Adapting HRM Strategies to the Challenges of Global Logistics and Supply Chain Management

Mohammad Shamshul Arefin[1*], Taslima Jannat[2]

[1]Universiti Sains Islam, Bandar Baru Nilai, 71800 Nilai, Negeri Sembilan, Malaysia

[2]UCSI University, Kuala Lumpur, Malaysia

*Corresponding Author

ABSTRACT

Logistics and SCM systems are integral to the business environment of any industry and are particularly important in a globalized world. SCM is a solution that combines the processes of sourcing, manufacturing, and distribution, which helps achieve organizational goals such as increasing product quality and customer service. Cultural diversity, regulatory stances, transportation disruptions, and geopolitical tensions pose a global scale challenge. These challenges demand the strategic alignment of human resource management (HRM) and SCM. Conventional Human Resource Management (HRM) practices fail to address the dynamic requirements of international supply chains because of their typically responsive nature.

In contrast, strategic HRM proactively plans to meet business requirements and aligns key functions, such as talent acquisition, training, employee engagement, and performance management with organizational goals. This study's findings demonstrate the significance of talent and leadership management practices in dealing with SCM challenges. The results encourage the implementation of integrated HRM-SCM practices to improve operational efficiency, foster organizational development, and achieve sustainability in a highly connected world.

Keywords: Talent Acquisition, Employee Engagement, Performance Management, Regulatory Complexities, Cultural Diversity, Sustainability in Business.

INTRODUCTION

Ensuring optimal logistics and supply chain performance will deliver benefits that help achieve business objectives, from cost optimization through operational efficiency to customer satisfaction. Logistics is one of the most essential functions of any business, as it includes the management of transportation, warehousing, packaging, inventory, and information to minimize costs while increasing efficiency. These practices directly impact overall costs and performance indicators, thereby increasing business efficiency and competitiveness (Ristovska, Kozuharov & Petkovski, 2017). Integrating supply chain management with logistics and streamlining operations adds value and provides competitive advantage. Digital technologies such as AI and IoT enhance the interconnection and exchange of real-time data that enable this integration (Rahman, Anwar & Faizanuddin, 2025; Ibarra-Peña, Morán-Murillo & Rodríguez-Sares, 2024). Integrating effective customer management processes helps logistics companies respond to market demand fluctuations due to various factors, including the pandemic, and maintain healthy supply chains, particularly when shipping internationally. Effective customer relationship management can alleviate Global supply chain risks (Ilyas et al., 2024).

Logistics adds value to local and global supply chains in a broader context. It aids customer relationship management, manufacturing, and procurement, all of which are important for business success (Rodrigue, 2012). Thus, the importance of these practices in green logistics is increasing. These efforts entail lowering carbon emissions and transitioning to sustainable business models (Aldakhil et al., 2018; Ibarra-Peña, Morán-Murillo & Rodríguez-Sares, 2024 Gallego-Alvarez et al. (2020)). Organizations that execute and manage their

logistics and supply chain activities have improved their business performance, resulting in better product quality, reduced lead times, and higher customer satisfaction (Hanafiah et al., 2019). This holds even for the economic sustainability of SMEs, as measured through their solvency and profitability (Arsić et al., 2020), in which the ownership of logistics capacities can positively influence.

The nature of global supply chains has unique challenges that affect human resources, which require strategic human resource management to optimize supply chain operations. The key challenges are cultural differences, regulatory complexities, disruptions in transport, and geopolitical risks. Human resource strategies that focus on adaptability and flexibility remain paramount to operational resilience and employee engagement in global supply chains. These strategies are bolstered by the use Digital HR technologies that autonomously enable communication and collaboration within disparate teams (Esan et al., 2024).

Foundational collaboration across culturally diverse global teams involves developing cultural intelligence and cultivating inclusive leadership. If perform correctly, these practices help mitigate cultural differences and, enhance team performance (Esan, Ajayi & Olawale, 2024). A key top-level insight is integrating sustainability for competitive advantage, moving beyond compliance, and embedding these imperatives into HR practices. HR is crucial for imbuing these values into supply chain operations, facilitating organizational paradigm shifts towardss more sustainable models (Esan, Ajayi & Olawale, 2024; Eyo-Udo, Odimarha & Ejairu, 2024).

Long-term shortages of materials, labor, and resources threaten supply chain operations. Ivanov & Dolgui, 2022, pp. 6-9] These shortcomings necessitate strategic HR management, ensuring that necessary adaptation and recovery processes are in place. It is necessary to handle social sustainability challenges, such as creating participation and a regulatory system. HR can play a role by advocating for social sustainability criteria and key performance indicators in supply chains (Hasle & Jensen, 2012). Green Human Resource Management (GHRM): GHRM practices such as training, performance appraisal, and reward systems (rewards based on eco-behavior) positively affect green supply chain management practices. These practices are particularly significant in the pharmaceutical sector, whose environmental dimensions are gaining importance (Dahinine et al., 2023).

However, the intricate web of the global supply chain demands a trained and diverse workforce equipped to handle cross-cultural challenges, adept at managing risks, and highly knowledgeable about technology implementations. Accordingly, human resource management strategies must be changed to cater to these demands, particularly in recruitment, training, development, employee engagement, and performance management. Workforce training must be prioritized to create resilient and agile supply chains. Training programs must target operational flexibility and modern technology deployment to improve supply chain resilience (Talha, Arif & Jawab, 2024). It seeks to develop organizational competencies, including but not limited to research and development, technology commercialization, and production capabilities. These capabilities act as mechanisms through which Supply chain management strategies impact operational performance and, enhance overall business performance (Lee, 2021).

Leadership Strategies: Policy making, Technology and Innovation, Environmental Management, and International Collaboration. These approaches are essential in improving global competitive advantage and addressing widespread supply chain dynamics (Balasubramanian & Shukla, 2020). Developing strong strategic alliances and partnerships can offer stability in terms of production and help reduce inventory. This strategy successfully sustains supplier relationships and promotes long-term development (Son & Kim, 2022). As modern supply chains are multi-dimensional, a more comprehensive approach to supply chain strategies is required. One novel area of research is building a taxonomy of ID strategies that mirrors the complexity of the real world (Aboutalebi, 2012).

For organizations to have direct efficient coordination between HRM and logistics and supply chain management, they must correlate their HR strategies with supply chain strategies to improve their competitive advantage in the global market. According to Doğru (2021) and Barney (2012), there is a stream of research on supply chain management (SCM) that brings human resource management (HRM) under the scope of investigation based on the resource-based view as a source of sustainable competitive advantage by, integrating supply chain management and HRM by drawing on the RBV (Barney, 2012; Doğru, 2021).HR

practices, including recruiting and selection, training, development, and appraisal, are important to enhance SCM performance. Cultivating and sustaining such talent is critical for global supply chain operational excellence and risk mitigation (Hussain, 2020).

Supportive management and employee backing enable successful SCM practices, increase the effectiveness of training activities, and reduce resistance to change. Such support is critical for achieving and maintaining competitive advantage, even when rival firms implement SCM practices that are the same as the corresponding SCM practices of the first firm (Gowen Iii & Tallon, 2003). Effective collaboration in global supply chains requires HR strategies centered on adaptability, technological integration, and cultural intelligence. These approaches are vital for sustaining operational resilience and building inclusive leadership in diverse geo-cultural landscapes (Esan, Ajayi & Olawale, 2024). Competitiveness depends heavily on agility and adaptability, as well as the alignment of supply chain practices and strategic management of human resources (HR) to engage employees and ensure their agility and adaptability. These aspects support organizations in their rapid adaptability towardss changes in the market and maintain a competitive edge (Feizabadi, Gligor & Alibakhshi Motlagh, 2019; Siagian et al., 2024).

