies. The old captains are comfortable with the old technique and are not familiar with the new technology, which sometimes do not make sense to them. But when they have figured out how the new technology works, they are usually not so resistant to it. One of the captains also mentioned that a pod solution with multiple engines can be perceived as safer than a double shaft installation, since it spreads the risk in case of engine failure.

One crew management firm mentions that easy boating technology is not necessarily good for the industry, since the severity of the captains work is partly reflected on the captain's salary. If the boat is easy to drive, there will be a larger pool of captains to choose from, compared to a boat that does not have so much manoeuvrability. If it is

⁵ Carl Richardson (Director of Communications, Princess Yachts) interviewed on March 31, 2014

hard to get a captain with the right experience, this captain can demand a higher salary from the owner. Easy boating technology thereby enables less skilled captains to drive the boat, which harms the crew market, as less experienced captains can do jobs for less pay and take jobs from more experienced and skilled captains. It is hence a risk that the new generation of captains is not developing the skill set that the older generation have. However, easy boating technology is not perceived to outcompete the captain, since a captain also is needed to do the management tasks.

The interest of easy boating can sometimes come from that owners want to have the possibility to drive themselves to be able to scale down to a smaller boat around 60-70 feet in order to remove the cost of crew. Some mean that the joystick application has made it possible for customers in the 60-80 feet range to drive the boat themselves without a captain. Others also mention that new customers often demands a joystick and further claim that once you have tried, it you will never be without it. One of the dealers says that the joystick application is pretty standard now and that every customer expects it. However, another dealer means that the joystick assistance is only needed for boats up to 20 meter because above that the captains always drive anyway and hence a joystick is not needed. One of the builders mentions that it is pretty common that customers in the 60-80 feet range drive themselves but above 80 feet the customer has a captain who drives the boat and then the customer probably does not care about the joystick. Further, the same builder claims that the demand for joystick is most often seen for boats below 60 feet.

One owner describes dynamic positioning systems to be very appreciated, especially when it is windy and going into crowded harbours. The two manoeuvring places with the joystick on both sides of the boat have made it possible for him to dock the boat without that much of stress, while his wife handles the ropes. One of the powertrain suppliers claims that people today are looking for easy manoeuvring and the joystick provides that. Nowadays, customers look at boats like they look at cars, before boats were something different that you needed to know how to operate. These days it is getting easier to use a boat and everyone can do boating with the joystick application.

4.1.3 Soft Offers

Many of the interviewees have described how the boats today are offered together with a lot of optional features and connectivity abilities. The possibility to manage different systems from a smartphone or tablet app has become increasingly popular and there is also more sophisticated navigation equipment available, which is offered as a package and is installed by the boat builder. Stabilization of the boat by gyro technology as well as being able to steer the yacht from the dock with a remote control is available and offered by some boat builders. The systems offered on the vessel have however become much more complex, which makes service more complicated. Some boat builders and dealers are therefore sceptical to put too much electronics on the vessel and emphasize the importance of evaluating what is practical and not. Ease of use is very important for all features and connectivity systems.

Some boat builders also offer some sort of ship management system as a soft offer, which provides functionality for the customer as well as for the boat builder. The system makes it possible for the owner to access and manage different systems on the vessel, such as the engine, power, tank and alarm systems from any distance on a

smartphone or a tablet, without the constant need of local professionals. The owner can for example activate the floor heating in advance if the owner plans to come to the yacht. The system also benefit the boat builder, since they can solve problems from a distance by being able to access the ship's monitoring system and visualize any error codes as well as check and reactivate fuses.

Offering extended warranty, after sales care and service as soft offers is also very common for boat builders, dealers and OEM suppliers, such as the engine manufacturer, which also most likely will increase in the future in order to create some competitive edge. There is a major focus on service and it is getting more and more important to be able to deliver a complete solution to the customer. Azimut for example has an own service division called Yachtique where they offer a complete service, i.e. take care of the boat in all the aspects, which is a package that the customer can add. This does not only include service and warranty, but also crew, harbouring, bank services, maintenance and winter storage etcetera. Dealers have also seen the customer need for full service of boats, since many customers do not have the time or live far away from the boat. Full service from dealers is in this case an alternative to hire a full time captain and crew. Figure 10 illustrates examples of soft offers that can be offered by the boat builder, the dealer and the powertrain supplier.



Figure 10. Examples of soft offers that can be offered by the boat builder, the dealer and the powertrain supplier.

There are also specialized soft offer providers on the market, such as companies who provide services or tools to coordinate the service and maintenance of the boat. These companies have built their business idea on facilitating boat ownership and that a boat has many different independent systems that do not speak to one another. There are hence many different suppliers involved in building one boat, which make it complex for the boat owner who is responsible to read, understand and execute all the maintenance requirements. Some soft offer providers thereby offer a cloud based maintenance management software program that consistently is calculating the owner

needs and can give the owner information regarding the service and maintenance of the boat, just before the owner needs it.

The soft offer provider creates a list of the maintenance and inspection items included in the manuals that belong to the different pieces of equipment on the boat, which are described in a boat profile. The customer then gets notifications on what maintenance that needs to be done, triggered based on calendar days and engine hours. There are different actions that the customer can take for task alert, which also varies between the interviewed companies. It is possible for the customer to forward the task alert to a chosen contractor and request for service. One soft offer provider also combines the task alerts with spare part guidelines. Every action the customer takes goes into their maintenance history and into their ship's log. The interviewed soft offer providers emphasize that these systems not only are beneficial for the boat owners, but also other actors such as boat builders, dealers, OEM suppliers and captains, see figure 11, since these actors can work together in a closer way and not lose track of who the customers are.

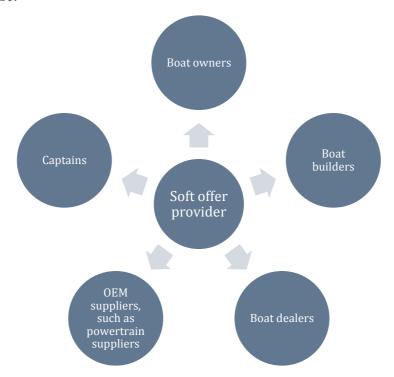


Figure 11. Actors that can benefit from a relationship with a soft offer provider, according to the interviewed soft offer providers.

Future for Soft Offers

The development of new soft offers are considered being mainly innovation driven, but also to some extent demand driven since the adaptation of new technologies also contributes to the fact that there for example is a higher demand for being able to control and command the yacht from a distance. There is also a view that soft offers can be driven out of frustration, which according to one soft offer provider is similar to demand, such as the frustration of short warranty periods or the complexity of maintaining a boat. New soft offers are also driven by the way people use technology in their day to day lives and by the automotive sector.

Soft offers are most often included in the offer from the boat builder, but can also be bought from a third party. Many soft offer providers cooperate with boat builders in

order to get included in the boat builder's offer when selling a boat, even if it is possible to buy the service separately as well. The interviewees emphasize the importance and value of soft offers for customers, since many of the offers makes the onboard experience better and more enjoyable. Some soft offers, such as connectivity systems and smartphone apps, are also considered more valuable for the younger generation who generally have higher requirements on user-friendliness and are used to the mobile technology. Offering soft offers is perceived as a way for companies to differentiate themselves from competitors and gain or keep market shares⁶.

The importance of soft offers will most likely increase in the future⁷. Companies will add services and offers that both attract customers, but also create customer loyalty. Since there is a lot of money in aftermarket, there will probably be more efforts to create customer loyalty by for example combining warranty packages with service offers. Boating will also become more wireless and mobile, with increased focus on user friendliness and the possibility to control the vessel on distance. Real time data collection systems through telematics is probably one area that will gain increased attention in the future for soft offers, since this provides the possibility to receive and analyse fault codes and other information, which then can be irrigated into action steps to the customer in real time⁸. Other actors, such as the boat builder or the OEM supplier, will also benefit from increased data available for analysis of performance as well as help in warranty issues⁹.

4.2 Actors and Relationships on the Yacht Market

Many have described the relations between the actors in the 60-100 feet yacht segment to be very close. Several of the large boat builders say they know the competing makers very well and that the relationships between them usually are good. It is also testified to be co-operation between the builders in some matters and less competition, as many of the brands have grown side by side for decades and many have found their special niche in the segment. Further, the boat builders handle their contact with the end customers in different ways. It can be through independent dealers or with direct contact through own offices, depending on what is seen as best practice in each country and the builders strategy in customer relationships. Powertrain suppliers say they maintain their relationship with the boat builders through regular contact, both in sales matters and technical application support. One of the closest relationships in the 60-100 feet yacht network is however between yacht owners and their captains, as they often will have contact at least weekly, if not daily, all year round.

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⁶ Nick Lean (Specifications Development Manager, Sunseeker Yachts) interviewed on March 27, 2014

⁷ Bob Beckley (Vice President Business Development, My-Villages) interviewed on April 1, 2014

⁸ Donald Hyde (CEO and founder, VesselVanguard) interviewed on March 21, 2014

⁹ Dick Lazzara (President and founder, Lazzara Yachts) interviewed on March 21, 2014

4.2.1 Boat builders

The interviewed boat builders name the five top players on the market for 60-100 feet yachts to be Princess, Sunseeker, Ferretti, Azimut and Sanlorenzo, who are considered to be serial production brands by competitors. The competitors to these brands try to differentiate themselves for example by offering more customization possibilities. Generally, there is a view that the boat builders are aware of each other and that there is mutual, healthy respect in the industry. The relationships between boat builders are hence considered to be good, with not so much of a competition atmosphere.

For the segment of 60-100 feet yachts, there are different strategies in boat building regarding the level of customization. Most 60 feet yachts are basically series production boats with varying degrees of customization possible depending on the builder. Most of the builders offers low level of customization in form of possibilities to change small things such as colours and fabrics, but has started to add more flexibility due to the competition. There are generally few opportunities to do layout changes and these are in that case offered as options. Lazzara Yachts have however managed to add more flexibility in the production process through a modular system and can thereby offer more customization such as choice of material and layout changes for the interior¹⁰.

Bigger yachts, around 90 feet, will normally feature a series production hull and superstructure with the possibility of extensive internal customization. Degrees of external customization can also in some cases be offered, but this is more of a cosmetic customization. Horizon Yachts for example accept semi-custom built with layout changes for yachts over 80 feet. The customer can therefore customize the interior, while the exterior and hull is fixed¹¹.

The yacht production is mainly made in-house for the interviewed boat builders. Princess estimates that over 80 percent of every Princess yacht is manufactured in-house and that only engines and electronics are outsourced¹². Wim van der Valk has the entire production in-house, containing construction of the hull, superstructure, technical installations, plumbing, electrical installations, carpentry, assembly, interior and exterior painting as well as quality control, testing and delivery¹³.

Boat models usually stay on the market for approximately 5-10 years for the serial production boats and there are facelifts done in between. Facelifts are done more often now compared to before, since there is an increased demand to buy the latest model, and has thereby become a way for the boat builder to sell more boats. On more custom boats, facelifts are however done more seldom. There is mainly a change in interior when doing facelifts and not in the outlines of the boat or the production mould. Sometimes it is just an improvement of materials or small changes of interior

11 James Fwu (General Manager, Horizon Yachts) interviewed on March 11, 2014

12 Carl Richardson (Director of Communications, Princess Yachts) interviewed on March 31, 2014

¹⁰ Dick Lazzara (President and founder, Lazzara Yachts) interviewed on March 21, 2014

¹³ Yoeri Bijker (Marketing Manager, Wim van der Valk Continental Yachts) interviewed on April 3, 2014

accommodations. Facelifts hence usually do not affect the hull or engine room due to the cost of redesigning those parts.

Europe and the US are the main markets for the boat builders, even if this have changed after the financial crisis. The US has recovered better than Europe and has thereby received increased focus from boat builders. The main market in the US is the east coast, where customers often have their boats in Maine in the summer and move it down to Florida in the winter. Also South America and Russia have been good markets for boat builders, where Russia is especially good for steel boats. Russian owners however usually go boating in the south of France, the Balearic Islands and Croatia. Also the British clients usually use the boats outside of Britain, such as in the Mediterranean. In Europe in general, the yachts are mainly used in Mallorca, Spain, south of France, Croatia, Italy, Greece and Turkey. Sunseeker has also experienced the Mexican market to go really well, but that these buyers often buy and keep the boat in Europe or Florida¹⁴.

Both builders and dealers however say that the market is still tremendously low compared to where it was and there is a view that additional market shares are gained at the expense of other boat builders. Dealers have also stated that price has been in focus for customers when choosing between the Princess, Azimut, Ferretti and Sunseeker brands, who build similar products. This price focus has increased since the financial crisis.

Buying Process of a Powertrain

The boat builders often have a long-term partnership with their main powertrain suppliers and have a strategic sourcing plan for these. Usually the boat builders have relationships with many powertrain suppliers, which are used for different boat models. The strategy between single and multiple sourcing per boat model however varies between different boat builders. There is often more flexibility in engine choice offered for bigger boats with higher degrees of customization. However, some boat builders use multiple sourcing as a strategy to differentiate themselves from the competitors. It is possible in these cases that the boat builder anyway has a special relationship with one particular engine supplier and discourages customers from specifying other engines by making alternative options very expensive.

Sunseeker is one boat builder that offers many different engine and propulsion options to the customer. Horizon also always offers two engine options to the client. Other boat builders, such as Azimut, Lazzara and Prestige, mainly offer a certain powertrain to each boat model in order to fit the best engine for each type of installation. These boat builders mean that multiple engines and propulsion choices in many cases will lead to making compromises on the performance, which not will result in the best solution ^{15,16}. Other boat builders' strategy, such as Wim van der Valk and Princess, is however a mix between single and multiple sourcing, since they

¹⁴ Nick Lean (Specifications Development Manager, Sunseeker Yachts) interviewed on March 27, 2014

¹⁵ Alessandro Rossi (Chief Project Engineer, Azimut Yachts) interviewed on March 10, 2014

¹⁶ Dick Lazzara (President and founder, Lazzara Yachts) interviewed on March 21, 2014

offer a certain powertrain as a standard, which can be changed by preference of the customer. Furthermore, Sanlorenzo has addressed that all powertrain suppliers cannot supply bigger engines and that MTU is the only option for larger yachts ¹⁷. Figure 12 summarizes the sourcing strategies of the interviewed boat builders.



Figure 12. Different sourcing strategies of the interviewed boat builders.

