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## Strategic HRM in the logistics and shipping sector: Challenges and opportunities

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### Abstract

Strategic Human Resource Management (HRM) plays a critical role in the success and sustainability of organizations, particularly in dynamic and competitive industries such as logistics and shipping. This review explores the challenges and opportunities inherent in implementing Strategic HRM practices within the logistics and shipping sector. In recent years, the logistics and shipping industry has witnessed significant transformations due to globalization, technological advancements, and evolving customer demands. Consequently, HRM strategies must adapt to these changes to effectively manage human capital and drive organizational performance. One of the primary challenges faced by HR professionals in the logistics and shipping sector is the recruitment and retention of skilled talent. The industry's high demand for specialized skills, coupled with a shortage of qualified professionals, intensifies competition among companies. Moreover, the transient nature of employment in this sector, characterized by seasonal fluctuations and contract-based arrangements, complicates talent management efforts. Strategic HRM approaches must address these challenges by implementing robust recruitment strategies, offering competitive compensation packages, and providing opportunities for continuous learning and career development. Additionally, the logistics and shipping industry operates in a highly regulated environment with stringent safety and compliance standards. HRM practices must ensure that employees are adequately trained and compliant with industry regulations to mitigate risks and maintain operational efficiency. This necessitates the implementation of rigorous training programs, safety protocols, and performance management systems to uphold organizational standards and ensure employee well-being. Despite these challenges, Strategic HRM in the logistics and shipping sector presents significant opportunities for innovation and growth. Advancements in technology, such as automation and data analytics, enable HR professionals to streamline processes, enhance workforce productivity, and make data-driven decisions. Moreover, strategic partnerships with educational institutions and vocational training centers can facilitate the development of a skilled workforce tailored to the industry's evolving needs. Strategic HRM in the logistics and shipping sector is vital for addressing challenges, optimizing workforce performance, and capitalizing on opportunities for sustainable growth. By adopting a strategic approach to human resource management, organizations can navigate the complexities of the industry landscape and achieve competitive advantage in the global market.

**Keywords:** Shipping; Logistics; Review; Management

### 1. Introduction

The logistics and shipping sector plays a pivotal role in global trade and commerce, facilitating the movement of goods and materials across the world. This sector encompasses various activities such as transportation, warehousing, and

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inventory management, all of which are essential for ensuring the smooth flow of goods from manufacturers to consumers. The importance of strategic human resource management (HRM) in this industry cannot be overstated, as it directly impacts the efficiency, productivity, and overall performance of the workforce. Therefore, understanding the challenges and opportunities in strategic HRM within the logistics and shipping sector is crucial for optimizing operations and maintaining a competitive edge in the global market.

The logistics and shipping sector is characterized by its complex and interconnected nature, involving multiple stakeholders, including shipping companies, port authorities, freight forwarders, and transportation service providers (Beer et al., 2015). The efficient functioning of this sector is vital for global supply chains, as it ensures the timely delivery of goods and materials to their intended destinations. However, the sector also faces various challenges, such as sustainability issues, environmental concerns, and technological advancements that impact traditional business models (Lee et al., 2019; Hasanspahić et al., 2021). For instance, the sustainability challenges in maritime transport and logistics, including emissions from ships and ports, necessitate strategic planning and innovative solutions to mitigate environmental impact (Lee et al., 2019). Additionally, the integration of automation and artificial intelligence into the logistics sector presents both challenges and opportunities, requiring a strategic approach to HRM to adapt to technological advancements (Foster & Rhoden, 2020).

Strategic HRM is essential in addressing the unique challenges faced by the workforce in the logistics and shipping sector. Seafarers, for example, experience specific psychosocial stressors due to the nature of their work, including long working hours and reduced quality of sleep, which can impact their well-being and performance (Oldenburg et al., 2013). Moreover, the sector's globalized nature and the collapse of shipping companies, such as the case of Hanjin Shipping, highlight the need for strategic HRM to manage workforce mobility and ensure operational continuity (Monios, 2022). Therefore, strategic HRM practices are crucial for addressing the well-being and safety of employees, as well as for managing the workforce during periods of industry turbulence.

The purpose of this outline is to provide a comprehensive understanding of the challenges and opportunities in strategic HRM within the logistics and shipping sector. By examining the implications of strategic HRM on organizational survival and success (Beer et al., 2015), evaluating logistics network configurations for global supply chains (Creazza & Dallari, 2010), and addressing sustainability and environmental challenges in maritime transport (Lee et al., 2019), this outline aims to offer insights into the importance of strategic HRM in optimizing workforce performance and addressing industry-specific challenges. Additionally, by exploring the integration of automation and artificial intelligence into the logistics sector Foster & Rhoden (2020) and the impact of demographic changes in the shipbuilding industry (Garg, 2020), this outline seeks to highlight the evolving nature of HRM practices within the sector and the need for strategic adaptation.

In conclusion, the logistics and shipping sector presents unique challenges and opportunities for strategic HRM, given its globalized and interconnected nature. By addressing the specific stressors faced by the workforce, adapting to technological advancements, and mitigating environmental impact, strategic HRM plays a critical role in ensuring the efficiency, safety, and sustainability of operations within the sector.

### **1.1. Challenges in Strategic HRM in the Logistics and Shipping Sector**

The logistics and shipping sector faces several challenges in strategic human resource management (HRM), particularly in the recruitment and retention of skilled talent. The high demand for specialized skills Knies (2021) and the shortage of qualified professionals Saiari et al. (2020) have intensified competition among companies (Zhao & Wang, 2010). Additionally, the transient nature of employment Saiari et al. (2020) and the impact of automation technology Kim et al. (2019) have further complicated the recruitment and retention process. These challenges are exacerbated by the rapid technological advancements in the maritime industry, which create new opportunities and challenges for maritime authorities and stakeholders (Kim et al., 2019).

