

Addressing Human Resource Challenges in the Logistics and Supply Chain Management Industry: Impediments on the Path to Achieving Sustainability

Vivek Dabral, H.C. Purohit

School of Management, Doon University, Dehradun, Uttarakhand, India

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*Correspondence:

vivek.dabral@gmail.com

School of Management,
Doon University,
Dehradun, Uttarakhand,
India

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Abstract

Purpose: This study aims to understand how nations are adapting their logistics frameworks to enhance efficiency amid globalization and what challenges are faced by them.

Methodology: A comprehensive search utilizing electronic databases like Scopus and Google Scholar, employed keywords (National Logistic Policy, HR Challenges, SCM & Talent Management). The search was confined to studies published from 2001 to 2023.

Findings: Globalization drives nations to formulate logistics policies, as seen in India's initiative to boost competitiveness and sustainability. However, a key finding underscores the oversight of human and behavioral aspects in policy implementation. Logistics sector is marked with Talent Shortage on account of talent attraction and high attrition.

Limitations: While comprehensive, this study's scope is limited to only Scopus and google scholar.

Practical Implications: Policymakers and practitioners can leverage insights to address both hard and soft wiring components, ensuring the resilience of logistics systems in a globalized context.

Originality/Value: This research enriches the existing body of knowledge by addressing the often-overlooked human aspect in logistics system development, providing practical insights for global frameworks.

INTRODUCTION

Globalization has made this world a global village. Economies and businesses which earlier operates mostly within the boundaries, are now operated globally (Levitt, 1993). It may be because of need of procurement of cheap raw material or scarce resources or to serve to final consumers, companies has to cross their national boundaries. Then and there arises a need of efficient Logistics and Supply Chain Management system (referred as LSCM, hereinafter). With the world becoming an open market, the importance of LSCM is increasing

daily. MNCs outsource, manufacture, and distribute globally, adding complexities to their supply chain. Now, it is imperative to have an efficient LSCM system that can quickly respond to consumer demands, reduce lead times, maintain quality at the right cost, and be flexible to achieve the competitive advantage.

Logistics is defined as planning, implementing, and controlling the efficient and effective forward and reverse flow and storage of goods, services, and related information from the point of origin to the point of consumption to meet customer requirements. Logistics functions include forwarding and transportation and other activities such as warehousing, packing, goods rotation, and handling damaged goods (Nguyen, H. P., 2020). In contrast, supply chain management encompasses the roles of marketing, procurement, operations, and information technology (Foo et al., 2018). Events in the past suggest that LSCM can bridge the gap between national and world economies and has become synonymous with the key to national economic development. (Hoang & Pham, 2019; Dabral et al., 2022). Thus, Tate et al. (2010) termed LSCM a sensitive barometer of the national world economy.

Kilibarda et al. (2019) suggested that economic development, economic growth, spatial integration, and market integration depend on the logistics system. It significantly affects how well various industries and national economies function economically. Unlike in the past, today's requirement for the building and growth of logistics on a global, regional, and local level is growing more and more critical. Along the same line, Viswanadham and Gaonkar (2001) advised that having good logistics infrastructure and culture is becoming a prerequisite for attracting global manufacturing and service companies into the country.

Some practitioners and researchers considered the supply chain a 50/50 mix of infrastructure and information systems technology. Thus, whenever they addressed the development of logistics, it is mainly thought of logistics and transport infrastructure, harmonization of regulations and law, i.e., creating an economic environment and facilitating the undisturbed flow of goods, people, and capital (Kilibarda et al., 2019). However, Kisperska

(2010) suggested that the supply chain is more like a 45/45/10 balance of human behavior, systems technology, and asset infrastructure respectively. Therefore, financial, equipment, technological, and market-based resources are necessary for effective SCM, but the people that accomplish the work of the firm are critical for the effective functioning and exploitation of each of these resource categories (Richey et al., 2006). It is coherent from the fact that over 90 percent of logistics activities occur outside direct supervision (Bowersox et al., 2000), highlighting the importance of influential people (i.e., HRs) to logistics and supply chain excellence.