The boat builder's sourcing process of the powertrain usually starts with trying to identify the best technology for each type of horsepower range and then go for a commercial and purchasing negotiation. In case of equivalent engine proposals, the boat builder goes for negotiation, while they go for the best technical solution in other cases. When offering one single brand of engine for each boat, this is centrally decided by the boat builder. If a builder however offers several brands for each boat, the dealer has influence in what should be offered since the dealer is the one in contact with the buyer of the boat. Some boat builders have mentioned that they take into account where in the world the boat will be used when choosing engine suppliers, because of differences in service network coverage between the suppliers.

The contract period with powertrain suppliers differs and depends on the arrangement. Some boat builders have contract agreements with powertrain suppliers, while others do not have contracts but negotiate price every time. Horizon for example has no fixed contracts with powertrain suppliers due to global market and customization¹⁸, while other boat builders, such as Wim van der Valk, have yearly agreements that thereafter are revised and expanded¹⁹. Sunseeker does not have any longer contracts with suppliers, unless they are a preferred supplier and only will fit Sunseeker's products²⁰. The powertrain supplier MTU however tries to have long running agreements for 3-5 years with boat builders, where volume and price are defined ²¹. Azimut also prefers longer contracts, with a couple of years as a minimum²².

¹⁸ James Fwu (General Manager, Horizon Yachts) interviewed on March 11, 2014
 ¹⁹ Yoeri Bijker (Marketing Manager, Wim van der Valk Continental Yachts) interviewed on April 3, 2014

²² Alessandro Rossi (Chief Project Engineer, Azimut Yachts) interviewed on March 10, 2014

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¹⁷ Paolo Bertetti (Operations Director, Sanlorenzo) interviewed on April 9, 2014

Nick Lean (Specifications Development Manager, Sunseeker Yachts) interviewed on March 27, 2014

²¹ Andreas Gaupp (Sales Marine & Offshore, MTU) interviewed on March 20, 2014

It is important for the boat builders to have a strong relationship with the powertrain suppliers and vice versa. Sunseeker's purchasing department works closely with the powertrain suppliers and have day to day relations. The development departments of the powertrain supplier often visit Sunseeker to present new solutions and developments²³. Princess also describes the importance of working closely with the powertrain supplier on new models and that the engine supplier in some cases might be required to develop a new engine to meet Princess' need²⁴.

Boat Builders' Distribution Networks

Most of the boat builders have contact with end customers, even if sales generally go through local dealers. The boat builder usually has a selected network of dealers, who also can have dealers under them that are geographically separated. Princess for example has separate distributors in key regions, each with many dealers. Lazzara on the other hand does not use dealers in the US and sell direct, while they use dealers in the rest of the world.

It is common that the boat builder has a dialogue with the customer during the building process. In Horizon's case²⁵, 90 percent of the customers like to visit the shipyard several times after they have signed the contract with the dealer. This is however since Horizon starts from semi-custom built boats, why the owner needs to talk with Horizon in order to explain how he wants the yacht to be shaped. Probably half of the boats that Horizon build is built by contract and for these boats the customers are involved from the beginning of the construction. The customer also sometimes calls the boat builder as part of the search process when looking after a new yacht. It is however not common that the customer buys direct from the builder, since the dealers then would not want to have a financial relationship with the builder. Some dealers hence give little room for clients to talk with the boat builder.

Azimut sometimes sell boats directly, but this is mainly for 90 feet yachts and above. In other cases, the customer always gets referred by Azimut to a dealer if they contact the boat builder directly. Prestige also push customers to the network of dealers as soon as possible, since the head office do not want to sell but to innovate and produce²⁶. Prestige has a central responsibility to promote the boats and thereby has direct contact with customers through the website and on boat shows, but leave sales to the dealers who are specialized in selling the boats. Furthermore, Princess always has the direct customer contact alongside their dealers. The builder has customers to visit their factory every day and also visit the various boat shows that their dealers are involved in and support them in their endeavours. This is a similar strategy to Monte Carlo Yachts, who creates a direct and personal relationship with each of their customers alongside their dealers.

Nick Lean (Specifications Development Manager, Sunseeker Yachts) interviewed on March 27, 2014
 Carl Richardson (Director of Communications, Princess Yachts) interviewed on March 31, 2014

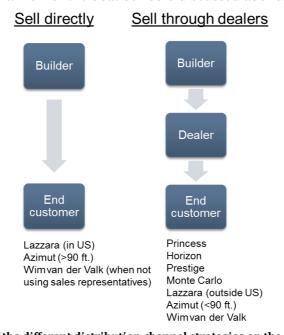
²⁵ James Fwu (General Manager, Horizon Yachts) interviewed on March 11, 2014

²⁶ Adrien Berton (Product Manager, Prestige) interviewed on April 9, 2014

There are different levels of partnership between boat builders and dealers. Some dealers are exclusive, meaning that everyone in the particular area has to buy the boat brand from the exclusive dealer. In this case, the dealer negotiates the entire transaction. If a dealer instead is a preferred partner, there is no obligation to go through that dealer when buying a boat.

Wim van der Valk²⁷ has for example exclusive representatives in some parts of Europe, to which they forward any client with that particular nationality. In case a representative from one region has got a client from another region, this representative will have to offer a part of the commission to the other region's representative. This exclusivity strategy does however not work for Wim van der Valk in all countries, such as Russia, since the customer often has a particular dealer for another brand to assist them in the yacht purchase, who does not want to share the commission with Wim van der Valk's representative. In some cases, Wim van der Valk also will approach the client directly and take care of the clients themselves if they do not have an exclusive representative for that country. Since Wim van der Valk accept some customization, a lot of meetings are needed when building a new boat and the customer goes to the yard several times throughout the planning and building process.

Lazzara on the other hand has a unique model with no dealers in the US. Lazzara has always sold directly, except for dealers in Canada, Europe and Australia, since they only build few yachts per year. However in the recent years, some other boat builders have adopted to Lazzara's direct channel sales model²⁸. Figure 13 summarizes the chosen distribution channel for the boat builders discussed above.



Figure~13.~Illustration~of~the~different~distribution~channel~strategies~on~the~market~of~60-100~feet~yachts~as~well~as~what~strategies~the~interviewed~boat~builders~have~chosen.

²⁷ Yoeri Bijker (Marketing Manager, Wim van der Valk Continental Yachts) interviewed on April 3, 2014

²⁸ Dick Lazzara (President and founder, Lazzara Yachts) interviewed on March 21, 2014

The boat builders offer sales support to their boat dealers, such as brochures, visuals, pricelists, specifications, merchandise as well as financial support for ads and events. A lot of boat builders also manage yard visits, sales and technical school as well as give support during boat shows. Boat builders also emphasize the importance to tie the network together by for example yearly distributor conferences, where the dealers get information and support. The boat builder also has to be a peacemaker between distributors as they sometime invade on each other's territories.

Customer Relationships

Many boat builders describe that a huge amount of the clients are repeat clients. There is hence a big focus in retaining loyal clients, since finding new customers and taking customers from competitors is much more difficult²⁹. Retaining customers however need constant work, such as hosting owner events and meetings to bring the customers together and show new boat models. An event could for example be a 4-5 day trip to a different port in an exotic location. It is also important to show the customers that they get good service that they cannot get anywhere else. The customer contact is often managed through the sales people and by the dealer. Azimut for example is in contact with customers through their customer care dedicated channel, special events, web and social media updates as well as their service department.

Buyers of small yachts are very important for many builders, since a lot of customers are repeat customers that grow with the yacht. There is hence a focus to grab buyers early with smaller boat models to build brand loyalty. Boat shows are one of the main occasions where boat builders and dealers meet new customers. Horizon also focuses on building customer loyalty through a good experience during the construction, by involving the customer in the whole construction process. Lazzara has a similar approach and focuses on customer care through customer and warranty support. There has however been noticed that the brand loyalty has changed in the industry and that customers look more for discounts and are more price focused when choosing a yacht brand³⁰.

Boat builders do not generally have owners' clubs, but host and organize events every year together with customers and dealers. These events are mainly lifestyle events, but can also include test drives, visits to the shipyard and meeting suppliers. Princess' dealers also offer cruising gatherings for their customers.

Service and Support

Agreements and service offerings offered to the customer are often warranties, aftersales care and service, which are considered the most common soft offers from boat builders. Reputation is very important for the big players³¹ and is hence essential to maintain. Customers enjoy enhanced levels of warranty coverage, why many actors have started to offer extended warranties to differentiate themselves. Boat builders

²⁹ Nick Lean (Specifications Development Manager, Sunseeker Yachts) interviewed on March 27, 2014

³⁰ Dick Lazzara (President and founder, Lazzara Yachts) interviewed on March 21, 2014

³¹ Alex Teii (Associate, Hill Dickinson) interviewed on February 20, 2014

usually offer one to two years warranty, while there often are two years plus three years on the major components on the engine. Customers usually buy the extended warranty on bigger engines³².

Several boat builders in the industry claim that service support is key in order to create customer loyalty and is absolutely paramount for the customers' decisions when buying a new yacht. Horizon for example has preferred partners that exclusively devote their time and effort serving Horizon's products and also are doing the after sales service. Monte Carlo Yachts and Azimut also always have their dealers in the middle and can fly over support if needed. Princess has a full aftersales team that work with distributors to ensure that issues are resolved, which is similar to Sunseeker's approach. There are also requirements on the suppliers to have the ability to maintain and service their products worldwide. Wim van der Valk for example contacts the supplier in case of error on a certain part and has a demand that the supplier will act within at least 48 hours after the notice.

Many of the boat builders' use authorized service dealers, meaning that only this dealer network can do the technical service. Prestige does not have authorized service dealers separated from their dealer network, but their dealers both sell yachts and provide service. For example, Azimut's role in aftermarket support to the authorized service dealers is to provide spare parts, technical school as well as a hot line in case of special repairs. Furthermore, Azimut has their own service division called Yachtique that offers customers fully comprehensive yacht support through one single organization.

Lazzara on the other hand does not go through dealers and has direct contact with the customer, regardless of which system that is not functioning on the boat. Lazzara then deals with the specific vendor, such as the engine manufacturer. Lazzara also has developed a computer system, where a computer is connected to all various functions on the boat, such as the engine function and security systems, and track this on a hard drive. In the end of every year, Lazzara download the data and get a histogram of all the functions on the boat and can analyse how the boat is performing. If something has happened on the boat, Lazzara have the ability to see if it was for example an engine fault or an operator fault, by knowing for example if the driver was warned, how long the boat was running and top temperatures on the engine. Lazzara also cooperate with an insurance company that helps to support this.

Sanlorenzo does in most cases not use dealers for service, if it is not very simple issues. The service is handled by Sanlorenzo during the two year warranty period and after this the customer decides who should perform the service, where some continue with the boat builder and others switch to the dealer. Sanlorenzo will however continue to sell spare parts after the warranty period.

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³² Christopher Head (Sales Manager, Sunseeker London) interviewed on March 17, 2014

4.2.2 Designers

What have been seen when investigated the designers' role on the 60 to 100 feet yacht market is that the designer has the overall responsibility that the yacht is possible to build. There are three different types of designers included in the designing process, the naval architecture that develops the hull, the exterior designer that defines how the boat should look on the outside and the interior designer that is responsible for how the yacht will look on the inside. Concerning if the designers are in-house or external differs between the different boat builders on this market. For example, Princess and Lazzara have the whole design process in-house while other builders such as Azimut, Prestige, Wim van der Walk and Horizon use both their own in-house design teams as well as external designers. Others also mention that in some cases the customer brings their own interior designer.

The perception of how the end customer values the designer's name differs between the different interviewees. Some claim that the designer's name is not that important to the customer and instead mean that customers put more emphasis on the boat builder's brand. There are however many people that mean that the designer's name often is marketed a lot and can be a selling point by giving a boat added credibility. For example, Horizon state that there have been occasions on boat shows where Italian competitors have tried to make Horizon seem inferior since Horizon is a Taiwanese boat brand. Therefore, Horizon includes Italian designers in their designing process for marketing purposes.

Some also believe that the designer's name is of importance to the customer since it can represent something, such as a racing or a classic feeling. Additionally, the designer's name is often of higher importance when it comes to larger yachts compared to smaller yachts. In some cases, the builder has exclusive relationships to some designers that the builder considers as the most important ones. An exclusive relationship means that a designer only works for one single builder. Azimut is one of the builders that use exclusive relationships to some of their designers.

In general, the designers on this market are quite willing to compromise with their design, as it is important for them to get many assignments in order to spread their name on the market. What has to be decided from the very first beginning is the position of the engine room. Commonly the builder provides the designer with what powertrain system the boat should have and then the designer has to design around this technical specification. Many designers therefore prefer the pod propulsion system since it reduces the space of the engine room and hence gives the designer some additional space.

Designing process

When it comes to the designing process of boats with a lower degree of customization, the customers have a very small involvement and influence on the exterior design but are often free to make decisions on the interior. For boats on the 60-100 feet market, the builders commonly use a standard mould to make the hull and hence end customers are not able to influence the look of the hull.

One of the builders, Sanlorenzo, describes that when it comes to development of a new model, they start by having a meeting together with a dealer and a pilot customer. Thereafter a benchmark is done of their competitors in the same segment, which they

intend to enter and based on that information, features such as size, weight and performance are decided. The naval architect then enters the process and after a discussion with the yard, who has decided the engine out of the performance and weight of the boat, the architect defines the external shapes and also gives some concepts for the interior. When developing the hull, the boat builder starts by defining the market and the whole aspect of what it wants. Thereafter the exterior designer tells his wants and then the naval architecture takes these features and packages it into a hull, which will balance and run the boat properly. For the interior design, it takes 8-12 months to complete the whole process and in this process the interior designer start by conducting a deeper study of the technical details of the interior. The only limitations are often technical ones and the interior designer is usually free to express himself.

The feedback from the end customer depends on the degree of customization of the boat. For the higher degree of customization the designer receives the feedback directly from the end customer and hence can make the changes needed. In cases where the degree of customization is lower the designers only receive the results from the end customer or even from the involved dealers. The dealers often collect this information with all the remarks and provide it to the designer and the builder's technical office. Some claim that dealers often have a lot of useful information concerning what the end customers demand.

Concerning how much contact the designer has with the end customer during the designing phase also depends on the degree of customization. The degree of customization is usually higher for larger yachts and several of the designers explain that the end customer has more power in design decisions for these larger yachts. For example one of the designer firms says that they only have contact with end customers for yachts above 100 feet and for the boats below 100 feet the end customers only have contact with the shipyard. Many describe the designing process, for customized yachts, as an iterative process with the end customer. The builder Lazzara claims that they have contact with the end customer during the design phase for a new model but do not focus that much on this in order to keep the innovativeness of the brand, since customers do not always know what they want until they see it.

