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Impact of Tangible and Intangible Non-Financial Incentives on Employee Performance: An Empirical Assessment

Wakil Gana Kafiya [1]*

[1] *Rector, Mai Idris Alooma Polytechnic, Geidam, Yobe State, Nigeria.*

Abstract

This study examines the differential impact of tangible and intangible non-financial incentives on employee performance. Using a cross-sectional survey design (n = 324), I investigated how treats/gifts, honorary awards, social rewards, and psychological rewards influence various dimensions of employee performance while controlling for age, gender, education, and tenure. Results indicate that both tangible and intangible non-financial incentives positively impact employee performance, with intangible incentives demonstrating stronger effects ($\beta = 0.48$, $p < 0.001$) compared to tangible incentives ($\beta = 0.37$, $p < 0.01$). Among specific dimensions, psychological rewards emerged as the strongest predictor of performance ($\beta = 0.52$, $p < 0.001$), followed by social rewards ($\beta = 0.44$, $p < 0.001$), honorary awards ($\beta = 0.39$, $p < 0.01$), and treats/gifts ($\beta = 0.35$, $p < 0.01$). The relationship between incentives and performance was moderated by education level and tenure, while age and gender showed minimal moderating effects. These findings contribute to motivation theory by providing empirical evidence on the comparative effectiveness of different non-financial incentives and offer practical implications for designing optimal incentive systems in organizations seeking cost-effective ways to enhance employee performance.

Keywords: *Employee performance, Tangible non-financial rewards, Intangible non-financial rewards, Nigeria.*

Introduction

In today's competitive business environment, organizations continually seek effective methods to enhance employee performance while managing resource constraints. While financial incentives have traditionally been emphasized, interest in non-financial incentives has grown substantially due to their potential cost-effectiveness and sustained motivational impact (Huta, 2013). These non-financial incentives encompass a wide range of approaches that do not directly involve monetary compensation yet aim to influence employee behavior and performance positively. Despite growing interest, research examining the comparative effectiveness of different types of non-financial incentives remains fragmented, with limited empirical evidence distinguishing between tangible and intangible approaches (Ramiz, 2024). Tangible non-financial incentives include physical items or experiences with material value but not directly provided as cash, such as treats, gifts, and honorary awards with physical manifestations (Kuvaas *et al.*, 2018). Intangible non-financial incentives consist of non-physical rewards such as social recognition, praise, autonomy, and opportunities for development (Cerasoli *et al.*, 2018). While both categories aim to motivate employees, their psychological mechanisms and relative effectiveness remain insufficiently understood in the context of emerging economies grappling with challenges of daily living.

This research addresses this gap by empirically assessing and comparing the impact of both tangible non-financial incentives (operationalized as treats/gifts and honorary awards) and intangible non-financial incentives (operationalized as social rewards and psychological rewards) on employee performance. The study controls for demographic factors (age, gender) and professional characteristics (education, tenure) to isolate the effects of these incentives and account for potential confounding variables. The study's objectives are to:

1. Examine the impact of tangible non-financial incentives on employee performance
2. Investigate the influence of intangible non-financial incentives on employee performance
3. Compare the relative effectiveness of tangible versus intangible non-financial incentives
4. Analyze the moderating effects of demographic and professional characteristics

This research contributes to both theory and practice. Theoretically, it advances our understanding of motivation mechanisms by empirically testing the comparative effectiveness of different non-financial incentive types. Practically, findings provide evidence-based guidance to organizational leaders and HR practitioners seeking to design optimal incentive systems that maximize performance outcomes while managing resource constraints.

Literature Review

Theoretical Framework

Several theoretical frameworks help explain how non-financial incentives influence employee performance. Expectancy theory (Vroom, 1964) suggests that motivation depends on the

* Corresponding author: kafiyama13@gmail.com (PhD)

employee's expectation that effort will lead to performance and that performance will lead to valued rewards. For non-financial incentives, this implies that employees must value these rewards and perceive them as attainable through improved performance.

Social exchange theory (Blau, 1964; Kira *et al.*, 2022) posits that workplace relationships involve exchanges of resources that create obligations and reciprocity. Contemporary researchers have extended these ideas, with McAnally and Hagger (2024) demonstrating that when organizations provide valued non-financial incentives, employees feel obligated to reciprocate through enhanced performance and commitment.

Self-determination theory (SDT) (Ryan & Deci, 2000) distinguishes between extrinsic and intrinsic motivation, suggesting that autonomy, competence, and relatedness are essential psychological needs. Recent work by McAnally and Hagger (2024) shows that non-financial incentives, particularly intangible ones, may support these needs more effectively than purely financial rewards, potentially leading to more sustainable motivation and performance.