Daugherty et al. (2000) said, "To take supply chain performance to the next level, companies will have to tap into this human element more intensively. Many companies have pushed hard on technological and infrastructure improvements and investments. The next wave of improvements and investment should center on the people who manage and operate the supply chain."

Logistics and Sustainability

Grant (1991) suggested that an organization possesses different types of resources that are either tangible (financial, physical, technological, organizational) or intangible (human and reputational). Barney (1991), through his popular resource-based view (RBV), mentioned that strategic resources possess valuable, rare, imperfectly imitable, and non-substitutable (VRIN criteria) and are capable of providing a sustainable competitive advantage to an organization. However, non-strategic resources which own the other three criteria (VRI) but miss the non-substitutable dimension can provide a competitive advantage that is not sustainable in the future (Ellram et al., 2013).

Now, organizations very well understand that price and promotion may be easily duplicated, so they started focusing on LSCM to create a value proposition and remain competitive (Mentzer et al., 2001). In other words, companies have started to leverage their logistics capabilities as a source of competitive advantage (Lynch et al., 2000; Zhao et al., 2001).

Here, logistics leverage means achieving excellence and satisfaction through inventory

availability, timely delivery, and less product failure. It originates from a company's logistics infrastructure (e.g., processes, strategic partnerships, systems, personnel) (Darkow et al., 2015). Mentzer and Williams (2001) substantiate that logistics leverage can create a value-added service that customers consider critical and difficult to copy by the competition, particularly in the short run. However, in the long run, logistics leverage, if not reinvented or improved upon, can be imitated, leading to a loss of competitive advantage. Thus, firms need to keep innovating their logistics strategies for sustainable competitive advantage.

Role of Hr In Logistics

Logistics is a labor-intensive industry (Lu & Feng., 2020) and was once considered to be a supportive industry to other functional areas, but is now accepted as a strategic industry (Sum et al., 2001; Gundlach et al, 2006); to create sustainable competitive advantage (CLM, 1998; Gunasekaran & Ngai, 2003; Shang & Marlow, 2007; Celebi et al., 2010; Jhwar et al. 2014).

In the transforming world, logistics is omnipresent in manufacturing, service, military, and even non-profitable organizations Kilibarda et al., 2019. Thus, an efficient logistics system is the prerequisite for any organization or country's development. However, in the past, the development of logistics was restricted to the development of infrastructure, related technology, or the easing of regulations and laws to facilitate the uninterrupted flow of goods, people, and capital.

LSCM is a profession that demands an extraordinary combination of competencies to create value for suppliers, manufacturers, and customers. Jurcevic et al. (2009), asserted that there are strong interdependencies between HR & LSCM. It becomes challenging to identify the single place where the impact of human resources is negligible in LSCM. The ability to innovate in logistics requires HR management excellence and heavily relies on the quality of logistics managers' knowledge and training. Further, researchers propounded that the quality of the human resource is a distinguishable factor in an effective and mediocre LSCM. Therefore, this "people dimension" has become ad rem for all

logistics operations to achieve most of its objectives (Hunt, 2000; Hoek et al., 2002; Hashim, 2013).

Human Resources and the Sustainable Competitive Advantage of A Firm

Human resource has become a strategic driver of any nation's economy as they not only lead to the development of the knowledge economy but integrates the nation's economy with the world (Banomyong et al., 2015). Thus, human and human resources are now at the core of the national, economic, and social development strategy of all countries worldwide.

Pfeffer (1994) stated that with their skills and efforts, human resources create value in terms of products and services. Second, exceptionally skilled workers are rare by definition. (Wright et al., 1994). Third, it is complicated to imitate highly competent workers because their competency is highly subjective (tacit) and thus difficult to conceptualize, which makes imitation by or transfer to competitors difficult. Fourth, human resources are non-substitutable despite technological advancements like automation and robotization (Huselid, 1995). Thus, capable human resources can fulfill VRIN criteria, confirmed by Flothmann et al. (2018).