Further, one of the builders mentions that since they use external designers they are always in between the designer and customer and hence able to lead the balance between what the designer's wants and what is realistic and possible to build. The designer often works very closely with the shipyard's technical office. Several designer mentions that the designing process is a team work between the different designers involved and that close cooperation is needed.

Design Development

The designers on this market are perceived as open minded for new technical solutions and one of the boat builders even describes their designers as early adopters. Further, one of the designers says that the style of the boat is a marketing issue and that they always discuss with the marketing departing about how long the boat should stay on the market since the style of the yacht is connected to that. The same designer also explains that before, more innovative concepts were created together with more traditional ones but the traditional concepts were however always chosen. This design

firm however continuous to do more innovative concepts in order to push the marketing department to think on what they can do in the next years.

One of the builders mentions that for contemporary craft a brand should have a style, but the style must also evolve while still keeping the DNA of the brand. Further, the interviewee at Lazzara describes that most builders only do small changes at a time since there is a risk in changing too much. Lazzara is one builder that aims to differentiate themselves through being an innovative builder and hence takes more risks and is more aggressive regarding their styling and model changes. Lazzara needs to have this strategy in order to be in forefront and win market shares from the other builders on this market³³.

4.2.3 Powertrain Suppliers

The main powertrain suppliers in the 60-100 feet yacht range are listed by almost all actors in the industry to be Caterpillar, MAN, MTU and Volvo Penta. Cummins is also mentioned as a big powertrain supplier by some, but as active in the market for smaller powerboats and not in the 60-100 feet range. Some boat builders claim the brands' popularity to vary between geographical regions depending on the suppliers' strength in aftermarket support in each market. Taiwanese builder Horizon mentions MTU as most popular in Europe, Caterpillar as most popular in the United States and MAN to be most favoured in Asia.

Market shares for each powertrain supplier also vary with the yacht size, where Caterpillar, MAN and MTU are in tough competition over 70 feet and Volvo Penta is by some of the other powertrain suppliers more seen as a supplier to boats around 60 feet and smaller³⁴, see figure 14. For example, neither MAN³⁵ nor MTU³⁶ said to consider Volvo Penta to be a competitor, whereas Cummins³⁷ saw Volvo Penta as their only competitor for boats up to 65 feet. Volvo Penta stated as they saw themselves as a different entrant in the 60-100 feet yacht segment, as their products previously only have been offered to smaller leisure boats, while the other powertrain suppliers' solutions originates from larger vessels. Caterpillar, MAN and MTU can thus be said to have entered the yacht market from above, while Volvo Penta is entering from below. Besides market shares, the different powertrain suppliers also have different positioning, where MTU is recognized by many as the premium choice and more expensive than the main competitors MAN and Caterpillar.

³³ Dick Lazzara (President and founder, Lazzara Yachts) interviewed on March 21, 2014

³⁴ Andreas Gaupp (Sales Marine & Offshore, MTU) interviewed on March 20, 2014

Henrik Malm (Business Development Manager, MAN) interviewed on April 8, 2014

³⁶ Andreas Gaupp (Sales Marine & Offshore, MTU) interviewed on March 20, 2014

³⁷ Michael van Eggermond (Sales Manager for Recreational & Light Commercial Marine, Cummins) interviewed on April 11, 2014

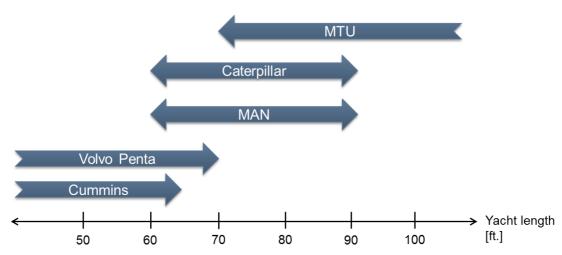


Figure 14. Interviewed actors' perceived market positioning of powertrain suppliers regarding length of leisure yachts.

The actors' views on the different powertrain suppliers and their market positioning also varies. Some captains, who had experience of several brands, say that MTU had the technically most sophisticated engines, but that this also brought more problems that were not solvable without a certified service technician. Sending out technicians with short notice is however stated to be one of MTU's strong sides, but also to be reflected in high price and cost of maintenance. MTU is also considered by some to be the best choice if you want a fast and powerful boat. MTU themselves also say they are positioning the brand to be the premium powertrain choice that offers more power than the competitors.

Volvo Penta is in general praised for their large global service dealer network and is said to have a reputation for making reliable engines. Some consider Volvo Penta to be the best choice for engines up to 700 horsepower and that the supplier is limited in its possibilities to supply to larger yachts. Caterpillar is said by many to be reliable, have a well covering service network as well as service commitment and to be well recognized and known for several heavy duty applications. Competitor MTU also sees one of Caterpillar's strengths to be their low pricing, while other dealers appreciate the extended service plans and around the clock hotline offered by the powertrain supplier.

When it comes to service and support, boat builder Sanlorenzo says that their experience is that MTU is good in Europe but not the best in the US, Caterpillar is good in the US and acceptably good in Europe and that MAN is good in Europe but average in the US³⁸. To emphasize the importance of service and support, Sunseeker points out that Caterpillars popularity in the US might be because of a good service and dealer network and the offering of good financing packages, rather than their branding or products³⁹. Other actors also states that it is more important to boat builders that the powertrains are globally supported, rather than being of a special

³⁸ Paolo Bertetti (Operations Director, Sanlorenzo) interviewed on April 9, 2014

³⁹ Nick Lean (Specifications Development Manager, Sunseeker Yachts) interviewed on March 27, 2014

brand, and says that Caterpillar sometimes has been chosen for projects on the Chinese market due to their support system there. Prestige makes the same point when claiming that their customers see all the powertrain suppliers to be on an equal level in terms of product quality, but not in terms of aftermarket service ⁴⁰. The different actors' opinions on the powertrain suppliers' service networks are summarized in table 1 below.

Table 1. Powertrain suppliers' global service network coverage, as depicted by actors in the network.

Perception of Global Service Network Coverage	US	EU
MTU	Average	Good
MAN	Average	Good
Caterpillar	Excellent	Good
Volvo Penta	Good	Excellent

Soft Offers by Powertrain Suppliers

Powertrain suppliers offer more than the physical products, so called soft offers. MTU say the company tries to focus on the boat builders but also the experience of the end user, when determining what products and services to offer. Not only the yacht owners are seen by MTU as the end users, but also the captains and chief engineers that might be on the yachts and special training and services are offered to these individuals as well⁴¹. Cummins offers a similar training program to make captains able to do maintenance without the involvement of the supplier's service organization, which is appreciated by some yacht owners, but also educate boat builders to do certified maintenance on the boats they produce and sell.

The dealers are also given support and training from MTU to be able to perform some service themselves and in return provide market knowledge and intelligence to the engine manufacturer. MAN has a similar program with authorized service dealers that can solve the more common problems, but both MAN and MTU have traveling service teams that can be sent out to more complicated breakdowns. Volvo Penta's service handling is depicted as less responsive in some markets and does not offer any kind of training to dealers or yacht crews. The powertrain supplier is instead praised by many to have the best covering service network in the industry, especially in Europe.

Globally, only Caterpillar's service network is said to be comparable to Volvo Penta's and Caterpillar is considered to have the strongest presence on the US market. Cummins states to work on increasing their global service network coverage for recreational applications as well. Most powertrain suppliers also have service hotlines that are open around the clock, aimed to increase accessibility and convenience for

 $^{^{}m 40}$ Adrien Berton (Product Manager, Prestige) interviewed on April 9, 2014

⁴¹ Andreas Gaupp (Sales Marine & Offshore, MTU) interviewed on March 20, 2014

the yacht owners and minimize engine downtime. Other soft offers that are provided by the powertrain suppliers are joystick controls for either pod or shaft installations, but there is also an increasing demand for smartphone and tablet surveillance and control of the yacht.

Powertrain Warranties

How warranties are offered on recreational applications like private yachts vary a little between the main powertrain suppliers, but usually follow a pattern of a number of years or operating hours with an optional extended warranty offered. Most manufacturers can this way offer a maximum of five years warranty for what they call major components included in the purchase. The extended warranty coverage works to prolong the warranty for all parts of the powertrain to closer match the warranty given for the major components. Manufacturers and dealers state that the extended coverage is a good way to show faith in the product you sell and that it has been popular among the customers, although more popular for commercial applications like charter yachts than for private yachts. One boat builder also means that warranty and service errands drive improvement for the powertrain suppliers ⁴². There can although be some obligations towards the yacht owner for the warranty to be valid. MTU says customers with yachts over 100 feet need to follow contracted maintenance schedules and that maintenance recommendations are given for yacht less than 100 feet.

The warranty also depends on the rating of the engine, where private yachts use the lowest rating made for recreational use. This rating lets the engine produce more power but for a more limited number of hours, while the highest rating made for commercial vessels can be run longer at full throttle and without warranty restrictions, but with lower maximum power output. The opinions are different in the industry on how much yacht owners know about the warranty restrictions in yacht engines for recreational use. Powertrain suppliers claim that the customers should be aware of this after discussing engine choice with the boat builder, but captains and yacht management agencies state that this is not always the case and many owners misunderstand the concept of rating.

Powertrain Technology Trends

For yacht propulsion, an inboard engine with a fixed shaft has been the traditional setup in the 60-100 feet range. There is however a trend over the last years towards pod drives that has been recognized by many, and welcomed by some, in the industry. Even though the majority of the boats in the segment still have shaft installations, most actors have identified many possible benefits but also many perceived limitations with the pod solution and the joystick drive that is connected to it. The shaft drive is thought by many actors to have advantages in being simpler and cheaper than other solutions and to give room to a bigger propeller, but that there is a loss of efficiency in the slight downward angled shaft. The major design differences are further illustrated in a simplified way in figure 15 below.

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⁴² Nick Lean (Specifications Development Manager, Sunseeker Yachts) interviewed on March 27, 2014

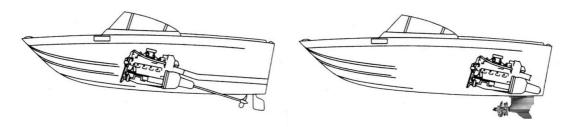


Figure 15. Simplified illustration of the differences between fixed shaft and pod propulsion.

Following the automotive industry, more environmentally friendly powertrain solutions have been launched also in the boat industry. These are mainly hybrid solutions, where an electric engine can power the boat by itself or assist the main diesel engine. Some in the industry has identified this as a small trend, sparked by stricter emission regulations, but many are still unsure whether the interest for hybrids will catch on. Most of the boat builders have stated that there has been very little interest for hybrids by the customers when they realize how expensive and heavy the battery technology is, even though a quiet and exhaust free electrical ride can be appreciated. Many further testify that there are no truly environmentally friendly motor yachts on the market today and that the customers rarely care much about the environment. A few boat builders do however believe and invest in hybrid solutions for the future and some brands, like Arcadia and Greenline, are entirely niched towards that part of the market. Apart from the high cost, the main obstacle for hybrid solutions has been the weight it adds to the weight sensitive planing boats that make up the majority of the market, which results in sacrificed performance. This is the reason why many boat builders see a greater potential for the technology in sailing yachts and semi-displacement motor yachts.

Despite several recent technological advancements, some actors do see the market as very conservative and that the focus in the near future will be more on meeting new emission regulations, rather than introducing new propulsion technology. Some also claim customers to be more willing to spend money on the styling and accessories, than on new technology.

What people see as pros and cons with the pod solutions depends on what role they have in the boat industry. Most actors, but especially boat dealers and builders, see increased manoeuvrability and decreased fuel consumption as positive, but due to conservative market and lack of power in the current solutions some do not see pods to fit for boats over 70 feet. Especially the practice to install three or four engines with pods, to overcome the lack of power compared to conventionally two larger engines with shafts, is seen as very controversial by some in the industry. Other issues with pods identified by dealers and others close to the end customers are high retail prices, high maintenance costs and the vulnerability of the installation under the boat. As pods are mounted in the very aft of the boat, compared to shaft installations that have the engine room in the middle of the boat, the interior space can be utilized more efficiently. This is much appreciated by builders and designers, but the latter is also concerned about how the engine room for pods take up the space usually used as tender storage in larger yachts, which forces the designer to find new room for the tender.

As mentioned when discussing easy boating above, yacht captains generally see pods and joystick drive as something positive that simplifies their job in driving the boat,

but also point out that a licensed captain will not have any problem driving a large yacht with conventional shaft propulsion. Captains further state that the ease of manoeuvring is more of a selling point to those yacht owners who prefer to drive the boat themselves and other upsides of pod solutions, like the fuel economy, should be promoted to the rest of the customers. However, even if shaft solutions are seen as more robust also by the captains, some of them mean that pods in multiple installations have an increased safety in that it is easier to carry on driving if one engine would break down.

Requirements on Powertrain

The main requirement on the powertrain of a yacht is by many actors in the boat industry stated to be a well-functioning service and after sales support system. This is closely related to another very important criterion when choosing engine and driveline, namely uptime reliability.

For the boat builders, the price of the powertrain is very important, as well as the ease of installation. As shown in figure 16 below, some engine manufacturers mention that the boat builders are interested in getting enough power from a small volume, according to the desired performance and weight of the vessel. Minimizing the space of the engine room is desired by the boat builders, to be able to maximize the yacht's living space. As the boat builders want to offer boats that are well received by the customers in all aspects, the customers' preferences in quality and branding of the engines are also of importance. However, the criteria on the powertrain depend on the boat model. In some cases low fuel consumption is desired and in others high power output is more important. As environmental friendliness becomes a greater issue in society, boat industry experts claims that it has been and will continue to be of importance to boat builders to meet the stricter regulations on yacht SO_X and NO_X emissions.

Besides meeting the technical requirements, several actors, including boat builders, designers, powertrain suppliers and market experts, state how important it is that the powertrain supplier can deliver a complete and integrated system. These packages can include everything from the controls at the helm to the propeller in the water, such as controls, gearboxes, monitoring systems and generator sets, to name a few things. Many actors claim that this makes the sourcing and installation of the complex systems easier for the builder and counteracts the blame culture between suppliers when something goes wrong, which makes a huge difference for the reliability of the end product and the user experience for the customer. Although, some Italian boat builders say that an integrated system is more important for the more complicated pod systems and less so for the more traditional and simpler shaft installations, and that the benefits of one supplier is more useful in smaller serial produced boats than in large customized yachts. One powertrain supplier says that if they do not produce all components themselves, they source it from sub-suppliers to be able to offer a complete solution to the boat builders⁴³.

