HUMAN CAPITAL MANAGEMENT AND TECHNOLOGY ACCEPTANCE MODEL AND THEIR EFFECT ON EMPLOYEE PRODUCTIVITY IN PLANTATION SECTOR COMPANIES

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Abstract

This study examines the influence of Human Capital Management (HCM) and the Technology Acceptance Model (TAM) on employee productivity in plantation sector companies. Using a quantitative descriptive approach, data were collected from 220 employees at PTABC VI and PTABC VIII. Findings indicate that both HCM and TAM have a positive and significant impact on productivity. Effective management of human capital, combined with technological adaptability, enhances overall performance and efficiency across organizational processes.

Keywords: human capital management; technology acceptance model; productivity

1. Introduction

The plantation industry remains a vital contributor to Indonesia's trade and economic structure. Productivity in this sector depends largely on the efficiency and capability of human resources. Companies such as PTABC VI and PTABC VIII have faced declining productivity, highlighting the need for structured human capital strategies and adoption of modern technologies to optimize employee performance.

2. Literature Review

Human Capital Management (HCM) emphasizes the strategic utilization of human resources to achieve competitive advantage. According to Kearns (2005), HCM shifts the focus from administrative HR processes to the maximization of intellectual and organizational capital. McBassi (2008) identifies learning, leadership, motivation, and knowledge management as key elements driving human capital value creation.

The Technology Acceptance Model (TAM), developed by Davis (1989), explains user acceptance of technology through two primary factors: perceived usefulness and perceived ease of use. In organizational contexts, TAM helps predict how employees respond to digital transformation efforts and technological innovation.

3. Methodology

This research employed a descriptive quantitative design. The population included 484 employees of PTABC VI and PTABC VIII, from which 220 respondents were sampled using proportional stratified random sampling. Data were analyzed using Structural Equation Modeling (SEM) with LISREL software to evaluate relationships between HCM, TAM, and employee productivity.

4. Results

The analysis produced the following key statistical results:

Table 1. Goodness of Fit Results

Indicator	Recommended Value	Result
RMSEA	< 0.05 (Very Good Fit)	0.037
GFI	> 0.90 (Good Fit)	0.941
CFI	> 0.90 (Good Fit)	0.961
NFI	> 0.90 (Good Fit)	0.961

Table 2. R Square Values

Variable	R Square	Interpretation
Productivity	0.93	Substantial
Human Capital Management	0.84	Strong Influence
Technology Acceptance Model	0.15	Moderate Influence

5. Discussion

The study confirms that both HCM and TAM significantly enhance employee productivity. The high R^2 value (0.93) suggests that these variables explain a substantial portion of productivity variance. Effective leadership, structured learning, and supportive work environments under HCM strengthen employee motivation and performance. Similarly, technology acceptance promotes operational efficiency by simplifying workflows and improving access to information.

6. Conclusion

Human Capital Management and the Technology Acceptance Model jointly influence productivity in plantation sector companies. The integration of human resource development and technology utilization enhances competitiveness and efficiency. Organizations are encouraged to focus on continuous employee development and technological readiness to maintain productivity growth.

7. References

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