The strategic HRM function is crucial in addressing these challenges and contributing to the overall value creation process in the logistics and shipping sector (Knies, 2021). HRM professionals are tasked with facilitating strategic organizational change initiatives and aligning HRM practices with the strategic management process (Rees & Johari, 2010). However, the dynamic nature of the logistics sector in Oman presents various challenges and issues for HRM, including the need to assess the reliability of HRM practices and their impact on employee loyalty (Saiari et al., 2020).

Strategic HRM effectiveness is essential for public sector agencies during commercialization and corporatization, offering a framework for practitioners to add value in the HRM function (Teo & Crawford, 2005). Moreover, the expansion of shipping in the Arctic requires efficient coordination between resource extractive companies and their

shipping component, necessitating the adaptation of supply chain management strategies to reduce operational risks (Gunnarsson & Lasserre, 2023).

The challenges in strategic HRM are not limited to talent recruitment and retention. The last-mile delivery, a critical aspect of logistics arising from B2C e-commerce, presents significant challenges (Seghezzi et al., 2020). Furthermore, the global shortage of ship officers necessitates measures to improve the future supply of maritime labor (Caesar & Cahoon, 2015). The role of seaports in regional employment and sustainable development also underscores the multifaceted nature of HRM challenges in the logistics and shipping sector (Seo & Park, 2017; Lam & Yap, 2019).

In conclusion, the challenges in strategic HRM in the logistics and shipping sector are multifaceted, encompassing talent recruitment, retention, and the need to align HRM practices with strategic organizational change initiatives. Addressing these challenges requires a comprehensive understanding of the dynamic nature of the industry, technological advancements, and the globalized nature of shipping. Strategic HRM effectiveness is crucial for adding value in the HRM function and contributing to the overall value creation process in the logistics and shipping sector.

#### *1.1.1. Compliance with industry regulations*

Compliance with industry regulations is crucial for ensuring the safety and quality of products and services. Stringent safety and compliance standards are essential in various industries to mitigate risks and ensure adherence to regulations (Salah & Moselhi, 2014). Risk mitigation strategies play a vital role in ensuring compliance with industry regulations, particularly in the construction industry, where practitioners have identified and analyzed various strategies to manage risks effectively (Chan et al., 2012). Additionally, the efficiency of risk mitigation strategies in supply chains has been assessed through case studies and interviews with company executives, highlighting the importance of implementing effective risk management practices to ensure compliance with industry regulations (Talluri et al., 2013).

Training and certification requirements are integral components of ensuring compliance with industry regulations. In the healthcare sector, certification programs for healthcare personnel, such as pharmacy technicians and blood pressure observers, have been evaluated to assess their potential integration into processes that help assure a competent workforce, emphasizing the significance of standardized training and certification in maintaining industry compliance (Desselle & McKeirnan, 2019; Curb et al., 1983). Furthermore, in the construction industry, the importance of training and certification for computing has been reviewed, emphasizing the need for academia and professional associations to lead training and certification efforts to ensure quality and compliance (Vishal et al., 2022).

Risk mitigation strategies, training, and certification requirements are essential for ensuring compliance with industry regulations. These measures are particularly crucial in supply chain management, where a holistic approach to supplier selection and risk mitigation has been proposed to address the challenges faced by organizations, emphasizing the need for adaptive risk mitigation strategies to overcome issues efficiently (Yaakub & Mustafa, 2015). Moreover, in the context of supply chain disruption risks, the value of mitigation and contingency strategies has been emphasized, highlighting the need for effective risk management practices to ensure compliance with industry regulations (Tomlin, 2006).

In conclusion, compliance with industry regulations necessitates the implementation of stringent safety and compliance standards, effective risk mitigation strategies, and standardized training and certification requirements. These measures are crucial across various industries, including construction, healthcare, and supply chain management, to ensure adherence to regulations and mitigate potential risks effectively.

#### *1.1.2. Workforce diversity and cultural considerations*

Workforce diversity in multinational corporations presents various challenges and opportunities. Cultural differences and communication challenges can arise within a multinational workforce, impacting the effectiveness of inclusivity and diversity initiatives. Becker et al. (2013) highlight the impact of offshoring on the onshore composition of tasks and skills within multinational enterprises, emphasizing the need for a diverse skill set to manage global operations. Pulu & Menchaca (2021) further emphasize the importance of cultural competency in designing effective e-learning for a global workforce, indicating the significance of understanding cultural differences in training and development.

Leslie (2019) discusses the unintended consequences of diversity initiatives, suggesting that while the purpose of these initiatives is to support disadvantaged groups, they may not always work as intended. This underscores the complexity of implementing inclusivity and diversity initiatives in a multinational workforce. Additionally, Akpoviroro et al. (2020) address the correlation between workforce diversity and organizational performance in multinational companies, shedding light on the impact of cultural and age diversity on productivity.

Inclusivity and diversity initiatives are crucial in managing a diverse workforce. Ashikali et al. (2020) emphasize the role of inclusive leadership in supporting an inclusive climate in diverse teams, highlighting the need for leadership that appreciates and engages diverse members. Furthermore, Gotsis & Grimani (2016) propose an integrative framework positioning diversity considerations in the continuum of various leadership theories, emphasizing the importance of effective leadership in leveraging workforce diversity. However, diversity initiatives may have unintended effects. Dover et al. (2019) discuss how the presence of diversity initiatives may inadvertently signal that underrepresented groups are less competent, highlighting the complexity of managing perceptions and attitudes toward diversity initiatives. Puritty et al. (2017) stress the importance of focusing on minority experiences in STEM, emphasizing the need for inclusion beyond numerical representation.