⁴³ Michael van Eggermond (Sales Manager for Recreational & Light Commercial Marine, Cummins) interviewed on April 11, 2014

Boat Builder

- •Ease of installation
- •Power-to-size ratio
- Branding
- •Integrated systems
- Price

End Customer

- •Fuel efficiency
- Reliability
- Service availability
- Manoeuvrability
- Noise and vibration
- Speed
- Branding

Figure 16. Most important criteria for boat builder and end customer when choosing powertrain.

The opinions are divided in the boat industry on what the end customers' most important requirements on the powertrain are. Compared to the rest of the actors in the industry, some of the customers' criteria are stated to be more related to the boating experience, such as speed and manoeuvrability. These abilities are not only connected to the power output of the engines, but also electronic assistances and devices included in the powertrain, like joystick drive. However, a large number of boat builders, dealers, designers and engine suppliers testify that fuel efficiency has passed high top speed as the most important criterion for yacht owners, following the economic situation over the last years. Only in some niche markets, like American sport fishing boats, is fast acceleration still a top priority for boat owners. Other powertrain aspects that affect the boating experience are comfort issues, such as engine noise, vibration and exhaust fumes. These aspects have also been mentioned as important to yacht owners, when evaluating different powertrain options.

Since the customers in the market of 60-100 feet yachts have very limited spare time, they rarely accept any downtime for their boats at all. Also, not all yacht buyers are stated to be interested in the engines' technical features, but just want the machinery to work. Many in the industry say that these facts have made the engine's uptime reliability together with the manufacturer's service availability crucial to the yacht owners when choosing powertrain. Consequently, extended warranty and service hotlines offered by the powertrain suppliers have also increased in popularity among the end customers, to further minimize the downtime. It is however also noted by some that many yacht buyers are choosing powertrain out of personal preference and relation to the engine brand, especially if they earlier have had a positive experience of the manufacturer.

Choice of Powertrain Supplier

Boat builders can normally choose from at least four major powertrain suppliers to power their boats and which supplier's products the builders choose to install depends on many things. Azimut mainly divides the powertrain suppliers they source from by engine power, but more lately also by technical solutions like pods. The Italian builder consequently uses Cummins up to 600 horsepower, Volvo Penta IPS pods in their sport range, MAN and Caterpillar on shaft drives from 800 to 1800 horsepower

and MTU for all applications that need more than 1800 horsepower⁴⁴. Also Princess agrees with the claim that the powertrain suppliers in the 60-100 feet range have different levels of success at different power spans⁴⁵.

Wim van der Valk, on the other hand, tries to install Volvo Penta IPS pods as much as possible in their range of boats, as the builder sees Volvo Penta's pod solution as superior. However, due to the limited power of the Volvo Penta engine range, Wim van der Valk uses other powertrain suppliers for yachts larger than around 100 feet⁴⁶. On the contrary, Monte Carlo Yachts solely source MAN engines for their yacht range, as they see MAN to be a reliable supplier with the best technology. Volvo Penta, which is an important partner to the parent company Group Beneteau, is said to not be offering the right engines to suit Monte Carlo Yachts' range⁴⁷. Sanlorenzo says they use MAN, Caterpillar and MTU, but like most other builders they have to install MTU engines in the largest yachts regardless of the engines' price or technical capabilities⁴⁸.

There are also other, less technical, aspects that influence the boat builders' choice of powertrain supplier. Sunseeker mentions that other more industrial powertrain suppliers probably also could be technically suitable for their yachts, but that those manufacturers would not be expected or accepted by the customers from a branding point of view⁴⁹. Prestige use the same reasoning when they are installing MAN engines in their larger yachts and say that Volvo Penta and Cummins lacks the image needed for yachts and are more suitable in the 40-65 feet range of boats⁵⁰.

Also, long relations and special pricings can steer the boat builders' decisions of powertrain suppliers in different directions. For example, a market expert states that Volvo Penta has been very successful at tying European boat builders into exclusive supply deals based on discounted pricing⁵¹. From a powertrain supplier's perspective, MTU lists products, relationship and experience as the most important factors to boat builders when choosing powertrain supplier. Cummins also emphasize the importance of close relationship with the boat builder to stay on top of the market and know what is demanded as well as what is offered by the competitors⁵². Besides this, most boat builders say customer service, warranty terms and reaction time in case of breakdowns are what the builders are demanding from the powertrain suppliers. Dealers, on the other hand, mention that having a good finance company behind the powertrain supplier makes it easier to sell powertrains from the supplier, which can

⁴⁴ Alessandro Rossi (Chief Project Engineer, Azimut Yachts) interviewed on March 10, 2014

⁴⁵ Carl Richardson (Director of Communications, Princess Yachts) interviewed on March 31, 2014

⁴⁶ Yoeri Bijker (Marketing Manager, Wim van der Valk Continental Yachts) interviewed on April 3, 2014

Federico Peruccio (Marketing Manager, Monte Carlo Yachts) interviewed on April 3, 2014

⁴⁸ Paolo Bertetti (Operations Director, Sanlorenzo) interviewed on April 9, 2014

⁴⁹ Nick Lean (Specifications Development Manager, Sunseeker Yachts) interviewed on March 27, 2014

Adrien Berton (Product Manager, Prestige) interviewed on April 9, 2014

Tony Jones (Technical Editor, Superyacht Business magazine) interviewed on March 27, 2014

⁵² Michael van Eggermond (Sales Manager for Recreational & Light Commercial Marine, Cummins) interviewed on April 11, 2014

steer the choice of powertrain at the dealership. The dealers also stress the importance of having a close relationship with the powertrain suppliers since the dealers, and not the boat builders, will be the ones having contact with the yacht owners for service issues.

4.2.4 Dealers

The dealers are the interface between the boat builder and the customers and it is said to be the dealers' job to find the customers, sell to them and to guide them through the building process. The dealer's role in the boat industry is however stated by many to be diminishing, as customers more commonly search for information on the builders' websites when looking for a new yacht. Some claim that this has made the customers more knowledgeable about the product before a purchase and less keen to seek advice from the dealer. This customer behaviour has also made more boat builders start to sell directly to the end customers, cutting out the dealer as the middle hand, or just having the dealer to work as an introducer for customers to the builders.

As the builders have gained market and customer contact, the dealers have less leverage to make demands on the builder and there is today more of a two-way discussion between the two actors. In some cases, the dealer can have a larger role in building up the brand in their region. It although appears more common for smaller builders to sell directly to the end customers, even if most large yacht builders still make use of large dealer networks to sell the products and represent the brands. The same pattern can be seen for aftersales support to the customers, which for larger boat builders is handled by the dealers and for smaller by the builder itself.

In cases where dealers are used in a more traditional way, they aim to guide the buyer throughout the buying process and give advice in matters where the customer might have limited knowledge and experience. It can concern what equipment to choose to get a high resell value or to get the boat to run well in the water, which can be related to the choice of powertrain. A Sunseeker dealer claim that the customers know very little about the different engine options and brands available and that it is up to the dealer to promote each engine brand to the customer⁵³. The Sunseeker headquarter confirms that the dealers are knowledgeable about what powertrains that would be needed to make the various boat models sell better and that way are influential on the choice of powertrain supplier at the boat builder⁵⁴. The importance of this is something that the powertrain supplier MTU has understood and the company is currently intensifying support and cooperation with dealers they see have a big influence on the decision of which engine that will be installed by the builder⁵⁵.

The use of dealerships also depends on the degree of customization, many state. For more customized yachts, direct sales by the shipyard are more common, while dealers are more commonly used for selling serial production or semi-custom boats. It is also

⁵³ Christopher Head (Sales Manager, Sunseeker London) interviewed on March 17, 2014

Nick Lean (Specifications Development Manager, Sunseeker Yachts) interviewed on March 27, 2014

⁵⁵ Andreas Gaupp (Sales Marine & Offshore, MTU) interviewed on March 20, 2014

stated to be easier for dealers to sell more standardized boats, as the customer can see the model in person before the purchase and the number of decisions the customer needs to take are limited⁵⁶.

The dealers are often independent companies, but many have dealership contracts with the boat builders that for example specify what models to sell, marketing activities to perform and aftermarket service to offer. In return, the dealer becomes the brand's exclusive representative in the region. Another criterion that boat builders put on the dealers is financial stability, something that has been hard to maintain during the economic downturn and boat market stagnation over the last years. In some cases, market experts say some builders for this reason have had to acquire some of their dealers to keep having market presence in some regions. Just as the builders put demands on the dealers, the dealers have their own requirements for the builders they choose to represent. Many dealers state that they want to represent brands with high quality products and financial strength in a price range that the dealer is comfortable with.

The agreement between the builder and dealer also includes whether the dealer is required to keep an inventory of products for the builder, as well as how much discount the dealer will get from the builder. In cases where the dealer does not own the boats they sell, they can get a commission fee for each boat sale instead. Whether to stock products or not varies between different dealers, but has not been required for many the interviewed dealers. The interviewees have however described that some agreements means that the dealer has to order a certain stock of boats each year or a demo ship in order to maintain exclusivity and maintain proper margins or vendor bonuses. This is more common for production boat shipyards with fewer customization possibilities. As an exclusive dealer, HMY Yachts has described that they negotiate the entire transaction and buy the boat from the boat builder to sell it to a customer or brokerage company. When HMY Yachts instead act as a preferred partner, they do not get involved at all in the transaction, but just receive some compensation from the builder.

Since the dealers often are the ones in the boat industry that are closest to the customers, it is important for them to build customer relationships. Many dealers, just like boat builders, mention that buyers of smaller boats can be the most important to build a loyalty with, as these customers often grow with their boat and are more likely to be repeat customers. One large dealer claimed that returning customers made up as much as 70 percent of their total sales⁵⁷. Therefore, many dealers arrange events for old, current and new customers that can be both yacht related, like regattas and boat shows, or more lifestyle related, such as wine tastings and hunting days. Many dealers also offer direct contact with them 24 hours per day, as an aftersales service, while some also offer to put a captain on the boat for the first week of ownership to educate the new owner to give a more complete handover. Others make use of more lifestyle marketing and co-operate with banks, real estate agencies and private aircraft

 $^{^{56}}$ Lukas Stratmann (Managing Director, Dahm International) interviewed on March 4, 2014

⁵⁷ Christopher Head (Sales Manager, Sunseeker London) interviewed on March 17, 2014

companies, to meet new customers and to widen the service offering to the current ones.

4.2.5 Operators

There is no defined limit where a captain and crew are needed, but it depends on boating experience and preference of the boat owner. Some of the yacht owners have a lifestyle that includes servants and are hence not used to do things by themselves. The willingness to drive also differs between different markets and nationalities, since it can be prestigious to have a captain in some cultures. North Europeans and North Americans often like to drive their boats, while for example Chinese, Brazilian and owners around the Mediterranean and Middle Eastern markets most often use a captain. The interviewees have however done an approximation that a captain generally is used for boats over 70-80 feet. For 100 feet boats, it is common to have 3-6 people in the crew. When the boat hit the 80 feet limit, the vessel is classed in a certain manner and the legal responsibilities are much higher. This results in that the insurance companies require a captain with the right licenses in order to agree to insure the boat. Many of the interviewees claim that there are not many owners that have this licence.

Many of the interviewees emphasize that an owner often needs a captain to take care of a boat over 70 feet, even if the owner can drive the boat himself. This includes maintaining the boat, such as keeping the engine checked weekly, since the boat loses a lot of value if no one looks after it. A lot of owners also want a captain on their vacation to be able to relax. The relaxation factor is of great importance and some owners just want to enjoy their time on the boat instead of driving. On the other hand, there are many owners that do not know how to drive but want to learn to drive themselves. These owners might still want to have a captain for doing difficult manoeuvres, such as docking the boat.

Two of the builders also mention that the joystick application has given the customer the possibility to drive and dock the boat themselves even for boats up to 65 feet. The three owners interviewed have the Volvo Penta IPS pod system with joystick application and drive their boats themselves. One of the yacht owners even means that the essence of sailing is in manoeuvring the boat. Furthermore, the demand for captain and crew depends on how the boat is going to be operated. Chartered boats need more staff, while the owner can manage with just a captain or even yacht management firm for a privately used boat that is only used a few weeks a year.

It depends per owner to hire a captain and crew full-time, or to hire a skipper that just will be onboard for a single trip and then leave again when returned in the marina. The boat owner is most often the employer of the operator, which can be a captain or a captain and crew. The owner does not however need to be a person, but can be a corporation. It is quite common, especially for larger boats, that it is a company who owns the boat since this provides isolation from liability for the real owner. This can be a company that does the finances for the boat that is only used by the owner, but some boats are used for charter, which requires more responsibilities for the company. The usage depends on the boat and can also be a combination of these types of usages. Some boats are also used for representation for customers and clients.

The owner chooses a captain and the captain chooses a crew, even if the owner has the final word in the recruitment process. Searching for a captain and crew is sometimes also done through a crew agency that has a large network of suitable candidates. The captain can also be recommended by the boat dealer or the builder. However if a yacht management firm is used, this will be the employer of the operator. The yacht management will chose captain and crew, but the owner will have a lot of influence on the choice. When using a captain through a yacht management firm, the yacht management firm has the possibility to use the same captain for a number of different vessels in order to be more cost effective.

Yacht Management

Running a yacht can be compared to running a small company. A yacht management firm can be hired to manage every facet of the boat, such as handle the regulations, keep the certifications and safety equipment up to date, manage repairs, locations and docking arrangements. Sometimes they also handle the staff payroll, if that is the route that the owner has chosen to take. Yacht management firms hence co-operate with the crew agencies. Using a yacht management firm is perceived as a cost effective way to maintain the boat if the owner is not using the boat that often, since the owner then does not have to pay for a full-time crew that always is on the boat. The owner instead pays for a certain numbers of wash-downs, repairs and other things needed to be done.

The demand for yacht management services has increased over the last years and will be more and more important in the future as laws are increasing, there will be new regulations for crew, more paperwork as well as new technology. The Azimut Benetti group has their own yacht management firm, Fraser Yachts, in order to have more control over the process and being able to offer the customer a complete service package. Yacht management is however generally not used for 60-100 feet yachts, but for bigger boats, since the management process needs to be quite complicated in order for yacht management to be worthwhile.

Relationship between Captain and Yacht Owner

The relationship between the owner and the captain is usually close and has to be so, since the captain handles a lot of the owner's money. The owner hence needs to trust the captain in decision making and it is essential that there is a good relationship, otherwise the owner will change captain. If it is a good relationship, the owner will want to keep the captain as long as possible and also bring the captain when buying a new boat, if the captain has the right licences. It is common that the captain acts as an agent and advisor for the owner when buying a new yacht and the owner commonly relies heavily on the captain in the buying process. The captain will have preferences on the boat and the possible options, such as choice of engine and propulsion system.