The globalization of supply chains introduces several complexities and challenges that organizations must navigate to remain competitive and efficient. These challenges include cultural differences, regulatory variations, transportation disruptions, geopolitical risks, and the need for real-time coordination and visibility. Global supply chains must manage diverse cultural norms and regulatory requirements, that can complicate operations and require tailored strategies for different regions (Gunasekaran, Subramanian & Rahman, 2015; Kachina, Kachin & Shchegoleva, 2016). The need for highly coordinated flows of goods and services across borders makes supply chains vulnerable to disruptions, such as transportation delays and geopolitical tensions (Manuj & Mentzer, 2008).

International conflicts, protectionism, and economic decoupling are just a few examples of sociopolitical factors that substantially influence supply chain strategies and resilience (Narkhede et al., 2024). Technologies such as blockchain, IoT, and AI are critical for improving supply chain visibility, performance, and decision-making capabilities (Dudczyk, Dunston & Crosby, 2024; Lai, 2024). Indeed, the pressure on supply chains to become more sustainable and even to consider broader social responsibility issues is increasing and is ever more important in how suppliers themselves are evaluated (Kachina, Kachin, & Shchegoleva, 2016; Nurjanni, Carvalho, & Costa, 2017).

Developing comprehensive risk management models and resilience frameworks can help mitigate the impact of global supply chain complexities (Gunasekaran, Subramanian & Rahman, 2015; Manuj & Mentzer, 2008). Implementing cutting-edge technologies can streamline operations, improve real-time decision-making, and enhance supply chain agility and adaptability (Dudczyk, Dunston & Crosby, 2024; Lai, 2024; Mutangili, 2019). Transitioning from traditional linear processes to integrated, agile systems can improve flexibility and responsiveness to market changes (Mutangili, 2019). Green supply chain practices and sustainability strategies can address environmental concerns and improve long-term viability (Milovanović, Milovanović & Radisavljević, 2017; Nurjanni, Carvalho & Costa, 2017).

Conventional human resource management (HRM) practices fail to meet the growing challenges of managing an internationally scattered workforce in logistics and supply chain organizations. Conversely, strategic human resource management (SHRM) is a forward-looking practice that serves business leadership aspirations better while responding to the evolving pressures of global supply chains. These new, enabling policies can support global supply chains as operational resilience and employee engagement now depend on the broad adoption of adaptable and flexible work environments — something that SHRM strongly advocates. This involves mobilizing digital HR technologies to meet these needs (Esan, Ajayi & Olawale, 2024). High demand and a limited pool of qualified professionals make hiring and maintaining experienced talent rigid in the logistics and shipping industries. SHRM's concrete practices address these challenges through strong recruitment, remuneration, and learning opportunities (Ogedengbe et al., 2024; Esan, Ajayi & Olawale, 2024)

Advancements in technology, such as automation and data analytics, are leveraged in SHRM to streamline processes, enhance workforce productivity, and make data-driven decisions (Ogedengbe et al., 2024; Olawale

et al., 2024). Developing cultural intelligence and inclusive leadership within global teams are vital for effective collaboration across diverse cultural landscapes (Esan, Ajayi & Olawale 2024). Sustainability and Ethical Practices: Integrating sustainability and ethical considerations into HR practices is essential to maintain a competitive advantage and ensure regulatory compliance (Esan, Ajayi & Olawale, 2024). Risk Management: SHRM integrates risk management with HR practices to enhance organizational resilience and sustainability, particularly in global disruptions (Olawale et al., 2024).

Meanwhile, traditional HR practices, tend to be reactive, concentrating on administrative functions rather than being strategically aligned, holding the potential for repetitive inefficiencies and incoherence (Jayasinghe, Hadiwattege & Ilangakoon, 2024; Boudreau & Lawler, 2014). HR practices evolve slowly, which may not help them be strategic and add value to the organization. One common reason for this is that bureaucratic management approaches restrict HR from operational activities (Boudreau & Lawler, 2014). While conventional HRM has been viewed from the perspective of Rational Economic Theory, its implementation often lacks attention, or support from, broader organizational strategies with which modern concerns of workforce mobility and economic fluctuations may impact (Jayasinghe, Hadiwattege & Ilangakoon, 2024).

Emphasizes aligning HR practices with organizational goals, enhancing employee engagement, and leveraging technology to improve HR processes (Jayasinghe, Hadiwattege & Ilangakoon, 2024). These approaches focus on flexibility and the use of data to inform HR decisions, which can help manage industry-specific challenges more effectively (Jayasinghe, Hadiwattege & Ilangakoon, 2024). It incorporates long-term development and flexibility, focusing on employee satisfaction and organizational performance, which can address the limitations of traditional HRM (Davidescu et al., 2020; Villajos, Tordera & Peiró, 2019).

This necessitates organizations to ensure that their HRM strategies consider the specificities of global logistics according to the notion of global supply chains. Ensuring that is aligned is vital to drive the talent needed to support change, retain talent to reduce operational inefficiencies and risks, and to remain competitive. They must concentrate on developing, training, and retaining capable global supply-chain managers. It requires a global mindset and an understanding of inter-organizational relationships (Harvey et al., 2013). A challenge in logistics and shipping is the shortage of qualified talent and high turnover rates. Ogedengbe et al., 2024 Strategic HRM - can mitigate such issues through effective recruitment strategies, competitive compensation systems, and continuous learning programs. To ensure that operations continue seamlessly even during disruptions, HRM strategies must prioritize workforce agility, technological integration, leadership development, and the creation of a resilient organizational culture (Esan, Ajayi & Olawale, 2024).

Corporate culture and HRM policies shape the effectiveness of supply chain management strategies. Motivating Employees Strategies Aligning these strategies with logistics strategies can further create employee engagement and lower turnover (Mcafee, Glassman & Honeycutt, 2002). Good human resource strategies provide a framework for better cooperation and performance in global supply chains. Namely, adaptability, digital HR technologies, and the integration sustainability and ethical practices (Esan, Ajayi & Olawale, 2024). COVID-19 and Talent Management: The pandemic brought supply chain managers to the forefront of addressing challenges. Simultaneously HRM needs to focus on talent development and skill shortages (Van Hoek, Gibson & Johnson, 2020). However, adding HRM practices to GSCM will contribute to better operational performance and support the sustainable performance of business models (Samuels & Takawira, 2024).

Research Questions

1. How does talent acquisition adopt towards the challenges of global logistics and supply chain management?

2. How does up-skilling and re-skilling initiatives adopt towards the challenges of global logistics and supply chain management?

3. How does competitive compensation and benefits adopt towards the challenges of global logistics and supply chain management?

Research Objectives

1. To study the factor of talent acquisition of adopting towards the challenges of global logistics and supply chain management.

2. To investigate the factors of up-skilling and re-skilling initiatives to adopt towards the challenges of global logistics and supply chain management.

3. To study the factors of up-skilling and re-skilling initiatives to adopt towards the challenges of global logistics and supply chain management.

Scope of the study

Optimizing the flow of human resources within the supply chain management (SCM) process can provide an edge in terms of efficiency, resilience, and competitiveness. It focuses on the evolution of supply chain management and its impact on human resource management strategies. Supply chains integration involves performance management, teamwork, and talent training. Such elements improve operational efficiency (Wan, 2023), which is vital for optimizing employee performance and process design. These HR strategies, which improve collaboration and performance in global supply chains, emphasize adaptability, technological integration, and cultural intelligence. The 2m strategies enable timely collaboration in disparate and diverse cultures (Esan, Ajayi & Olawale, 2024).

