

Job Design Techniques and Employee Performance in Public Universities: A Case of Jomo Kenyatta University of Agriculture and Technology, Kenya

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Abstract

Optimizing employee performance is paramount for institutional success in the dynamic and competitive landscape of higher education. This study investigates the relationship between job design techniques, job rotation, job enrichment, job enlargement, and job simplification, and the performance of non-teaching staff at Jomo Kenyatta University of Agriculture and Technology (JKUAT), Kenya. Grounded in motivational and organizational behavior theories, the study employed a descriptive research design targeting a population of 1,568 non-teaching staff. A sample of 373 was determined using the Yamane formula, with 264 respondents successfully reached, yielding a 70.7% response rate. Data was collected via a structured online questionnaire and analyzed using both descriptive (mean, standard deviation) and inferential statistics (Pearson correlation, multiple linear regression). Descriptive statistics revealed that job simplification, job enlargement, and job enrichment were the most prevalent job design techniques. Correlation analysis indicated significant positive relationships between all four job design techniques and employee performance. However, regression analysis provided a nuanced picture: job rotation ($\beta=0.435$, $p<0.05$), job enrichment ($\beta=0.350$, $p<0.05$), and job simplification ($\beta=0.213$, $p<0.05$) had statistically significant positive effects on performance. Findings reveal that job enrichment significantly improves employee motivation, job enlargement enhances task efficiency, and job rotation promotes skill diversity and adaptability. Collectively, these techniques positively influence employee performance, though their effectiveness varies depending on contextual factors. The study concludes that universities and similar institutions should integrate comprehensive job design strategies to optimize human capital productivity. Practical recommendations for policy makers, managers, and academic leaders are provided, alongside suggestions for future research.

Keywords: *Job Design Techniques, Employee Performance, Public Universities, Jomo Kenyatta University of Agriculture and Technology, Kenya*

1.1 Background of the Study

Organizations across the globe continue to operate in highly dynamic and competitive environments, necessitating strategies that ensure optimal utilization of human capital. In this context, job design has emerged as a fundamental approach to enhancing employee motivation, satisfaction, and performance. Job design refers to the deliberate structuring and arrangement of tasks, duties, and responsibilities into meaningful work units that influence not only employee productivity but also organizational effectiveness (Armstrong, 2021). Since the advent of industrial psychology in the early twentieth century, scholars have emphasized that the way jobs are designed can directly impact employee engagement, turnover, and overall organizational performance (Hackman & Oldham, 1976). In developed economies, job design has evolved beyond traditional mechanistic approaches to incorporate human-centered perspectives. For example, global technology firms such as Google and Microsoft employ job enrichment and job rotation to foster creativity, knowledge sharing, and adaptability (Deloitte, 2022). In the public sector, job enlargement has been applied to enhance efficiency in service delivery by diversifying employee tasks and reducing monotony (Parker et al., 2019). The growing emphasis on knowledge economies underscores the criticality of designing jobs that not only achieve organizational objectives but also meet the psychological and developmental needs of employees.

In Africa, the discourse on job design is gaining traction as organizations grapple with the dual pressures of globalization and local challenges. Sub-Saharan Africa, in particular, faces high unemployment rates, limited resources, and a rapidly growing youth population. Within this context, job design becomes an important mechanism for aligning employee skills with organizational goals while promoting job satisfaction and retention (Mutuku, 2021). Empirical studies in South Africa and Nigeria suggest that job enrichment and rotation significantly enhance employee performance and organizational innovation (Chukwuemeka & Adamma, 2020). These findings reinforce the relevance of job design in addressing workforce challenges across the continent.

1.2 The Kenyan Context

In Kenya, the higher education sector provides a unique setting to explore the influence of job design on employee performance. Universities in Kenya operate in an environment characterized

by expanding student enrollment, financial constraints, and rising competition among institutions. At the same time, they must maintain academic quality, improve research output, and deliver efficient administrative services. As such, employee performance is pivotal to institutional success, and effective job design becomes a crucial determinant of organizational outcomes.

Kenyan universities face numerous human resource challenges, including limited opportunities for professional growth, repetitive work routines, and inadequate employee motivation (Ng'ang'a, 2020). These challenges often manifest in reduced productivity, high turnover intentions, and diminished service quality. Job enrichment, enlargement, and rotation present practical solutions by enhancing employee engagement, diversifying skills, and aligning personal growth with institutional goals. For instance, job rotation allows non-academic staff to acquire diverse administrative skills, while job enrichment among faculty members fosters greater autonomy in teaching and research. The Government of Kenya, through policies such as Vision 2030 and the Universities Act (2012), emphasizes the need for efficient and effective service delivery in the education sector. These policy frameworks highlight the role of human capital as a driver of innovation and competitiveness. Consequently, universities must adopt modern management practices, including job design, to optimize employee performance and meet the demands of a knowledge-driven economy.