In conclusion, managing a multinational workforce requires addressing cultural differences, communication challenges, and implementing effective inclusivity and diversity initiatives. Understanding the unintended consequences of diversity initiatives and the role of leadership in fostering an inclusive climate are crucial for leveraging the benefits of a diverse workforce.

### *1.1.3. Technological disruptions*

Automation has been a significant driver of job displacement, with studies indicating that it has led to painful adjustments and large earnings losses, particularly for workers in routine jobs (Dauth et al., 2021). However, it is important to note that technological progress and automation have also been found to create more jobs in the long run compared to the short-term job displacements (Hoque et al., 2021). This suggests that while automation does displace some workers, it also creates demand for labor, indicating a complex relationship between automation and employment. Furthermore, the impact of automation on employment is not uniform across different groups, with studies showing that female workers are at a significantly higher risk for displacement by automation than male workers (Brussevich et al., 2019).

In response to the challenges posed by automation and job displacement, there has been a growing emphasis on upskilling and reskilling initiatives. These initiatives aim to equip workers with the necessary skills to adapt to the changing demands of the labor market. It has been suggested that the savings from productivity gains due to automation could be used to retrain displaced workers for new jobs created, thereby absorbing the displaced labor (Ongel et al., 2019; Fabian et al., 2023). Moreover, the integration of technology in HRM practices has become increasingly important in managing the impact of automation on the workforce. As automation continues to reshape the nature of work, HRM practices need to adapt to ensure the effective utilization of human capital in conjunction with technological advancements. This includes addressing the specific needs of displaced workers and implementing policies targeting those affected by automation technologies.

In conclusion, the impact of automation on employment has been a subject of extensive research, highlighting both the challenges of job displacement and the potential for creating new job opportunities. Upskilling and reskilling initiatives, along with the integration of technology in HRM practices, are crucial in addressing the disruptions caused by automation and in facilitating the transition of the workforce into the era of technological advancements.

## **1.2. Opportunities in Strategic HRM in the Logistics and Shipping Sector**

The logistics and shipping sector presents several opportunities for strategic human resource management (HRM) to drive innovation and enhance organizational performance. Leveraging technology for recruitment processes, employer branding, and talent attraction strategies, as well as flexible work arrangements and remote work opportunities are key areas for strategic HRM in this sector.

Leveraging technology for recruitment processes is crucial in the logistics and shipping sector. The use of information systems and innovative recruitment strategies can enhance the effectiveness of decision-making regarding the supply chain's operation, as highlighted by (Kitsios et al., 2019; Okunade et al., 2023). This emphasizes the importance of integrating technology into HRM processes to attract and retain top talent.

Employer branding and talent attraction strategies are also essential in this sector. Saiari et al. (2020) indicate that the construct reliability of HRM practices, including recognition, compensation, and training, significantly impacts employee loyalty. Strategic HRM can focus on developing strong employer branding and effective talent attraction strategies to create a positive organizational image and attract top talent.

Furthermore, the logistics and shipping sector can benefit from embracing flexible work arrangements and remote work opportunities. This aligns with the need for green HRM practices, as highlighted by (Renwick et al., 2012; Uchechukwu

et al., 2023). Integrating green HRM practices, such as flexible work arrangements, can contribute to environmental sustainability while also enhancing employee satisfaction and productivity. Additionally, strategic HRM can capitalize on the digitalization of shipping management, as discussed by (Lambrou et al., 2019; Adegoke, 2023). By leveraging digital assets and steering the transformation of core shipping operations, HRM can play a pivotal role in orchestrating both physical and digital shipping resources to drive value creation and capture in shipping digitalization.

In conclusion, the logistics and shipping sector offers ample opportunities for strategic HRM to drive innovation and enhance organizational performance. By leveraging technology for recruitment, focusing on employer branding and talent attraction, embracing flexible work arrangements, and capitalizing on digitalization, strategic HRM can play a critical role in shaping the success of organizations in this sector.

### *1.2.1. Training and development programs*

Continuous learning initiatives are crucial for the professional development of employees and the overall success of organizations. Research has shown that continuous learning can be facilitated by social support, enhancing individuals' motivation and initiative (Niessen, 2006). Additionally, the adoption of e-learning systems is just the first step towards overall information system success, highlighting the importance of continuous learning opportunities beyond initial adoption (Chou et al., 2010). Furthermore, the sustainability of e-learning initiatives is a critical factor for their continuation, emphasizing the need for practical strategies to achieve diffusion and continuity through collective action (Gunn, 2010).

Leadership development programs play a vital role in fostering continuous learning and growth within organizations. They provide practical strategies for achieving diffusion and continuity through collective action, ensuring the sustainability of learning initiatives (Gunn, 2010). Moreover, they impact learners' continuous intention to use learning management systems in blended learning, highlighting their significance in promoting continuous learning (Al-Busaidi, 2012).

Cross-functional training opportunities are essential for promoting continual active learning and efficient adaptation of machine learning models to changing environments (Perkonigg & Hofmanninger, 2021). Additionally, they contribute to the success of mobile learning initiatives, which are crucial for providing ongoing education based on new information and communication technologies (Versuti et al., 2020). Furthermore, they play a role in enhancing the impact of self-management of learning and personal learning initiative on mobile language learning, reinforcing the positive relationship between perceived flexibility advantage and mobile learning continuance intention (Huang & Yu, 2019).

In conclusion, continuous learning initiatives, leadership development programs, and cross-functional training opportunities are essential for the professional development and success of individuals and organizations. They are supported by research emphasizing the importance of sustainability, social support, and practical strategies for achieving continuity in learning initiatives.