An agile workforce, leadership growth, and sturdy organizational culture are essential human resource management ((HRM)) strategies needed for supply chain resilience, especially in logistics and transport (Esan, Ajayi & Olawale, 2024). HR analytics in the supply chain enhances operational efficiency and helps in strategic decision-making. The strategic use of advanced analytical tools, such as AI and machine learning, in sustainable supply chain management is pivotal in maximizing workforce efficiency and ensuring that human capital is in sync with supply chain goals (Olawale et al., 2024).

Significance of Study

Organizations must align human resource management (HRM) with global logistics and supply chain operations to ensure efficiency, resilience, and competitive advantage in an increasingly globalized world. HRM practices can counter challenges such as geopolitical instability, cultural diversity, and regulatory compliance to improve talent management, employee engagement, and leadership in a supply chain context. Organizations must perform HRM processes whereby suitable global supply-chain managers are selected, trained, and retained. To address this challenge, HRM strategies must be adapted to effectively manage cross-border inter-organizational relationships, highlighting the need for a global mindset (Harvey et al., 2013). HRM strategies, therefore, should include workforce agility, technological integration, leadership development, and a resilient organizational culture. These are critical when seeking to ensure operational continuity during disruptions (Esan, Ajayi & Olawale, 2024).

Emerging techniques such, as adaptability, flexible work arrangements, and digital HR technologies, are key to boosting collaboration and performance in supply chains worldwide. Cultural intelligence and inclusive leadership are critical for navigating intercultural interactions (Esan, Ajayi & Olawale, 2024). HRM policy alignment with organizational culture and supply chain strategies significantly contributes to the success of supply chain management. It entails modeling the alignment of HR and logistics management strategies (Mcafee, Glassman & Honeycutt, 2002). Embedding sustainability and ethical considerations into HR practices is an important prerequisite for remaining competitive and compliant with regulations (Esan, Ajayi & Olawale, 2024).

The logistics and shipping sector faces challenges in recruiting and retaining skilled talent because of the high demand and shortage of qualified professionals. Strategic HRM must address these challenges through robust recruitment strategies and continuous learning opportunities (Ogedengbe et al., 2024). Automation and data analytics offer opportunities to streamline HR processes, enhance workforce productivity, and make data-driven decisions (Ogedengbe et al., 2024).

Theoretical Contribution

This study contributes to the theoretical foundation of Human Resource Management (HRM) and Supply Chain Management (SCM) by bridging the gap between these two disciplines, offering novel insights into how strategic HRM can address the complexities of global SCM. The theoretical contributions of this study are as follows:

Integration of HRM and SCM Frameworks

This study explores the integration of Human Resource Management (HRM) strategies with Supply Chain Management (SCM) objectives, emphasizing HRM's role as a strategic enabler rather than just an administrative function.

Talent Acquisition and Management: Skill shortages and the need for specialized capabilities in supply chain roles significantly constrain SCM effectiveness; therefore, talent management is crucial for SCM success (van Hoek, Gibson & Johnson, 2020; Glaister et al., 2018). HRM activities, including attracting and nurturing, advise on the need to design at skilled labor force (Van Hoek, Gibson & Johnson, 2020).

Up-skilling and Re-skilling: The rapid evolution of Industry 4.0 and technological advancements require constant up-skilling and re-skilling of company employees to cater to new demands in SCM, such as becoming proficient in technical competencies and human/machine integration (Liboni et al.)

Attractive Payroll: Competitive compensation to attract and retain talent is crucial in a supply chain sector experiencing talent shortage (Van Hoek, Gibson & Johnson, 2020).

Cultural Diversity: HRM systems can support ambidextrous work environments, which are crucial for managing cultural diversity in global supply chains. This involves the creation of HRM systems that promote social integration and knowledge management (Ferraris, Erhardt & Bresciani, 2019).

Regulatory Complexities: Aligning HRM practices with business strategies can help firms navigate regulatory complexities by ensuring that workforce capabilities align with compliance requirements (Glaister et al., 2018).

Geopolitical Risks: Strategic agility, supported by HRM, can help organizations respond to geopolitical risks by fostering improvisational capabilities and rapid adaptation to changes (Cunha et al., 2020).

Advancing Strategic HRM Theory

Global supply chain management involves selecting, training, and retaining competent managers through HRM processes. This requires a blend of resource-based, market-based, and dynamic capabilities perspectives to address the challenges and opportunities that symmetrical and asymmetrical global inter-organizational relationships represent (Harvey et al., 2013). Good strategic HR practices are required to mitigate supply chain risks. This integration is supported by technological advancements such as artificial intelligence (AI) and blockchain, which align with strategic goals such as sustainability, resilience, and adaptability (Olawale et al., 2024). To improve collaboration and performance in global supply chains, HR strategies that focus on agility, technology adoption, and sustainability have become necessary. Cultural intelligence and inclusive leadership are essential to navigating this multicultural terrain (Esan, Ajayi & Olawale, 2024).

The logistics and shipping sector faces challenges in recruiting and retaining skilled talent because of the high demand and shortage of qualified professionals. Strategic HRM must implement robust recruitment strategies and provide continuous learning opportunities to address these challenges (Ogedengbe et al., 2024). Workforce agility, leadership development, and resilient organizational culture are key HRM strategies that enhance supply chain resilience, enabling organizations to maintain operational continuity during disruptions (Esan et al., 2024). Strategic HR practices are central to embedding sustainability and ethical considerations into supply chain operations, fostering a culture of sustainability, and driving organizational change towardss more sustainable models (Eyo-Udo, Odimarha & Ejairu, 2024).

Contribution to Talent Management Literature

This emphasizes that talent acquisition, up-skilling, and re-skilling are significant in pacing the workforce towards Global Supply Chain Management (SCM) operations. This highlights the importance of cross-cultural competencies, technological adaptability, and resilience if navigating the ever-evolving landscape of global supply chains. Executives need actively participate in recruiting, training, and mentoring talent for SCM. This involvement helps to create future-proof capabilities at an appropriate level that accelerates strategic goals and enhances sustainable competitive advantage (Birou & Hoek, 2021). Necessary competencies for the future SCM workforce encompass technical skills (e.g., data analytics, automation), soft skills (e.g., adaptability, critical thinking) and domain-specific knowledge (e.g., sustainability practices) (Gammelgaard & Larson, 2001; Merkert, Hoberg & Mahadevan, 2023).

Human Resource Development (HRD) professionals are essential in the training and development, organizational development, and change management domains, which may be leveraged to develop SCM managers competences (Ellinger & Ellinger, 2013). SCM struggles to fill frontline positions and has a significant skills gap. Volume and skill challenges must be addressed in future-proof supply chains, so this gap exists (Van Hoek, Gibson & Johnson, 2020; Makarius & Srinivasan, 2017). Integration skills such as cross-functional coordination and the ability to comprehend the dynamics of supply chains are other demands of SCM professionals, which should be progressively learned through education and training programs (Pekkanen et al., 2020). Employers, educational institutions, and policymakers must emphasize the importance of continuous learning and upskilling (Petrucci et al., 2021) to maintain a skilled and adaptable workforce.

Linking HRM to Organizational Sustainability

The importance of competitive compensation and benefits as drivers of organizational sustainability in SCM through employee retention and engagement is well established. Many studies have shown a link between human resource management (HRM) practices and business strategies. A robust and competitive compensation package includes salaries, incentives, and benefits to attract and retain employees. Such packages are considered key elements of total reward strategies that facilitate employee satisfaction and engagement, which subsequently lead to high retention (Bender, Contacos-Sawyer & Thomas, 2013; Fitriani & Widhianto, 2024; Anis, Nasir & Safwan, 2011).