Hr Challenges In International Logistics Industries

It is widely acknowledged that effective logistics and supply chain management (LSCM) can provide a company with a sustainable competitive advantage. However, the success of the people-focused LSCM industry depends on having talented human resources involved in all aspects of the supply chain process (Swart et al., 2012; Mutsuddi, 2012). Sweeney (2013) confirms that the difficulties in implementing SCM are often due to the lack of focus and understanding of the people dimensions – the soft wiring of the supply chain. Despite the consensus on the importance of human resources in logistics and supply chains (Fisher et al., 2010; Cottrill & Rice Jr., 2012; Andrejic et al., 2013; Ellinger & Ellinger, 2014; Kilibarda et al., 2016), corporations have not put much effort into aligning human resource strategies with LSCM strategies to improve supply



chain performance. This lack of attention is not just limited to practitioners but also academicians. Hohenstein et al. (2014), based on the SLR of papers published in major LSCM journals between 1998 to 2014, concluded that HRM issues in LSCM are rarely explored. They discovered that in scientific journals in logistics and supply chains, only 0.57 papers deal with the HRM issues in LSCM. Of this, 87% of the articles concentrated on logistics competencies (Tokar, 2010; Shub & Stonebraker, 2009; Flothmann et al., 2018).

Thus, it calls for more and more studies to focus on HR challenges in these LSCM industries which can hinder the achievement of organizational goals and sustainability. This paper attempts to review the scanty literature available on said topic and put forward the challenges faced by the practitioners and the relevant parties involved in the industry. We also reviewed white papers, industrial reports, and articles from periodicals for the study. The following set of HRM challenges are identified and discussed:

Shortage of Employees

Past studies indicate that the logistics sector is facing a scarcity of workforce, and if this shortage is not addressed immediately may result in a talent shortage “tsunami” in the coming years (Cottrill, 2010; Ellinger & Ellinger, 2014; Hohenstein et al., 2014). This shortage is omnipresent at all three management levels – managerial, operational, and strategic (Jhawar et al., 2014; Kilibarda et al., 2019). The shortage is pervasive, be it less educated drivers, laborers, or highly qualified managers. Similarly, the phenomenon does not distinguish between developed and developing countries. The aging population and slower growth rate in developed countries have already raised the alarm about the future shortage of talented and professional logistics managers. (Feisel et al., 2011; Goffnett et al., 2012; Hohenstein et al. 2014). The situation in developing countries, which is higher in population growth and unemployment, is no different. The human resource difficulties in the logistics industry are compounded by factors such as limited resources, competition for those resources, and a lack of understanding of the supply chain sector. The entry of new firms from various industries into the market, competing

with established transportation and warehousing companies, highlights the significance of selecting the right personnel for logistics companies (Hertz & Alfredsson, 2003). Additionally, the expansion of logistics outsourcing, the competitive nature of the 3PL industry, and the high demand for skilled logistics talent all contribute to a difficult and competitive hiring process (Gibson & Cook, 2001).

Lack of Competencies

According to Barnes and Liao (2012), “competencies are considered to be composed of the knowledge, skills, and abilities that are associated with high performance on the job at an individual level.” Due to the complex and dynamic nature of the logistics and SCM industries, it is necessary to combine the peculiarity of the industry while establishing a competency model in the logistics enterprises (Caylan & Yildiz, 2016). Han (2007) suggests that the most common employment issue faced by companies is finding eligible skilled candidates per job description and specification. Past studies demonstrate that the human resources of this industry do not meet employers’ requirements for quality and quantity (Nguyen, 2020). McKinnon et al. (2017), in their famous study conducted for the world bank, compares the importance and availability scores and suggest that there is a severe skills shortage in all groups (Operational blue-collar staff, Administrative staff, Logistics supervisors, Logistics managers) and across all six competence categories (Knowledge and Learning, Communication, Technical skills, Personal skills, Administrative knowledge, Leadership Skills).