The average time for a captain to stay on the same boat is a couple of years, but working for the same owner for five years would be considered as a long time. Captains operating on smaller boats usually switch boat more often compared to captains on bigger boats. The reason for a captain to choose to switch boat is usually based on economic reasons to advance in their careers. There was however a higher supply of employment opportunities before the financial crisis, why captains presumably did change boat more often before.

Captain's Role

The captain is hired to be responsible for the boat and the crew, why it is essential for the captain to network in order to have a good team in the marina, such as mechanic and cleaning staff. The contact with the owner is according to need and is usually weekly or daily during the peak season. The captain communicates directly with the owner and the crew communicates with the captain. The relationship between the crew and the owner however differs between different cultures. In the US, the crew is usually viewed more as an extended family, which lives and eats with the boat owner, compared to in the Mediterranean where the crew should be more invisible.

Captain's responsibility over service and maintenance depends on the size of the boat and on the captain's capabilities. One of the interviewed captains means that driving the boat is the smallest problem for a captain, while the biggest problem is to get the boat to keep running the entire season. The larger the boat is, the captain will do less hands-on work and instead more managerial work. There has also been a shift in what the captains actually can do since many tasks and systems are performed and controlled by computers nowadays, which make it difficult to diagnose issues or problems with the components on the boat. The captain should however be able to do general maintenance, such as washing, oil changes and general inspection of all the systems on the boat. The captain is also the contact person for service errands and is responsible to get the right people in to do service.

4.3 The Selling Process and the Powertrain Decision

The selling process often starts with that the potential client get in touch with one of the builder's representatives or dealers and sometimes the potential client contact the shipyard directly. The builder's involvement in the selling process varies between the builders strategy as well as between different clients. Sometimes the builder is very much involved in the selling process and sometimes not. After the client has received basic information such as standard specifications, pricelists, possible layouts, general arrangements, fuel consumption and performance tables, the client usually will plan to visit the shipyard. At the shipyard, the client's more specific wishes will be discussed with the boat builder and thereafter, in case the client shows serious interest, the boat builder will make the client a personal proposal.

The customization degree of the personal proposal will however vary between builders due to their different strategies chosen for levels of customization. For example, the personal proposal from Wim van der Valk is usually in terms of an offer, a personal designed layout and eventually personal renders of the interior design that will fit the client. After these steps, the contract will be signed and the building process can start. The process before signing a contract depends on the type of client and can take from one month to a couple of years. Princess finds their clients very considered and normally expect the buyer to consider the purchase over many months and include several visits to the factory, boat shows and the dealer.

It is very important for the boat builders to convey the quality of their boats through marketing, where boat shows is a key area. Boat shows are very important for boat builders and dealers and are mainly used for representation as well as to invite new customers and maintain the relationships with existing customers. Many boat builders view boat shows to be the main event to catch customers and the majority of sales

starts around boat shows. Some of the big and strategic boat shows are in Antibes, Cannes, Düsseldorf, Monaco, Fort Lauderdale, Miami, Rio, Dubai and Hainan, but the interviewed builders visit many more every year.

Other key areas for marketing is the web and social media, where many boat builders see the potential for increased brand visibility and to faster reach more people around the world with their products. It is important for the builders that the website is perfect and to be visible in social media, such as Facebook, YouTube and LinkedIn. Marketing has become of higher importance the last years, since the competition has increased in the market as a result of the financial crisis. There is a view that a lot of the marketing is going to be generated towards the internet and social networks in the future, instead of magazines which were more popular before.

Boat builders and dealers also use test drives and demo boats, which is perceived to be of big importance for the potential buyer. Sea trials are used when the boat is delivered and the buyer then has 24 hours to complain on the boat's performance. Princess for example leaves it to the dealers to decide whether to offer test drives, but accommodate sea trials from the factory for qualified customers. Wim van der Valk has a demo boat at the shipyard that is used for test drives and sea trials, but also has customers that almost always are willing to lend their boats for a test drive when Wim van der Valk has a potential client in a particular region. Test drives are used to show the benefits of the boat and convince the buyer of the boat's performance, which is becoming increasingly important for the client. Horizon for example builds more and more demo boats, since they perceive an increased demand from the customers to see the boat before purchase.

Features and accessories are things expected to be on the boat and installed by the builder. The yacht is often already extensively equipped as standard, but if the customer is interested there is a basic option list that offers additional options to choose from. If the customer is not interested to choose by himself, the dealer or the captain often advises on what equipment that is needed. In most of the cases extra options will be ordered during the construction process except for the ones that have effect on the main construction, such as underwater lights, hydraulic platforms and tender garages.

4.3.1 Different Actors' Influence on the Choice of Powertrain

The builder is said by most actors in the industry to have the strongest influence on the choice of powertrain that is installed in the boats. For yachts in the 60-100 feet range, the customer's options are mostly limited to the interior design to keep the cost down and these builders generally have closer relationships to the powertrain suppliers. Boat builders that sell more customized yachts do however usually offer more powertrain options for the owner to choose from. The powertrains are decided by the builders in co-operation with a naval architect, based on the desired performance and the estimated weight of the boat. The builder's purchasing and sales departments will each also have a say in the choice of powertrain supplier, to make sure that requirements on price, availability and service support are fulfilled on all markets.

The dealers' input on the choice of powertrain is said to have two sides. Some say that the dealers to some extent can give advice to the builders on what powertrains that should be installed in the different models, based on their market experience and connection the different suppliers' service networks. This influence although depends on the size of the dealership, one powertrain supplier says. Another way the dealers can steer the choice of powertrain is by giving advice to the end customers or, if the dealer keeps an inventory of boats, by only ordering boats from the builder with some specific powertrains. Many dealers claim that the customers often take their guidance when it comes to more technical details, especially if they are less experienced of boating. These advices can regard engine brand, propulsion system and other equipment, like joystick controls. However, some dealers state that there is less discussion about engine choice at the dealerships nowadays, as builders increasingly are choosing powertrain without outside input and in some cases end up only offering one powertrain option, which the customers accept.

The ability to choose between different powertrain options is said by many to be an appreciated feature by the customers, while others state that yacht buyers do not care about the engine and propulsion at all. For more customized yachts, the customers usually have a lot more to say about the powertrain and can in some cases hire a technical consultant to help if they are less experienced themselves.

The yacht designer's input in the discussion about powertrain is stated to mainly be limited to the space that the engine should take and the access to air and exhaust outlets that are needed, as this affects the interior layout as well as the exterior design. The designer can give suggestion on suitable engine power, but in many cases the boat builder tells the designer what kind of powertrain the design should involve. Some also claim that there is a difference between in-house and external designers, where designers who are in the boat builder's organisation will have much more to say about the choice of powertrain. For external designers, the level of influence is said to be much more dependent on the relationship between builder and designer. Also, the designer is stated to have much more influence for full-custom yacht projects, however still mainly in an advisable way. Some boat builders further say that they take more input from naval architects than from external and internal designers regarding the powertrain of the boat.

The majority of the interviewees believe that a decent captain with a good relationship with the owner definitely will have input on the owner's purchasing decision of a new yacht, including what type of equipment that will go in the boat. The captain has a lot of knowledge regarding what will work best for the owner and is more aware of the different styles and types of boat builders out on the market. The owner will hence be steered in a direction that the captain believes will be beneficial for the owner. The owner usually takes advice from the captain on the powertrain and other technical choices, since the captain is hired for experience and knowledge. If trusted, the captain will follow to every boat viewing the owner goes to and give educated advice. If the boat owner is not so experienced and has limited technical knowledge, the captain will most likely have more influence on the engine choice, since recommendations and suggestions of the captain will be more important to the owner. As stated by captains and designers, the mechanic and engineers will probably also be consulted by the owner for a recommendation when choosing powertrain for a new yacht.

As mentioned, some of the interviewees believe that the boat owners have more extensive knowledge of technical choices when purchasing smaller yachts, such as around 60 feet. However, an owner who buys a 100 feet yacht will probably not care most about the engine choice, but more about the design of the boat, the volume, the layout etcetera. Captains say this is because the owners will not run or maintain the boat for these larger vessel sizes and are hence less interested in these choices, which will give the captain more influence when purchasing bigger yachts. Previous experience of engine suppliers is also of great importance for the boat owner's powertrain selection.

It is important to state that the owner is the one who makes the final decision and chooses how much influence the operators will have on the choice of powertrain supplier. Some owners want to decide for themselves without input, while others want to have a lot of input. When an owner buys his first boat, the captain will usually not be employed yet and will hence not have influence in the buying process. There will however normally be a surveyor involved in the buying process to inspect the boat, such as doing a technical inspection.

5 Analysis

This chapter will present the analysis done by combining the empirical data with the content within the frame of reference, in order to answer the research questions stated in the purpose of the study.

5.1 Yacht Market Network and Development

The market of 60-100 feet motor yachts can be described to be structured around the boat builder, who can be seen as the main centre point that is linking together all the actors to form a network, see figure 17 below. Further, as seen in figure 17 the builder often has a network of dealers connected but may also sometime sell directly to end customers. An additional actor linked to the builder is the designers. The builder can use both in-house as well as external designers and sometimes several builders even use the same external designer.

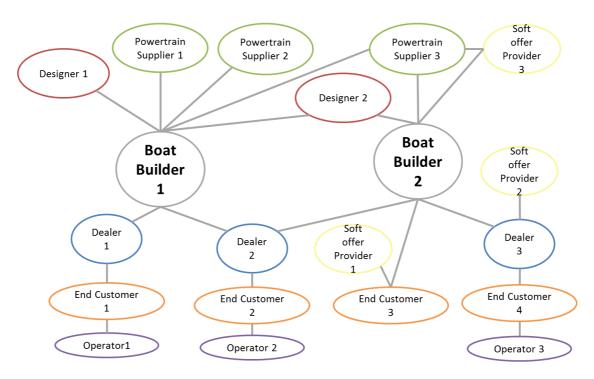


Figure 17. Illustration of how the network of 60-100 ft. yacht market can look like.

Concerning the powertrain suppliers, there are three main suppliers in this market segment namely Caterpillar, MAN and MTU. The powertrain sourcing strategy used differs between the different builders, some builders are connected to only one supplier while others might use several suppliers. In the group of operators, the captains on this market are most often employed by the end customer and thereby only linked to them. Besides having a role in driving the boat, the captain also usually acts as an advisor when the end customer buys new yachts.

One actor category that recently has entered this market is the soft offer providers. This actor is involved in the activities between the powertrain supplier, boat builder and the end customer, in order to enhance and facilitate the usage of the engine and powertrain through for example giving signals to the user when service is needed. These services can be offered either by the builder and hence installed before the final delivery, or the customer can buy them directly from the soft offer provider after the

boat has been delivered. This is a recognized trend on the yacht market and has therefore been investigated deeper in this market analysis. Some boat builders have seen the opportunity to establish relationships with these soft offer providers in order to create a stronger position on the market.

The yacht market has evolved over time and can today be described as a market with high complexity. The complexity has increased due to new actors entering the market that create additional interfaces and relationships. The relationships on the yacht market are often characterized by high involvement, which according to Gadde et al. (2010) increases the complexity as activities need to be synchronized between the parties. However, Gadde et al. (2010) also mention that this high involvement is a beneficial factor in order to get the most out of relationships and external resources.

The interaction atmosphere on the yacht market is characterized by long and close relationships. Further, this market can be described as a relationship based industry, where it is difficult for new actors to enter the market because of the strong bonds between the current actors. One of the reasons for this is that the business requires large investments and the actors are rather few, resulting in that they become highly dependent on each other, which often is the consequence of "few-but-heavy" connections according to Gadde et al. (2010). Hence, trust is a crucial factor on this market and results in strong entry barriers for new actors.

Further, when it comes to the relationships among the different boat builders on the yacht market these can be described as familiar, where the actors are aware of each other and there is a mutual, healthy respect in the industry with not so much of a competitive atmosphere. However, the 60-100 feet yacht market has during the last years expanded from being centred in Europe to become a global one. This globalized market has led to an increased competition among boat builders, which is in line with the research of Ponticelli (2013). Boat builders outside Europe, such as in Asia, has started to appear, who develops boats with comparable quality to the European builders.

Further, the yacht market is heavily affected by the economic situation in the world and the crisis during the last years has had a major impact on the 60-100 feet segment of motor yachts. During the crisis, the purchasing power of potential customers has been reduced and the European market went down around 80 percent. Hence, several boat builders have been forced to widen their business and focus on other markets during the crisis in order to survive. This may be the reason why some new expanding markets, such as Russia, South America, the Middle East and China, have emerged lately and the builders' new focus and globalization.

What can be further identified on this market is the development in how these yachts are used nowadays. Today's usage of yachts looks a bit different compared to some years ago. Today, yachts are used less than before meaning that the amount of operating hours has decreased due to the high operating costs. Also the characteristics of the customers' buying behaviour have changed. Before, the customers used to move from larger to larger yachts but now, due to the crisis, tends to scale down to smaller yachts in order to cut costs.

As mentioned above, the yacht market has developed in terms of increasing its global spread, where some new markets have arisen during the last years. These new markets of customers have contributed to the development of some new usage trends on the 60-100 feet yacht market. This depends on for example differences in cultures and nationalities. One of the markets where the usage of yachts is different compared to Europe and the US, which are the two main markets, is the Chinese yacht market. Chinese yacht owners are not interested in boating, instead the owners tend to keep the boat at the dock as a floating office or house to invite people for parties and business meetings. Further, China as an emerging yacht market is debated a lot within the boat industry, which will be further analysed in the Future Development chapter below.

5.2 Critical Success Factors

As changes on the yacht market have altered the way yachts are being used, new demands on the yachts' capabilities have emerged. Due to the economic recession and increased fuel prices, fuel economy has passed speed as the number one criteria when yacht owners are choosing between different powertrain options, even if many customers still want to have the possibility to occasionally go fast. Thus, a combination of performance and efficiency is desired from the boats. The trend towards less experienced new yacht owners, as was mentioned by many interviewees, also has increased the interest for new technical features and driving aids like joystick control. Overall, today's yacht buyers are expecting yachts to have the same qualities and capabilities as modern cars, i.e. being technically refined, efficient, dependable and easy to use. Apart from this, yacht owners in general also value traditional qualities, such as reliability, service availability and branding, when evaluating yachts and their equipment.

