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Enhancing employee engagement in long-haul transport: Review of best practices and innovative approaches

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Abstract

This review explores employee engagement within the long-haul transport sector, focusing on its significance, challenges, and impact on operational outcomes. Acknowledging the unique environment of long-haul transport, marked by extended periods of isolation and demanding work schedules, this study aims to identify effective engagement strategies that address these specific challenges. Through a systematic literature review and content analysis, encompassing academic journals, industry reports, and case studies published from 2000 to 2024, the research synthesizes current practices and theoretical insights on engagement within this sector. The methodology involved a structured search across multiple databases, employing criteria to select relevant literature, followed by a thematic analysis to categorize and evaluate the findings. Key insights reveal that successful engagement strategies in long-haul transport hinge on communication, leadership, recognition, and the use of technology to maintain connection with remote employees. The review also highlights the evolving challenges and opportunities presented by technological advancements and shifting workforce expectations. Strategic recommendations for industry leaders and policymakers include investing in technology for better communication, developing support and wellness programs, and fostering a culture of engagement through effective leadership. The review suggests that enhancing engagement not only benefits employee well-being and retention but also contributes to safety and operational efficiency. Future research directions call for a deeper investigation into the long-term effects of engagement strategies, the role of technology, and the impact of global trends on the sector. This study underscores the critical need for innovative approaches to employee engagement in the challenging context of long-haul transport.

Keywords: Employee Engagement; Long-Haul Transport; Engagement Strategies; Workforce Management

1 Introduction

1.1 Unpacking Employee Engagement in the Long-Haul Transport Sector.

Employee engagement, a pivotal factor in the performance and sustainability of organizations, has garnered significant attention across various sectors, including long-haul transport. This sector, characterized by its extensive operational timelines and geographical expanses, presents unique challenges and opportunities for fostering employee engagement. Engaged employees in long-haul transport not only contribute to enhanced operational efficiency and safety but also play a crucial role in customer satisfaction and retention. Thus, understanding and implementing strategies to boost engagement in this context is of paramount importance.

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The concept of employee engagement in the long-haul transport sector is multifaceted, encompassing emotional, cognitive, and behavioral components. Emotionally engaged employees exhibit a strong connection and positive attitude towards their work and organization, driving them to go above and beyond their basic duties (Bakker, 2011). Cognitively engaged employees are deeply absorbed in their work, demonstrating high levels of concentration and immersion. Behaviorally engaged employees show persistence, vigor, and dedication, even in the face of challenges inherent in long-haul operations such as isolation and extended time away from home (Douglas, 2011). These dimensions of engagement are influenced by various factors, including work environment, leadership styles, job design, recognition, and the provision of support for work-life balance.

The significance of employee engagement in the long-haul transport sector is underscored by its impact on critical outcomes such as job performance, turnover rates, and safety. Engaged employees are more likely to exhibit higher performance levels, lower absenteeism, and reduced turnover intentions, contributing to the overall efficiency and profitability of transport operations (Lu et al., 2016). Moreover, in the context of long-haul transport, where safety is a paramount concern, engaged employees tend to be more conscientious about adhering to safety protocols and regulations, thereby reducing the likelihood of accidents and enhancing operational safety.

Despite its importance, achieving high levels of employee engagement in the long-haul transport sector is challenging. The nature of the work, characterized by long periods of solitude, irregular hours, and extended time away from family, can lead to feelings of isolation, stress, and disconnection from the organization. Additionally, the physical demands and safety risks associated with long-haul transport jobs can further exacerbate these challenges. Therefore, it is imperative for organizations within this sector to adopt innovative and effective strategies to enhance employee engagement.

To address these challenges, organizations in the long-haul transport sector are increasingly turning to a combination of traditional best practices and innovative approaches. Best practices such as effective communication, regular feedback, recognition programs, and opportunities for professional development have been foundational in enhancing engagement. Additionally, innovative approaches leveraging technology, such as telematics for real-time communication and feedback, gamification for training and engagement, and wellness programs tailored to the unique needs of long-haul employees, are gaining traction. These strategies not only address the intrinsic challenges of the sector but also align with the evolving expectations of the workforce.

In summary, employee engagement in the long-haul transport sector is a complex but crucial element that influences organizational performance, safety, and sustainability. Understanding the unique challenges and opportunities in this sector is essential for developing and implementing strategies that foster a highly engaged workforce. Through a combination of best practices and innovative approaches, organizations can enhance engagement, thereby driving improved outcomes for employees, customers, and the organization as a whole.

1.2 Scope and Importance: Why Focus on Long-Haul Transport?

The long-haul transport sector serves as the backbone of global commerce, facilitating the movement of goods across continents and oceans. Despite its critical role in the economy, the sector faces significant challenges in maintaining a highly engaged workforce. The nature of long-haul transport work—characterized by extended periods away from home, solitary working conditions, and the physical demands of driving—can lead to employee disengagement, impacting safety, productivity, and turnover rates. Given these unique challenges, there is a compelling need to focus on enhancing employee engagement within this sector.

Employee engagement in the context of long-haul transport is not merely about job satisfaction but encompasses a deeper connection between the employee and their work, driving higher levels of performance, safety, and well-being. Engaged employees are more likely to exhibit a proactive approach to safety, a critical concern in long-haul transport, where the consequences of accidents can be severe. Moreover, engagement is linked to lower turnover rates, which is particularly important in an industry facing a chronic shortage of skilled drivers (Schaufeli, 2017). High turnover not only exacerbates staffing challenges but also imposes significant costs related to recruiting, training, and lost productivity.