Similarly, Rodríguez et al. (2018) mention a survey on the quality of logistics human resources which demonstrates that in Vietnam, 53.3 percent of businesses lacked qualified staff and logistics knowledge, 30 percent of businesses had to retrain staff, and only 6.7 percent of businesses were satisfied with the expertise levels of staff. Further, rapid technological development in logistics and supply chains demands new competencies that the existing labor does not possess. The skill development of the employees can be attained through providing training and education to employees. However, companies are reluctant to

impart such training, especially when they feel there is a high probability of employees leaving (McKinnon et al. 2017). In the present day, education, information, and abilities are gained throughout one's entire career. Primary education lays the foundation for additional learning opportunities. Both external and internal workshops, meetings, training, and similar events play a crucial role for employees in terms of professional development (Octaviannand et al., 2017). Through these trainings, the efficiency of workers is increased along with job satisfaction which is further linked to higher productivity and low turnover intention (Andrejic et al., 2022).

Talent Management

Another HR challenge faced by logistics and SCM organizations is talent management. Lewis and Heckman (2006) suggested that talent management involves all the Human Resource Management (HRM) processes, which emphasize attracting, developing, and retaining talent. Talent management encompasses talent recruitment and retention and seeks to create a culture that supports and develops employee potential. The literature review indicates various obstacles in the logistics industry's attraction, selection, retention, and development of talent.

Lack of Attraction

Logistics has traditionally been viewed as a low-level operational function rather than a strategic one, and logistics is considered a low-level job. Educated people do not consider it as their first choice for the job courtesy of the low reputation and status of this sector in the economy and society. The harsh working conditions, advancement, and low wages add to its unattractiveness. Improving the image and position of the logistics sector is crucial to increase interest in the profession.

Recruitment Challenge

The demand for human resources in logistics is high, but the quality and quantity of university and vocational school graduates do not meet employer requirements. Sometimes, personnel do not have appropriate formal logistics education or the

necessary logistics skills. Such problems exist with the existing workforce that lacks the competencies to tune in with new technologies and modern business methods.

Further, employers do not publicize their job requirements clearly, and professional factors are not considerably treated. Thus, they land up recruiting by acquaintances ignoring talented and capable graduates. The poor image of the industry and competition from other attractive industry, and the talent war within the industry also adds to hardship for employers in logistics industries.

Training and Skill Development

Last few decades, the logistics sector witnessed rapid change in technology, which had a more earnest impact on job design and skill requirements of human resources (Bhandari, 2014).

The logistics sector, especially international operations, is subjected to changes in rules and regulations (about the movement of goods) worldwide. This call for regular dissemination of knowledge and training among the existing & potential workforce to enhance their competencies. Nowadays, education, knowledge, and skills are acquired throughout the career. This training enhances job satisfaction and organizational commitment of employees and overall organizational performance (Vasudevan, 2014; Hanaysha & Tahir, 2016). Training has to be seen as an investment rather than an expense (Arhelo, 2017).

A literature review indicates that most logistics companies lack fair treatment, training processes, and long-term welfare for employees, discouraging them from acquiring more knowledge and skills to become more professional (Phat & Mai, 2021).

The lack of training opportunities in a company can lead to employees pursuing other careers or becoming discouraged, resulting in the company's less willingness to invest in training (McKinnon et al., 2017). This creates a vicious cycle that can negatively impact both employees' career growth and the company's ability to retain and develop its workforce (Kilibarda et al., 2019)

Employee Retention Challenge

Employee retention has become a burning human



resources issue in the corporate sector. The high turnover rate in logistics poses a significant challenge for the industry, which is already running short of the workforce. The employee retention problem seems even more significant than recruitment, as employees are over-ambitious and materialistic and are willing to change companies for better working conditions. The threat is also from the industry and other lucrative industries (Lee, 2000). The root cause of increasing employee turnover is job dissatisfaction because of low salaries, lack of training, low employee morale, absence of a well-defined career path, and poor superior-subordinate relationship. In order to address this challenge, companies need to develop and implement effective retention strategies to provide competitive compensation and benefits packages, clear career pathways, and flexible working conditions to their employees (Rankin, 2006).