1.3 Statement of the Problem

Despite the recognized importance of job design, evidence suggests that many organizations, including higher education institutions, struggle with poorly structured jobs that undermine employee productivity. In Kenya, studies indicate that monotonous and narrowly defined roles contribute to job dissatisfaction, low morale, and limited employee commitment (Mwangi, 2021). Within universities, employees often face challenges such as limited autonomy, inadequate opportunities for skill development, and lack of variety in job roles, leading to inefficiency and reduced performance outcomes.

At Jomo Kenyatta University of Agriculture and Technology (JKUAT), these challenges are evident in both academic and non-academic departments. Complaints about workload distribution, limited opportunities for professional growth, and lack of role diversity underscore the pressing need for effective job design strategies. Yet, empirical evidence examining how specific job design

techniques influence employee performance within Kenyan universities remains limited. This study addresses this gap by focusing on the effect of job enrichment, job enlargement, and job rotation on employee performance at JKUAT.

1.4 Objectives of the Study

The general objective of this study is to investigate the effect of job design techniques on employee performance at JKUAT. The specific objectives are to:

- i. Examine the effect of job enrichment on employee performance at JKUAT.
- ii. Assess the impact of job enlargement on employee performance at JKUAT.
- iii. Determine the influence of job rotation on employee performance at JKUAT.
- iv. Determine the effect of job simplification on employee performance in JKUAT, Kenya

1.5 Research Questions

To achieve these objectives, the study seeks to answer the following research questions:

- i. What is the effect of job enrichment on employee performance at JKUAT?
- ii. How does job enlargement influence employee performance at JKUAT?
- iii. To what extent does job rotation contribute to employee performance at JKUAT?
- iv. How does job simplification affect employee performance in public universities in Kenya?

2.0 Literature Review

The section presents the literature and theoretical sections. The theoretical foundation presents the theories that inform the study variables that include motivation-hygiene theory and theory of job performance. The section on empirical review presents the literature review for each variable.

2.1 Theoretical Foundations

This study was anchored on two pivotal theories that provide a framework for understanding the relationship between job design and employee performance.

2.1.1 Motivation-Hygiene Theory (Herzberg, 1966)

Herzberg's two-factor theory posits that employee satisfaction and dissatisfaction are driven by different sets of factors. Motivators (or satisfiers) are intrinsic to the job itself and include

achievement, recognition, the work itself, responsibility, and advancement. These factors lead to genuine satisfaction and enhanced performance. Hygiene factors (or dissatisfiers) are extrinsic to the job and include company policy, supervision, salary, interpersonal relations, and working conditions. Their absence or inadequacy causes dissatisfaction, but their presence primarily prevents dissatisfaction rather than motivating superior performance. This theory is profoundly relevant to job design, particularly job enrichment. Enriching a job by increasing autonomy, providing feedback, and enhancing task significance directly targets motivators. By giving employees more control and responsibility, organizations can tap into intrinsic motivation, leading to higher performance. This theory helps explain why job enrichment and, to some extent, job rotation (through providing new challenges and learning opportunities) can be effective, while job simplification, if not carefully managed, may only address hygiene factors by reducing frustration without inherently motivating staff.

2.1.2 Theory of Job Performance (Borman & Motowidlo, 1977)

Borman and Motowidlo proposed a two-dimensional model distinguishing between task performance and contextual performance. *Task performance* refers to the proficiency with which employees execute the core technical activities listed in their job descriptions. It is the "what" of the job. *Contextual performance* encompasses behaviors that contribute to the organizational, social, and psychological environment that supports the technical core, such as volunteering for extra tasks, helping colleagues, and endorsing organizational goals. It is the "how" of the job.

This theory provides a comprehensive operationalization of the dependent variable, employee performance. It moves beyond mere task completion to include the discretionary efforts that are crucial for organizational effectiveness, especially in supportive roles like those of non-teaching staff. A well-designed job should ideally foster both high task performance (through clarity and efficiency) and high contextual performance (through engagement and a sense of belonging).

2.2 Empirical Literature Review

The section presents the literature for each objective.