Engagement acted as a mediating factor between compensation and retention. Engaged employees are more likely to stay with an organization because as they feel valued and motivated by fair compensation and a supportive work environment (Fitriani & Widhianto, 2024; Kadiresan et al., 2019). Alongside compensation, work flexibility is becoming increasingly important, especially for younger generations. Flexible work arrangements can enhance retention by accommodating diverse employee needs and preferences (Fitriani & Widhianto, 2024). Providing opportunities for training and development, coupled with competitive compensation, further strengthens employee retention. Employees are more likely to remain with organizations that invest in their growth and offer equitable rewards for their contributions (Anis, Nasir & Safwan, 2011; Amori & Becky, 2020). Organizations implementing strategic HRM practices, such as equitable compensation structures and comprehensive benefits, can achieve long-term operational efficiency and resilience. These practices support sustainability by fostering a committed and skilled workforce (Sunitha, Venkatesh & Subith, 2023).

Development of Hypothesis-Driven Research in HRM-SCM Context

This study of the HRM-SCM nexus explores how specific human resource management (HRM) practices impact supply chain management (SCM) challenges, providing a foundation for future research and targeted interventions. Integrating HRM practices into SCM can significantly enhance organizational performance, particularly in small and medium-sized enterprises (SMEs). HRM practices were found to mediate the relationship between SCM implementation and firm performance in both Thailand and Australia. Effective HRM practices are crucial for SCM to positively impact SME performance, suggesting that SCM alone is insufficient without HRM support (Kitchot, Siengthai & Sukhotu, 2020; Mamun, 2023).

HRM as a Support System: HRM practice reinforces SCM as a behavioral support system that adds competitive advantage and enhances organizational performance. This combination helps to accomplish success (Gowen & Tallon, 2003; Khan et al., 2013) and solves SCM implementation hurdles. Industry 4.0 requires some alterations in HRM practices that impact SCM. This entails acquiring new skills and credentialing, which are important for adjusting to technological strides and enhancing SCM practices (Liboni et al., 2019). Integrating human resource management (HRM) practices with supply chain management (SCM) is essential for organizations success. HRM positively affects organizational performance through its linkage with SCM practices, which could mediate the relationship between these streams and indicate a thoughtful approach towards the cohesive involvement of both streams in achieving the desired objectives (Islami, 2021). HRM attributes that influence SCM, such as shuttles, are often attributed to training. Khan et al. (2013) state that organizations must improve personnel competence to assist supply chain management strategies.

Implications for Further Research

The adoption of technologies such as Artificial Intelligence (AI) in HRM can greatly impact SCM performance. Determining that such AI-enabled HRM applications can improve knowledge sharing and augment HR effectiveness would mediate the relationship between HRM towards SCM3 4. Moreover, there is an ongoing transition from administrative HR roles to strategic HR roles as a result of electronic HRM (e-HRM), which can also influence SCM integration (De Alwis, Andrlić & Šostar, 2022).

In SCM, one important aspect where HRM practices need to be reviewed is the changing world of working life, as in Industry 4.0 technologies are impacting employment, skills, and qualifications. Such a transformation calls for tailored HRM approaches that align with industry-oriented SCM challenges within the manufacturing or technology sectors (Liboni et al., 2019). Effective HRM practices positively influence SCM performance in both small and medium-sized enterprises (SMEs). HRM act as a moderator and enhances firm performance through SCM implementation (Kitchot, Siengthai & Sukhotu, 2020). More studies are needed to understand the degree to which cultural aspects that drive HRM policies and practices influence SCC to suggest more cross-national research. An integrated framework may help to address these differences and offer meaningful contributions to global SCM (Budhwar & Sparrow, 2002).

Operational Definition

Talent acquisition

Talent acquirers think long-term and sometimes even go beyond traditional recruitment, aligning with organizational goals and values. This means seeking candidates who have the necessary skills but are also aligned with the organizational culture and able to support its strategic priorities. Our talent acquisition efforts must be in line with the strategies of the organization so that the workforce assists the organization in achieving its goals. It should also be able to employ people who understand the sentiments of business and who can adapt to technological transition (Kumar, 2019; Opada et al., 2024; Mythily & Bella, 2024).

Talent acquisition, when done efficiently, is only one part of the larger talent management puzzle that includes development, retention, and performance management. Such integration contributes to the development of an adaptable and sustainable workforce with respect to changing market dynamics (El-Haraki, 2023; Dawn & Biswas, 2013). AI and data analytics are now part of talent acquisition, so they have improved efficiency and candidate engagement. However, it also brings challenges, such as data privacy and algorithmic bias that must be handled responsibly (Opada et al., 2024). Strategies geared towards talent acquisition should also be integrated with diversity initiatives to improve organizational success and competitiveness. This includes building a diverse talent pipeline and implementing fair and equitable recruitment (Opada et al., 2024). An employer brand helps attract the right talent to the organization. It consists of establishing a good corporate image that is consistent with the values and culture of the organization (Opada et al.; Dawn & Biswas, 2013).

Acquiring a team of skilled professionals through effective talent acquisition and management is crucial for organizations to maintain a competitive advantage. This strategy involves developing rapport with potential employees, building a talent pool, and fostering a positive employer-employee relationship. Talent

management is essential for organizations to retain and grow their most valuable assets, which significantly contribute to organizational performance and competitive advantage. It helps organizations adapt to environmental changes and meet customer expectations by developing a flexible workforce (Khurshid & Darzi, 2016; Ahmed, 2016; Rofaida, 2016). Identifying and acquiring key talents is a strategic approach that significantly influences competitive advantage. Organizations that effectively align talent acquisition with their overall goals can achieve superior innovation and knowledge management, which are critical for maintaining a competitive edge (Opondo, Ayub & Lily, 2014; Karanja, Namusonge & Kireru, 2018).

A culture that encourages knowledge sharing and innovation at the organizational level is crucial for competitive advantage. It facilitates talent management by offering an environment that is suitable for attracting and developing higher-level capabilities (Azeem et al., 2021). Talent management through acquisition, retention, and growth is widely recognized as critical for improving organizational effectiveness and sustainability. It is responsible for placing the right talents in the right roles for the enduring success of the organization (Sumathi & K, S. 2022). In the globalization era, organizations face challenges in talent management. The primary objective is to form successful organizations by recruiting skilled personnel, which necessitates arrangements for talent management systems in which homes/palaces allocate resources (Rabbi et al., 2015; Savelyeva & Kurina, 2019).

Up-skilling and Re-skilling initiatives

Training and development, upskilling, and re-skilling are similar yet different approaches to improving the capabilities of a workforce, and each serves a distinct purpose in the organization. Training and development refer to enhancing existing skills to perform current roles better, while upskilling is the enhancement of current skills; for re-skilling, learning new skills to perform the evolved role. This method is used to educate individuals about improving their application of current skills and to prepare them for similar roles in the organization. As part of their learning journey, they receive further training in specific tools, technologies, or methodologies that are relevant to their area of work (Iyer, 2020). This means upskilling employees with existing knowledge to adapt to changes in the technology and industry. Continuous learning is vital for keeping up with rapidly changing domains, such as IT and digital economies that produce new jobs and enhance performance (Samuvel & G, 2023; Achoki, 2023; Pandey & Vishwakarma, 2024).

This process trains employees with entirely new skills to transition them into different roles, often necessitated by automation or market changes that render previous tasks obsolete. Re-skilling is essential for adapting to new technologies and ensuring workforce sustainability in a changing job landscape (Iyer, 2020; Jamal, Nemar & Sakka, 2024; Sawant, Thomas & Kadlag, 2022). Combining job redesign with upskilling and re-skilling can enhance organizational agility, allowing companies to effectively adapt to technological changes and market demands (Jamal, Nemar & Sakka, 2024). The rise of AI and digital tools necessitates both upskilling and re-skilling to manage the transformation of professional skills to and ensure that employees can work alongside new technologies (Morandini et al., 2023). Different industries, such as IT and manufacturing, may require tailored upskilling and re-skilling programs to address specific skill gaps and technological advancements (Samuvel & G, 2023; Pandey & Vishwakarma, 2024).