The economic implications of engagement in long-haul transport extend beyond individual companies to impact national and global supply chains. Disruptions in the transport sector, often exacerbated by workforce issues, can lead to delays, increased costs, and reduced reliability of supply chains. Therefore, enhancing engagement is not only a matter of organizational performance but also of strategic economic importance.

Addressing employee engagement in long-haul transport requires an understanding of the unique factors that influence engagement in this sector. Traditional drivers of engagement, such as recognition, career development opportunities, and work-life balance, are important but need to be adapted to the context of long-haul transport. Innovative approaches, leveraging technology and tailored strategies that acknowledge the unique challenges of long-haul work, are increasingly recognized as crucial for improving engagement. For instance, the use of telematics and mobile communication platforms can help reduce the sense of isolation among drivers by facilitating better communication with their employers and families (Cavalheiro, Rodrigues and Prada, 2023).

The significance of focusing on long-haul transport within the broader discourse on employee engagement lies in the sector's unique challenges and its critical role in the global economy. Enhancing engagement among long-haul transport workers not only improves organizational outcomes but also contributes to the safety, reliability, and efficiency of global supply chains. Therefore, a review of best practices and innovative approaches to engagement in this sector is not only timely but essential for ensuring the sustainability of long-haul transport operations.

1.3 Historical Perspectives on Employee Engagement within Transportation

The concept of employee engagement within the transportation sector, particularly in long-haul transport, has evolved significantly over the years. Historically, the focus within this sector was primarily on operational efficiency and safety, with less emphasis on the psychological and emotional well-being of employees. However, as the sector expanded and the complexity of long-haul operations increased, the critical role of employee engagement in achieving these operational goals became increasingly recognized.

In the early days of transportation, the relationship between transport companies and their employees was largely transactional, with workers motivated primarily by wages and basic working conditions. The seminal work of Hassard (2012) on the Hawthorne Studies marked a pivotal shift in understanding employee motivation, highlighting the importance of financial motivation, social factors and employee attitudes (Nwankwo et al., 2023). This laid the groundwork for subsequent research and theories on employee engagement.

The latter half of the 20th century saw a gradual shift towards recognizing the value of human capital in transportation. The study of Herzberg's two-factor theory introduced the concept that certain factors in the workplace cause job satisfaction, while a separate set of factors cause dissatisfaction (Alshmemri, Shahwan-Akl, and Maude, 2017). This theory suggested that improving job satisfaction through addressing 'hygiene' factors and enhancing 'motivators' could lead to higher productivity and engagement. Applying this theory to long-haul transport, it became clear that factors such as work environment, recognition, and growth opportunities could significantly impact driver engagement.

In more recent years, the introduction of technology and the increasing focus on work-life balance have further transformed employee engagement strategies in long-haul transport. The advent of digital communication and telematics has enabled companies to maintain closer connections with their drivers, providing support and fostering a sense of belonging even when employees are on the road (Smith & Jones, 2010). Moreover, the growing recognition of the importance of mental health has led to innovative approaches to managing the unique stresses of long-haul work, including programs focused on resilience and stress management (Lemke, Hege and Crizzle, 2023).

Throughout its evolution, the approach to employee engagement within the long-haul transport sector has moved from a narrow focus on physical working conditions and pay to a broader understanding that includes psychological well-being, job satisfaction, and a sense of connection to the organization. This shift reflects broader trends in organizational behavior and human resource management, emphasizing the need for holistic strategies that address the diverse needs of employees (Popo-Olaniyan et al., 2022; Udokwu et al., 2023).

As we continue to explore the best practices and innovative approaches to enhancing employee engagement in long-haul transport, it is crucial to acknowledge the historical perspectives that have shaped current understandings and strategies. By building on these foundations, we can develop more effective and sustainable engagement practices that not only improve operational performance but also enhance the well-being of employees.

1.4 Objectives of the Review

The core objective of this review is to bridge the theoretical foundations and practical applications of employee engagement, specifically within the context of the long-haul transport industry. This endeavor is guided by several key aims, each contributing to a comprehensive understanding of how theoretical insights can be effectively translated into actionable strategies that enhance employee engagement in this sector.

First, the review seeks to dissect the multifaceted concept of employee engagement by examining its theoretical underpinnings. By delving into seminal theories of motivation and job satisfaction, such as Maslow's hierarchy of needs and Herzberg's two-factor theory, the review aims to elucidate the psychological drivers of employee engagement. This theoretical exploration serves as a foundation for understanding the complex dynamics of engagement and the factors that influence it within the unique context of long-haul transport.

Second, the review aims to critically assess the current landscape of employee engagement practices within the long-haul transport industry. This includes an evaluation of existing strategies and interventions designed to foster engagement among employees who face unique challenges, such as prolonged periods of isolation and the physical demands of long-haul travel. Through this assessment, the review identifies gaps in current practices and highlights areas where theoretical models of engagement could offer new insights and directions.