The last years' shift towards more reasonable yachting seems to have increased the struggle between rational and emotional criteria for yacht owners, which can make their buying behaviour somewhat harder to predict. This poses new challenges for boat builders and ultimately also powertrain suppliers, something that becomes especially apparent on the Chinese market, where yachts are used in a totally different way compared to the rest of the world. New demands give boat builders new critical success factors in attracting customers and gaining market shares, which are illustrated in figure 18 below. Some of these new success factors can be identified as the abilities to provide updated, efficient powertrains and reliable, intuitive driving aids. Due to an increasing customer interest to heighten and expand the boating experience, another new critical success factor has also emerged for boat builders in the providing of soft offers, customization and services. Previous success factors that still are relevant to boat builders are high product quality and well working aftersales support. As many of the customers' expectations in products and services are connected to the capabilities of the yacht's powertrain and the organisation behind it, relationships with the different powertrain suppliers within the studied network could help the boat builders to master these critical success factors.



Figure 18. New Critical Success Factors stated by boat builders to currently be important to gain customer sales on the 60-100 feet yacht market.

Powertrain suppliers are the actors in the network that are able to provide resources like engines, propulsion systems, driving aids and control systems, as well as warranties and aftersales service regarding powertrain to the boat builders. However, all the new technology with its many interconnected electronic systems has also significantly increased the complexity of the yachts, which in the harsh environment on the sea can jeopardise the reliability of both yacht and powertrain. As a counterreaction, the ability for powertrain suppliers to offer complete and integrated systems for yacht propulsion and control has been higher valued by boat builders. Letting one single supplier develop, produce and test all parts of an integrated system, as well as specify installation procedures for it, is claimed to improve reliability of the end product and user experience for the customer.

Gadde and Snehota (2000) state that a supplier should be valued by more than the product or service that is offered, but also the technical development, volume, quality and performance that the supplier adds to the buying company affect the importance of the supplier relationship. As the boat builders are letting the powertrain suppliers interlink the various components and systems in the yacht, they are letting the suppliers take a larger part in the shaping of the end result. In this sense, a trend can be seen among the boat builders in viewing the powertrain suppliers as not just component providers, but also as actors that can drive the development of the end product they supply to and add knowledge to its clients. The builders have consequently found a way to more fully utilize the resources of other actors in the network, which according to Gadde et al. (2010) is the main task of any buying firm.

The powertrain suppliers' increased influence in the boat building process demands closer collaboration between the actors. This can, as stated above, lead to many benefits, but it can also, according to Gadde et al. (2010), lead to less standardization of routines within the buying firm, since resources and activities must be adjusted to fit between the involved actors. According to Håkansson et al. (2009), this adjustment leads to interdependence between the actors, which can cause many complications. It can become harder for boat builders to switch powertrain supplier without redesigning

large parts of the yacht, creating a sort of lock-in effect, and it can become technically harder and more expensive to offer more than one powertrain option, as the high-intensity relationships that are needed are more costly than less close relationships.

As Håkansson and Ford (2002) conclude, close supplier relationships can both be a source of development and efficiency, but also become a limitation for the buying firm's ability to stay adaptive to other market forces. Gadde et al. (2010) also state that it will become increasingly harder to switch supplier with time, since long-time relationships are more likely to have affected many of the resources in the involved companies. Considering the low number of powertrain suppliers in the studied network, there is also a risk of boat builders losing some of their competitive edge in their unique interior design and composition of equipment, when the suppliers are allowed to shape more of the design and functionality of the yachts. Consequently, all of these aspects need to be taken into consideration by boat builders when considering ways to meet critical success factors.

The ability to offer something more than the ordinary boating features is another change in customer demand over the last years. This includes offering higher levels of customization or different kinds of soft offers, such as extended warranties and tools for connectivity. These features aim to improve the yacht itself as well as the boating experience for the customer and have been gaining importance up to the point of becoming a critical success factor. For boat builders, resources like these have also become means to differentiate the own brand and products from the competition. This could perhaps somewhat counteract the decreasing diversity in yacht design that potentially can come out of greater influence from powertrain suppliers, as stated above.

It is further recognized by most actors on the yacht market that the different powertrain suppliers on a global level have different coverage in their service networks. As aftersales service availability is identified as one of the strongest criteria for customers when choosing powertrain, it also becomes a critical success factor that can be gained through supplier relationships. The distinctions between the powertrain suppliers on the different markets do however complicate the work of bonding with the right supplier, if the boat builder aims for a strong global market position. Some of the boat builders have although expressed more than others how they work with providing different powertrain brands in different countries, to achieve this specific success factor on every market. As different powertrain suppliers in this way of thinking can provide resources of different value on the various markets, the bonds between boat builders and powertrain suppliers should also vary in intensity and importance between countries.

To summarize the boat builders' work to gain new and maintain previous critical success factors, it can be said that powertrain suppliers in many cases can be the most suitable actors to provide these resources. Bonding with powertrain suppliers will however come with more restrictions as they need to take a larger part of the shaping of the yachts to achieve the identified benefits. In the end, this leads to a trade-off for boat builder between meeting the customers' demands and staying diversified and independent.

5.3 Powertrain Sourcing Strategy

According to the empirical findings, the boat builders are responsible for the sourcing of engine and propulsion systems. There are mainly two different sourcing strategies found on the market, either to offer one engine option per boat model or to offer several options to the customer or dealer. Furthermore, there can be different sourcing strategies within one boat builder company, by having different sourcing strategies for different boat models.

The market of 60-100 feet yachts is considered to be relatively standardised, with boat builders that have serial production with some degree of customization. Boat models stay on the market for some years and there are usually only possibilities for customization in the interior, while the exterior is standardized. The powertrain can both be fixed and offered as options for each boat model, i.e. single sourcing or multiple sourcing of powertrain. Yacht building in the 60-100 feet yacht segment is hence not considered to be completely based on one-off projects as was stated by Ponticelli et al. (2013). Boat builders thereby have better possibilities to create the most optimal supply chain strategy and sourcing strategy for each boat model, at least for the exterior and powertrain, since it has comparable past and future state compared to a one-off low volume project (Sanderson & Cox, 2008). Yacht building is however a large project, why it is important to keep the dynamic network view of Ruuska et al. (2013), where customer needs are fulfilled by actors combining resources capabilities and knowledge. If more customization possibilities were to be offered for a 60-100 feet yacht, this would increase the product uncertainty and the complexity of subcontractors (Ponticelli et al., 2013).

The strained economic situation due to the financial crisis as well as a more globalized market place has, as mentioned, increased the competiveness in the market and thereby the importance for boat builders to differentiate themselves in order to gain market shares. Since the powertrain is perceived as one of the most important components of the boat, the sourcing strategy of the engine and propulsion system has become one way for boat builders to differentiate themselves. The empirical findings show that it increasingly has become more of an active choice to use single or multiple sourcing for powertrain and that boat builders have different motivations for their choice of strategy.

The main motivations for boat builders who have chosen the single sourcing strategy for powertrain, is to be able to fit the best engine for each type of installation. The focus is to find the best solution, where the best match is found between powertrain, hull shape, weight of the boat, requirements on speed and fuel efficiency etcetera. Performance is hence the main motivation for choosing single sourcing strategy, which is a way for the boat builder to differentiate their offer. This is also the best sourcing option according to the designers and naval architects, who strive to optimize the yacht. However, boat builders who have chosen the multiple sourcing strategy for powertrain motivates this by being able to leave the choice of powertrain to the buyer of the boat, i.e. the end customer or the dealer. Offering powertrain options to the customer increase the degree of customization of the boat, which according to the empirical findings is appreciated by many customers. Higher degree of customization is hence the main motivation for choosing a multiple sourcing strategy, which also is seen as a way for the boat builder to differentiate themselves.

Differentiation can thereby be created by both single and multiple sourcing of powertrain and a trade-off can be seen between performance and customization.

Choosing powertrain sourcing strategy is not only about the product offer to the customer, but also about the dependency of the boat builder as a buying firm. Boat builders that have multiple sourcing can reduce the dependency on powertrain suppliers (Gadde & Snehota, 2000) and thereby reduce the risk of relying too heavily on one supplier. On the other hand, single sourcing results in increased similarity of activities (Gadde et al., 2010), which makes it possible to develop solutions in interaction that are difficult to achieve with too many suppliers. It is hence possible to obtain cost reductions through economies of scale (Gadde & Snehota, 2000), but this increase the dependency for the boat builder on the powertrain supplier.

Furthermore, single sourcing increase the risk of choosing a powertrain supplier that is not in accordance with end customer demand. Multiple sourcing however loses its benefits if make-to-order approaches are not used, since the higher degree of customization increases the unpredictability caused by higher variety, complexity as well as lower selling volumes for each variant (Caniato et al., 2011). 60-100 feet yachts can be built on speculation, but this is not so common today due to the financial crisis. Boat builders have instead increasingly moved towards make-to-order approaches to reduce the risk of producing a yacht that cannot be sold. Make-to-order approaches thereby enable the boat builder to offer a higher degree of customization, such as several options for powertrain suppliers. Figure 19 summarizes the trade-offs for choosing a single or multiple sourcing strategy.



Figure 19. Illustration of the trade-offs that boat builders face when choosing sourcing strategy for powertrain. The stated concepts increase with the direction of the arrow and decrease in the opposite direction.

Moving to make-to-order approaches have additional effect on the sourcing strategy, since it is important to have an efficient production to be able to deliver quickly to the customer. There hence needs to be a focus on the synchronization of serially interlinked activities (Gadde et al., 2010) between the boat builder and the powertrain supplier, which puts requirements on the relationship between the two. For higher degrees of customization, such as offering several powertrain options per yacht model, there are other requirements on interdependence management compared to offering one powertrain option (Gadde et al., 2010). It is thereby essential to have a high-involvement relationship between the boat builder and the powertrain supplier,

not only in single sourcing, but also in multiple sourcing due to the higher degree of customization.

There are according to Gadde et al. (2010) clear benefits in having high-involvement relationships with suppliers, even if the synchronization of activities between the parties makes these relationships more complex. The empirical findings state that all the boat builders aim to have close relationships with the powertrain supplier, regardless the choice of sourcing strategy. Having a multiple sourcing strategy for powertrain and aiming for high-involvement relationships with all of these will however increase the complexity of coordination for the boat builder. Gadde et al. (2010) nevertheless state that this can be possible and even favourable in cases where customers demand a higher degree of customization, which has been seen on the market of 60-100 feet yachts.

The boat builder's criteria on powertrain decide what powertrain supplier to source from, where the boat builder choose the best solution or go on price if there are equal solutions. It is however important to remember that earlier relationships also matter when determining the powertrain criteria for a particular boat model. This is in line with the statement of Ponticelli et al. (2013) that yacht builders focus on establishing partnerships with suppliers that provide the highest value for the customer. The powertrain supplier is definitely one of the suppliers that provide high value to the customer, why boat builders find it important to form a long term partnership with powertrain suppliers. Even if the boat builder offers several engine options, the empirical findings showed that the boat builder anyway can have a deeper relationship with a particular powertrain supplier. This can result in that the boat builder specifies this powertrain as most favourable for the end customer to choose and in this way reduce variations in demand.

Trust and commitment (Gadde et al., 2010) are the cornerstones for building close relationships between the boat builder and powertrain supplier, which also needs to be taken into consideration in the sourcing process. The process for building a relationship takes time and it is also evident that personal relationships are very important in the market of 60-100 feet yachts. Building new powertrain supplier relationships hence not only start with an offer from the powertrain supplier, but also with personal interaction that is important in order to create a close long lasting relationship. The powertrain supplier thereby must be superior in many aspects in order to create new relationships with boat builders and gain market shares.

5.3.1 New Technology's Impact on Sourcing

New technology in powertrain also affects boat builders' powertrain sourcing strategy. The market entry of the pod propulsion system is a suitable example of this, since the technology has made it possible for new powertrain actors, such as Volvo Penta, to enter the market. The market entry has however not been easy for these actors, since the 60-100 feet yacht market is built on close relationships that have been developed over a long period of time. There has hence been a need for the pod suppliers to prove themselves and the new technology, in order to convince the boat builders to adopt the new technology. Furthermore, the pod propulsion system may interfere with the powertrain sourcing strategy, since multiple sourcing not always is possible when including both pod and shaft installation. The pod system requires a

certain hull shape as well as having the engine room located further back, compared to shaft installation. This thereby makes it more complicated for the boat builder to offer both pod and shaft installation to the customer for the same yacht model. Single sourcing is hence the easiest choice for the boat builder if choosing to offer the pod installation, alternatively to choose multiple sourcing but only from pod suppliers, which currently are Volvo Penta and Cummins. This however increases the boat builder's risk in adopting the new technology, since there is no option if the end customer demands the traditional shaft technology instead.

Even if these aspects speak against the pod propulsion system chances to succeed on the market, Gadde et al. (2010) mean that future opportunities are found when boat builders have a broader view when analysing the network. Boat builders hence need to look on suppliers of new technology, such as pod suppliers, to be in the forefront of the market, even if the new actors may have different resource combinations and activity configurations compared to traditional powertrain suppliers. Some boat builders however have succeeded to combine both pod and shaft installation and offer both technologies on some yacht models, which reduce the risk of adapting the new technology. Multiple sourcing in this case gives an even higher number of customization possibilities for the customer, since two different propulsion technologies are offered for the same yacht model. Referring to the previous discussion, single sourcing will however result in a better fit between yacht and powertrain, i.e. better product performance.

Another new technology change that has affected the sourcing strategy is that powertrain suppliers have started to offer more integrated solutions, which has been discussed in the analysis about critical success factors. Boat builders are also requiring more integrated systems, since this is a way to reduce the supplier base. The benefits of buying an integrated system from one supplier are that one supplier is responsible if the system fails and that it is easier to maintain a close relationship with synchronized activities and resources (Gadde et al., 2010). The drawbacks however are the boat builder's increased dependency (Gadde et al., 2010) on the powertrain supplier as well as the risk that the customer demands other equipment in the system, such as another navigation system. One interesting reflection that can be made is that the boat builders' increased demand for integrated systems from the powertrain suppliers, in order to reduce the supplier base, perhaps can be seen as a reaction on the increased customer demand for customization, which increase the supplier base for the boat builder since various options then are offered to the customers. This could somewhat even out the total number of suppliers for the boat builder.

5.4 Distribution Network Changes

The empirical findings show that the most common distribution channel in the market of 60-100 feet yachts is geographically separated multi-brand independent dealers, which is in line with the study done by Caniato et al. (2011). Boat builders find it important to have a close relationship with the dealers and there are mainly two levels of partnerships found in the dealer network, exclusive dealers and preferred partners. An exclusive dealer is responsible for a region and is also more involved in the selling process than a preferred partner, by negotiating the entire transaction.