### *1.2.2. Data-driven decision-making*

Data-driven decision-making in human resources (HR) has gained significant attention in recent years. Utilizing HR analytics for workforce planning has been recognized as a crucial aspect of this approach (Angrave et al., 2016). By adopting HR analytics, organizations can make data-driven decisions that lead to a more efficient and effective management of their human resources (Chino, 2023). This is particularly important in predictive modeling for talent management, where HR analytics enables managers to replace decision-making based on anecdotal experience with higher-quality data-driven decisions based on data analysis, prediction, and experimental research (Madhani, 2022). Furthermore, the development and theoretical assumptions of a more data-driven approach to decision-making in HR have been elaborated, emphasizing the importance of performance metrics and key performance indicators (KPIs) for HR effectiveness (Kremer, 2018).

People analytics, defined as a HR practice enabled by information technology that uses descriptive, visual, and statistical analyses of data related to HR processes, human capital, organizational performance, and external economic benchmarks, plays a pivotal role in establishing business impact and enabling data-driven decision-making (Peeters et al., 2020). Human resource analytics is being used by HR professionals to make data-driven decisions rather than relying on intuition or gut feeling, which is more reliable for decision-making. In today's data-driven world, making decisions is evolving in the context of human resources, emphasizing the need for a shift towards data-driven decision-making in HR.

The integration of information systems for predictive workforce analytics provides a cycle of 'prediction – planning – performance review – causal analysis' to support protected data-driven decision-making in proactive human capital management (Chornous & Gura, 2020). However, it is important to note that HR analytics are still in their infancy, with a heavy focus on descriptive analytics and some applications of predictive analytics, but little research in prescriptive analytics (Pape, 2016). Despite this, there is evidence that HR analytics can be effective in managing the workforce more effectively and gaining a comparative advantage over competing firms (Bechter et al., 2022).

Decisions based on data and made with the use of analytical tools are normally better than those made without, highlighting the significance of leveraging data-driven decision-making in HR (Schlälke et al., 2012). A successful workforce analytics infrastructure requires specific sets of knowledge on business research methods and rigorous analytical skills, emphasizing the importance of developing a questioning mindset to drive the design, collection, analysis, and interpretation of data (Simón & Ferreiro, 2017).

In conclusion, the utilization of HR analytics for workforce planning, predictive modeling for talent management, and performance metrics and KPIs for HR effectiveness are essential components of data-driven decision-making in HR. Leveraging HR analytics enables organizations to make informed decisions, leading to more efficient management of human resources and ultimately contributing to better business outcomes.

### *1.2.3. Strategic partnerships and collaborations*

Collaborations with educational institutions are crucial for the development of learning communities, service-based learning, and interdisciplinary research and teaching. These collaborations encompass collaborative learning, internationalization, and cooperation between higher education institutions (HEIs) (Kezar, 2005). Strategic mergers between strong institutions aim to enhance competitive advantage and mutual growth (Harman & Harman, 2008). Furthermore, collaboration enforces HEIs to perform better in teaching and research development (Vevere & Mons, 2021). Academic collaborations among countries and institutions have increased in recent decades, indicating the growing importance of such partnerships (Varghese, 2022).

Industry-academia partnerships are essential for skill development. Collaboration between higher education institutions and industry has become increasingly important, particularly for industrialized countries (Chen et al., 2014). Active collaboration and engagement are integral for sustainability in higher education, motivating cognitive skills reflection and metacognition (Alamri et al., 2020). Collaboration within HEIs has been shown to enhance student learning and improve student outcomes (Heller, 2022). Moreover, inter-institutional collaboration in education must consider guiding principles to be successful (Dörner et al., 2011).

Collaborations with technology providers for innovative HR solutions are crucial for improving teaching practices within higher education. Technology serves as a mediation tool for enhancing the teaching profession, emphasizing the significance of collaboration and partnership within the learning and teaching practice (Altunay-Gazi & Altunay-Aksal, 2017). Additionally, the design of an empirical cross-boundary collaborative open learning framework emphasizes the importance of collaboration among institutions and collaborative learning to enhance the quality of teaching (Nerantzi, 2018).

In conclusion, collaborations with educational institutions, industry-academia partnerships, and technology providers are essential for the advancement of higher education. These collaborations facilitate the development of learning communities, skill enhancement, and innovative HR solutions, ultimately contributing to the overall improvement of higher education institutions.

### **1.3. Future Outlook and Emerging Trends**

Strategic Human Resource Management (SHRM) in the logistics and shipping sector is undergoing significant transformations and facing both challenges and opportunities. The emergence of the term 'strategic HRM' is a result of integrating HRM into business strategy (Zhu et al., 2007). In the context of the logistics and shipping sector, this integration is crucial for organizational effectiveness and performance (Boxall & Purcell, 2000). The logistics sector, being a critical part of the supply chain, is increasingly recognizing the importance of SHRM in ensuring efficient operations and competitive advantage (Foster & Rhoden, 2020). The sector is also witnessing a diffusion of new approaches to HRM, with growing attention being given to technology in supporting professionalization of the HR function and strategies for talent management (Francis & Baum, 2018).

The future outlook for SHRM in the logistics and shipping sector presents various challenges and opportunities. The forces of globalization, rapid advances in transportation technology, and developments in the logistics sector are

impacting the operations of ports and their competitive edge in relation to shipping lines (Foster & Rhoden, 2020). Additionally, the sector is facing challenges such as increased cost, transit limitations, and strategic dependence on only one transport mode, necessitating the exploration of alternative logistics formulas (Mesa et al., 2020). Furthermore, the integration of automation and artificial intelligence into the logistics sector is an emerging trend, impacting the future of logistics operations and supply chain management (Foster & Rhoden, 2020).

In the maritime trade, future projections indicate an increase in load demand, operational costs, and environmental concerns, highlighting the need for sustainable and efficient logistics operations (Bakar et al., 2021). The port sector, being the main infrastructure for foreign trade, occupies a strategic position in the global transport system, handling approximately 90% of world trade carried out via international shipping (Somensi et al., 2017). This underscores the importance of strategic HRM in ensuring the smooth functioning and performance of port-centric logistics.