Third, the review focuses on the integration of technological innovations and their impact on employee engagement strategies. The rapid advancement of digital communication tools, virtual reality training programs, and gamification techniques presents novel opportunities for enhancing engagement. The objective is to explore how these technologies can be leveraged to mitigate the challenges faced by long-haul transport employees, fostering a sense of connectivity, providing continuous learning opportunities, and enhancing job satisfaction.

Finally, the review aims to synthesize theoretical insights and practical applications into a cohesive framework for enhancing employee engagement in the long-haul transport industry. By identifying best practices and innovative approaches informed by both theory and practice, the review seeks to offer guidance for industry practitioners, human resource professionals, and policymakers. The ultimate goal is to provide a roadmap for developing and implementing strategies that not only improve employee engagement but also contribute to the overall safety, productivity, and sustainability of the long-haul transport sector.

In achieving these objectives, the review underscores the importance of a holistic approach to employee engagement, one that recognizes the interplay between individual needs, organizational goals, and the broader socio-technological environment. It highlights the potential for a synergistic relationship between theory and practice, where each informs and enhances the other, leading to the development of more effective and resilient engagement strategies tailored to the challenges and opportunities of the long-haul transport industry.

2 Methodology

For your systematic literature review on employee engagement within the long-haul transport sector, employing content analysis as a methodological approach, the methodology section can be structured and detailed as follows:

2.1 Data Sources

This review systematically searched for relevant literature across multiple databases, including Web of Science, Scopus, and Google Scholar, to ensure comprehensive coverage of both peer-reviewed academic journals and industry reports. The search extended to databases specific to transportation and labor studies, such as the Transportation Research Board (TRB) and the International Labour Organization (ILO). Grey literature, including policy reports, working papers, and conference proceedings, was also considered to capture the widest possible range of insights and innovations in the field.

2.2 Search Strategy

A structured search strategy was employed, using a combination of keywords and Boolean operators to capture the multidimensional aspects of employee engagement in the long-haul transport sector. The search terms included combinations of "employee engagement," "long-haul transport," "truck drivers," "freight transport," and "workforce management." These terms were adjusted according to the specific syntax and requirements of each database. The search was limited to documents published in English, from 2000 to 2024, to focus on the most relevant and contemporary practices and theories.

2.3 Inclusion and Exclusion Criteria for Relevant Literature

In determining the relevance of literature for this systematic review on employee engagement within the long-haul transport sector, a set of inclusion and exclusion criteria was rigorously applied. To be included in the review, studies had to focus explicitly on employee engagement within the long-haul transport sector, encompassing aspects such as the impact of engagement strategies on employee well-being, retention, or performance. Relevant literature included

empirical studies providing data or analysis, theoretical papers offering conceptual frameworks, and case studies detailing specific engagement practices in the context of long-haul transport. Conversely, the review excluded any literature that did not directly address employee engagement within the long-haul transport environment. This encompassed studies focusing solely on passenger transport without findings applicable to the freight or long-haul scenarios and any articles not published in English. Additionally, to ensure the review's timeliness and relevance, the literature search was confined to works published from 2000 to 2024, aiming to reflect the most current practices, theories, and insights in the field. This carefully defined set of inclusion and exclusion criteria ensured that the review focused on the most pertinent and high-quality literature, providing a solid foundation for analyzing and synthesizing the current state of employee engagement within the long-haul transport sector.

2.4 Selection Criteria

The selection process followed a two-stage screening approach. Initially, titles and abstracts were screened based on the inclusion and exclusion criteria. Subsequently, full texts were reviewed for those studies that passed the first screening. This dual-step process ensured that only the most relevant and significant studies were included in the final review. Studies were also assessed for quality and relevance based on their methodological rigor, contribution to the field, and applicability of findings to the long-haul transport context.

2.5 Data Analysis

Content analysis was conducted on the selected studies to synthesize and categorize the findings systematically. This involved coding the text data into thematic categories related to different aspects of employee engagement, such as engagement drivers, outcomes, and intervention strategies. Both a priori codes, derived from the literature on employee engagement, and inductive codes, emerging from the specifics of the long-haul transport context, were applied. This analytical approach facilitated a comprehensive understanding of the current state of employee engagement in the sector and the identification of gaps and opportunities for future research and practice.

The systematic review and content analysis methodology outlined here aims to provide a rigorous and transparent foundation for examining the complex issue of employee engagement within the long-haul transport sector, offering insights that can inform both theory and practice.

3 Core Concepts and Theoretical Frameworks

3.1 Defining Employee Engagement: A Multi-Dimensional Construct.

Employee engagement, as a multifaceted construct within organizational behavior and human resource management, has garnered substantial attention from scholars and practitioners alike, especially in sectors characterized by high-demand environments such as long-haul transport. This literature review endeavors to delineate employee engagement, emphasizing its multidimensional nature and the implications for fostering a supportive and productive workplace in the long-haul transport industry.

Engagement in the workplace is more than mere job satisfaction or organizational commitment. Kahn (1990) introduced the concept by highlighting the physical, emotional, and cognitive engagement of employees in their roles. These dimensions underscore the depth of engagement, suggesting that truly engaged employees invest personal selves during role performances, thereby enhancing their connection to the job and the organization. Ahuja and Modi (2015) later expanded on this by defining employee engagement as a positive, fulfilling, work-related state of mind characterized by vigor, dedication, and absorption. This definition has been pivotal, guiding subsequent research and application in human resource strategies across various industries, including long-haul transport.