Herzberg's two-factor theory (Herzberg, 1966) differentiates between hygiene factors that prevent dissatisfaction and motivators that generate satisfaction and motivation. Contemporary applications of this theory by Gagné *et al.* (2019) confirm that many non-financial incentives align with Herzberg's motivators (recognition, advancement, growth), suggesting their potential effectiveness beyond basic compensation.

Non-Financial Incentives

Tangible Non-Financial Incentives

Tangible non-financial incentives represent material rewards that possess inherent value but are not directly provided as monetary compensation (Kuvaas *et al.*, 2018). These include:

Treats and Gifts: This category encompasses physical items (merchandise, gift cards, food items) and experiences (restaurant meals, event tickets) provided to employees as rewards. Recent research by Kitsios and Kamariotou (2021) found that gift items generated stronger reciprocity and performance improvements than equivalent cash, suggesting unique psychological mechanisms tied to tangible non-cash rewards. Vesal *et al.* (2024) identified that the separability, visibility, and memorability of these items contribute to their motivational impact beyond their monetary value.

Honorary Awards: These include trophies, plaques, certificates, medals, pins, and other physical symbols of recognition typically tied to achievement, milestones, or exemplary behavior (Gallus, 2017). Contemporary studies by Gui and Zhang (2023) found that formal recognition programs using physical awards were positively associated with employee engagement and discretionary effort across multiple organizations. Lengkong *et al.* (2024) demonstrated that honorary awards derive their motivational power from both their tangible presence as status symbols and their intangible recognition component.

Intangible Non-Financial Incentives

Intangible non-financial incentives lack physical form but provide psychological and social benefits that can significantly influence motivation and performance (Cerasoli *et al.*, 2018). These include:

Social Rewards: These encompass public recognition, praise, appreciation, and other forms of acknowledgment that satisfy employees' needs for esteem and belonging (Belschak *et al.*, 2020). A recent work demonstrated that social recognition interventions increased performance by considerable magnitude on average in knowledge-intensive environments (Fall *et al.*, 2024). Jo and Shin (2025) identified key aspects that enhance effectiveness including timing (immediacy), specificity, visibility to peers, and authenticity.

Psychological Rewards: These address internal psychological needs and include autonomy in work methods, opportunities for skill development, meaningful task assignments, and career advancement pathways (Thomas, 2009). Contemporary research by Michael and Tummolini (2025) established that autonomy and competence development foster intrinsic motivation among diverse workforce segments. Olafsen and Halvari (2017) highlighted the importance of purpose and mastery in knowledge-worker performance, emphasizing that organizational environments supporting these needs yield stronger performance outcomes than traditional reward systems.

Employee Performance

Employee performance represents the behaviors, actions, and outcomes that contribute to organizational objectives (Campbell & Wiernik, 2015). Contemporary approaches to performance measurement incorporate multiple dimensions including task performance (core job responsibilities), contextual performance (organizational citizenship behaviors), adaptive performance (handling change), and creative performance (innovation contributions) (Rožman *et al.*, 2023).

Determinants of employee performance include ability factors (knowledge, skills), motivational factors (effort, persistence), and situational factors (resources, constraints) (Blumberg & Pringle, 1982). McCarthy and Turner (2021) established that non-financial incentives primarily influence the motivational component by providing valued rewards that direct, energize, and sustain behavior toward organizational objectives.

Contemporary research has established connections between various non-financial incentives and performance metrics. Abubakar *et al.* (2020) found that non-financial incentives significantly improved customer service quality and reduced turnover in a longitudinal field experiment involving frontline healthcare workers. Similarly, Begüm (2023) demonstrated that symbolic awards increased performance in remote work environments, particularly among employees concerned with professional reputation and career advancement.

Relationship Between Variables & Hypothesis Development

Based on the theoretical frameworks and empirical evidence reviewed, we propose the following hypotheses:

H_1: Tangible non-financial incentives positively impact employee performance.

H_{1a}: Treats and gifts positively impact employee performance.

H_{1b}: Honorary awards positively impact employee performance.

Tangible non-financial incentives provide concrete, visible rewards that can serve as effective behavioral reinforcers (Kuvaas *et al.*, 2018). Recent research by Vesal *et al.* (2024) demonstrates their distinctiveness from regular compensation enhances their salience, making them potentially powerful motivators. Additionally, Mdhlalose (2024) identified that the trophy value and memorability of tangible rewards extend their motivational impact beyond the immediate receipt.

H_2: Intangible non-financial incentives positively impact employee performance.

H_{2a}: Social rewards positively impact employee performance.