The strategic priorities of innovative transformations in maritime transportation are considered key trends affecting the development of the transport and logistics sector, emphasizing the need for strategic HRM to drive these transformations effectively (Yakovleva & Beletskiy, 2022). Moreover, the shipping industry is witnessing the emergence of green shipping as an important trend, focusing on reducing ship emissions and promoting sustainable practices (Katuwawala & Bandara, 2022).

In conclusion, the future outlook and emerging trends of SHRM in the logistics and shipping sector present both challenges and opportunities. Strategic HRM is essential for addressing the evolving landscape of the sector, integrating technology, promoting sustainability, and ensuring efficient operations.

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## 2. Conclusion

In the logistics and shipping sector, numerous challenges and opportunities shape the landscape. Challenges include a highly competitive market, technological disruptions, talent shortages, regulatory complexities, and geopolitical uncertainties. On the other hand, opportunities arise from digitalization, globalization, sustainability initiatives, and the growing demand for efficient supply chain management. Navigating these challenges while capitalizing on opportunities is paramount for sustainable growth and success.

Strategic Human Resource Management (HRM) plays a pivotal role in addressing the dynamic nature of the logistics and shipping sector. HRM practices tailored to the industry's needs enable organizations to attract, develop, and retain top talent amidst fierce competition. Moreover, strategic HRM fosters a culture of innovation, adaptability, and resilience, essential for embracing technological advancements and navigating market uncertainties. By aligning HR strategies with business objectives, organizations can optimize workforce performance, enhance operational efficiency, and maintain a competitive edge in the marketplace.

To thrive in the rapidly evolving logistics and shipping industry, organizations must prioritize the implementation of strategic HRM practices. This entails: investing in Talent Development by Developing robust training programs to upskill employees and equip them with the necessary competencies to embrace technological advancements and meet evolving job demands. Foster a diverse and inclusive workplace culture to attract talent from varied backgrounds, perspectives, and experiences, enhancing creativity, innovation, and problem-solving capabilities. Adopting Agile HR Strategies by Implementing agile HR strategies that enable rapid adaptation to changing market conditions, allowing organizations to respond promptly to emerging challenges and capitalize on new opportunities. Leverage data analytics to gain actionable insights into workforce trends, performance metrics, and employee engagement levels, facilitating informed decision-making and resource allocation. Prioritize employee well-being by promoting work-life balance, offering flexible work arrangements, and providing support services to mitigate stress and burnout. Develop effective leadership pipelines and succession plans to ensure continuity and sustainability, nurturing future leaders who can drive organizational growth and innovation.

By embracing strategic HRM practices, organizations in the logistics and shipping sector can position themselves for long-term success, effectively addressing industry challenges while seizing emerging opportunities in the dynamic global marketplace.

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## Compliance with ethical standards

### *Disclosure of conflict of interest*

No conflict of interest to be disclosed.

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## References

- [1] Adegoke, A., (2023). Patients' Reaction to Online Access to Their Electronic Medical Records: The Case of Diabetic Patients in the US. *International Journal of Applied Sciences: Current and Future Research Trends*, 19 (1), pp 105-115
- [2] Akpoviro, K., Ismaila, K., & Zekeri, A. (2020). Correlate of workforce diversity and organisational performance of multinational food producing industry in nigeria. *Business Ethics and Leadership*, 4(1), 126-137. [https://doi.org/10.21272/bel.4\(1\).126-137.2020](https://doi.org/10.21272/bel.4(1).126-137.2020)
- [3] Alamri, M., Almaiah, M., & Al-Rahmi, W. (2020). The role of compatibility and task-technology fit (ttf): on social networking applications (snas) usage as sustainability in higher education. *Ieee Access*, 8, 161668-161681. <https://doi.org/10.1109/access.2020.3021944>
- [4] Al-Busaidi, K. (2012). Learners' perspective on critical factors to lms success in blended learning: an empirical investigation. *Communications of the Association for Information Systems*, 30. <https://doi.org/10.17705/1cais.03002>
- [5] Altınay-Gazi, Z. and Altınay-Aksal, F. (2017). Technology as mediation tool for improving teaching profession in higher education practices. *Eurasia Journal of Mathematics Science and Technology Education*, 13(3). <https://doi.org/10.12973/eurasia.2017.00644a>
- [6] Angrave, D., Charlwood, A., Kirkpatrick, I., Lawrence, M., & Stuart, M. (2016). Hr and analytics: why hr is set to fail the big data challenge. *Human Resource Management Journal*, 26(1), 1-11. <https://doi.org/10.1111/1748-8583.12090>
- [7] Ashikali, T., Groeneveld, S., & Kuipers, B. (2020). The role of inclusive leadership in supporting an inclusive climate in diverse public sector teams. *Review of Public Personnel Administration*, 41(3), 497-519. <https://doi.org/10.1177/0734371x19899722>
- [8] Bechter, B., Brandl, B., & Lehr, A. (2022). The role of the capability, opportunity, and motivation of firms for using human resource analytics to monitor employee performance: a multi-level analysis of the organisational, market, and country context. *New Technology Work and Employment*, 37(3), 398-424. <https://doi.org/10.1111/ntwe.12239>
- [9] Becker, S., Ekholm, K., & Muendler, M. (2013). Offshoring and the onshore composition of tasks and skills. *Journal of International Economics*, 90(1), 91-106. <https://doi.org/10.1016/j.jinteco.2012.10.005>
- [10] Beer, M., Boselie, P., & Brewster, C. (2015). Back to the future: implications for the field of hrm of the multistakeholder perspective proposed 30 years ago. *Human Resource Management*, 54(3), 427-438. <https://doi.org/10.1002/hrm.21726>
- [11] Boxall, P. and Purcell, J. (2000). Strategic human resource management: where have we come from and where should we be going?. *International Journal of Management Reviews*, 2(2), 183-203. <https://doi.org/10.1111/1468-2370.00037>
- [12] Brussevich, M., Dabla-Norris, E., & Khalid, S. (2019). Is technology widening the gender gap? automation and the future of female employment. *Imf Working Paper*, 19(91), 1. <https://doi.org/10.5089/9781498303743.001>
- [13] Caesar, L. and Cahoon, S. (2015). Training seafarers for tomorrow: the need for a paradigm shift in admission policies. *Universal Journal of Management*, 3(4), 160-167. <https://doi.org/10.13189/ujm.2015.030404>
- [14] Chan, J., Chan, D., Chan, A., & Lam, P. (2012). Risk mitigation strategies for guaranteed maximum price and target cost contracts in construction. *Journal of Facilities Management*, 10(1), 6-25. <https://doi.org/10.1108/14725961211200379>
- [15] Chen, F., Wu, C., Yang, W., & Zhang, W. (2014). S&t collaboration platform for higher education institutions and industry: a case study of wenzhou, china. *Engineering Economics*, 24(5). <https://doi.org/10.5755/j01.ee.24.5.2591>