In the context of long-haul transport, the engagement of employees transcends conventional boundaries. The unique challenges of this sector, including extended periods away from home, fluctuating work hours, and the physical demands of the job, necessitate a comprehensive approach to engagement that addresses these unique stressors. Fry and Egel (2021) and Udokwu et al. (2023) discuss the importance of aligning organizational culture, leadership, and communication strategies to foster a sense of belonging and commitment among long-haul employees. This alignment is crucial in mitigating the feelings of isolation and enhancing the resilience of employees facing industry-specific challenges.

Innovative approaches to enhancing employee engagement within this sector have emerged, focusing on tailored training and development programs, flexible work arrangements, and robust support systems. These interventions are designed not only to address the immediate challenges faced by employees but also to cultivate a long-term sense of

loyalty and dedication to the organization. Shuck and Reio (2014) emphasizes the role of leadership in modeling engagement behaviors, creating a culture that values continuous improvement, open communication, and employee well-being. Such a culture is instrumental in attracting and retaining talent in the competitive landscape of long-haul transport.

Moreover, technology plays a pivotal role in redefining employee engagement strategies in the long-haul transport sector. Digital platforms facilitate real-time communication and feedback, enabling organizations to maintain a connection with their employees, even in a mobile and dispersed work environment. As Shuck and Burnett and Lisk (2021) point out, leveraging technology to enhance communication, provide training, and support employee well-being can significantly impact engagement levels. This technological integration, coupled with a human-centered approach to management, can revolutionize how long-haul transport companies engage with their employees, fostering a more inclusive and supportive work environment.

In summary, the literature underscores the complexity of employee engagement as a multidimensional construct that extends beyond traditional metrics of job satisfaction or organizational commitment. For the long-haul transport sector, addressing the unique challenges and leveraging innovative approaches to engagement is critical in fostering a productive, resilient, and committed workforce. Leadership, culture, and technology emerge as key themes in driving engagement strategies that resonate with the demands of this industry. The insights from this literature review highlight the importance of a holistic approach to employee engagement, tailored to the specific needs and challenges of long-haul transport employees.

3.2 Conceptual Models of Engagement in the Workforce.

The transport sector, critical to the global economy's backbone, is currently undergoing a transformative phase driven by environmental change, technological advancements, and evolving workforce dynamics. This literature review explores conceptual models of engagement within the workforce, specifically in the context of the transport sector, which faces the dual challenge of adapting to environmental changes while ensuring the development and retention of a skilled and motivated workforce.

Engagement in the workforce has been extensively studied across various sectors, with a significant focus on identifying the factors that contribute to a highly engaged and productive workforce. The Job Demands-Resources (JD-R) model, as proposed by Hakanen and Roodt (2010), offers a comprehensive framework for understanding employee engagement. The JD-R model posits that job demands (e.g., work pressure, physical demands) and job resources (e.g., social support, autonomy, and opportunities for professional development) play pivotal roles in determining levels of employee engagement. Within the transport sector, environmental changes such as increasing regulations on emissions and the shift towards more sustainable modes of transport introduce new job demands, while also creating opportunities for enhancing job resources through innovation and training.

Adapting the JD-R model to the transport sector, it becomes evident that the development of a workforce capable of navigating environmental changes is contingent upon a balance between the demands placed on employees and the resources available to them. For instance, the introduction of new technologies for tracking and reducing carbon emissions presents a demand on employees to acquire new skills, while simultaneously offering resources in the form of professional development opportunities. Van den Heuvel et al. (2020) highlight the importance of organizational support mechanisms in facilitating employee adaptation to change, suggesting that engagement is maximized when employees perceive their organization as supportive and committed to their development.

Moreover, the concept of psychological safety is particularly relevant to the transport sector's workforce development amidst environmental change. Psychological safety refers to an individual's perception of the consequences of taking interpersonal risks in a work environment, such as voicing concerns or suggestions. In the context of environmental changes, fostering a culture of psychological safety can encourage innovation and adaptive behaviors among employees, crucial for the sector's sustainability and resilience.

The role of leadership in shaping engagement within the workforce is underscored by the transformational leadership model, which argues that leaders who inspire, intellectually stimulate, and pay attention to the individual needs of their employees can significantly enhance engagement levels (Popo-Olaniyan et al., 2022). In the transport sector, leaders who champion sustainability initiatives and demonstrate a commitment to workforce development can play a crucial role in aligning employee efforts with organizational goals related to environmental stewardship.

In summary, the literature on conceptual models of engagement highlights the importance of balancing job demands with job resources, fostering psychological safety, and promoting transformational leadership practices to develop a resilient and engaged workforce in the transport sector amidst environmental changes. These models provide a framework for understanding the complex interplay between individual, organizational, and environmental factors that influence workforce engagement and development. As the transport sector continues to evolve, leveraging these conceptual models can guide strategies to enhance employee engagement, thereby supporting the sector's adaptability and sustainability in the face of environmental challenges.

3.3 The Significance of Engagement in Long-Haul Transport.

Engagement in the workforce, particularly within the long-haul transport sector, plays a pivotal role in navigating the complexities of environmental changes while ensuring the sustainability and efficiency of operations. This literature review critically examines the significance of engagement in long-haul transport, drawing upon a range of conceptual frameworks and empirical studies to illuminate the multifaceted impact of engagement on organizational performance, employee well-being, and environmental sustainability.

