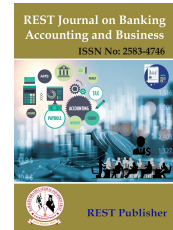




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HR Digitalization in Public Transport Systems

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ABSTRACT

Public transport has always been important in maintaining an affordable and accessible mode of transport for the vast majority of passengers. It helps in reducing the traffic congestions and helps in lowering the carbon emissions. The paper is viewed upon theoretical basis aiming to study the relevance of human resource digitalization in the public transportation sector especially with reference to state owned public transportation system, about Kerala State Road Transport Corporation. The aim of this paper is to highlight the significant changes that digitalization has brought in human resource management filed with respect to public transportation system. Relevance of human resource management in transportation segment is mentioned in the first part and then focused on the transformation from conventional to digital platform using information systems in transportation sector is highlighted in second part. Third part expresses the changes that has been witnessed due to the human resource digital transformations and suggestions for further improvements. It concludes by noting that digitalization of human resource management system plays an essential role in the overall development of the organization by getting adapted with the changing environment and making it accessible and affordable to all the passengers from diverse sectors of life. It promotes the public transportation system to be more competitive and adaptive to the changes happening around the world

1. INTRODUCTION

Kerala State Road Transport Corporation acknowledges to be one of the oldest state run transportation sector in the nation, covering majority of the public mobility needs connecting passengers within urban and rural areas. Transportation plays a vital role in developing a nation's progress networking people, their job, education, livelihood, relations etc. Kerala SRTC has been undergoing a significant transformation since decades resulting in human resource digital transformation aiding better service for passengers. When enhanced and enriched services are being ensured to the passengers, they become content and avail the facility to the fullest. KSRTC has been facing major restraints as in financial, administrative and managerial regulations. Now, being with the current pace transportation sector too adapted quickly to the digital changes happening worldwide. Digital human resource practices have become essential as organizations began to shift towards technology-driven operations. In sectors such as transport, where operations involve more complex logistics, dispersed workforces, and real-time coordination, digitalization enables human resource departments to manage talent more efficiently and strategically. The evolution of human resource management towards digital platforms has transformed traditional administrative human resource functions into data-driven strategic activities associated with latest digital transformation initiatives. One of the major advantages of digital human resource practices is that the automation of routine human resource processes. Digital tools reduce manual paperwork and streamline tasks such as recruitment, employee on

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boarding, payroll processing, attendance monitoring, and performance evaluations. The use of Electronic Human Resource Management systems allows organizations to manage large employee databases and operational tasks more efficiently, which is particularly important in transportation organizations with geographically dispersed employees. Another key importance lies in improved decision-making through human resource analytics. Digital platforms collect and analyse workforce data, enabling human resource managers to identify patterns related to productivity, turnover, and skill gaps. The application of human resource Analytics helps organizations make evidence-based decisions about recruitment, training, and workforce planning. In transportation companies, such analytics can help forecast workforce demand and improve operational efficiency. Digital human resource practices also enhance employee engagement and communication. Digital platforms such as employee self- service portals and mobile human resource applications allow employees to access human resource services anytime and anywhere. This is particularly beneficial for transportation employees such

as drivers, logistics staff, and field operators who may not work in centralized office environments. Furthermore, digital human resource supports workforce development through online learning platforms and digital training systems. These platforms facilitate continuous skill development, enabling employees to adapt to new technologies and operational systems introduced through Industry 4.0 innovations in the transportation sector. This paper tries to highlight the importance of digital human resource transformations that has been brought in the state owned transportation service and evident changes and upgradations occurred.

2. 2. LITERATURE REVIEW

Bavyko Oleksandr has pointed out that there are three technological developmental stages in digital innovations like in automation, virtualization and smartification which are very essential in transportation sector [1]. Chinoracky Roman points out that through proper transport policies digital transformations are possible and can bring in effective and efficient strategical changes in transport sectors [2]. Human resource management especially in workforce need to bring in more strategic development by accepting challenges and contributing to the role in sustainable development. Alla Grechan notes that properly structured digitization mechanism would certainly help to trigger up employee satisfaction and helps in their retention. [3,4]. We could outline digital revolution (Andre Hanelt, 2021) as an organizational conversion that is trigged and molded by the prevalent dispersion of technical know-hows. (Patricia Joanne, 2025) points that digital transformation can address the challenges brought in by the time and numerous research has shown that digitalization could surely bring in competitiveness, innovativeness and contribute new enhanced opportunities for the workforce. Organizations that doesn't get adapted to the digital changes get stuck and falls back [5,6]. Success of the organizations in implementing the digital change is based upon proper strategic planning, training and development imparted to the employees and collaboration with other competitive firms [7,8,9]. Roman Chinoracky defines digitalization as the process of converting analog information streams into digital bits of ones and zeros with discrete and discontinuous values [10].