Even if dealers usually are independent companies, there are strict contracts that specify how the dealer should represent the brand as well as requirements on financial stability, especially for exclusive dealers. The dealer can also be required to keep stock, which is more common for serial production boat builders. Furthermore, dealers have requirements on the boat builder to supply high quality products and to have financial strength, see figure 20. The financial crisis has however affected both dealers' and builders' financial strength, why some builders have had to acquire some of their dealers to keep having market presence in some regions. This demonstrates the interdependence (Håkansson et al., 2009) between boat builders and dealers in the network, which will be addressed more below.

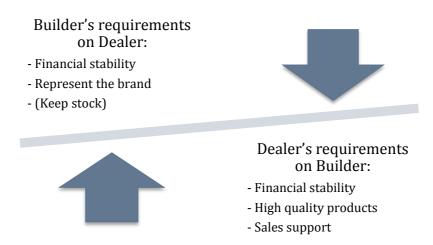


Figure 20. Illustrates some of the boat builder's requirements on the boat dealer and vice versa.

Both Caniato et al. (2011) and the empirical findings point to the yacht selling process to involve many actors, such as the boat builder, the dealer and the end customer as well as the designer and naval architects when customization is possible. Furthermore, the owner may have advisors involved in the process, such as a captain or a mechanic. The empirical findings show that the dealer is the interface between the builders and the end customers and is responsible to find customers and guide them in the yacht buying process. The guidance role of the dealer however varies depending on the knowledge and experience level of the customer. Customers' boating experience differs between different markets, where customers in North America and Western Europe usually are more experienced, which is reflected in the need for guidance when buying a yacht. The customer's limited boating experience and knowledge can however also be solved by the customer through involving an advisor, such as a captain, which reduces the importance of the guidance role of the dealer.

The boat builder however also has contact with the end customer, even if choosing to have a dealer network that the sales go through. The interaction between the builder and the customer is usually during the building process, where the interaction is more intense when building customized yachts. The builder also interacts with the customers in order to build relationships, such as by hosting lifestyle events. The empirical findings show that some boat builders in the 60-100 feet yacht market also have chosen to have direct sales and thereby having no dealers in the distribution channel. A direct sales channel is common for smaller builders as well as for builders that offer more customized yachts. This is not surprising since the complexity increases with the number of actors included in the distribution network (Gadde et al.,

2010), which needs to be justifiable by the volume sold. The same argument applies to customization, where there are more variants and thus lower volumes of each variant. Furthermore, there is a need for the boat builder to have a closer relationship with the end customer when having more customized yachts in order to determine the design and other options. Thus, if the boat builder handles most of the customer contact, the dealer role loses part of its purpose, which makes it more beneficial for the boat builder to have direct sales.

The boat builder's choice of distribution channel is closely connected to Place and Promotion from the four P's marketing model (McCarthy, 1960). Place is one key aspect in order to be close to current and potential customers, which though needs to be weighed against the cost of the distribution network. This is also important for the service aspect, which is identified to be crucial on the market. Place also includes strategies regarding exclusivity of dealers, which furthermore determines the closeness of the relationship between the boat builder and the dealer. Both the builder and the dealers are involved in the Promotion of the yachts, where the most common methods of marketing identified on the 60-100 feet yacht market are boat shows, special events, magazines, web and social media. Since the powertrain is one of the key components of the yacht, the relationships with the powertrain suppliers are usually promoted by the boat builder. The strategy of the distribution channel defines what actors that are involved in the interaction process and thereby also the complexity of marketing (Håkansson et al., 2009). Furthermore, promotion has different importance during the product lifecycle, why boat shows and other marketing efforts probably have a larger effect when launching a new yacht (Kotler, 2003). However, boat builders put great emphasis on building brand and image, why it always is important for the big players to be represented at boat shows.

As for each actor in the boat builder network, the performance improvements in the distribution network are found in resource combining and activity figuring (Gadde et al., 2010). The empirical findings show that the boat builders share both tangible and intangible resources with their dealers, such as sales support and know-how, as well as manage events, like yard visits for the customers and distributor conferences, in order to tie the network together. The actor bonds between the builders and the dealers seem to be strong, which reflects the activity links and resource ties between the actors (Gadde et al., 2010). The close relationship is partly built on the dealer contract, which in turn is built on trust and commitment between the builder and the dealer. The dealer needs to trust the builder to not sell direct as well as control that the rules regarding exclusivity are followed. Furthermore, the builder needs to trust the dealer to represent the builder in the right way in the interaction with customers as well as in relation to other actors.

Building long term relationships with end customers is the main task of the dealer network, since a huge amount of the customers are repeat customers. Personal relationships (Gadde et al., 2010) have shown to be very important as well as having regular contact by inviting customers to events. Furthermore, dealers focus to capture buyers early since it is common that customers then buy larger yachts within the same brand. There are however views in the empirical findings that the brand loyalty has decreased and that customers have become more price focused. This change can be a result of the financial situation after the crisis, but also of the increased possibility for customers to search for information themselves through the web, without the help

from dealers. An interesting reflection of this change is that marketing over the Internet is becoming more and more important in order to increase the boat builder's market share by taking customers from competitors, which previously have been considered to be more difficult in the industry.

In addition, the increased availability of information results in that the end customers today have the opportunity to gain more knowledge about the products on the market before making contact with anyone in the distribution network. Customers also have the opportunity to discuss ideas with advisors in their surrounding and have a clearer idea of what to buy before speaking with a dealer or builder. This is probably the reason why it nowadays is more common that the customer calls the boat builder directly when interested in buying a yacht. One can therefore see a tendency that the dealer's role to guide the customer in the purchase has begun to decline and that the prospects for a direct marketing channel have increased, which is the marketing channel that was mentioned as common in the yacht market by Caniato et al. (2011). This change will probably lead to more builders considering reducing its dealer network and sell more directly in order to cut costs, see figure 21.

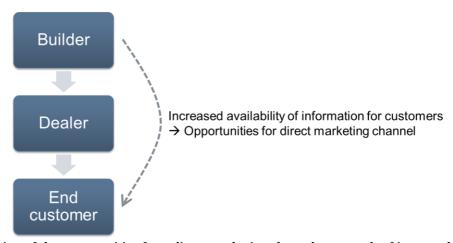


Figure 21. Illustration of the opportunities for a direct marketing channel as a result of increased availability of information through the web.

The increased competition on the market however makes it more and more important for boat builders to have skilled sales people, global presence and to be close to the end customers, which justifies the advantages of a dealer network. The increased availability of information nevertheless somewhat change the dealer's role from being a player that guide the customer and sharing information, to rather have the role of introducing the customer to the boat builder through boat shows and events. The dealer's new role does not give equal opportunity to influence the customer's yacht choices, since the customer is more knowledgeable and have better contact with the builder. One can thus say that the dealer's power in the network has decreased and that the dealer goes toward being more dependent on the boat builder than before, since the relationship between the dealer and the customer is less close than it was before. Actions to counter this has however been seen from the dealers' side, who are trying to expand their offering though soft offers to the customer. This can be service agreements or similar offers in order to regain a closer relationship with the customer and power in the network.

5.5 Actors' Influence on Powertrain Decision

As previously discussed, the relationships have a very important role in the 60-100 feet yacht market. This can be explained by the low number of different actors in the network and the fairly low number of companies within each actor category. The high levels of dependency between the actors and of collaboration needed to build a yacht also play a part in making it an industry featured by strong relationships.

The study's findings show that the boat builder is the actor in the network with most power, apart from the end customer who is the main source of revenue in the network. The larger boat builders have several of the technical departments in-house, except manufacturing of powertrains and other more advanced components. In cases where the design work is outsourced as commission based work, the designer and naval architect are said to follow the technical goals specified by the boat builder and that their influence mostly is limited to suggestions on horsepower figures for the vessel. As dealership services increasingly are moved away from dealers into the boat builder organisations, dealers have also seen declining power in the network. Actors that have experienced increasing power are the powertrain suppliers. With more complex products and more well-covering and integrated solutions, powertrain suppliers have become more involved and influential in the boat builders' work. Since the number of powertrain suppliers is fairly low, the boat builders have since long been more or less dependent on them as vital suppliers of key components to the yachts.

The powertrain suppliers are however also dependent on the volumes that each boat builder can provide, since the number of large builders in the 60-100 feet yacht segment is fairly low as well. The relationship between powertrain suppliers and boat builders can, according to the theories of Gadde et al. (2010), thus be seen as one with both serial and dyadic interdependence. There is serial interdependence in the way that the powertrain suppliers provide complete major systems that have to be built into the end product, which is finalized by the boat builder. There is also dyadic interdependence, as the systems provided by the powertrain supplier have to be individually shaped around each yacht model and its characteristics.

Further, Webster and Wind (1972) identify five categories of individuals that either have a direct or an indirect impact in purchasing situations as *users*, *gatekeepers*, *influencers*, *deciders* and *buyers*. To begin with the user, who according to Hutt and Speh (2010) is the individual who is intended to use the product or service after the purchase, but who's involvement in the purchasing decision can vary greatly. On the yacht market, the user can easily be identified as the owner of the yacht, who also is the individual that initiate the purchasing process. To what extent the owner is involved in the purchasing process differs from owner to owner depending on how much interest and knowledge the owner has in the industry. The interest and knowledge of the owner varies a lot and differs between for example different markets but also on the size of the boat. A buyer of a 60 feet yacht can be seen to be more interested and has more extensive knowledge in the powertrain than a buyer of a 100 feet boat. The owners will not run or maintain the boat for these larger yacht sizes and are hence less interested in the powertrain choice.

However, the owner can also be characterized as what Hutt and Speh (2010) call a decider, who is the individual that takes the real decision in the purchase. On the yacht market, the user and the end customer are the same individual and hence the

actor that makes the final decision in what yacht to buy, which includes the choice of powertrain. The end customers can choose how much influence other actors will have on them when making the decision or to decide for themselves without any input.

Further, it can be seen that dealers have a very important role in an early stage of the selling process of yachts. The dealers are the actor closest to the end customers and based on their market experience and connection to the different suppliers' service networks, they can give advice to the builders on what powertrains that should be installed in the different models and hence influence the powertrain decision in that way. The boat dealers can be identified as what Hutt and Speh (2010) call gatekeepers, which are individuals that are in one way or another controlling the information flow to and from the buying centre, making them able to shape the buying centre's decision making.

Further, dealers also can steer the choice of powertrain by giving advice to the end customers, especially to the less experienced and knowledgeable ones, which means that they also can be considered as influencers. According to Hutt & Speh (2010), influencers are usually one or several persons brought in as technical experts in the purchasing process, who often get to set the specifications for the product or service. In cases where the dealer keeps an inventory of boats, their influence depends on the sourcing strategy used by the boat builder. If the dealer purchase boats from a builder that offers only one powertrain brand then the dealer does not have any direct influence but is still however able to choose another boat builder to be able to offer what the market demands. In those cases where the builder offers multiple powertrain brands for their models, then the powertrain decision is transferred to the dealer and thereby their influence on the powertrain decision increases.

The boat builders can mainly be seen as buyers, who are making the formal buying decision according to Hutt and Speh (2010). The builders are believed to be the actors in the industry that have the strongest influence on the choice of powertrain that is installed in the boats. However, this depends on their strategy used. If the builder uses a multiple sourcing strategy, the decision of powertrain is indirectly made by the dealer or the end customers. But if the builder uses a single sourcing strategy the builder makes the complete decision. For yachts in the 60-100 feet range, the builders most often limit the customer's options to the interior design in order to keep the cost down. Boat builders that sell more customized yachts do however usually offer more powertrain options for the owner to choose from.

When it comes to the designer's influence on the powertrain decision it can be stated as very limited and most often the boat builder has already decided what powertrain the design should involve. However, there is a difference between in-house and external designers, where designers who are in the boat builder's organisation will have much more to say about the choice of powertrain. For external designers, the level of influence is much more dependent on the relationship between builder and designer. Based on this, the designers can be recognized as having an weak influencer role in those cases where they propose some specifications of the powertrain, which is in line with the description of an influencer role given by Hutt and Speh (2010).

Also the captain can be considered as a very important actor in the 60-100 feet segment, since they usually have a close relationship with the owner and besides

having the role as a captain driving the boat, also acts as a coordinator in issues related to the yacht. Captains with a good relationship with the owner have input on the owner's purchasing decision of a new yacht, including what type of equipment that will go in the boat. Further, the captain has a lot of knowledge regarding what will work best for the owner and is more aware of the different styles and types of boat builders out on the market. Often the captain follows the owners when buying a new yacht and acts as an advisor during the whole purchasing process, especially when it comes to technical features such as the powertrain, which is an area that the owner usually is not that knowledgeable in for the 60-100 feet yacht segment. The owner will hence be steered in a direction that the captain believes will be beneficial for the owner. The owner usually takes advice from the captain on the powertrain and other technical choices, since the captain is hired for experience and knowledge. Hence, the captains commonly act as technical experts in the purchasing process and often help the customer to set the specifications for the yacht, including what powertrain to choose. In line with Hutt and Speh (2010), the captains can be identified as strong influencers in the decision of powertrain for 60-100 feet yachts.

The five members of the decision making unit is illustrated in the simplified yacht market network in figure 22. In the figure are also brief descriptions of the relationships between the actors in the network, as described in greater detail above.

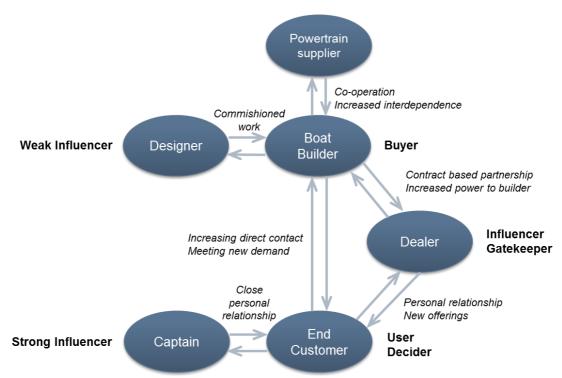


Figure 22. Relationships between the different actors in the network and their influence on the choice of powertrain.

5.6 Future Development

It can be hard to predict the future technical development in the 60-100 feet yacht segment as it belongs to a conservative and slow-moving market, which now has been introduced to new disruptive technology in the form of pod propulsion and technical driving aids. Experts in the industry say that actors in the segment is likely to put less focus on new propulsion technology in the near future and instead, with the help of more conventional technology, focus on meeting new emission regulations that soon

will take effect. Some boat builders also claim that customers are more willing to spend money on styling and entertainment in the yacht rather than new propulsion technology, which puts the spotlight on soft offers.

In spite of the doubts many actors display regarding the new propulsion technology, mainly revolving around pods, it still brings several properties that most likely will not lose importance in the future. The fuel efficiency the technology brings will stay popular as long as fuel prices are high and the efficiency has also been proven to be compatible with high performance in many boat models. Further, the abilities for easy manoeuvring with pods match the lower levels of boating experience new yacht owners have in both the traditional and emerging markets.

