

THE LINK BETWEEN DIGITAL CULTURE ORIENTED HRM SYSTEMS AND HRM PERFORMANCE IN SHIPPING COMPANIES

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Keywords: Corporate Culture, Cultural Intelligence, Digitalization, Human resource Management, Skills, digitalized capabilities

Extended Abstract

The shipping industry is a key pillar of the global economy as 90% of essential and non-essential goods are transported by sea. Going through an era characterized by intense digitization due to technological change, digital transformation is apparent and is evolving in all industries. Its applications affect every aspect of organizations i.e., processes and resources. As such shipping could not remain unaffected (UNCTAD, 2022).

The evolution of digital technologies has many advantages and positively affects information gathering and processing, decision-making, delivery time, prices, communication and customer satisfaction (Ozkanlisoy & Erkut, 2021; Nikhmehr, et al. 2021). Digital technologies refer to Internet of Things (IoT), Blockchain, Artificial Intelligence (AI), Robotics, 3D Printing, Automation, Virtual Reality, Big Data (Nikhmeh, et al. 2021; Ichimura et al., 2021; Arroyo & Osca 2019; Yang, 2019). Digitalization requires changes on the core of businesses mindset and their corporate culture and leadership as well as in the technological advancement that have impact on business strategy (Nikhmeh et al., 2021; Lipsmeier et al 2020). One core aspect of business strategy is human resources. In the field of Human Resource Management digital technologies such as HR analytics and e-HRM for the improvement of organizations' strategic role and decision-making exist, however, studies exploring them are on its infancy (Margherita, 2022; Alshibly & Alzubi, 2022; Farhan et al., 2021; Trenerry, et al. 2021; Annarelli et al., 2021; Iqbal et al., 2019). To undergo the shift to digital transformation, there is a need for human resource development professionals to invest in advanced competencies and capabilities (Chuang & Graham 2018).

Objective

Digitalization has brought advances in many sectors and aspects of business but creates also new equilibriums that companies should adopt. As such research regarding the human resources management (HRM) practices necessary to select, develop, motivate, and reward top talent in the digital era is scarce. Due to the fast-technological changes of the business environment, HRM should adapt and reinvent its practices being more innovative and creative (Wongsansukcharoen & Thaweepaiboonwong, 2023; Azizi et al., 2021; Cook et al., 2020).. Studies on different sectors examined the relationships between HRM and digital developments. To undergo the shift to digital

transformation, there is a need for human resource development professionals to invest in advanced competencies and capabilities (Chuang & Graham 2018). The human element is fundamental for all shipping companies and operations (Theotokas & Progoulaki, 2007, Progoulaki & Theotokas, 2010) and due to vast technological changes should be redefined (Mallam et al., 2020). Decisive factors towards this direction are the corporate culture and intelligence as well as leadership of shipping companies (Da Silva et al., 2022; Pantouvakis & Syntychaki, 2021). Several studies in the maritime field examine the human element in the digitalized environment and the required skills introducing the e-HRM concept (Baykal, 2022; Jo et al 2020; Margherita, 2022; Alshibly & Alzubi, 2022; Farhan et al., 2021; Trenerry, et al. 2021; Annarelli et al., 2021; Iqbal et al., 2019).

The scope of this paper is to examine the concept of HRM digitalization in the shipping industry. The aim is to explore digitalized human resource management practices and the factors that influence them, corporate culture, intelligence and leadership. Moreover, this article tries to depict the essential elements/skills that HRM should enhance and develop to better manage technological changes in the maritime sector.

Data/Methodology

The selected market of the shipping sector to conduct this research is the Greek shipping. One could support that research on a single national market sets limitations, especially on generalizability aspect. However, considering that shipping is globalized industry par excellence and the fact that Greek shipping consists of 600 shipping companies with a wide network of offices globally, whose fleet amounts 5.514 vessels and represents almost 21% of global shipping industry. These characteristics allow generalizability of conclusions.

The research approach is both qualitative and quantitative. A self-administered questionnaire was distributed online through Google forms to representatives and top management of the companies. As the focus of this study is the organizational level the questionnaire was addressed to HR and Crew Managers. Our sample consisted of 200 shipping companies out of a population of 700 contacted through mail and phone.

For the final formation of the questionnaire an online workshop with maritime professionals/executives from 15 companies operating in the maritime sector was held. The purpose of this workshop was to collect insights and feedback considering the factors influencing digitalization and implementation of digital technologies in the shipping sector. With its completion the final questionnaire was refined and distributed.

Results/Findings

Although it is ongoing research from the current responses of 25 companies, representing a major percentage of large-sized shipping companies in Greece can depict the trend on the constructs under examination.

Referring to the organizational culture of the companies, the majority have characteristics from different types. Hierarchical type focuses on stability and control, group emphasises on participation and teamwork and rational highlights achievements and productivity type developmental describes risk-taking and change. Innovative technologies and digitalized procedures require changes in the way companies operate both in terms of human resources and general procedures. Developmental culture characterizes companies that are prompt to change and adapt to external influences. Based on the results shipping companies characterized less by developmental type of culture. It can be inferred that although the shipping sector is one of the

most adaptable in terms of the general commercial aspect when it comes to changes in the core of the operational aspect ashore and onboard are more skeptical.

In terms of companies' ability to adapt in multicultural environments results shows that the majority of shipping companies are considerable adaptable as employees ashore and onboard have international working experience and interact with people and companies around the world. However, companies do not pay much attention to lead, train and intentionally review and provide tools to their employees - ashore and onboard -to facilitate cross-cultural interaction. Nevertheless, steps have been taken towards integration of people with different genders, culture and support diversity.

Furthermore, the results so far show that there is the intention to develop and implement innovative technological tools and this is apparent based on the answers regarding the creation of market offerings, business processes or models that result from the use of digital technology. Meanwhile, the sharing of information regarding technological developments within the company and the development of skills among employees are still at low levels.

Considering the existence of digital tools for Human Resource Management participants agreed to a large extent about the benefits that emerge in terms of service and work quality, but as per the results these tools are not fully exploited to HRM practices such as Training, Appraise, Performance, Recruitment & Selection. This can be an indicator that a lot of work understanding of and familiarity with new technologies is still needed, so that there is confidence in the advantages and benefits that can add value to employees and to the performance of companies in general.

Implications / Limitations

This research aims to investigate how shipping companies adapt and operate in today's digital environment and whether and how they incorporate and form HRM ashore and onboard. As per the results there is a predisposition to implement and develop technological tools however shipping companies need to understand the importance of creating a culture that will empower and motivate employees so to exploit and develop all capabilities towards the formation of a digitalized environment.

In addition, tools should also be developed for employees' training both to adapt to new technologies and procedures and to interact with people inside and outside the company of different cultures. It is important to recognize that the process of learning and adaptation depends to a certain extent on the place of origin of individuals and their different apperceptions.

Nevertheless, this is ongoing research and more coherent and solid results are to be extracted. As already mentioned, although characteristics of the sample allow generalizability of conclusions, it would be interesting to explore how shipping clusters in other countries reconcile HRM to digital tools.

Acknowledgments



The research project was supported by the Hellenic Foundation for Research and Innovation (H.F.R.I.) under the “1st Call for H.F.R.I. Research Projects to support Faculty Members & Researchers and the Procurement of High-and the procurement of high-cost research equipment grant” (Project Number: 3701).

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