Competitive compensation and benefits

Employee satisfaction, retention, and turnover, which are key drivers of attracting and retaining talent, are directly affected by competitive compensation and benefits. Salary Packages that consist of salaries, wages, bonuses, medical insurance, and other necessities, ensuring that employees work up to or even above the market level and stay devoted to the company. It makes sense; competitive compensation and benefits reduce turnover intentions. For instance, compensation has been shown to negatively correlate with turnover intention when controlled for organizational support and commitment (Udasi, 2023; Mustika, Prihanto & Winarno, 2021; Malik & Musah, 2024; Aman-Ullah et al., 2022; Siregar & Maryati2021). Compensations have a positive impact on job satisfaction, which, in turn, influences turnover intentions. Often, job satisfaction mediates the relationship between compensation and turnover — focusing its crucial role in employee turnover strategies (Aman-Ullah et al., 2022; Wajdi & Nafisa, 2023; Siregar & Maryati, 2021).

Satisfaction with pay is a crucial factor in employee engagement, which leads higher productivity and improved customer service. Such employees are likely to reduce turnover costs, partly due, to higher job retention (Udasi, 2023). Higher organizational commitment is another association that lowers turnover intention, cemented through compensation and benefits. Wajdi and Nafisa (2023), Misra, Jain and Sood (2013), and Febriyana, Hendriani & Samsir (2022) confirmed that employees who are content and feel they are given fair compensation will become genuinely committed to their organization. The trend of competitive compensation observed as a crucial attractive aspect in several industries such as construction and healthcare, it clearly emphasizes the importance of this variable in retaining talent among millennials and young female employees (Malik & Musah, 2024; Aman-Ullah et al., 2022; Wajdi & Nafisa, 2023).
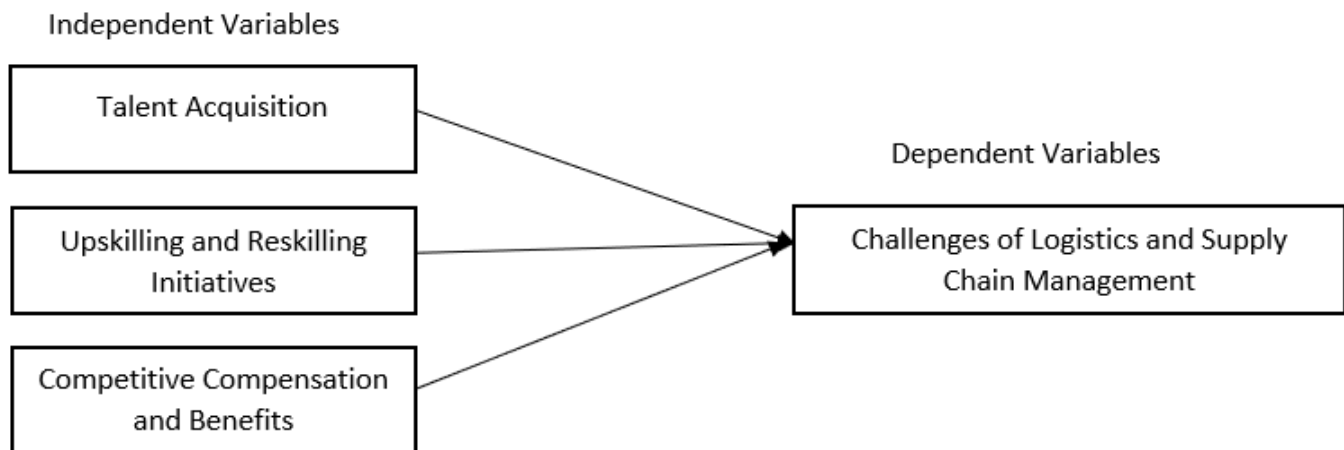
Conceptual Model

Figure 1 : Conceptual Framework of Adapting HRM Strategies to the Challenges of Global Logistics and Supply Chain Management

Data Collection

Data gathering is vital for answering questions, testing theories, and measuring results in research. This involves collecting both primary and secondary data. Primary data refers to information collected from subjects directly; secondary data include information gathered from textbooks, journal articles, or the Internet. Researchers gather primary data directly for a specific study. This requires direct contact with subjects via surveys and questionnaires (Falana, 2020; Steleżuk & Wolanin, 2023). The data collection process is tailored to address the specific questions posed by the research design in which researchers must already know the data collection process of their research (Boslaugh, 2007).

It is preexisting data that were collected by others for reasons outside your own. The data can be re-analyzed to answer new research questions or to use better statistical techniques (Glass, 1976; Sayaji, 2020; Wickham, 2019). It involves databases from academia, government, organizations, and other publicly available sources (Manu et al., 2021) Affordable, enables searches on big data over time, and prevents populations from becoming overloaded (Wickham, 2019; Hofferth, 2005). (2) It does not provide the specific data necessary for answering new research questions, and the available data may not be suitable for the requirements of the new study (Wickham, 2019; Diatta & Berchtold, 2022). Research Questions and Hypotheses: These addressed using both primary and secondary data. Bishop (2007) proposed that the selection of each is dependent upon the needs of the research (i.e, the aims of the study) and available resources. Primary data are specific to research needs, while secondary data Provides general insights but must be adapted to new contexts (Bishop 2007; Sayaji 2020).

A structured questionnaire was developed to, target professionals involved in HRM and SCM across various industries. The questionnaire included the following questions:

- Demographic information (e.g., age, gender, role, years of experience).

- Likert-scale items (e.g., 1 = Strongly Disagree, 5 = Strongly Agree) to assess perceptions of HRM practices (talent acquisition, up-skilling, re-skilling, compensation) and their effectiveness in addressing SCM challenges.

- Open-ended questions to gather qualitative insights about specific challenges and solutions.

Sampling Technique:

Purposive sampling is used to select participants who are directly involved in HRM and SCM activities within organizations that operate globally. The target sample size was approximately 200-300 respondents to ensure statistical reliability.

Data Analysis

Data analysis can be defined as a comprehensive method that entails inspection, cleansing, transforming, and modeling data to identify relevant information, make conclusions, and aid in decision-making (Crabtree & Nehme, 2023). In this research, we utilized the Statistical Package for Social Science (SPSS) software to analyze the data gathered from our responses. SPSS is a useful tool for data analysis as it enables researchers to explore various perspectives and actions using an analytical approach. Using SPSS, researchers can quickly deal with a wide array of data types because they can directly import and analyze data from databases or spreadsheets. Validity, reliability, and normality tests were used to investigate the data collected.

Descriptive Statistics

The descriptive analysis provides a summary of the data collected. It includes the mean, standard deviation, and range values to understand the central tendency and spread of variables.

Variable	Mean	Std. Dev	Min	Max
Talent Acquisition	4.02	0.59	3.02	4.98
Upskilling	3.75	0.76	2.53	4.99
Compensation	3.98	0.56	3.01	4.99
SCM Challenges	3.48	0.90	2.03	4.99

Reliability Analysis

The reliability of the survey instrument was tested using Cronbach's Alpha.

Variable	Cronbach's Alpha	Interpretation
Talent Acquisition	0.82	Good
Upskilling	0.76	Acceptable
Compensation	0.79	Acceptable

Interpretation: The reliability test indicated good internal consistency for the survey items, suggesting that the constructs were reliability measured.

Validity Test (Correlation Matrix)

The correlation matrix explores the relationships between variables.

