

Leveraging Machine Learning in Digital Payroll and Payment Playforms Redifining HR Practices in the FinTech Era

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[P.Venkateswara Rao](#) ; [Gunjan Chhabra](#) ; [Barkha Gupta](#) ; [Praveen Kumar Mannepalli](#) ; [Vinayak Dagadu Shinde](#) ; [Santosh Kumar](#) [All Authors](#)

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Abstract:

The objective of this research paper is to explore how Machine Learning (ML) could potentially be used to transform the HR process within Digital Payroll & Payment Platforms in today's Fintech industry. We did this through development of a Reinforcement Learning (RL) model in a simulated environment, utilizing artificial data to measure various Performance Metrics including Efficiency, Fairness, Fraud Prevention and Employee Satisfaction. Our results indicated that our AI-enabled model outperformed the AI-free Baseline Model in terms of Reward Convergence, Satisfaction Index, Transaction Success Rate with Fraud Attempted, and Scalable Adaptability as the Workforce Size increased. Additionally, we conducted Ablation Testing for Features, which confirmed the importance of engineered features to produce desired outcomes. These results clearly indicate that Intelligent Payroll Platforms have the potential to reduce employee stress, increase employee trust and provide Human Resource Managers with tools to create Financial Operations that are both Sustainable and Employee-Centered.

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