H_{2b}: Psychological rewards positively impact employee performance.

Intangible incentives address fundamental psychological needs including autonomy, competence, relatedness, and meaning (Ryan & Deci, 2000). Contemporary work by McAnally and Hagger

(2024) suggests that by satisfying these deeper motivational drivers, intangible rewards may foster more sustained improvements in performance compared to extrinsic motivators. Fall *et al.* (2024) demonstrated that social rewards fulfil esteem needs and strengthen social bonds, while Michael and Tummolini (2025) showed that psychological rewards enhance intrinsic motivation and commitment to organizational goals.

H_3: Intangible non-financial incentives have a stronger positive impact on employee performance than tangible non-financial incentives.

This comparative hypothesis is based on SDT, which suggests that incentives supporting internal motivational mechanisms (autonomy, competence, relatedness) generate more sustainable performance improvements than externally focused rewards (Ryan & Deci, 2000). Recent empirical work by Olafsen and Halvari (2017) confirms that intangible incentives more directly target these intrinsic motivational factors, potentially yielding stronger and more enduring effects on performance across diverse occupational contexts.

H_4: Demographic factors (age, gender) and professional characteristics (education, tenure) moderate the relationship between non-financial incentives and employee performance.

Individual differences influence how employees value and respond to various incentives (Rudolph & Zacher, 2020). Contemporary research by Zhang *et al.* (2021) found age affects reward preferences, with younger employees valuing development opportunities more highly, while Kokubun and Yasui (2021) demonstrated gender influences responses to social recognition. Recently, Salisu *et al.* (2025) shows that education level could affect how employees interpret and value different rewards, particularly those related to autonomy and growth. Tenure might influence the impact of non-financial incentives, with Phillips *et al.* (2017) finding that newer employees respond more strongly to social rewards as they establish organizational relationships.

Research Methodology

Research Design

This study employed a cross-sectional survey design to investigate the relationship between non-financial incentives and employee performance. This approach enabled the collection of data from a large sample at a single point in time, allowing for assessment of relationships between variables while controlling for demographic and professional factors. While cross-sectional designs cannot establish causality with certainty, they are appropriate for testing theoretically grounded hypotheses about relationships between variables (Saunders *et al.*, 2019).

The study adopted a post-positivist research paradigm, employing quantitative methods to test hypotheses derived from existing theory while acknowledging that perfect measurement of psychological constructs has inherent limitations. Survey methodology was selected as appropriate for measuring perceptions of incentives and self-reported performance, complemented by supervisor ratings where available.

Population and Sampling

Demographic characteristics of the sample are presented in Table 1. The target population comprised employees from small to medium organizations across multiple industries (technology, healthcare, manufacturing, financial services) in the six states of Northeast Nigeria. This diverse population allowed for testing relationships across varied organizational contexts. A stratified random sampling technique was employed to ensure adequate representation across industries, job levels, and demographics. The sampling frame was constructed using industry association directories and corporate databases. Organizations were first stratified by industry and size, then random selection was applied within strata. Within selected organizations, employees were stratified by job level (entry, mid-level, supervisory) before random selection.

Table 1. Demographic Characteristics of Sample (n = 324)

Variate	Category	Freq.	Percentage
Gender	Male	153	47.20%
	Female	171	52.80%
Age	18-29 years	78	24.10%
	30-39 years	112	34.60%
	40-49 years	83	25.60%
	50+ years	51	15.70%
Education	High school/College	58	17.90%
	Bachelor's degree	172	53.10%
	Graduate degree	94	29.00%
Tenure	<1 year	41	12.70%
	1-3 years	97	29.90%
	4-10 years	126	38.90%
	>10 years	60	18.50%
Industry	Technology	87	26.90%
	Healthcare	79	24.40%
	Manufacturing	68	21.00%
	Financial Services	56	17.30%
	Other	34	10.50%

Sample size was determined using power analysis for multiple regression with G*Power software, indicating a minimum requirement of 146 participants for detecting medium effect sizes ($f^2 = 0.15$) with 80% power at $\alpha = 0.05$ with six predictors (four incentive types plus control variables). To account for potential non-responses and incomplete surveys, 450 employees were invited to participate, yielding 324 complete responses (72% response rate).

Data Collection Instrument

The survey instrument was developed based on existing validated scales where available, with modifications to align with the specific operational definitions used in this study. The questionnaire consisted of four main sections: tangible non-financial incentives, intangible non-financial incentives, employee performance, and demographic information.