- [16] Chino, F. (2023). The nexus between hr analytics and organizational performance in the uae. <https://doi.org/10.21203/rs.3.rs-2642315/v1>
- [17] Chornous, G. and Gura, V. (2020). Integration of information systems for predictive workforce analytics: models, synergy, security of entrepreneurship. *European Journal of Sustainable Development*, 9(1), 83. <https://doi.org/10.14207/ejsd.2020.v9n1p83>
- [18] Chou, H., Lin, I., Woung, L., & Tsai, M. (2010). Engagement in e-learning opportunities: an empirical study on patient education using expectation confirmation theory. *Journal of Medical Systems*, 36(3), 1697-1706. <https://doi.org/10.1007/s10916-010-9630-9>
- [19] Creazza, A. and Dallari, F. (2010). Evaluating logistics network configurations for a global supply chain. *Supply Chain Management an International Journal*, 15(2), 154-164. <https://doi.org/10.1108/13598541011028750>
- [20] Curb, J., Cooper, S., Cutter, G., & Hawkins, C. (1983). Training and certification of blood pressure observers. *Hypertension*, 5(4), 610-614. <https://doi.org/10.1161/01.hyp.5.4.610>
- [21] Dauth, W., Findeisen, S., Suedekum, J., & Woessner, N. (2021). The adjustment of labor markets to robots. *Journal of the European Economic Association*, 19(6), 3104-3153. <https://doi.org/10.1093/jeea/jvab012>
- [22] Desselle, S. and McKeirnan, K. (2019). The value and potential integration of pharmacy technician national certification into processes that help assure a competent workforce. *Pharmacy*, 7(4), 147. <https://doi.org/10.3390/pharmacy7040147>
- [23] Dörner, N., Morhart, F., Gassmann, O., & Tomczak, T. (2011). Inter-institutional collaboration for new integrative teaching programs. *On the Horizon the International Journal of Learning Futures*, 19(3), 217-225. <https://doi.org/10.1108/10748121111163922>
- [24] Dover, T., Kaiser, C., & Major, B. (2019). Mixed signals: the unintended effects of diversity initiatives. *Social Issues and Policy Review*, 14(1), 152-181. <https://doi.org/10.1111/sipr.12059>
- [25] Fabian, A.A., Uchekukwu, E.S., Okoye, C.C. and Okeke, N.M., (2023). Corporate Outsourcing and Organizational Performance in Nigerian Investment Banks. *Sch J Econ Bus Manag*, 2023Apr, 10(3), pp.46-57.
- [26] Foster, M. and Rhoden, S. (2020). The integration of automation and artificial intelligence into the logistics sector. *Worldwide Hospitality and Tourism Themes*, 12(1), 56-68. <https://doi.org/10.1108/whatt-10-2019-0070>
- [27] Francis, H. and Baum, T. (2018). Hr transformation within the hotel industry: building capacity for change. *Worldwide Hospitality and Tourism Themes*, 10(1), 86-100. <https://doi.org/10.1108/whatt-10-2017-0064>
- [28] Garg, A. (2020). Comparison of demographic changes in shipbuilding industry in india & china. *Global Journal of Engineering Sciences*, 5(2). <https://doi.org/10.33552/gjes.2020.05.000609>
- [29] Gotsis, G. and Grimani, A. (2016). Diversity as an aspect of effective leadership: integrating and moving forward. *Leadership & Organization Development Journal*, 37(2), 241-264. <https://doi.org/10.1108/lodj-06-2014-0107>
- [30] Gunn, C. (2010). Sustainability factors for e-learning initiatives. *Research in Learning Technology*, 18(2). <https://doi.org/10.3402/rlt.v18i2.10755>
- [31] Gunnarsson, B. and Lasserre, F. (2023). Supply chain control and strategies to reduce operational risk in russian extractive industries along the northern sea route. *Arctic Review on Law and Politics*, 14. <https://doi.org/10.23865/arctic.v14.4052>
- [32] Harman, G. and Harman, K. (2008). Strategic mergers of strong institutions to enhance competitive advantage. *Higher Education Policy*, 21(1), 99-121. <https://doi.org/10.1057/palgrave.hep.8300172>
- [33] Hasanspahić, N., Vujičić, S., Čampara, L., & Piekarska, K. (2021). Sustainability and environmental challenges of modern shipping industry. *Istrazivanja I Projektovanja Za Privredu*, 19(2), 369-374. <https://doi.org/10.5937/jaes0-28681>
- [34] Heller, R. (2022). A new bloom – adding ‘collaborate’ to bloom’s taxonomy. *Journal of Learning Development in Higher Education*, (24). <https://doi.org/10.47408/jldhe.vi24.906>
- [35] Hoque, A., Rasiah, R., Furuoka, F., & Kumar, S. (2021). Linkages among automation, job displacement and reshoring: evidence from the bangladeshi apparel industry. *Research Journal of Textile and Apparel*, 26(4), 515-531. <https://doi.org/10.1108/rjta-04-2021-0044>