Many boat builders have predicted soft offers to be an increasingly valuable part of the product offering now and in the future. One large part of the soft offers is expected to be connectivity and telematics solutions for smartphones and tablets. They are aimed to heighten the levels of entertainment, convenience and ease of organisation in yachting, as new younger generations of yacht owners will have higher requirements on user-friendliness and mobile accessibility. Another large part of soft offers are thought to revolve around aftersales deals, such as extended warranty, service plans and real time data collection for remote maintenance handling. Whereas the first category of soft offers are predicted to be used as means for boat builders to differentiate their products and brand from the competition, the second category of soft offers are seen to be ways to make profit on lucrative aftersales service deals while finding better ways to meet the customers' demands on little powertrain downtime.

Also yacht management services are expected to be increasingly demanded by future yacht owners, as the demand has increased over the last years due to an increasing number of laws and regulations that yachts need to comply with. Some of the boat builders have consequently incorporated yacht management businesses in their organisations, but the services can also be provided by third party actors. So far, yacht management has been most popular for yachts over 100 feet, but as smaller yachts become increasingly more complex, new owners become less experienced and many vessel regulations already apply from 80 feet, yacht management services can become more popular also in the 60-100 feet segment.

Following the trend towards environmentally friendly lifestyles and the development in the automotive industry, the yacht market has seen more hybrid powertrain solutions as well. The reasoning behind the use of hybrid propulsion technology, that it lowers fuel consumption and makes it easier to meet stricter emission regulations, is in line with what many predict will be valued by customers as well as boat builders in the future. Despite this, most actors in the industry do not think the interest for hybrids will catch on, as the technology also brings many features that are undesired for the main part of the yachts in the segment, namely high cost and heavy weight. Many also testify that yacht owners in general are not that concerned about the environment and that it in practice is impossible to make a motor yacht truly environmentally friendly. Some niche boat builders are nevertheless targeting this specific part of the market, but most actors see it as most likely that the hybrid technology only will have a future in sailing yachts and slower semi-displacement motor yachts. However, Gadde et al. (2010) states that companies need to have a

broader view when looking for opportunities in a network and not only consider current activities and resources. New possibilities can also be found in new technology, Gadde et al. (2010) continues, which may apply to the case with hybrid solutions in the motor yacht segment.

The future development of the Chinese yacht market is also hard to predict, which is mirrored in the way different actors talk on the topic. Some claim there is a huge market waiting to be exploited solely based on the number of wealthy people in China, while others emphasize how earlier predictions on the Chinese yacht market growth have not been followed by an actual increase of boat sales on the market. A consensus can although be reached among the actors that China currently lacks the infrastructure needed for yachting and the lifestyle that goes with it. The opinions are also unified regarding the disinterest in China for the traditional western boating culture, with sunbathing and other activities connected to life on the sea. These two aspects are thought to explain why the interest for yachts in the country is growing so slowly. Considering the steady nature of these aspects, it is not surprising that many in the industry do not expect the Chinese yacht market to take off until decades into the future, even though China and its people have seen some rapid development in many other markets.

6 Conclusions

The main actors on the yacht market are identified as boat builders, designers, powertrain suppliers, soft offer providers, end customers and operators, where the boat builder can be seen as the centre point linking all the other actors together to form a network, which answers a part of the purpose of the thesis. The yacht market is centred around the Mediterranean and the US east coast and can generally be described as very complex with long and close relationships, where trust is a crucial factor that results in strong entry barriers for new actors. Further, the yacht market is heavily affected by the economic situation in the world and the crisis during the last years has had a major impact on the 60-100 feet segment of motor yachts. The crisis has led to a decreased purchasing power among the end customers as well as a reduction in yacht usage hours, due to the high operating costs. Hence, several boat builders have been forced to widen their business and focus on other markets during the crisis in order to survive. This has resulted in that some new strong markets have emerged, which has created a more globalized market with an increased competition among the boat builders.

Changes in the yacht market have altered the ways yachts are used and thus also what end customers demand from their yachts. This has created new kinds of critical success factors that need to be addressed by the boat builders. Updated powertrains, intuitive driving aids, customization, soft offers and services have been identified as the most important new success factors for boat builders to attract customers. Also, high product quality and good aftersales support have been found to remain as success factors. Powertrain suppliers can be seen as suitable, and in many cases necessary, actors in the provision of these critical success factors, as they through integrated systems can drive the technological development further. It seems like boat builders have changed their relationship with the powertrain suppliers, to let them take on a bigger role in the shaping of the yacht. The closer collaboration however limits the builders' control of some of the yachts' features, can reduce the diversity on the yacht market and will make the builders more dependent on the powertrain suppliers.

The sourcing strategy of powertrains in boat models has become more of an active choice for boat builders, since it has been identified as a way for boat builders to differentiate themselves. Boat builders who choose single sourcing often focus on performance, while customization is in focus when choosing multiple sourcing, by offering customers more powertrain options. A trade-off can thereby be seen between performance and customization, where differentiation can be created by both sourcing strategies. However, the pod propulsion system makes it more complex for the boat builder to have a multiple sourcing strategy, why single sourcing is the easiest choice when sourcing pod for a boat model. The pod system hence increases the boat builder's risk in adopting the new technology, but at the same time is an opportunity for the builder to be in forefront and gain market shares. Furthermore, single sourcing increases the boat builder dependency on the powertrain supplier compared to multiple sourcing. Interdependence can though be seen between the boat builder and the powertrain supplier, where there is a focus on building long term partnerships.

The most common distribution channel for the boat builder is geographically separated multi-brand independent dealers, who can be either exclusive dealers or preferred partners. The dealer and builder have a close relationship characterized by requirements from both parties as well as interdependence. The dealer role varies

between guidance and an introducer role, depending on the customers' and their advisors' experience and knowledge. The boat builder also has contact with the end customer and in some cases a direct marketing channel is used, especially for smaller builders and builders that offer a higher degree of customization. Furthermore, today's improved availability of information through the web has resulted in increased opportunities for the boat builder to use a direct marketing channel, why the boat builder lately has gained more power in the builder-dealer relationship.

The five categories of actors identified in the frame of reference have been used to label what actors that influence the powertrain decision, in accordance with the purpose of the thesis. The owner of the yacht has been identified to be the *user* and also the *decider*, who takes the final decision in what yacht to buy, which includes the choice of powertrain. The owner can choose how much influence other actors will have in the decision. *Influencers* on the customer's decision can be the dealer or a technical expert, such as the captain, who the customer chooses to consult. Furthermore, the dealer is identified as a *gatekeeper*, who is able to shape the decision making by controlling the information flow. The boat builder can mainly be seen as a *buyer* and is the actor that has the strongest influence on what powertrain to install in the yachts. *Influencers* on the boat builder's powertrain purchasing decision can be the dealer and the designer. The dealer especially has influence in case of a multiple powertrain sourcing strategy by the builder. Furthermore, the designer's influence depends on the relationship with the builder, but is generally identified as limited.

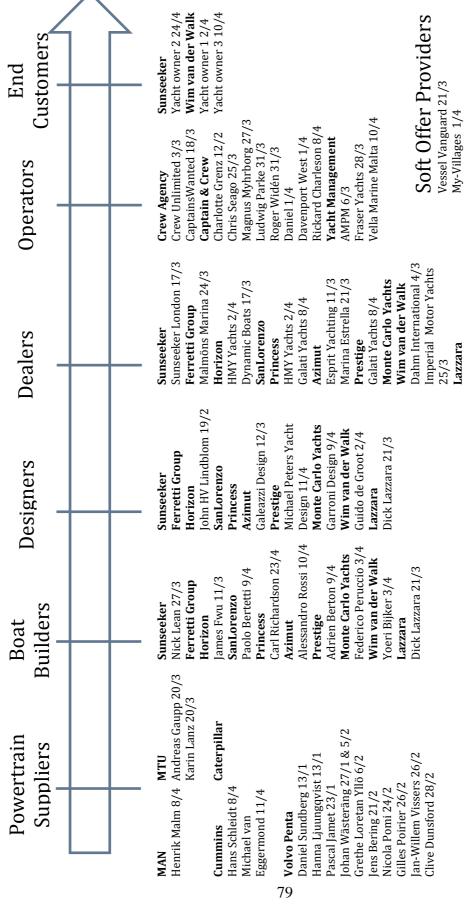
Soft offers are predicted to be increasingly important in the future, as new generations of yacht owners will expect more user-friendly yachts. Hybrid solutions are currently not predicted to take a greater part of the market for planing motor yachts, due to cost and weight aspects. The market can be concluded to be somewhat split about pod propulsion in yachts, but the qualities it brings are nevertheless expected to remain demanded by future yacht owners. Regarding emerging markets, China is the most debated one but is not expected to take off until at least a decade into the future.

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Appendix A - List of Interviewees 8



Wheelhouse Technologies 9/4 My-Villages 1/4

Experts

Pawel Wysocky, Hill Dickinson Alex Teji, Hill Dickinson 20/2 Ed Slack, IBI Plus 21/2 Tony Jones 27/3

Interviewees in alphabetic order

Adrien Berton (Product Manager, Prestige) interviewed on April 9, 2014

Alessandro Rossi (Chief Project Engineer, Azimut Yachts) interviewed on March 10, 2014

Alex Teji (Associate, Hill Dickinson) interviewed on February 20, 2014

Ami G. Ira (President and owner, Crew Unlimited) interviewed on March 3, 2014

Andreas Gaupp (Sales Marine & Offshore, MTU) interviewed on March 20, 2014

Bob Beckley (Vice President Business Development, My-Villages) interviewed on April 1, 2014

Carl Richardson (Director of Communications, Princess Yachts) interviewed on March 31, 2014

Carlo Galeazzi (Architect, Galeazzi Design) interviewed on March 12, 2014

Charlotte Grenz (Stewardess on 100+ ft. yachts) interviewed on February 12, 2014

Chris Seago (Captain, Crew Unlimited) interviewed on March 25, 2014

Chris Shaffner (Captain, Captains Wanted) interviewed on March 18, 2014

Christopher Head (Sales Manager, Sunseeker London) interviewed on March 17, 2014

Clive Dunsford (Sales Manager Marine Engines, Volvo Penta) interviewed on February 28, 2014

Craig Parkhurst (Vice President of Sales, Wheelhouse Technologies) interviewed on April 9, 2014

Daniel Sundberg (Strategy & Business Development Manager, Volvo Penta) interviewed on February 6, 2014

Daniel (Captain, Marina Marbella) interviewed on April 1, 2014

Davenport West (Captain, Captains Wanted) interviewed on April 1, 2014

Dick Lazzara (President and founder, Lazzara Yachts) interviewed on March 21, 2014

Donald Hyde (CEO and founder, VesselVanguard) interviewed on March 21, 2014

Ed Slack (Editor, IBI Magazine) interviewed on February 21, 2014

Edwin Vella (Director, Vella Marine Malta) interviewed on April 10, 2014

Federico Peruccio (Marketing Manager, Monte Carlo Yachts) interviewed on April 3, 2014

Gilles Poirier (Director Marine Commercial, Volvo Penta) interviewed on February 26, 2014

Grethe Loretan Yllö (Manager Marine Business Segment, Volvo Penta) interviewed on February 6, 2014

Guido de Groot (General Manager and Designer, Guido de Groot Design) interviewed on April 2, 2014

Göran Johansson (Owner, Malmöns Marina) interviewed on March 24, 2014

Hanna Ljungqvist (Strategy & Business Development Manager, Volvo Penta) interviewed on February 6, 2014

Henrik Malm (Business Development Manager, MAN Diesel & Turbo) interviewed on April 8, 2014

Hans Schleidt (General Manager Europe, Cummins Inc.) interviewed on April 8, 2014

James Fwu (General Manager, Horizon Yachts) interviewed on March 11, 2014

Jan-Willem Vissers (Director Marine Commercial Region Europe, Volvo Penta) interviewed on February 26, 2014

Javier Candela (Manager, Marina Estrella) interviewed on March 21, 2014

Jens Bering (Manager Product Management, Volvo Penta) interviewed on February 21, 2014

John HV Lindblom (CEO and founder, JVHL Yacht Design) interviewed on February 19, 2014

Karin Lanz (Sales Marine & Offshore, MTU) interviewed on March 20, 2014

Kirill Anissimov (Central Agency Sales Manager, Fraser Yachts) interviewed on March 28, 2014

Ludwig Parke (Captain on Azimut 68) interviewed on March 31, 2014

Lukas Stratmann (Managing Director, Dahm International) interviewed on March 4, 2014

Magnus Myhrborg (Captain on Azimut 68, Marina Marbella) interviewed on March 27, 2014

Michael Miller (Managing Director, Imperial Motoryachts) interviewed on March 25, 2014

Michael Peters (CEO and founder, Michael Peters Yacht Design) interviewed on April 11, 2014

Michael van Eggermond (Sales Manager for Recreational & Light Commercial Marine, Cummins Inc.) interviewed on April 11, 2014

Nick Lean (Specifications Development Manager, Sunseeker Yachts) interviewed on March 27, 2014

Nicola Pomi (Sales Manager Marine Engines, Volvo Penta) interviewed on February 24, 2014

Niki Travers Tauss (Founder and Managing Director, Esprit Yachting) interviewed on March 11, 2014

Paolo Bertetti (Operations Director, Sanlorenzo) interviewed on April 9, 2014

Pawel Wysocky (Partner, Hill Dickinson) interviewed on February 20, 2014

Peter Alexandersson (Managing Director, AMPM Yacht Management) interviewed on March 7, 2014

Richard Charleson (Captain and Yacht Broker, Galati Yachts) interviewed on April 8, 2014

Roger Widén (Captain, Marina Marbella) interviewed on March 31, 2014

Tom Sanders (General Manager, HMY Yachts) interviewed on April 2, 2014

Tony Jones (Technical Editor, Superyacht Business magazine) interviewed on March 27, 2014

Velis Tzalavras (Sales Manager, Dynamic Boats) interviewed on March 17, 2014

Vittorio Garroni (CEO and president, Garroni Design) interviewed on April 9, 2014

Yacht Owner 1 (Owner of a Wim van der Valk Continental II) interviewed on April 2, 2014

Yacht Owner 2 (Owner of a Sunseeker Manhattan 63) interviewed on April 24, 2014

Yacht Owner 3 (Owner of a Wim van der Valk Continental II) interviewed on April 10, 2014

Yoeri Bijker (Marketing Manager, Wim van der Valk Continental Yachts) interviewed on April 3, 2014