Tangible Non-Financial Incentives: Treats and gifts were measured using a 7-item scale ($\alpha = 0.89$) adapted from Jeffrey & Shaffer (2007) and updated with recent refinements by Kitsios and Kamariotou (2021), assessing the frequency, quality, and perceived value of gifts and treats provided by the organization (e.g., "My organization provides meaningful gift items to recognize good performance"). Honorary awards were assessed using a 6-item scale ($\alpha = 0.87$) based on Frey & Neckermann (2008) with updates from Gui and Zhang (2023), measuring the presence and perceived value of formal awards and recognition symbols (e.g., "My organization has a formal program for awarding symbolic recognition items like trophies or certificates").

Intangible Non-Financial Incentives: Social rewards were measured using an 8-item scale (α = 0.92) adapted from Rawah and Banakhar (2022) with contemporary refinements by Fall *et al.* (2024), capturing various forms of social recognition and appreciation (e.g., "My supervisor publicly acknowledges my accomplishments in team meetings"). Psychological rewards were assessed with a 10-item scale (α = 0.94) based on Thomas (2009) and updated with items from Michael and Tummolini (2025), measuring autonomy, meaningful work, growth opportunities, and other non-material psychological benefits (e.g., "I am given opportunities to work on challenging tasks that develop my skills").

Employee Performance: Performance was measured using a 12-item multi-dimensional scale (α = 0.91) incorporating task performance, contextual performance, adaptive performance, and creative performance dimensions, based on Özkan *et al.* (2024) and Rožman *et al.* (2023). Sample items include "I consistently meet or exceed my formal performance requirements" (task performance), "I help colleagues who have work-related problems" (contextual performance), "I adapt effectively to changes in my work environment" (adaptive performance), and "I develop new, innovative approaches to problems" (creative performance). The performance measure combined self-reported items with supervisor ratings where available (43% of cases) to mitigate common method bias.

Control Variables: Demographic variables were collected including age (categorical), gender (binary), education level (ordinal), and organizational tenure (years). These variables were selected as controls based on previous research indicating their potential influence on the relationship between incentives and performance (Rudolph & Zacher, 2020).

All multi-item scales used 5-point Likert response formats (1 = *Strongly disagree* to 5 = *Strongly agree*, or equivalent anchors related to frequency or extent). The complete survey instrument is provided in Appendix A.

Instrument validation involved a two-stage process. Firstly, a panel of five subject matter experts from academia reviewed the instrument for content validity, yielding a strong scale-level content validity index (S-CVI/Ave) of 0.94. The item-level CVI scores were all above the recommended 0.78 threshold (Van Cleave *et al.*, 2025). Secondly, a pilot test with 42 employees not included in the main sample assessed the instrument's clarity and psychometric properties, resulting in minor wording adjustments to eight items. The instrument demonstrated good internal consistency, with a Cronbach's alpha of .85 for the overall scale (Cooper, 2023). Corrected item-total correlations were all above the recommended 0.30 threshold, ranging from 0.42 to 0.78, indicating that the items contribute well to the total score (Cooper, 2023). Additionally, the composite reliability was 0.88, and the average variance extracted (AVE) was 0.62, both of which are considered strong indicators of construct reliability and convergent validity.

Data Collection Procedure

Data collection occurred over a six-week period between September and October 2024. The survey was administered electronically using WhatsApp, a popular social media platform among professionals and business people in the Northeast. Human resources departments of participating organizations distributed the survey link to randomly selected employees based on the stratified sampling plan. Participants received an email invitation explaining the study's purpose, voluntary nature, confidentiality provisions, and anticipated completion time (15-20 minutes). Two reminder emails were sent at one-week intervals to non-respondents.

To enhance response quality and minimize bias, participants were assured of anonymity, and organizational representatives had no access to individual responses. Additionally, questions were ordered to separate predictors from outcomes to reduce common method variance (Fuller *et al.*, 2016).

Data Analysis Methods

Data analysis followed a systematic approach using SPSS version 28 and AMOS version 27 (Sürücü *et al.*, 2023). Initial data screening identified and addressed missing values (less than 3% per variable, handled via expectation-maximization algorithm) and examined distributions for normality and outliers. Reverse-coded items were recoded, and composite scales were computed by averaging constituent items. Descriptive statistics were calculated for all variables, including means, standard deviations, and correlations. Scale reliability was assessed using Cronbach's alpha, and construct validity was examined through confirmatory factor analysis (CFA). The measurement model was evaluated using conventional fit indices (CFI, TLI, RMSEA, SRMR) (Sürücü *et al.*, 2023).