Variable	Talent Acquisition	Upskilling	Compensation	SCM Challenges
Talent Acquisition	1.000	0.45	0.52	0.61
Upskilling	0.45	1.000	0.58	0.55
Compensation	0.52	0.58	1.000	0.63
SCM Challenges	0.61	0.55	0.63	1.000

Interpretation: All independent variables had a moderate to strong positive correlation with SCM Challenges, suggesting their relevance in addressing these challenges.

Normality Test (Shapiro-Wilk)

The normality of the data was assessed using the Shapiro-Wilk test.

Variable	Statistic	p-value	Interpretation
Talent Acquisition	0.976	0.032	Not normally distributed
Upskilling	0.982	0.045	Not normally distributed
Compensation	0.987	0.060	Normally distributed

Interpretation: Most variables were not normally distributed, indicating that non-parametric tests may be more suitable for analysis.

Regression Analysis

Regression analysis identifies the impact of independent variables on SCM Challenges.

Predictor	Coefficient	Std. Error	t-value	p-value	Significance
Talent Acquisition	0.35	0.08	4.38	<0.001	Significant
Upskilling	0.28	0.09	3.11	0.002	Significant
Compensation	0.39	0.07	5.57	<0.001	Significant

Adjusted R²: 0.52

F-statistic (p-value): <0.001

Interpretation: All three variables significantly affected SCM Challenges, explaining 52% of the variance.

CONCLUSION

The research methodology was undertaken to investigate the fit between Human Resource Management (HRM) strategies and the problems of global logistics and SCM. This research study, with primary data collection from online questionnaires aimed at HR professionals, focuses HR managers, talent acquisition teams, logistics teams, and supply chain workers. Participants were multinational corporations (MNCs) and small- to medium-sized enterprises (SMEs) (Fowler, 2013), including a variety of industries, with a target sample size of 217 minimum responses.

The obtained data were analyzed using SPSS software, and validity, reliability, and normality tests were performed. The main goal of this approach is to offer guidance on how organizations should align HRM practices with SCM activities, thus enabling them to confront worldwide imperatives and improve operational performance.

REFERENCES

1. Aboutalebi, R. (2020). Strategies for effective worldwide supply chains. In Supply Chain and Logistics Management: Concepts, Methodologies, Tools, and Applications (pp. 189-202). IGI Global Scientific Publishing.
2. Achoki, P. M. A. (2023). Upskilling and Re-skilling for a VUCA World: Organizational Sense-Response Framework. GiLE Journal of Skills Development, 3(2), 34-52.
3. Ahmed, H. K. (2016). The impact of talent management on the competitive advantage in the organizations. In Bein a paper presented at the International Conference, Abu Dhabi.
4. Aldakhil, A. M., Nassani, A. A., Awan, U., Abro, M. M. Q., & Zaman, K. (2018). Determinants of green logistics in BRICS countries: An integrated supply chain model for green business. Journal of Cleaner Production, 195, 861-868.
5. Aman-Ullah, A., Aziz, A., Ibrahim, H., Mehmood, W., & Aman-Ullah, A. (2023). The role of compensation in shaping employee's behaviour: a mediation study through job satisfaction during the Covid-19 pandemic. Revista de Gestão, 30(2), 221-236.

6. Amori, O. M., & Becky, O. F. (2020). Talent Management and Employees' Retention in the Nigeria Banking Industry: A Study of United Bank for Africa. The International Journal of Business & Management, 8(11).

7. Anis, A., Nasir, A., & Safwan, N. (2011). Employee retention relationship to training and development: A compensation perspective. African journal of business management, 5(7), 2679-2685.

8. Azeem, M., Ahmed, M., Haider, S., & Sajjad, M. (2021). Expanding competitive advantage through organizational culture, knowledge sharing and organizational innovation. Technology in Society, 66, 101635.

9. Balasubramanian, S., & Shukla, V. (2020). Leadership Strategies for Global Supply Chain Management: The Case of UAE's Construction Sector. In Leadership Strategies for Global Supply Chain Management in Emerging Markets (pp. 54-77). IGI Global.

10. Barney, J. B. (2012). Purchasing, supply chain management and sustained competitive advantage: The relevance of resource-based theory. Journal of supply chain management, 48(2), 3-6.

11. Bender, M., Contacos-Sawyer, J., & Thomas, B. (2013, July). Benefits strategies for attracting and retaining employees. In Competition Forum (Vol. 11, No. 2, pp. 165-169). American Society for Competitiveness.

12. Birou, L., & Hoek, R. V. (2022). Supply chain management talent: the role of executives in engagement, recruitment, development and retention. Supply Chain Management: An International Journal, 27(6), 712-727.

13. Bishop, L. (2007). A reflexive account of reusing qualitative data: Beyond primary/secondary dualism. Sociological Research Online, 12(3), 43-56.

14. Boslaugh, S. (2007). Secondary data sources for public health: A practical guide. Cambridge University Press.

15. Boudreau, J., & Lawler III, E. E. (2014). Stubborn traditionalism in HRM: Causes and consequences. Human Resource Management Review, 24(3), 232-244.

16. Budhwar, P. S., & Sparrow, P. R. (2002). An integrative framework for understanding cross-national human resource management practices. Human Resource Management Review, 12(3), 377-403.

17. Dahinine, B., Laghouag, A., Sahel, W., Guendouz, T., & Bennaceur, A. (2023). The impact of green human resource management on green pharmaceutical supply chain management practices. Uncertain Supply Chain Management, 11(3), 893-902.

18. Davidescu, A. A., Apostu, S. A., Paul, A., & Casuneanu, I. (2020). Work flexibility, job satisfaction, and job performance among Romanian employees—Implications for sustainable human resource management. Sustainability, 12(15), 6086.

19. Dawn, S. K., & Biswas, S. (2013). Talent Management: Designing Strategies. ASBM Journal of Management, 6(2).

20. De Alwis, A. C., Andrlić, B., & Šostar, M. (2022). The Influence of E-HRM on modernizing the role of HRM context. Economies, 10(8), 181.

21. Dina Diatta, I., & Berchtold, A. (2023). Impact of missing information on day-to-day research based on secondary data. International Journal of Social Research Methodology, 26(6), 759-772.

22. Doğru, Ç. (2021). An integration of human resources and supply chain management for a sustainable competitive advantage: A resource-based view. In Handbook of research on Recent Perspectives on management, international trade, and logistics (pp. 69-84). IGI Global.

23. Dudczyk, P., Dunston, J., & Crosby, G. V. (2024). Blockchain Technology for Global Supply Chain Management: A Survey of Applications, Challenges, Opportunities & Implications (March 2024). IEEE Access.

24. e Cunha, M. P., Gomes, E., Mellahi, K., Miner, A. S., & Rego, A. (2020). Strategic agility through improvisational capabilities: Implications for a paradox-sensitive HRM. Human Resource Management Review, 30(1), 100695.

25. E. Ellinger, A., & D. Ellinger, A. (2013). Leveraging human resource development expertise to improve supply chain managers' skills and competencies. European Journal of Training and Development, 38(1/2), 118-135.

26. El-Haraki, S. M. R. (2023, March). Role of Talent Management in Business Continuity. In SPE Gas & Oil Technology Showcase and Conference (p. D011S012R001). SPE.

27. Esan, O., Ajayi, F. A., & Olawale, O. (2024). Human resource strategies for resilient supply chains in logistics and transportation: A critical review.

28. Esan, O., Ajayi, F. A., & Olawale, O. (2024). Managing global supply chain teams: human resource strategies for effective collaboration and performance. GSC Advanced Research and Reviews, 19(2), 013-031.

29. Eyo-Udo, N. L., Odimarha, A. C., & Ejairu, E. (2024). Sustainable and ethical supply chain management: The role of HR in current practices and future directions. Magna Scientia Advanced Research and Reviews, 10(2), 181-196.