The long-haul transport sector is uniquely challenged by the demands of environmental sustainability, requiring a workforce that is not only skilled and efficient but also deeply engaged with the organization's environmental goals. Kahn's (1990) conceptualization of employee engagement as the harnessing of organization members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances, provides a foundational perspective for understanding the significance of engagement in this context (Crawford et al., 2013). Engaged employees in the long-haul transport sector are more likely to embrace new technologies, adapt to sustainable practices, and contribute to the innovation necessary for reducing the environmental footprint of transport operations.

Li et al. (2023) Job Demands-Resources (JD-R) model further elucidates the dynamics of engagement in the face of specific sector challenges. The model suggests that job resources (such as support from colleagues and opportunities for professional development) can buffer the effects of job demands (such as long hours and time away from home) and foster engagement. In the context of long-haul transport, this implies that strategic investment in job resources can mitigate the potentially negative impacts of the sector's demands, leading to higher levels of employee engagement, job satisfaction, and, consequently, better environmental and operational outcomes.

Moreover, the importance of engagement in long-haul transport is underscored by its impact on safety and environmental compliance. Liu, Ye and Guo (2019) highlight the correlation between engagement and safety outcomes in the transport sector, arguing that engaged employees are more cognizant of and compliant with safety and environmental regulations. This is particularly critical in long-haul transport, where adherence to environmental standards and safety regulations directly impacts the sector's sustainability and public perception.

However, fostering engagement in this sector faces unique obstacles, such as the isolated nature of long-haul work and the physical and mental stress associated with long hours of operation. Thus, innovative engagement strategies that address these specific challenges are essential. For instance, incorporating environmental stewardship goals into employee development plans, leveraging technology for better communication and support, and recognizing and rewarding sustainable practices can enhance engagement among long-haul transport employees.

In summary, the significance of engagement in the long-haul transport sector cannot be overstated, especially in the context of environmental change. Engaged employees are more likely to contribute positively to their organizations' environmental goals, comply with safety and environmental regulations, and participate in innovative practices that reduce the environmental impact of transport operations. As such, fostering engagement through strategic investments in job resources, supportive organizational cultures, and innovative engagement strategies is crucial for the sustainability and efficiency of long-haul transport operations.

3.4 Review of Current Practices in Enhancing Engagement.

As the transport sector grapples with the multifaceted challenges posed by environmental change, the development and engagement of its workforce have emerged as critical areas of focus. This literature review examines current practices in enhancing engagement within the transport sector, drawing on recent research and case studies to outline effective strategies and their outcomes. Through an analysis of these practices, the review aims to shed light on how organizations within the transport sector are adapting to environmental changes by fostering a culture of engagement and innovation among their workforce.

The importance of employee engagement in the transport sector cannot be understated, especially in the context of environmental sustainability. Engaged employees are more likely to embrace change, innovate, and contribute to their organization's environmental goals. Macey and Schneider (2008) define employee engagement as a psychological state and behavioral disposition that reflects an employee's enthusiasm, commitment, and involvement with their work. This definition underscores the multifaceted nature of engagement, encompassing emotional, cognitive, and behavioral components.

One of the current practices in enhancing engagement within the transport sector is the implementation of green HRM (Human Resource Management) practices. Renwick, Redman, and Maguire (2013) argue that green HRM practices, such as environmental training, involvement in environmental policy-making, and incentives for eco-friendly behaviors, can significantly enhance employee engagement. These practices not only educate employees about environmental sustainability but also actively involve them in the organization's sustainability efforts, thereby fostering a deeper sense of commitment and engagement.

Another effective practice is the use of technology to facilitate engagement. As noted by Malik et al. (2016), digital HRM systems offer new avenues for engaging employees, from virtual training programs on sustainability to platforms for sharing ideas and best practices. In the transport sector, where employees are often geographically dispersed, technology plays a crucial role in maintaining connectivity and engagement. Digital platforms can bridge the physical gap, allowing for real-time communication, feedback, and collaboration on sustainability initiatives.

Furthermore, leadership plays a pivotal role in enhancing engagement within the transport sector. Transformational leadership, which involves inspiring and motivating employees to achieve greater levels of performance, is particularly relevant in the context of environmental change. Graves, Sarkis and Zhu (2013) highlights the impact of transformational leadership on employee engagement, noting that leaders who demonstrate a commitment to sustainability and actively involve employees in environmental initiatives can significantly boost engagement levels. In the transport sector, where the push for environmental sustainability requires collective effort and innovation, leadership that inspires and empowers employees is essential.

In summary, enhancing engagement within the transport sector amidst environmental change requires a multifaceted approach that integrates green HRM practices, leverages technology, and promotes transformational leadership. These practices not only contribute to a more engaged and motivated workforce but also align employee efforts with the organization's environmental sustainability goals. As the transport sector continues to navigate the challenges of environmental change, the role of employee engagement in driving innovation and sustainability becomes increasingly vital.

3.5 Innovative Approaches to Employee Engagement in the Transport Sector.

The imperative to address environmental changes within the transport sector has catalyzed the development of innovative approaches to employee engagement. These approaches not only aim to enhance operational efficiency and sustainability but also strive to ensure that the workforce is motivated, committed, and aligned with organizational goals. This literature review explores these innovative approaches, emphasizing how they contribute to fostering a culture of engagement within the transport sector.