Hypothesis testing employed hierarchical multiple regression analyses. The first model included only control variables (age, gender, education, tenure). The second model added tangible non-financial incentives (treats/gifts, honorary awards). The third model added intangible non-financial incentives (social rewards, psychological rewards). This sequencing allowed assessment of incremental variance explained by each incentive category. The comparative hypothesis (H_3) was tested by comparing standardized regression coefficients and relative weights analysis (Sürücü *et al.*, 2023). Moderation effects (H_4) were tested by creating interaction terms between incentive variables and potential moderators (age, gender, education, tenure) and adding these to the regression model. Significant interactions were probed using simple slopes analysis and visualized using interaction plots.

Additional analyses examined potential non-linear relationships, interaction effects between different incentive types, and variance by industry and job level. These analyses provided richer context for interpreting the main findings.

Results

Descriptive Statistics

Descriptive statistics and correlations for all study variables are presented in Table 2. Mean scores for tangible non-financial incentives (treats/gifts: $M = 3.24$, $SD = 0.87$; honorary awards: $M = 3.38$, $SD = 0.92$) were slightly lower than for intangible non-financial incentives (social rewards: $M = 3.56$, $SD = 0.94$; psychological rewards: $M = 3.41$, $SD = 1.02$). Employee performance scores showed moderate to high levels ($M = 3.82$, $SD = 0.65$). All incentive types correlated positively with performance, with correlation coefficients ranging from $r = 0.31$ to $r = 0.48$ (all $p < 0.01$).

Reliability and Validity Assessment

Following Liu *et al.* (2025), reliability and validity indices were computed in AMOS. All scales demonstrated good internal consistency reliability with Cronbach's alpha coefficients ranging from 0.87 to 0.94 (Table 3).

Table 3. Reliability and Validity Indices

					Fornell-Larcker Criterion				
Construct	**Loadings**	**CA**	**CR**	**AVE**	**1**	**2**	**3**	**4**	**5**
1. Recognition Incentives	> 0.60	0.91	0.92	0.65	**0.81**				
2. Career Dev. Incentives	> 0.60	0.87	0.89	0.61	0.48	**0.78**			
3. Work Flex. Incentives	> 0.60	0.89	0.91	0.66	0.42	0.46	**0.81**		
4. Participation Incentives	> 0.60	0.90	0.90	0.62	0.39	0.44	0.47	**0.79**	
5. Employee Performance	> 0.60	0.94	0.95	0.68	0.51	0.53	0.49	0.46	**0.82**

Table 4. CFA Results

Fit Index	**Value**	**Threshold**
Chi-Square Statistic (χ^2)	862.43	—
Degrees of Freedom (*df*)	395	—
Comparative Fit Index (CFI)	0.93	≥ 0.90 (good)
Tucker–Lewis Index (TLI)	0.92	≥ 0.90 (good)
Root Mean Square Error of Approximation (RMSEA)	0.06	≤ 0.08 (good)
Standardised Root Mean Square Residual (SRMR)	0.05	≤ 0.08 (good)

Table 5. Hierarchical Regression Results for Employee Performance

Variables	**Model 1**	**Model 2**	**Model 3**	**Model 4**
Control Variables:				
Age	0.08	0.06	0.09	0.08
Gender	0.05	0.04	0.03	0.03
Education	0.16**	0.14*	0.09*	0.10*
Tenure	0.13*	0.09	0.11*	0.12*
Tangible Non-Financial Incentives:				
Treats/Gifts		0.21**	0.18**	0.35**
Honorary Awards		0.25***	0.20**	0.39**
Intangible Non-Financial Incentives:				
Social Rewards			0.27***	0.44***
Psychological Rewards			0.33***	0.52***
Interaction Terms:				
Education × Social Rewards				0.14*
Education × Psychological Rewards				0.17**
Tenure × Honorary Awards				0.15*
Tenure × Psychological Rewards				0.13*
R^2	0.07	0.20	0.38	0.43
ΔR^2		0.13***	0.18***	0.05**
F	5.78***	13.25***	24.33***	18.76***

*__Note:__ n = 324. *p < 0.05; **p < 0.01; ***p < 0.001. Standardized regression coefficients (β) are reported.

Confirmatory factor analysis (CFA) shown in Table 4 supported the proposed factor structure distinguishing between the four types of non-financial incentives and employee performance (χ^2 = 862.43, df = 395, p < 0.001, CFI = 0.93, TLI = 0.92, RMSEA = 0.06, SRMR = 0.05) (Hu & Bentler, 1999). All factor loadings were significant (p < 0.001) and exceeded 0.60, supporting convergent validity. Average variance extracted (AVE) and Fornell-Lacker criterion were manually calculated in based on the standardized factor loadings and error variances from the CFA output (Hair *et al.,* 2019). AVE values exceeded 0.50 for all constructs, further supporting convergent validity. Discriminant validity was established as the square root of AVE for each construct exceeded the correlations with other constructs (Hair *et al.,* 2019).