Rewards, recognition, incentives and working ambience can definitely enhance the productivity of them employees (Setyo Riyanto, 2017) and this positivizes in employees cater them to get fully committed to the organization. Internet revolution had a drastic effect on both the personal and professional life of human kind. Digitalization has marked a rapid growth in the graph on a comparison with the yester years [11,12]. Natalia Stalmasekova highlights the changes that has happened to the human resource management due to digitalization, on how the working ambience, employees and employer has changed their outlook towards the working nature and affected outcomes significantly [13, 14]. Real-time tracking, data driven decision making and improved means of facilities (Wahyu Kurinadi, 2025) provided has all upgraded the concept of transportation to a better and efficient concept. In short digital transformation is said to be a strategic process that involves integrating technologies into all aspects of a company's operations, leading to significant updations in the business field, with far-reaching internal process and customer interactions [15].

3. RELEVANCE OF HRM IN TRANSPORTATION INDUSTRY

Human resource management has been evolving since its inception into finer and better versions till date, focusing on its prior aim to deal with human kind in an organisation. There have been many challenges that human resource management has been facing to be par with the time. They need to deal with the aging and existing workforce, as it might be difficult to deal with their skill shortcomings. Research and development need to be focused more for these employees, better training, upskilling and reskilling process could any help them to stand and be with the changes happening around and within. There would definitely be skill shortages as the existing workforce need to equip themselves to the digital world. There will be a chance to widen the gap between skilled and unskilled professionals, that would create chaos in the organisation. Real –time tracking and monitoring could ensure safeness. When employees become smart enough to work with the latest challenges in the organization, their chance for retention also increases. Initial cost on employee training will be reduced as there would be retention. Transportation sector is operating on 24*7 basis and shift scheduling and route allocation requires prior efficient planning. It's a tedious task to manage the workload of the employees as it has become a severe problem. Due to absenteeism, the running staff especially drivers need to suffer more. Certain time they need to work beyond their duty timing and continue the shift leading to fatigue and stress. Digitalisation could ensure that the workforce has been efficiently utilised. Human resource management, could impart training employees with latest technologies know-hows that could make them competitive. Human resource management could initiate for more wellness programs and health check-ups, fringe benefits and leisure trips that could support the employees mentally. When there is proper workforce utilisation, cost could be controlled effectively ensuring better operational efficiency and customer service.

4. SHIFT FROM CONVENTIONAL TO DIGITAL HRM

Conventional norms in maintaining the human resource realm takes much effort and time, and could result in inaccuracy. Traditional way of human resource management was paper based documentation and filing which always had more chances for errors and difficult to get access. Archives was difficult to maintain as years and years of administrative documents might have got lost or misplaced or even tampered and gave false accounts. Recruitment phase was the most difficult as the entire process from the beginning need to be documented and verified. For the running staffs, their route allocation and shift determination was a hectic task when it was done manually. Conductors need to carry the tickets with them during the entire day, even when the bus was fully loaded. But with the advent of digitalisation, human resource management in transportation sector has become more efficient and effective. Digital HRM uses Human Resource Information Systems (HRIS), Artificial Intelligence based recruitment and documentation process, generating pay roll systems, online bookings, ticketing checking and generating which has made the job easier and comfortable. Organisations have begun to stream line their operations work schedule planning, route scheduling, training and development imparted to the employees up to their performance appraisal evaluation. State owned public transport system on using the digitalisation has become more vital on handling dispersed workforce. E-learning platforms has ensured continuous and upgraded learning and development system and increased their knowledge level and also helps them to maintain workplace stress. GPS enabled tracking and biometric attendance system has made the transportation wing more efficient.

Now, the E-learning platforms has given more chance to address their workplace well-being, mental and physical well-being. Employees tend to be more frustrated as most of the time they are on road dealing with the heavy time pressure and traffic block, which affects their mental and physical health adversely. Employees need to address their issues timely and such e-learning platforms could aid them for betterment and development. Mobile tracking apps has made the communication process yet more accessible and cheap. Changes that digitalisation has brought in had made in a strategic transformation which has made an overall improvement in organisational performance.

5. CONCLUSION

Digitalisation has a drastic effect of all sectors of life especially in the transportation sector affecting millions of life daily. Changes that has been brought in the organisation due to the shift from administrative HR to strategic HR, has

been clearly and visible evident in its operation and administration. Automation of the entire HR process, data driven decision making, enhanced employee experience, real time tracking, continuous learning and development, stress handling and managing strategies, better workplace exposure, proper redressal of workplace issues all areas have been timely and properly addressed and effectively functioning. HR digitalisation has brought in significant and positive impact in the life's of both the employees and employers affecting the working ambience. More enhanced and updated facilities has increased the standard of living and eased out the burden that work related pressure has been giving. All these vital changes have significantly affected the working ambience and lessened workplace related issues, which has affected employee's life significantly. More passengers avail public transportation if there is better and enhanced facilities given to them. Digitalisation has entirely changed the HR operations now helping organisations to adapt to the latest technologies and passenger friendly transport mode.