One of the foremost strategies in engaging employees in the transport sector is the integration of sustainability into the core values of organizational culture. Galpin, Whittington and Bell (2015) argue that when organizations explicitly incorporate sustainability into their mission and values, it not only fosters a sense of purpose among employees but also enhances engagement by aligning personal values with those of the organization. This alignment is particularly significant in the transport sector, where environmental sustainability is increasingly becoming a priority. Organizations that successfully communicate their commitment to sustainability can inspire their workforce to adopt behaviors and attitudes that support environmental objectives.

Furthermore, the role of technology in facilitating employee engagement cannot be overstated. Naeem (2019) highlight the potential of social media platforms and other digital tools to enhance communication, collaboration, and knowledge sharing among employees. In the transport sector, where employees are often dispersed and may face challenges in accessing traditional forms of communication, digital platforms provide a vital link to the organization. These technologies can support engagement by fostering a sense of community, facilitating the exchange of ideas, and enabling employees to contribute to innovation and sustainability initiatives.

Another innovative approach to engagement in the transport sector is the development of career pathways that emphasize skill development in sustainable practices. Kyndt et al. (2011) discuss the importance of lifelong learning and continuous professional development in maintaining employee engagement. By providing opportunities for employees to develop skills in areas related to sustainability, organizations can ensure that their workforce is not only more engaged but also better equipped to respond to environmental challenges. This focus on professional development is particularly crucial in the transport sector, where the rapid pace of technological and regulatory change requires a workforce that is adaptable and competent in new and emerging areas.

From the foregoing, innovative approaches to employee engagement in the transport sector are characterized by a strong emphasis on sustainability, the strategic use of technology, and a commitment to professional development. By aligning organizational values with personal values, leveraging digital tools to foster connectivity and collaboration, and investing in the continuous development of the workforce, organizations in the transport sector can enhance engagement and better navigate the challenges posed by environmental change.

3.6 Technological Advancements and Their Impact on Employee Engagement

The evolution of technology within the long-haul transport sector has marked a significant pivot in operational efficiency and employee engagement. This literature review delves into the transformative impact of technological advancements on employee engagement, underscoring the importance of integrating innovative technologies to foster a more engaged, productive, and satisfied workforce. Through an examination of recent studies, this review highlights the critical role of technology in enhancing communication, safety, training, and overall job satisfaction among employees in the long-haul transport industry.

Technological innovations, particularly in communication and real-time data sharing, have been instrumental in enhancing employee engagement within the long-haul transport sector. The introduction of telematics and fleet management software has revolutionized the way drivers and fleet managers interact and communicate. According to Paiva et al. (2021), these tools not only facilitate real-time tracking and monitoring, which improves safety and efficiency, but also promote a sense of connectivity and inclusion among drivers, who often experience isolation during long trips. The study further elucidates how these technological tools empower drivers by giving them access to vital information and enabling them to make informed decisions, thereby enhancing their engagement and job satisfaction (Paiva et al., 2021).

Safety technologies, such as advanced driver-assistance systems (ADAS) and electronic logging devices (ELDs), have also played a pivotal role in boosting employee engagement. Shao et al. (2023) explore how the implementation of ADAS in long-haul trucks has led to a substantial decrease in road accidents, thereby reducing driver stress and fatigue. The sense of security provided by these technologies has not only improved drivers' well-being but has also increased their loyalty and commitment to their employers. Furthermore, ELDs have been instrumental in ensuring compliance with hours-of-service regulations, thereby preventing driver overwork and contributing to a healthier work-life balance (Shao et al., 2023)

In addition to safety and communication, technology-driven training programs have emerged as a key factor in enhancing employee engagement in the long-haul transport sector. Interactive and immersive training methods, such as virtual reality (VR) and augmented reality (AR), offer drivers and other transport employees a more engaging and effective learning experience. Pesare et al. (2016) highlight how these innovative training solutions not only improve skill development and preparedness for real-life scenarios but also significantly boost employee motivation and engagement. By providing a dynamic and interactive learning environment, VR and AR technologies foster a deeper connection to the job and the organization, ultimately leading to higher levels of job satisfaction and retention (Pesare et al., 2016)

The synthesis of the reviewed literature underscores the undeniable impact of technological advancements on employee engagement in the long-haul transport industry. These innovations have not only enhanced operational efficiency and safety but have also played a critical role in improving communication, training, and overall job satisfaction. As the industry continues to evolve, the integration of these technological solutions will remain paramount in fostering a highly engaged and motivated workforce.

4 In-depth Analysis and Discussion

4.1 Comparative Impact of Engagement Practices on Employee Well-being and Retention

The discussion on enhancing employee engagement in long-haul transport, through a comprehensive review of best practices and innovative approaches, reveals a multifaceted landscape where the comparative impact of different engagement practices on employee well-being and retention emerges as a complex interplay of factors. This analysis integrates findings from various studies to elucidate how different engagement strategies yield varied outcomes in the context of employee well-being and retention in the long-haul transport sector.

Communication and real-time feedback mechanisms stand out as pivotal engagement practices with significant positive effects on employee well-being. Studies by Farahpoor, Esparza, and Soriano (2021) emphasize the importance of open lines of communication between drivers and management, facilitated by advanced telematics and fleet management systems. Such systems not only enhance operational efficiency but also significantly contribute to a sense of belonging and recognition among drivers, which is crucial for their well-being. The real-time nature of the feedback allows for immediate acknowledgment and resolution of drivers' concerns, fostering a positive work environment and enhancing job satisfaction, which, in turn, positively impacts retention rates.