- [36] Huang, R. and Yu, C. (2019). Exploring the impact of self-management of learning and personal learning initiative on mobile language learning: a moderated mediation model. *Australasian Journal of Educational Technology*, 35(3). <https://doi.org/10.14742/ajet.4188>
- [37] Katuwawala, H. and Bandara, Y. (2022). System-based barriers for seaports in contributing to sustainable development goals. *Maritime Business Review*, 7(3), 255-269. <https://doi.org/10.1108/mabr-02-2021-0007>
- [38] Kezar, A. (2005). Redesigning for collaboration within higher education institutions: an exploration into the developmental process. *Research in Higher Education*, 46(7), 831-860. <https://doi.org/10.1007/s11162-004-6227-5>
- [39] Kim, T., Sharma, A., Gausdal, A., & Chae, C. (2019). Impact of automation technology on gender parity in maritime industry. *Wmu Journal of Maritime Affairs*, 18(4), 579-593. <https://doi.org/10.1007/s13437-019-00176-w>
- [40] Kitsios, F., Kamariotou, M., Madas, M., Fouskas, K., & Manthou, V. (2019). Information systems strategy in smes: critical factors of strategic planning in logistics. *Kybernetes*, 49(4), 1197-1212. <https://doi.org/10.1108/k-10-2018-0546>
- [41] Knies, E. (2021). Introduction to the research handbook on hrm in the public sector. <https://doi.org/10.4337/9781789906622.00006>
- [42] Kremer, K. (2018). Hr analytics and its moderating factors. *Vezetéstudomány / Budapest Management Review*, 49(11), 62-68. <https://doi.org/10.14267/veztud.2018.11.07>
- [43] Lam, J. and Yap, W. (2019). A stakeholder perspective of port city sustainable development. *Sustainability*, 11(2), 447. <https://doi.org/10.3390/su11020447>
- [44] Lambrou, M., Watanabe, D., & Iida, J. (2019). Shipping digitalization management: conceptualization, typology and antecedents. *Journal of Shipping and Trade*, 4(1). <https://doi.org/10.1186/s41072-019-0052-7>
- [45] Lee, P., Kwon, O., & Ruan, X. (2019). Sustainability challenges in maritime transport and logistics industry and its way ahead. *Sustainability*, 11(5), 1331. <https://doi.org/10.3390/su11051331>
- [46] Leslie, L. (2019). Diversity initiative effectiveness: a typological theory of unintended consequences. *Academy of Management Review*, 44(3), 538-563. <https://doi.org/10.5465/amr.2017.0087>
- [47] Madhani, P. (2022). Human resources analytics: leveraging human resources for enhancing business performance. *Compensation & Benefits Review*, 55(1), 31-45. <https://doi.org/10.1177/08863687221131730>
- [48] Mesa, J., Aballay, L., Serrano-Arcos, M., & Sánchez-Fernández, R. (2020). Analysis of intermodal transport potentials for vegetables export from southeast Spain. *Sustainability*, 12(20), 8502. <https://doi.org/10.3390/su12208502>
- [49] Monios, J. (2022). When smooth space becomes turbulent: the collapse of hanjin shipping and the immobilisation of ships, containers, goods and people. *Environment and Planning a Economy and Space*, 55(2), 320-338. <https://doi.org/10.1177/0308518x221126527>
- [50] Nerantzi, C. (2018). The design of an empirical cross-boundary collaborative open learning Bakar, N., Guerrero, J., Vasquez, J., Bazmohammadi, N., Yu, Y., Abusorrah, A., ... & Al-Turki, Y. (2021). A review of the conceptualization and operational management of seaport microgrids on the shore and seaside. *Energies*, 14(23), 7941. <https://doi.org/10.3390/en14237941>
- [51] Niessen, C. (2006). Age and learning during unemployment. *Journal of Organizational Behavior*, 27(6), 771-792. <https://doi.org/10.1002/job.400>
- [52] Okunade, B.A., Adediran, F.E., Balogun, O.D., Maduka, C.P., Adegoke, A.A. and Daraojimba, R.E., 2023. Gender policies and women's empowerment in Nigeria: an analytical review of progress and barriers. *International Journal of Applied Research in Social Sciences*, 5(10), pp.543-565.
- [53] Oldenburg, M., Harth, V., & Jensen, H. (2013). Overview and prospect: food and nutrition of seafarers on merchant ships. *International Maritime Health*, 64(4), 191-194. <https://doi.org/10.5603/imh.2013.0003>
- [54] Ongel, A., Loewer, E., Roemer, F., Sethuraman, G., Chang, F., & Lienkamp, M. (2019). Economic assessment of autonomous electric microtransit vehicles. *Sustainability*, 11(3), 648. <https://doi.org/10.3390/su11030648>
- [55] Pape, T. (2016). Prioritising data items for business analytics: framework and application to human resources. *European Journal of Operational Research*, 252(2), 687-698. <https://doi.org/10.1016/j.ejor.2016.01.052>