REFERENCES

- [1]. Bavyko Oleksandr. "Digitalization of Business Processes as an Element of the Strategy for Sustainable Smart Development of Business Structures" 2023. 10.15276/EJ.02.2023.2
- [2]. Chinoracky Roman & Kurotova Jana. "Measuring the impact of Digital Technologies on Transport Industry – Macroeconomic Perspective". 2021.
- [3]. <https://www.sciencedirect.com/science/article/pii/S2352146521005056>
- [4]. Deretić Nemanja. "Human Resource Management and Digital Transformation in Transport Companies". Research Gate, November 2025.
- [5]. Grechan Alla. "digitalization of business processes of transport companies as a factor of ensuring their economic development" 2023, 10.33744/0365-8171-2023-114.1-180-185
- [6]. Hanelt, A., Bohnsack, R., Marz, D., Antunes Marante, C.: A systematic review of the literature on digital transformation: insights and implications for strategy and organizational change. *J. Manage. Stud.* 58, 1159–1197, 2021. <https://doi.org/10.1111/joms.12639>
- [7]. Kartsan Polina & Mavrin Sergey. "The Digital Revolution of the Transportation Industry". <https://doi.org/10.1016/j.trpro.2023.02.014>.
- [8]. Kern, J.: The digital transformation of logistics: a review about technologies and their implementation status. In: Sullivan, M., Kern, J. (eds.) *The Digital Transformation of Logistics*, pp. 361–403. Wiley, 2021. <https://doi.org/10.1002/9781119646495.ch25>
- [9]. Kurniadi Wahyu. "Digital Transformation in the Transportation and Logistics Industry", 2025. <https://doi.org/10.38035/sjtl.v3i1>
- [10]. Kuznetsova, G.V., Podbiralina, G.V.: *Transport Digitalization*. In: Kahraman, C., Haktanir, E. (eds.) *Intelligent Systems in Digital Transformation*, pp. 579–608. Springer International Publishing, Cham, 2023. <https://doi.org/10.1007/978-3-031-16598-6-25>
- [11]. Madlenak, R., Madlenakova, L., "Digital advertising system in urban transport system of žilina town, *Transport and Telecommunication*", 2014, Volume 15, Issue 3, Pages 215-226.
- [12]. Mashkina Natalya A & Belyaeva. Elena S. "Digitalization of The Transport Industry in The Context of Globalization of The World Economy", 2021, Volume 92, <https://doi.org/10.1051/shsconf/20219205020>
- [13]. Riyanto, S., Adila, L., & Ali, H. "The Effect of Incentives And Job Enthusiasm To Productivity of Go-Jek Driver At PT". *Go-Jek Indonesia. Journal of Research in Business and Management*, 2017, 5(1), 35-41.
- [14]. Stalmasekova, N., Genzorova, T., Corejova, T., Gasperova, L. "The Impact of Using the Digital Environment in Transport. In: *Procedia Engineering*", 2017, 192, pp. 231-236
- [15]. Suparman, E., & Ramadhan, A. "Transformasi digital pada logistik: Tantangan dan strategi di era industri 4.0. *Jurnal Logistik dan Transportasi*", 2021 8(2), 55-63. <https://doi.org/10.21009/jlt.082.06>
- [16]. Talibi Omar & Ali Mohamed Ben. "Impact of Digital Transportation on the Performance of Transport Companies". 2025. <https://link.springer.com/chapter/10.1007/978-3-032-01536-5-114>
- [17]. Tjahjono, B., Esplugues, C., Ares, E., & Pelaez, G. (2017). What does Industry 4.0 mean to supply chain? *Procedia Manufacturing*, 13, 1175–1182. <https://doi.org/10.1016/j.promfg.2017.09.191>
- [18]. Vial, G.: Understanding digital transformation: a review and a research agenda. *J. Strateg. Inf. Syst.* 28, 118–144, 2019. <https://doi.org/10.1016/j.jsis.2019.01.003>
- [19]. Verhoef, P.C., et al.: Digital transformation: a multidisciplinary reflection and research agenda. *J. Bus. Res.* 122, 889–901, 2021. <https://doi.org/10.1016/j.jbusres.2019.09.022>
- [20]. Vasilyeva, E., Bolshakov, R., Zorin, K.: Trends of transport logistics in construction in the conditions of digitalization. *E3S Web of Conf.* 402, 09021, 2023. <https://doi.org/10.1051/e3sconf/202340209021>
- [21]. Vaculik, J., Kolarovszki, P., Tengler, J., "Results of automatic identification of transport units in postal environment. *Transport and Telecommunication*", 2012, Volume 13, Issue 1, Pages 75-87.
- [22]. Verhoef, P.C., et al., "Digital transformation: a multidisciplinary reflection and research agenda. *J. Bus. Res.*" 122, 889–901 (2021). <https://doi.org/10.1016/j.jbusres.2019.09.022>