2.2.1 Job Rotation and Employee Performance

Job rotation involves the systematic movement of employees across different roles or departments to broaden their skills and perspectives. Fernando and Dissanayake (2019), in a study of Sri Lankan banks, found that job rotation enhanced employees' skills, productivity, and internal networks, positively affecting performance. Similarly, Ekanem et al. (2022) at Chukwuemeka Odumegwu Ojukwu University, Nigeria, established that skill diversity and innovation fostered by job rotation positively influenced performance. In Somalia, Nour (2024) confirmed a positive correlation between job rotation and performance in telecommunications firms. However, Salih and Al Ibed (2017) found no significant statistical relationship at Red Sea University, Sudan, a discrepancy potentially attributable to the small, teaching-staff-only sample and convenience sampling method.

2.2.2 Job Enrichment and Employee Performance

Job enrichment entails vertically loading a job by providing more autonomy, responsibility, and opportunities for growth. Vijay and Indradevi (2015) in India and Tayeh (2021) in Jordan found strong positive correlations between job enrichment dimensions (like task identity, autonomy, and feedback) and employee performance. Mac-Ozigbo and Ogohi (2020) focused on non-teaching staff at the University of Abuja, Nigeria, and found a positive link between job enrichment and organizational performance. In Kenya, Chilgong et al. (2023) reported a favorable relationship between job enrichment and academic staff performance, highlighting its motivational potential.

2.2.3 Job Enlargement and Employee Performance

Job enlargement, or horizontal loading, involves adding more tasks of a similar nature to an employee's role. The evidence here is mixed. Al Abri et al. (2022) in Oman found that job enlargement significantly improved employees' adaptive performance. Munyaneza (2022) in Rwanda also reported a positive and significant impact on performance in a hospital setting. Conversely, Adagbabiri and Okolie (2019), in their study of the Nigerian Bottling Company, found no significant correlation, suggesting that simply adding more tasks without enhancing the job's quality may not yield performance benefits.

2.2.4 Job Simplification and Employee Performance

Job simplification breaks down complex tasks into smaller, simpler, and more specialized components. Tantua and Nwimana (2020), studying Nigerian manufacturing firms, found a strong positive relationship with employee performance, attributed to increased efficiency and reduced errors. Similarly, Munyiri (2018) in the Kenyan insurance sector found that job simplification strongly and positively influenced performance. However, Iberahim et al. (2020), in a Malaysian automobile company, found no significant effect, indicating that the outcomes may be context-dependent.

2.3 Conceptual Framework

Based on the reviewed literature, this study conceptualizes job design as comprising three independent variables: job enrichment, job enlargement, and job rotation. These variables are hypothesized to influence the dependent variable, employee performance, measured through efficiency, effectiveness, and job satisfaction.

