

Dissertation title:

**Competitive Differentiation Within The Shipbuilding Industry:
The Importance Of Competence In The Field Of Services – An Empirical Investigation**

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This doctoral dissertation examines the competences of services in the shipbuilding industry. On the one hand, investigations have therefore been carried out into aspects such as a shipyard's market expertise, its practical experiences, and its cooperative activities. The objective is to scrutinize whether there is a relationship between each of these aspects and those resources and capabilities constituting the basis for a shipyard's competence in the field of services. On the other hand, the differentiation potential resulting from such competences is examined.

In terms of content this work is located at the interface of the market-based view (MBV) and the resource-based view (RBV) of the firm. This is because the building of complex, highly customized ships as well as the provision of technical service packages can be referred to as a specific application of resource-based as well as market-based concepts. More specifically, a shipyard's customized problem solutions constitute the interface of both perspectives, as customer requirements and industry structure have a determining influence on the shipyard's current and future resources and capabilities.

Because of the exploratory nature of this work, at first focused interviews were conducted with 26 experts from the shipbuilding industry who represented shipyards from 14 different nations. Among others, these experts shared their experiences, knowledge, and opinions concerning the commercial relevance and the development of service offerings. Initially it became apparent that not only in the scientific world the definition of the term "service" is heterogeneous. In this context, it was found that for the respondents services covered a broader range than expected. Furthermore, the analysis revealed that the regional origin of the shipyards' representatives had an influence on their perception of what constitutes a service in the shipbuilding industry. Respondents from established shipbuilding nations understand supplementary technical services offered by their shipyards as services in the proper sense. However, for the representatives from emerging shipbuilding nations, the focus was on technical core services.

Concerning the commercial relevance of service offerings, it was found that service offerings are increasingly perceived as a potential for differentiation. Further key findings indicate the importance for shipyards to enter into cooperation with third parties in order to exchange resources needed for the development of new service offerings. Moreover, the analyses of the data sets not only suggest a relationship between a shipyard's market expertise and its

competence in the field of services but also between its practical experience and its competence in the field of services. Based on the respondents' statements, it was suspected that such competences have a positive effect on the customer value, the shipyard's competitiveness, and ultimately on its order situation. In the end, the relevance of this research project is also stressed by the finding that there is no consensus between the respondents concerning the future location of modern shipbuilding. Shipyards' representatives from established shipbuilding nations stated it would be Europe in respect to highly sophisticated vessels and Asia in regard to standard ships. On the contrary, the representatives from shipyards headquartered in emerging shipbuilding nations explained that mostly the vessels' prices will determine the location where ships will be built in the future.

Subsequently, and based on these findings as well as on an extensive literature review, an international survey which was addressed to shipyards' management representatives was carried out. Totally, 40 shipyards from at least 18 countries participated in this quantitative empirical study. Concerning the study's first issue, results indicate that there is a significant positive relationship especially between a shipyard's cooperative exchange of information and its competence in the field of services. That is to say, there is a positive relationship between the resources and capabilities gained by a shipyard's cooperative exchange of information and the resources and capabilities required for being competent in the field of services. Another significant positive relationship was found to exist between a shipyard's practical experience and its competence in the field of services. Again, this implies that there is a positive relationship between the resources and capabilities stemming from a shipyard's practical experience and the resources and capabilities required for being competent in the field of services. Further positive relationships were found between market expertise and competence in the field of services as well as between cooperation with suppliers and competence in the field of services.

Finally, concerning the second aspect of this work, the data analyses show that there is a direct positive effect between a shipyard's competence in the field of services and its order situation. This effect is mediated by two further important factors, customer value and competitiveness. The analyses reveal a positive relation between an increase of a shipyard's competence in the field of services and an increase in the customer value of its offerings on the one hand and an improvement concerning its competitiveness on the other. As well, an increase of the customer value and a shipyard's competitiveness is related to an improved order situation.