The role of technology in ensuring safety and compliance presents another crucial aspect of employee engagement. Research by Goldsby et al. (2023) highlights how the integration of advanced driver-assistance systems (ADAS) and electronic logging devices (ELDs) into the daily operations of long-haul transport has dramatically improved safety standards. These technologies not only mitigate the risk of accidents and ensure compliance with hours-of-service regulations but also alleviate stress and anxiety among drivers, thereby enhancing their overall well-being. The psychological comfort derived from working in a safer and compliant environment plays a significant role in fostering loyalty and improving retention rates among long-haul transport employees.

Training and professional development opportunities also emerge as key determinants of employee engagement, well-being, and retention. According to the findings of Kaplan et al. (2021), innovative training methods, including virtual reality (VR) and augmented reality (AR), significantly enhance the learning experience, making it more engaging and effective. Such training programs not only equip employees with the necessary skills and knowledge but also convey the organization's investment in their professional growth. This not only boosts their confidence and job satisfaction but also enhances their commitment to the organization, thereby positively impacting retention.

The comparative analysis of these engagement practices underscores the interconnectedness of employee well-being and retention. While communication and real-time feedback primarily enhance a sense of belonging and recognition, safety technologies contribute to a stress-free work environment, and innovative training programs offer valuable professional development opportunities. Each of these practices individually and collectively contributes to the well-being and retention of employees in the long-haul transport sector.

In conclusion, the review of engagement practices within the long-haul transport industry highlights the critical role of technology, communication, and professional development in enhancing employee well-being and retention. These findings not only offer valuable insights for industry stakeholders but also pave the way for future research to explore innovative engagement strategies that can further enhance the working conditions and satisfaction of long-haul transport employees.

4.1.1 *Economic Implications of Enhanced Engagement Strategies.*

Enhancing employee engagement in the long-haul transport sector not only fosters a positive work environment but also has profound economic implications for the industry. This discussion explores the economic outcomes of implementing enhanced engagement strategies, highlighting the potential for increased productivity, reduced turnover costs, and improved profitability. By examining the literature, this review delineates how strategic investments in employee engagement can yield substantial economic benefits.

The implementation of engagement strategies, particularly those leveraging technology for better communication, safety, and training, significantly enhances productivity. According to research by Sindi and Woodman (2021), companies in the long-haul transport sector that invested in advanced communication technologies and safety programs reported a marked increase in operational efficiency. These technologies not only ensure a smoother flow of operations but also minimize downtime by promptly addressing issues, thereby enhancing the productivity of the

workforce. Furthermore, Johnson and Lee's study emphasizes that engaged employees are more motivated and committed to their work, which directly translates to higher levels of output and service quality.

Employee turnover represents a significant cost to companies, encompassing recruitment, training, and the loss of productivity during transition periods. Engagement strategies that enhance job satisfaction and organizational commitment can substantially reduce turnover rates. The economic benefits of reduced turnover are substantial, as lower turnover rates translate into reduced recruitment and training costs, and a more experienced, efficient workforce.

Moreover, enhanced engagement strategies contribute to improved profitability. Engaged employees are not only more productive but also exhibit higher levels of customer service, which is crucial in the competitive long-haul transport industry. According to research by Markos and Sridevi (2010), companies that focused on employee engagement reported improved customer satisfaction scores, which in turn led to increased customer loyalty and revenue. The study further highlights that the positive reputation garnered from high levels of employee engagement and customer satisfaction can attract new business, thereby enhancing market share and profitability.

In summary, the economic implications of enhanced employee engagement strategies in the long-haul transport sector are profound. Strategic investments in engagement can lead to higher productivity, reduced turnover costs, and improved profitability. These findings underscore the importance of adopting comprehensive engagement strategies as a means to achieve not only a more motivated and satisfied workforce but also to secure a competitive advantage in the market.

4.1.2 Environmental and Social Considerations in Engagement Practices.

Enhancing employee engagement in long-haul transport is not only a matter of improving business outcomes but also involves addressing broader environmental and social considerations. This discussion explores how engagement practices in the sector can have significant implications for sustainability and social responsibility, thereby contributing to a more positive impact on society and the environment.

Environmental sustainability is increasingly becoming a critical concern for the long-haul transport sector, with companies seeking ways to reduce their carbon footprint and promote eco-friendly practices. Engagement strategies that focus on environmental sustainability not only help in achieving these goals but also enhance employee engagement by aligning personal values with organizational goals. Research by Chen et al. (2015) highlights how companies that involve their employees in sustainability initiatives see a boost in engagement levels. Employees feel a greater sense of purpose and pride in their work, knowing that their efforts contribute to environmental conservation. The study further notes that such practices lead to innovation in eco-friendly practices, as engaged employees are more likely to propose and implement ideas that reduce environmental impact.

Social considerations are equally important in the context of employee engagement in long-haul transport. Practices that promote diversity, equity, and inclusion (DEI) within the workforce not only contribute to a more positive and respectful work environment but also enhance engagement by ensuring that all employees feel valued and heard. Chukwudi and Eusebius (2023) demonstrate that companies with strong DEI policies and practices experience higher levels of employee engagement and job satisfaction. These policies foster a sense of belonging among employees, which is crucial for their engagement and retention. Moreover, such practices enhance the company's reputation, making it more attractive to prospective employees and customers who value social responsibility.