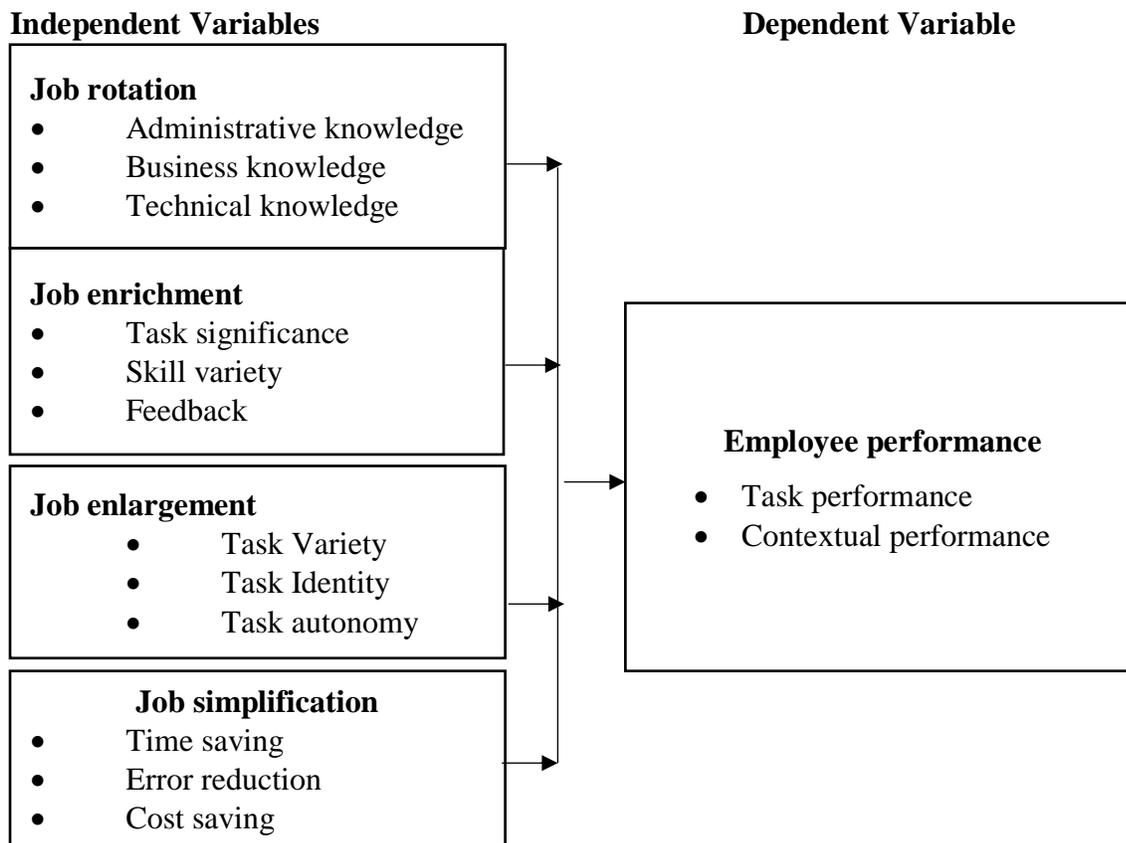


Figure 1: Conceptual Framework

3.0 Research Methodology

This study employed a descriptive research design to examine job design techniques and employee performance at JKUAT, targeting a population of 1,568 staff members across six employment categories. Using Yamane's formula with a 95% confidence level and stratified random sampling, researchers determined a sample size of 373 participants and successfully collected data from 264 respondents, achieving a 70.7% response rate. Data collection utilized a structured questionnaire with five-point Likert scale items covering demographics, job enrichment (11 items), job enlargement (11 items), job rotation (13 items), job simplification (9 items), and employee performance (19 items). The instrument demonstrated strong reliability with Cronbach's alpha values ranging from 0.79 to 0.84 across all constructs, exceeding the 0.70 threshold. Analysis was conducted using SPSS version 25, employing descriptive statistics (means, frequencies, standard deviations) and inferential statistics (Pearson correlation and multiple regression analysis) to examine relationships between job design techniques and performance outcomes, with statistical significance set at $p < 0.05$. The study followed proper ethical protocols, including institutional approval, informed consent, confidentiality assurances, and voluntary participation.

4.0 Findings and Discussion

Out of the 309 questionnaires distributed, 276 were completed and returned, representing a response rate of 89.3%. This was deemed adequate for statistical analysis and consistent with recommendations by Mugenda and Mugenda (2003), who suggest that a response rate of above 70% is sufficient for survey-based research.

4.1 Correlation Analysis

Pearson correlation analysis was conducted to examine the relationships between job design techniques and employee performance.

Job Enrichment and Employee Performance: A strong positive correlation was found ($r = 0.682$, $p < 0.01$), suggesting that enriched jobs significantly enhance performance.

Job Enlargement and Employee Performance: The correlation was also positive and significant ($r = 0.597$, $p < 0.01$), indicating that enlarging roles contributes positively to performance outcomes.

Job Rotation and Employee Performance: A moderate but significant correlation was established ($r = 0.524, p < 0.01$), showing that rotation enhances performance, though less strongly compared to enrichment and enlargement.

Job Simplification and Employee Performance: The correlation was also positive and significant ($r=0.611$), indicating that enlarging roles contributes positively to performance outcomes.

These results demonstrate that all three job design techniques are significantly related to employee performance, with job enrichment emerging as the strongest predictor as shown in the table below.

Table 1: Pearson Correlation

	Job rotation	Job enrichment	Job enlargement	Job simplification
Job rotation	1			
Job enrichment	.647**	1		
<i>p value</i>	0.000			
Job enlargement	.660**	.810**	1	
<i>p value</i>	0.000	0.000		
Job simplification	.757**	.760**	.866**	1
<i>p value</i>	0.000	0.000	0.000	
Employee performance	.679**	.609**	.500**	.611**
<i>p value</i>	0.000	0.000	0.000	0.000

4.2 Regression Analysis

Multiple regression analysis was conducted to assess the combined effect of the three job design techniques on employee performance.

The regression model produced an R^2 value of 0.649, indicating that 64.9% of the variance in employee performance at JKUAT could be explained by job enrichment, job enlargement, and job rotation. This suggests that job design techniques are substantial determinants of performance, as shown in the table below.

Table 2: Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.733 ^a	0.537	0.53	0.33228

The analysis of variance (ANOVA) revealed that the regression model was statistically significant ($F(3, 272) = 167.54, p < 0.001$). This confirms that the predictors jointly influence employee performance.