To assess common method bias, Harman's single-factor test was conducted in SPSS (Howard *et al.*, 2024), with the unrotated factor solution accounting for 34% of variance (below the 50% threshold indicating problematic common method variance). Additionally, a marker variable technique using a theoretically unrelated construct showed minimal shared variance with study

variables, suggesting common method bias was not a significant concern.

Hypothesis Testing

Hierarchical regression analysis results are presented in Table 5. In Model 1, control variables accounted for 7% of variance in employee performance, with education ($\beta = 0.16$, $p < 0.01$) and tenure ($\beta = 0.13$, $p < 0.05$) showing significant effects. Model 2 added tangible non-financial incentives, explaining an additional 13% of variance ($\Delta R^2 = 0.13$, $p < 0.001$). Both treats/gifts ($\beta = 0.21$, $p < 0.01$) and honorary awards ($\beta = 0.25$, $p < 0.001$) significantly predicted employee performance, supporting H_{1a} and H_{1b} and the overall H_1. Model 3 incorporated intangible non-financial incentives, accounting for an additional 18% of variance ($\Delta R^2 = 0.18$, $p < 0.001$). Both social rewards ($\beta = 0.27$, $p < 0.001$) and psychological rewards ($\beta = 0.33$, $p < 0.001$) significantly predicted employee performance, supporting H_{2a} and H_{2b} and the overall H_2.

Comparing standardized coefficients in Model 3 (in Table 5), intangible non-financial incentives (social rewards: $\beta = 0.27$; psychological rewards: $\beta = 0.33$) showed stronger effects than tangible non-financial incentives (treats/gifts: $\beta = 0.18$; honorary awards: $\beta = 0.20$). A formal test of coefficient differences (Paternoster *et al.*, 1998) confirmed these differences were statistically significant ($z = 2.74$, $p < 0.01$), supporting H_3. Relative weights analysis (Johnson, 2000) corroborated these findings, with intangible incentives collectively accounting for 25% of the explained variance in performance compared to 15% for tangible incentives (with control variables accounting for the remaining 7%).

Model 4 (in Table 5) tested moderation effects by incorporating interaction terms between incentive variables and demographic/professional characteristics. Significant interactions emerged for education with both social rewards ($\beta = 0.14$, $p < 0.05$) and psychological rewards ($\beta = 0.17$, $p < 0.01$), indicating stronger effects among employees with higher education levels. Additionally, tenure moderated relationships between honorary awards and performance ($\beta = 0.15$, $p < 0.05$) and between psychological rewards and performance ($\beta = 0.13$, $p < 0.05$), with stronger effects for employees with longer tenure. Age and gender did not exhibit significant moderating effects. These results partially support H_4, with education and tenure, but not age and gender, moderating incentive-performance relationships.

Additional Analyses

Additional analyses revealed three more noteworthy patterns. Firstly, examining potential non-linear relationships through quadratic terms indicated diminishing marginal returns for treats/gifts (β of quadratic ter$M = -0.12$, $p < 0.05$), but not for other incentive types. This suggests that beyond a certain point, additional treats and gifts yield progressively smaller performance improvements.

Secondly, interaction analyses between different incentive types revealed synergistic effects between honorary awards and social rewards ($\beta = 0.16$, $p < 0.01$), indicating that formal recognition programs are more effective when complemented by informal social acknowledgment. In contrast, treats/gifts and psychological rewards showed substitutive rather than synergistic effects ($\beta = -0.09$, $p < 0.05$), suggesting they may operate through different motivational mechanisms.

Thirdly, industry-specific analyses revealed that psychological rewards had particularly strong effects in technology ($\beta = 0.47$, $p < 0.001$) and financial services ($\beta = 0.42$, $p < 0.001$) sectors, while honorary awards showed stronger effects in manufacturing contexts ($\beta = 0.38$, $p < 0.001$). These differences likely reflect varying occupational norms and work cultures across industries.

Discussion

Interpretation of Findings

This study's findings offer empirical support for the positive impact of both tangible and intangible non-financial incentives on employee performance, with several nuanced insights emerging from the results. Firstly, the confirmation that all four incentive types demonstrated significant positive relationships with performance aligns with the fundamental tenets of Expectancy Theory (Vroom, 1964). This theory posits that an employee's motivation is a product of three factors: expectancy (the belief that effort will lead to performance), instrumentality (the belief that performance will lead to a desired outcome), and valence (the value placed on that outcome). The study's results suggest that the various non-financial incentives offered are perceived as valuable outcomes (high valence) and are seen as attainable through enhanced performance (high instrumentality), thus motivating employees to exert greater effort. These results align with previous research (Poljsak-Rosinski & Roedenbeck, 2025) while extending it through a systematic comparison of multiple incentive types within a single study.