30. Falana, S. (2020). An Examination of Engagement Patterns of Black Female Community College Students by Academic Division (Doctoral dissertation, Stockton University).

31. Febriyana, O., Hendriani, S., & Samsir, S. (2022). THE EFFECT OF COMPENSATION AND JOB SATISFACTION ON EMPLOYEE COMMITMENT AND LABOR TURNOVERAT PT. PARTNERS ATEDA SELARAS PANGKALAN KERINCI. Jurnal Manajemen dan Bisnis, 11(2), 264-276.

32. Feizabadi, J., Gligor, D., & Alibakhshi Motlagh, S. (2019). The triple-As supply chain competitive advantage. Benchmarking: An International Journal, 26(7), 2286-2317.

33. Ferraris, A., Erhardt, N., & Bresciani, S. (2019). Ambidextrous work in smart city project alliances: unpacking the role of human resource management systems. The International Journal of Human Resource Management, 30(4), 680-701.

34. Fitriani, Y., & Widhianto, C. W. (2024). The Influence of Compensation and Work Flexibility on Employee Retention with Employee Engagement as A Mediating Variable in The Millennial and Z Generations in Tangerang. International Journal of Economics (IJEC), 3(2).

35. Gammelgaard, B., & Larson, P. D. (2001). Logistics skills and competencies for supply chain management. Journal of Business logistics, 22(2), 27-50.

36. Glaister, A. J., Karacay, G., Demirbag, M., & Tatoglu, E. (2018). HRM and performance—The role of talent management as a transmission mechanism in an emerging market context. Human Resource Management Journal, 28(1), 148-166.

37. Glass, G. V. (1976). Primary, secondary, and meta-analysis of research. Educational researcher, 5(10), 3-8.

38. Gowen Iii, C. R., & Tallon, W. J. (2003). Enhancing supply chain practices through human resource management. Journal of Management Development, 22(1), 32-44.

39. Gunasekaran, A., Subramanian, N., & Rahman, S. (2015). Supply chain resilience: role of complexities and strategies. International Journal of Production Research, 53(22), 6809-6819.

40. Hanafiah, H., Tjiptoherijanto, P., Widjaja, A. W., & Wijanto, S. H. (2019). Supply chain collaboration and their impact on firm performance: An empirical study. Int. J. Supply Chain Manag., 8(1), 207-218.

41. Harvey, M., Fisher, R., McPhail, R., & Moeller, M. (2013). Aligning global organizations' human capital needs and global supply-chain strategies. Asia Pacific Journal of Human Resources, 51(1), 4-21.

42. Hasle, P., & Jensen, P. L. (2012). Ergonomics and sustainability–challenges from global supply chains. Work, 41(Supplement 1), 3906-3913.

43. Hofferth, S. L. (2005). Secondary data analysis in family research. Journal of Marriage and Family, 67(4), 891-907.

44. Hussain, A. (2020). The Effect of Total Quality Management on Firm Performance with the Mediating Roles of Innovation and Knowledge Management in Small Medium Enterprises. Journal of Accounting and Finance in Emerging Economies, 6(2), 415-426.

45. Ibarra-Peña, K. A., Morán-Murillo, P. N., & Rodríguez-Sares, E. A. (2024). Inteligencia artificial y Big Data en la optimización de cadenas de suministro internacionales: hacia una logística predictiva y sostenible. Revista UGC, 2(3), 61-71.

46. Ilyas, M., Jin, Z., Ullah, I., Zaheer, Q., & Aden, W. A. (2024). The Influence of Customer Relationships on Supply Chain Risk Mitigation in International Logistics. Civil Engineering Journal, 10(06).

47. Islami, X. (2021). How to integrate organizational instruments? The mediation of HRM practices effect on organizational performance by SCM practices. Production & Manufacturing Research, 9(1), 206-240.

48. Ivanov, D., & Dolgui, A. (2022). The shortage economy and its implications for supply chain and operations management. International Journal of Production Research, 60(24), 7141-7154.

49. Iyer, R. K. (2021). Upskilling and Re-skilling for Workforce of the Future. Larson & Toubro company.

50. Jamal, A. F., El Nemar, S., & Sakka, G. (2024). The relationship between job redesigning, re-skilling and upskilling on organizational agility. EuroMed Journal of Business.

51. Jayasinghe, J. D. S. S., Hadiwattege, C., & Ilangakoon, I. W. M. A. D. (2024). ADDRESSING TRADITIONAL HRM CHALLENGES IN THE CONSTRUCTION INDUSTRY: INSIGHTS FROM MODERN HRM LITERATURE. In Proceedings The 12th World Construction Symposium| August (p. 93).

52. Kachina, Y. V., Kachin, V. V., & Shchegoleva, T. V. (2016). Discussing global challenges in the supply chain. Организатор производства, (1 (68)), 80-84.

53. Kadiresan, V., Khuan, W. S., Arumugam, T., Rasu, F., & Theseira, A. S. (2019). Employee engagement and retention in automotive industry in Malaysian context. Job stress as a moderator. Int. J. Eng. Adv. Technol, 8, 607-617.

54. Karanja, K., Namusonge, G. S., & Kireru, C. (2018). Role of talent acquisition processes on competitive advantage of telecommunication firms in Nairobi City County, Kenya. International Journal of Advances in Social Science and Humanities.

55. Khan, N. R., Taha, S. M., Ghouri, A. M., Khan, M., & Ken, Y. (2013). The impact of HRM practices on supply chain management success in SME. LogForum, 9(3), 177-189.

56. Khurshid, R., & Darzi, M. A. (2016). Managing talent for competitive advantage. International Journal of Applied Research, 2(2), 569-571.

57. Kitchot, S., Siengthai, S., & Sukhotu, V. (2021). The mediating effects of HRM practices on the relationship between SCM and SMEs firm performance in Thailand. Supply Chain Management: An International Journal, 26(1), 87-101.

58. Kumar AP, S. (2019). Aligning talent acquisition practices to strategic business objectives. NHRD Network Journal, 12(3), 261-269.

59. Lai, Y. (2024). Innovative Strategies in Logistics and Supply Chain Management: Navigating Modern Challenges. In SHS Web of Conferences (Vol. 183, p. 02020). EDP Sciences.

60. Lee, R. (2021). The effect of supply chain management strategy on operational and financial performance. Sustainability, 13(9), 5138.

61. Liboni, L. B., Cezarino, L. O., Jabbour, C. J. C., Oliveira, B. G., & Stefanelli, N. O. (2019). Smart industry and the pathways to HRM 4.0: implications for SCM. Supply Chain Management: An International Journal, 24(1), 124-146.

62. Makarius, E. E., & Srinivasan, M. (2017). Addressing skills mismatch: Utilizing talent supply chain management to enhance collaboration between companies and talent suppliers. Business horizons, 60(4), 495-505.

63. Malik, M. H. A., & Musah, A. A. (2024). Compensation and Benefits Satisfaction on Turnover Intention among Millennial Employees in Malaysia Construction Sector: A Conceptual Study.

64. Mamun, M. (2023). SCM and SME performance in Australia: the mediating role of HRM practices. International Journal of Manpower, 44(5), 936-951.

65. Manuj, I., & Mentzer, J. T. (2008). Global supply chain risk management. Journal of business logistics, 29(1), 133-155.

66. McAfee, R. B., Glassman, M., & Honeycutt Jr, E. D. (2002). The effects of culture and human resource management policies on supply chain management strategy. Journal of Business logistics, 23(1), 1-18.

67. Merkert, R., Hoberg, K., & Mahadevan, K. (2023). Logistics and Supply Chain Superpowers and Skills for Survival in the "New Normal" Globalized World. Transportation Journal, 62(4), 369-396.