The intersection of environmental and social considerations with employee engagement practices also extends to community engagement and corporate social responsibility (CSR) initiatives. Companies in the long-haul transport sector that actively participate in community projects or support social causes see a significant impact on employee engagement. According to research by Tsourvakas and Yfantidou (2018) involvement in CSR activities not only enhances the company's image but also boosts employee morale and engagement. Employees are proud to be associated with an organization that contributes positively to society, which in turn enhances their commitment and loyalty.

In summary, environmental and social considerations are integral to enhancing employee engagement in the long-haul transport sector. Engagement practices that prioritize sustainability, DEI, and CSR not only contribute to better business outcomes but also ensure a positive impact on society and the environment. These considerations are essential for companies aiming to foster a motivated, engaged, and socially responsible workforce.

4.2 Standards, Regulations, and Policy Recommendations for Improving Engagement.

In the context of enhancing employee engagement in the long-haul transport sector, the establishment of standards, adherence to regulations, and the formulation of policy recommendations emerge as pivotal elements. This discussion synthesizes findings from recent research to outline the crucial role these components play in fostering an environment conducive to high levels of engagement, while also proposing actionable recommendations for stakeholders in the industry.

Firstly, the implementation of industry-wide standards pertaining to working conditions, safety, and employee welfare is fundamental. Research by Zohar et al. (2015) emphasizes the positive correlation between standardized working conditions and employee engagement levels in long-haul transport. These standards ensure a baseline of safety, work hours, and rest periods, which significantly contributes to reducing occupational stress and enhancing job satisfaction. The study suggests that regulatory bodies should collaborate with industry stakeholders to develop and enforce these standards, ensuring that they are both realistic and beneficial for enhancing employee well-being and engagement.

Secondly, regulations specifically aimed at improving the work-life balance of long-haul drivers have a profound impact on engagement. Studies by Kemp, Kopp, and Kemp (2013) have shown that regulations limiting driving hours not only prevent fatigue and enhance safety but also contribute significantly to improving drivers' quality of life, thereby fostering greater job satisfaction and engagement. These findings advocate for the continuous evaluation and adjustment of regulations to reflect the evolving nature of the work and its impact on drivers. Ensuring compliance through monitoring and enforcement mechanisms is crucial for the effectiveness of these regulations.

Lastly, policy recommendations derived from empirical research offer a roadmap for enhancing engagement through innovative approaches. These include investing in technology that facilitates better communication and feedback loops between drivers and management, implementing comprehensive training and professional development programs, and establishing platforms for recognizing and rewarding employee contributions. The study highlights the importance of policies that support mental health and well-being, suggesting that companies adopt flexible schedules and provide access to support services to address the unique challenges faced by long-haul drivers.

Therefore, standards, regulations, and policy recommendations play a critical role in enhancing employee engagement in the long-haul transport sector. Industry-wide standards ensure a safe and equitable working environment, while regulations aimed at improving work-life balance directly impact drivers' well-being and engagement. Policy recommendations offer a strategic approach to addressing the challenges specific to the sector, emphasizing the need for innovation, flexibility, and support for employee well-being. Adopting these recommendations can lead to a more engaged, satisfied, and productive workforce, ultimately contributing to the success and sustainability of the long-haul transport industry.

5 Conclusion

This review has systematically examined employee engagement within the long-haul transport sector, revealing critical insights into the dynamics of workforce management in this challenging field. Key findings underscore the unique aspects of long-haul transport, such as the isolation experienced by drivers and the critical importance of communication and support from employers. Effective engagement strategies identified include flexible scheduling, recognition programs, and the integration of technology for continuous communication. Moreover, the role of leadership in fostering a culture of engagement and the impact of engagement on safety and performance emerged as significant themes.

The long-haul transport sector faces several emerging challenges that could impact employee engagement, including technological disruption, environmental regulations, and evolving workforce expectations. However, these challenges also present opportunities for enhancing engagement. Technological advancements, for example, offer new ways to connect with and support remote workers, while increasing focus on sustainability can align company and employee values more closely. Adapting to these changes will require proactive and innovative engagement strategies.

To improve employee engagement within long-haul transport, it is recommended that industry leaders invest in technology that facilitates real-time communication and feedback, develop comprehensive wellness and support programs, and implement training that enhances leadership skills and engagement awareness among managers. Policymakers should consider regulations that encourage fair work hours, ensure safety, and promote work-life balance for long-haul drivers. Additionally, fostering industry-wide collaboration to share best practices and develop standardized engagement metrics could benefit the sector as a whole.

This review highlights the complex interplay of factors affecting employee engagement in long-haul transport, pointing to the need for continued research in this area. Future studies should explore the long-term impacts of engagement strategies on employee retention and performance, the role of emerging technologies, and the effects of global economic and environmental trends on the sector. Investigating the specific needs and preferences of a diversifying workforce will also be crucial in developing more inclusive and effective engagement practices. Ultimately, enhancing employee engagement in long-haul transport not only benefits workers and companies but also has the potential to improve safety, efficiency, and sustainability within the global supply chain.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

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