Secondly, the stronger effects observed for intangible compared to tangible incentives find a robust explanation in SDT (Ryan & Deci, 2000). As noted, contemporary extensions of SDT (e.g., McAnally and Hagger, 2024) suggest that rewards supporting the fundamental psychological needs for autonomy, competence, and relatedness generate more substantial and higher-quality performance improvements than more externally oriented tangible rewards. This finding challenges the prominence often given to tangible rewards in organizational practice and underscores the value of investing in less costly intangible incentives. Furthermore, from the perspective of Herzberg's Two-Factor Theory (Herzberg, 1966), intangible incentives such as recognition and challenging work function as "motivators," which are intrinsic to the job itself and lead to satisfaction and enhanced performance. In contrast, tangible rewards like treats and gifts may be categorized as "hygiene factors"—elements that can prevent dissatisfaction but do not necessarily drive long-term, intrinsic motivation.

Thirdly, the hierarchy of incentive effectiveness, with psychological rewards as the strongest predictor followed by social rewards, honorary awards, and treats/gifts, lends further support to this integrated theoretical framework. This hierarchy supports the work of Olafsen and Halvari (2017) who suggest that organizations might prioritize creating environments rich in autonomy, meaningful work, and growth opportunities. These psychological rewards directly fuel the intrinsic motivators described by Herzberg and satisfy the core needs of SDT. The comparatively weaker, though still significant, effects of treats/gifts align with some extant research (e.g., Khan *et al.*, 2025) suggesting that such material rewards may create temporary compliance but less sustainable motivation, a concept consistent with their classification as hygiene factors.

Fourthly, the moderating effects of education and tenure reveal important boundary conditions that can be viewed through the lens of both Expectancy and Social Exchange Theories. The stronger response of higher-educated employees to intangible incentives, particularly psychological rewards, aligns with Mirosavljević *et al.*'s (2023) findings. These employees likely place

a higher valence on opportunities for autonomy and development (Expectancy Theory). Similarly, the heightened response of tenured employees to honorary awards and psychological rewards supports Phillips *et al.*'s (2017) assertion. From a Social Exchange Theory (Blau, 1964) perspective, long-term employees have a more established history of exchanges with the organization. For them, honorary awards and increased responsibility are not just motivators but also symbols of a deepening, reciprocal relationship built on mutual investment and trust.

Fifthly, the observation of diminishing returns for treats/gifts but not for other incentive types further reinforces the distinction made by Herzberg. The novelty and motivational impact of hygiene factors like treats can wear off, leading to a need for progressively larger rewards to achieve the same effect (Lund & Polsky, 2011). In contrast, the absence of similar patterns for intangible incentives, as Herzberg's theory would predict for true motivators, implies that organizations may continue to benefit from increased investment in recognition, autonomy, and development opportunities, which can provide a more sustainable source of motivation.

Finally, the synergistic effect between honorary awards and social rewards underscores the principles of Social Exchange Theory. When a formal recognition (honorary award) is reinforced through informal peer acknowledgment (social rewards), it strengthens the social and relational aspects of the exchange. This consistency signals a broad-based organizational appreciation, enhancing the employee's sense of being valued. This finding aligns with Abdullahi *et al.*'s (2025) application of organizational support theory, suggesting that consistent signals of valuation across formal and informal organizational systems strengthen perceived support and the norm of reciprocity, compelling employees to reciprocate with higher levels of performance.

Theoretical Implications

This study contributes to motivation theory in several significant ways, offering a more textured understanding by integrating multiple theoretical perspectives. Firstly, it provides robust empirical support for SDT's core proposition that rewards supporting basic psychological needs for autonomy, competence, and relatedness yield stronger motivational effects (Ryan & Deci, 2000). The superior performance impact of intangible incentives, particularly psychological rewards, aligns with contemporary research by McAnally and Hagger (2024) while offering quantified effect size comparisons not previously available. This finding is also deeply resonant with Herzberg's Two-Factor Theory (Herzberg, 1966), which distinguishes between hygiene factors and motivators. The intangible incentives, such as recognition and opportunities for growth, function as "motivators," fostering intrinsic satisfaction and driving higher performance. In contrast, tangible treats and gifts act more like "hygiene factors," which can prevent dissatisfaction but are less effective at generating sustained, positive motivation.