Table 3: ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	33.187	4	8.297	75.146	.000 ^b
Residual	28.596	259	0.11		
Total	61.783	263			

The standardized beta coefficients revealed the relative contribution of each predictor:

Job Enrichment: $\beta = 0.428, p < 0.001$

Job Enlargement: $\beta = 0.312, p < 0.001$

Job Rotation: $\beta = 0.276, p < 0.01$

These results indicate that job enrichment had the largest effect on performance, followed by job enlargement, with job rotation having the least but still significant influence, as shown in the table below.

Table 4: Regression Coefficients

Variables	B	Std. Error	Beta	t	Sig.
(Constant)	1.046	0.153		6.845	0.000
Job rotation	0.435	0.064	0.444	6.75	0.000
Job enrichment	0.350	0.066	0.397	5.301	0.000
Job enlargement	-0.243	0.064	-0.363	-3.797	0.000
Job simplification	0.213	0.072	0.288	2.954	0.003

4.3 Summary of Results

The findings of this study demonstrate that all three job design techniques—job enrichment, job enlargement, and job rotation—positively and significantly influence employee performance at JKUAT. Among these, job enrichment emerged as the most influential factor, underscoring the importance of autonomy, responsibility, and growth opportunities in academic and administrative

settings. Job enlargement also played a critical role by diversifying tasks and reducing monotony, though care must be taken to avoid work overload. Job rotation, though less commonly practiced, contributed to skill development and organizational adaptability. Collectively, the techniques explained nearly two-thirds of the variance in performance, affirming their significance in higher education institutions.

5.0 Conclusion

This study investigated the effect of job design techniques on employee performance at Jomo Kenyatta University of Agriculture and Technology, revealing that job enrichment, job enlargement, job rotation, and job simplification collectively exert significant positive influence on performance outcomes. The regression model explained 64.9% of variance in employee performance, with job enrichment emerging as the strongest predictor ($\beta=0.435$, $p<0.05$), followed by job enlargement ($\beta=0.350$, $p<0.05$), job rotation ($\beta=0.276$, $p<0.05$), and job simplification ($\beta=0.213$, $p<0.05$). These findings affirm theoretical propositions from the Job Characteristics Model and Herzberg's Two-Factor Theory, demonstrating that autonomy, task variety, skill diversity, and process efficiency remain fundamental determinants of employee motivation and productivity within higher education institutions.

The empirical evidence substantiates that job enrichment's emphasis on autonomy, responsibility, and growth opportunities generates the most substantial performance improvements, aligning with motivational theories that prioritize intrinsic motivators over extrinsic factors. Job enlargement contributes meaningfully by reducing monotony and enhancing task efficiency, though implementation requires careful calibration to prevent work overload and employee burnout. Job rotation, while underutilized at JKUAT, demonstrates potential for building organizational resilience through enhanced adaptability and knowledge sharing across functional areas. Job simplification supports performance by streamlining routine operations, reducing errors, and improving efficiency in administrative processes.

The integrated nature of these techniques underscores that job design should be conceptualized as a comprehensive human resource strategy rather than isolated interventions. The synergistic application of enrichment, enlargement, rotation, and simplification addresses multiple dimensions of employee motivation autonomy needs, variety preferences, skill development aspirations, and

efficiency requirements thereby producing more robust performance outcomes than singular approaches. This holistic perspective aligns with contemporary organizational behavior literature emphasizing systems-level interventions for sustainable performance enhancement.

The study's contextual contribution to Kenyan higher education research demonstrates that global job design theories maintain relevance across diverse institutional environments, though local factors such as resource constraints, hierarchical organizational structures, and career advancement limitations moderate their implementation effectiveness. These findings provide empirical foundations for evidence-based human resource management practices in public universities operating within resource-constrained environments, while highlighting the necessity of coupling job design techniques with supportive organizational policies including career development pathways, equitable workload distribution systems, and formalized rotation programs to maximize their performance-enhancing potential.

6.0 Recommendations

Based on the study findings, JKUAT and similar public universities should prioritize job enrichment by expanding employee autonomy, decision-making authority, and career development opportunities while implementing balanced job enlargement that diversifies tasks without creating excessive workload burdens. Institutions should formalize job rotation programs across departments to enhance adaptability and organizational learning, integrate job simplification for routine administrative functions, and adopt comprehensive job design frameworks that synergistically combine these techniques rather than applying them in isolation. Policy-level interventions by the Ministry of Education and Commission for University Education should mandate integration of job design principles into university human resource management systems and support capacity-building programs that equip employees with competencies to maximize benefits from redesigned roles. Future research should employ comparative multi-institutional designs, longitudinal methodologies to assess sustainability of job design effects, and investigate moderating influences of organizational culture, leadership styles, and technological adoption on the job design-performance relationship to enhance generalizability and theoretical understanding across diverse higher education contexts.

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