

A Comparative Study of Key Success Factor between Digital and Traditional Maritime Freight Forwarders

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Abstract. The Digitalization and platform operation have been expanding to various industries in recent years, from Uber Eats, Air B&B to Couchsurfing, and other emerging services that operate through online platforms have been influencing consumers' consumption patterns. Since 2010, various digital forwarders have been established and started to divide the market of traditional maritime freight forwarders, using digital operation and online platform services as their competitive advantage. Since the industry has not yet matured, there is not an obvious impact on traditional maritime freight forwarders from them, but it is still worthy of study.

The purpose of this paper is to investigate what are the key success factors that digital maritime freight forwarders have a greater impact on traditional maritime freight forwarders, and then to rank the importance of these factors between the two types of forwarders using hierarchical analysis and compare the differences. Based on the critical success factors of maritime freight forwarders, third and fourth party logistics, and the literature on the operational characteristics of digital forwarders, this study identifies the factors that digital forwarders have an impact on traditional maritime freight forwarders, and classifies these factors into four main criteria: "information and integration," "customer service enhancement," "logistics service enhancement," and "basic operational capability" through exploratory factor analysis. Then, through the Analytic Hierarchy Process (AHP), an expert questionnaire was developed to investigate and compare the ranking of the importance of these factors between the two types of forwarders, and to compare the differences between the ranking results of the two types of forwarders.

The results of the study showed that in terms of the main criteria, both types of forwarders considered "logistics service enhancement" to be the most important criterion. The traditional maritime freight forwarders' criteria other than information and integration were all ranked high, showing a trend of three highs and one low; while "information and integration", which was the least important criterion for the traditional forwarders, was the second most important criterion for the digital carriers and scored similarly to the first criterion, with significantly higher weight than the other two criteria. In terms of sub-criteria integration, the first to third ranking of the 13 sub-criteria for traditional maritime freight forwarders was "ability to provide customized solutions," "logistics service and reliability," and "quick response to customer needs," while the first to third ranking of the integration for digital forwarders was "ability to improve service levels by enhancing the accuracy of logistics information," "ability to provide customized solutions," and "ability to respond to customer needs," in that order. The first to third ranking of the integration of digital forwarders was "ability to improve service level by enhancing the accuracy of logistics information", "ability to provide customized solutions" and "cost of logistics services". Finally, the study recommends that for traditional maritime freight forwarders, strengthening the transformation and development of information and technology can achieve several benefits in one go and should not be easily ignored. For digital forwarders, continuing to enhance IT technology will be the most important issue, not only to achieve significant improvements in performance in several of the more important sub-factors, but also to maintain their technological leadership.

Keywords: Digital maritime freight forwarders, Key success factors, AHP