68. Milovanović, G., Milovanović, S., & Radisavljević, G. (2017). GLOBALIZATION-THE KEY CHALLENGE OF MODERN SUPPLY CHAINS. Ekonomika, 63(1).

69. Misra, P., Jain, S., & Sood, A. (2013). Compensation: impact of rewards and organisational justice on turnover intentions and the role of motivation and job satisfaction: a study of retail store operations in NCR. International Journal of Human Resources Development and Management, 13(2-3), 136-152.

70. Morandini, S., Fraboni, F., De Angelis, M., Puzzo, G., Giusino, D., & Pietrantoni, L. (2023). The impact of artificial intelligence on workers' skills: Upskilling and re-skilling in organisations. Informing Science, 26, 39-68.

71. Mustika, M., Prihanto, Y. J. N., & Winarno, P. M. (2021, December). The effects of compensation and benefit satisfaction on turnover intention. In Conference Series (Vol. 3, No. 2, pp. 249-265).

72. Mutangili, S. K. Global Supply Chain Management Future Challenges.

73. Mythily, N., & Bella, K. M. J. (2024). The Crucial Role of HR And Organizational Practices As A Catalyst For Innovation And Growth Of Manufacturing Companies In KTC Zone. Educational Administration: Theory and Practice, 30(5), 9976-9981.

74. Narkhede, G., Samuel, C., Mahajan, S., Verma, D., Sakhare, N., & Chaudhari, T. (2024). Beyond traditional supply chain management: Addressing sociopolitical challenges in increasingly turbulent global trade landscape. Business Strategy & Development, 7(2), e397.

75. Nurjanni, K. P., Carvalho, M. S., & Costa, L. (2017). Green supply chain design: A mathematical modeling approach based on a multi-objective optimization model. International journal of production economics, 183, 421-432.

76. Ogedengbe, D. E., Olatoye, F. O., Oladapo, J. O., Nwankwo, E. E., Soyombo, O. T., & Scholastica, U. C. (2024). Strategic HRM in the logistics and shipping sector: Challenges and opportunities. International Journal of Science and Research Archive, 11(1), 2000-2011.

77. Olawale, O., Ajayi, F. A., Udeh, C. A., & Odejide, O. A. (2024). Risk management and HR practices in supply chains: Preparing for the Future. Magna Scientia Advanced Research and Reviews, 10(02), 238-255.

78. Opada, F. M. M., Ibrahim, M. B. H., Irawan, A., Akbar, M. A., & Rasyid, A. (2024). Talent Acquisition Strategies: A Comprehensive Examination of Recruitment Policies for Organizational Success. Advances in Human Resource Management Research, 2(2), 63-77.

79. Opondo, F. A., Ayub, O., & Lily, N. (2014). The Effect of Strategic Talent Identification and Acquisition on Competitive advantage in Commercial Banks. Asian Journal of Business and Management, 2(3).

80. Pandey, S. K., & Vishwakarma, S. S. (2024). Re-skilling and Upskilling Initiatives in the Indian Industrial Sector.

81. Patrucco, A. S., Rivera, L., Mejía-Argueta, C., & Sheffi, Y. (2021). Can you grow your supply chain without skills? The role of human resource management for better supply chain management in Latin America. The International Journal of Logistics Management, 33(1), 53-78.

82. Rabbi, F., Ahad, N., Kousar, T., & Ali, T. (2015). Talent management as a source of competitive advantage. Journal of Asian business strategy, 5(9), 208-214.

83. Rahman, F., Anwar, D., & Faizanuddin, M. (2025). Interconnected Supply Chain Management and Logistics: Key to Driving Business Success. Management:(Montevideo), (3), 10.

84. Ristovska, N., Kozuharov, S., & Petkovski, V. (2017). The impact of logistics management practices on company's performance. International Journal of Academic Research in Accounting, Finance and Management Sciences, 7(1), 245-252.

85. Rodrigue, J. P. (2012). Supply chain management, logistics changes and the concept of friction. In Cities, Regions and Flows (pp. 58-74). Routledge.

86. Rofaida, R. (2016, August). Competitive advantage through talent management. In 2016 Global Conference on Business, Management and Entrepreneurship (pp. 615-617). Atlantis Press.

87. Samuels, A., & Takawira, B. (2024). A systematic review of the impact of human resource management strategies on green supply chain management practices for achieving strategic objectives. International Journal of Research in Business and Social Science (2147-4478), 13(3), 133-150.

88. Savelyeva, M. V., & Kurina, T. N. (2019, November). The Impact of Talent Management on Company Competitiveness. In The International Scientific and Practical Forum "Industry. Science. Competence. Integration" (pp. 311-317). Cham: Springer International Publishing.

89. Sawant, R., Thomas, B., & Kadlag, S. (2022). Re-skilling and upskilling: To stay relevant in today's industry. International Review of Business and Economics, 7(1), 4.

90. Siagian, H., Basana, S. R., Tarigan, Z. J. H., Novitasari, M., & Jie, F. (2024). Role of supply chain management in improving competitive advantage of Indonesian small and medium enterprises.

91. Siregar, D. M., & Maryati, T. (2021, January). Effect of compensation towardss turnover intention with work satisfaction as intervening variables a study at PT. Madya Karya Putra. In 4th International Conference on Sustainable Innovation 2020-Accounting and Management (ICoSIAMS 2020) (pp. 340-345). Atlantis Press.

92. Son, I., & Kim, S. (2022). Supply Chain Management Strategy and Capital Structure of Global Information and Communications Technology Companies. Sustainability, 14(3), 1844.

93. Steleżuk, A., & Wolanin, M. (2023). priMAry reseArCH using quAntitAtive MetHods in soCiAl sCienCes. Zeszyty Naukowe Wyższej Szkoły Technicznej w Katowicach, 16.

94. Sumathi, K., & Sumathi, K. (2022). Impact of talent management on organizational effectiveness: Mediating role of organizational sustainability. Ecs Transactions, 107(1), 15825.

95. Sunitha, V., Venkatesh, V., & Subith, D. (2023). A Study on Employees Retention with Reference to Cholamandalam Investment and Finance Company Limited, Chennai. Russian Law Journal, 11(12S), 89-93.

96. Talha, S. E., Arif, J., & Jawab, F. (2024, May). Resilience Championship: Innovative Strategies for Supply Chain Management in the Face of Global Storms. In 2024 IEEE 15th International Colloquium on Logistics and Supply Chain Management (LOGISTIQUA) (pp. 1-8). IEEE.

97. Udasi, D. (2023). Impact of Pay Satisfaction on Employee Engagement and Employee Intention to Turnover. Journal of Advanced Zoology, 44.

98. van Hoek, R., Gibson, B., & Johnson, M. (2020). Talent management for a post-COVID-19 supply chain—The critical role for managers. Journal of Business Logistics, 41(4), 334.

99. Villajos, E., Tordera, N., & Peiró, J. M. (2019). Human resource practices, eudaimonic well-being, and creative performance: The mediating role of idiosyncratic deals for sustainable human resource management. Sustainability, 11(24), 6933.

100. Wajdi, M. F., & Nafisa, A. (2023). The Impact of Compensation, Organizational Commitment, and Job Satisfaction on Turnover Intention among Young Female Employees. JBTI: Jurnal Bisnis: Teori dan Implementasi, 14(2), 383-400.

101. Wan, F. (2023). Analysis of the Impact of Human Resource Optimization on Supply Chain Efficiency Based on Performance Management. Journal of Global Humanities and Social Sciences, 4(06), 315-319.

102. Wickham, R. J. (2019). Secondary analysis research. Journal of the advanced practitioner in oncology, 10(4), 395.