- [56] Peeters, T., Paauwe, J., & Voorde, K. (2020). People analytics effectiveness: developing a framework. *Journal of Organizational Effectiveness People and Performance*, 7(2), 203-219. <https://doi.org/10.1108/joepp-04-2020-0071>
- [57] Perkonigg, M. and Hofmanninger, J. (2021). Continual active learning for efficient adaptation of machine learning models to changing image acquisition.. <https://doi.org/10.48550/arxiv.2106.03351>
- [58] Pulu, B. and Menchaca, M. (2021). Effective e-learning for a global workforce: designing with cultural competency.. <https://doi.org/10.22492/issn.2189-1036.2021.20>
- [59] Puritty, C., Strickland, L., Alia, E., Blonder, B., Klein, E., Kohl, M., ... & Gerber, L. (2017). Without inclusion, diversity initiatives may not be enough. *Science*, 357(6356), 1101-1102. <https://doi.org/10.1126/science.aai9054>
- [60] Rees, C. and Johari, H. (2010). Senior managers' perceptions of the hrm function during times of strategic organizational change. *Journal of Organizational Change Management*, 23(5), 517-536. <https://doi.org/10.1108/09534811011071261>
- [61] Renwick, D., Redman, T., & Maguire, S. (2012). Green human resource management: a review and research agenda\*. *International Journal of Management Reviews*, 15(1), 1-14. <https://doi.org/10.1111/j.1468-2370.2011.00328.x>
- [62] Saiari, A., Puteh, F., & Ali, A. (2020). Assessing construct reliability of human resources management practices (hrm) and employee loyalty: a preliminary evidence from the omani logistic sector. *International Journal of Human Resource Studies*, 10(3), 22. <https://doi.org/10.5296/ijhrs.v10i3.16876>
- [63] Salah, A. and Moselhi, O. (2014). Estimating post- and pre-mitigation contingency in construction.. <https://doi.org/10.2495/risk140211>
- [64] Schläfke, M., Silvi, R., & Möller, K. (2012). A framework for business analytics in performance management. *International Journal of Productivity and Performance Management*, 62(1), 110-122. <https://doi.org/10.1108/17410401311285327>
- [65] Seghezzi, A., Mangiaracina, R., Tumino, A., & Perego, A. (2020). 'pony express' crowdsourcing logistics for last-mile delivery in b2c e-commerce: an economic analysis. *International Journal of Logistics Research and Applications*, 24(5), 456-472. <https://doi.org/10.1080/13675567.2020.1766428>
- [66] Seo, Y. and Park, J. (2017). The role of seaports in regional employment: evidence from south korea. *Regional Studies*, 52(1), 80-92. <https://doi.org/10.1080/00343404.2016.1262014>
- [67] Simón, C. and Ferreiro, E. (2017). Workforce analytics: a case study of scholar–practitioner collaboration. *Human Resource Management*, 57(3), 781-793. <https://doi.org/10.1002/hrm.21853>
- [68] Somensi, K., Ensslin, S., Dutra, A., Ensslin, L., & Dezem, V. (2017). Knowledge construction about port performance evaluation: an international literature analysis. *Intangible Capital*, 13(4), 720. <https://doi.org/10.3926/ic.956>
- [69] Talluri, S., Kull, T., Yildiz, H., & Yoon, J. (2013). Assessing the efficiency of risk mitigation strategies in supply chains. *Journal of Business Logistics*, 34(4), 253-269. <https://doi.org/10.1111/jbl.12025>
- [70] Teo, S. and Crawford, J. (2005). Indicators of strategic hrm effectiveness: a case study of an australian public sector agency during commercialization. *Public Personnel Management*, 34(1), 1-16. <https://doi.org/10.1177/009102600503400101>
- [71] Tomlin, B. (2006). On the value of mitigation and contingency strategies for managing supply chain disruption risks. *Management Science*, 52(5), 639-657. <https://doi.org/10.1287/mnsc.1060.0515>
- [72] Uchekukwu, E.S., Amechi, A.F., Okoye, C.C. and Okeke, N.M., 2023. Youth Unemployment and Security Challenges in Anambra State, Nigeria. *Sch J Arts Humanit Soc Sci*, 4, pp.81-91.
- [73] Varghese, N. (2022). Academic collaborations in asia. *International Journal of African Higher Education*, 9(3), 177-200. <https://doi.org/10.6017/ijahe.v9i3.16055>
- [74] Versuti, F., Andrade, R., & Zerbini, T. (2020). Learning strategies in distance courses: difference between teaching degree and extension courses. *Psicologia Teoria E Pesquisa*, 36. <https://doi.org/10.1590/0102.3772e3631>
- [75] Vevere, V. and Mons, A. (2021). Behavioural economics in higher education institution - business collaboration paradigm in context of global competition. *SHS Web of Conferences*, 92, 02066. <https://doi.org/10.1051/shsconf/20219202066>

- [76] Vishal, S., Yiannis, X., Castronovo, F., Sunil, S., Camillo, C., & Andrius, J. (2022). A preliminary review of the opportunities and challenges in training and certification for computing in construction.. <https://doi.org/10.35490/ec3.2022.184>
- [77] Yaakub, S. and Mustafa, H. (2015). Supply chain risk management for the sme's. *Academic Journal of Interdisciplinary Studies*. <https://doi.org/10.5901/ajis.2015.v4n1s2p151>
- [78] Yakovleva, T. and Beletskiy, A. (2022). Strategic priorities of innovative transformations of maritime transportation. *Russian Journal of Industrial Economics*, 15(1), 58-67. <https://doi.org/10.17073/2072-1633-2022-1-58-67>
- [79] Zhao, D. and Wang, J. (2010). A quantitative analysis of shipping logistics human resources in ningbo china.. <https://doi.org/10.1109/icsmc.2010.5641743>
- [80] Zhu, Y., Warner, M., & Rowley, C. (2007). Human resource management with 'asian' characteristics: a hybrid people-management system in east asia. *The International Journal of Human Resource Management*, 18(5), 745-768. <https://doi.org/10.1080/09585190701248133framework>. *Open Praxis*, 10(4), 325. <https://doi.org/10.5944/openpraxis.10.4.907>