Job Satisfaction

Job satisfaction is one of the main prerequisites for retaining workers. Job satisfaction is the level to which people like their jobs, and on the contrary, the extent to which they dislike their jobs is dissatisfaction. Both individual and organizational factors can influence the level of one's satisfaction with the job. Andrejić et al. (2022), through their study in Serbia, suggested advancement (promotion) and salary has been cited as key factors for job satisfaction. At the same time, McKinnon et al. (2017) observed that succession planning and leadership skills are challenging tasks for logistics companies in emerging and developed regions apart from fair salary, benefits, and job security. Past studies reveal that most logistics firms do not have competitive remuneration and benefits. (Kilibarda et al., 2016, Phat & Mai, 2021). Further, Jhawar et al. (2014) commented that the logistics industry is marked with low or no investment in staff welfare, low participation of women, poorly defined career path, extreme working condition, and overall poor image. Nguyen, (2020) highlighted that leadership and management styles do not match the job requirement.

Odd Working Condition

The logistic sector is the service sector comprised

of various activities that include receiving goods, transportation, storage, warehousing, customs clearance, other paperwork, customer advice, packaging, marking code, delivery, or other services relating to the goods as agreed with the customer for remuneration (Barata et al., 2018). Execution of these activities requires careful, diligent, and visionary professionals who can address the various challenges arising from uncertainty or dynamism. These challenges vary depending on the stage and type of job, such as complying with deadlines for document processing, implementing new regulations for import, export, or transportation, and ensuring transparency in goods production. That involves working 24 x 7 long hours and night shifts, making logistics jobs demanding and stressful, affecting the overall work-life balance. Further, many logistics companies are located in remote industrial areas or near highways, which can increase travel time to and from work. (Sheffi, 2013)

CONCLUSIONS

This paper highlights the growing significance of logistics as a strategic tool and the overlooked issue of human resources, based on a review of academic papers, industrial reports, and periodicals. Logistics has the capability of integrating one's economy with the world. The advent of globalization and the competitive world is pushing organizations for different strategies to attain a competitive advantage over their competitors. Logistics which is a human-centric phenomenon, comprises various activities. Researchers have suggested that practitioners and academicians have focused mainly on the development of infrastructure and technology and have ignored human resource development. The literature review suggests that a shortage of workers marks the logistics industry in terms of both quantities and quality. This shortage is omnipresent in all industries and in almost all countries. Until recently, logistics jobs were considered low-level and could not attract new talents. Even the workers in the logistics sector are reluctantly working in the Industry. Comparative low salaries, inappropriate compensation policy, uncertain career paths, and odd working conditions were cited as reasons for employee job dissatisfaction which further reduces

their commitment to the organization. Issues with leadership skills were also common. The growing age population and reduction in growth rate in developed nations, and the development of other lucrative industries in developing economies pose a severe threat to the supply of workforce to the logistic industry. Resilient and adaptable logistics systems that can ensure continuity of operation and minimize losses during supply chain disruptions, such as port closure or labor strikes, or natural calamities like those experienced during the COVID pandemic or driver shortages in the UK, cannot be achieved without the development of human resource capabilities.

FUTURE RESEARCH AGENDA

Further research may explore the literature and advise solutions to HR issues faced. It may propose a model that can enhance the industry's attractiveness and reduce turnover intentions among employees in the logistics industry. Future studies may focus on empirically testing antecedents of turnover intentions in the logistics industry, especially in India, where only a few such studies have been conducted to date. Research may also take a cost-benefit analysis related to training in human resources and suggest the importance of training in the logistics industry. Researchers may explore the antecedents of job satisfaction of employees working in logistic industries, and empirical studies can be conducted to identify the most critical causes of job dissatisfaction.

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