Secondly, the findings extend Social Exchange Theory (Blau, 1964) by demonstrating how different types of organizational investments (tangible vs. intangible rewards) generate varying levels of reciprocity in performance. The stronger effects for intangible incentives support McAnally and Hagger's (2024) assertion that employees may interpret these as more meaningful signals of organizational valuation, potentially triggering stronger reciprocal obligations. This can be further elucidated through Expectancy Theory (Vroom, 1964). The intangible rewards, perceived as genuine signs of appreciation and trust, likely increase the "valence" (the value an employee places on the reward) and the "instrumentality" (the belief that performance will lead to the reward). This heightened valence and instrumentality create a more powerful motivational force, leading to the observed superior performance.

Thirdly, the moderation results contribute to person-environment fit theory by illustrating how individual differences shape incentive responsiveness. The stronger effects of psychological rewards among highly educated employees align with Salisu *et al.*'s (2025) findings. This suggests an alignment between these incentives and the expectations and values of knowledge workers, providing empirical support for contingency perspectives on reward effectiveness. From an Expectancy Theory standpoint, individual characteristics such as education level directly influence the valence that employees assign to different outcomes. Highly educated workers may place a higher value on autonomy and development, making these intangible rewards more potent motivators for this demographic.

Finally, the interaction effects between different incentive types advance our understanding of how multiple motivational mechanisms may operate simultaneously, sometimes synergistically. These findings align with how Byron and Khazanchi (2012) and Frederiksen and Takats (2004) conceptualized a more complex motivational landscape than is often acknowledged in theories focusing on single motivational mechanisms. The synergy between honorary and social rewards, for instance, can be viewed as a powerful interplay of all four theories. The formal honorary award can be seen as a "motivator" (Herzberg, 1966) that fulfills the need for competence (Ryan & Deci, 2000). When this is amplified by informal social recognition, it strengthens the sense of relatedness (Ryan & Deci, 2000) and deepens the social exchange relationship (Blau, 1964), signaling widespread organizational appreciation. This combination enhances the overall valence and instrumentality of the recognition, creating a stronger motivational effect than either incentive would alone (Vroom, 1964).

Practical Implications

For organizational leaders and HR practitioners, this research offers several actionable insights. Firstly, the strong performance effects of intangible incentives, particularly psychological rewards, suggest that organizations might prioritize investments in autonomy-supportive management practices, meaningful work design, and professional development opportunities. These approaches not only yield strong performance benefits but may also be more cost-effective than elaborate tangible reward systems, as demonstrated in a recent implementation study (Orujaliyev, 2024). Secondly, the hierarchy of effectiveness among incentive types provides guidance for resource allocation in reward strategies. Organizations with constrained resources might prioritize developing robust psychological reward systems (autonomy, meaningful work, development opportunities) and social recognition practices before investing heavily in costly tangible rewards and formal award programs.

Thirdly, the moderating effects of education and tenure suggest the value of tailoring incentive approaches to workforce characteristics. Organizations with highly educated workforces might emphasize psychological rewards and autonomy, while those with long-tenured employees might benefit from recognition systems that acknowledge accumulated contributions and provide growth opportunities that leverage experienced employees' capabilities. These targeted approaches align with recent workforce segmentation research by Zhang *et al.* (2021). Fourthly, the diminishing returns observed for material rewards

(treats/gifts) but not for other incentive types suggests organizations should be strategic in their use of tangible rewards, potentially reserving them for specific achievements rather than implementing them as ongoing practices. In contrast, organizations can more liberally implement social recognition and autonomy-enhancing practices without concern for rapidly diminishing returns, a finding that supports Rivera-Torres *et al.*'s (2021) work on sustainable motivation strategies.

Fifthly, the synergistic effects between honorary awards and social recognition highlight the importance of aligning formal and informal recognition systems. Organizations might train managers to reinforce formal recognition programs through day-to-day acknowledgment, ensuring consistency in how employee contributions are valued across organizational practices, as recommended in contemporary recognition system design (Kokubun & Yasui, 2021). And finally, the industry-specific findings suggest that incentive strategies should consider occupational norms and industry contexts. Technology companies might emphasize autonomy and development opportunities, while manufacturing organizations might benefit more from formal recognition programs that acknowledge achievement and loyalty, aligning with recent sector-specific analyses (Gui & Zhang, 2023).

Limitations

Several limitations should be considered when interpreting this study's findings. Firstly, the cross-sectional design precludes definitive causal inferences about the relationship between non-financial incentives and performance. While theoretically grounded directional hypotheses were tested, alternative causal sequences (e.g., high performers receiving more recognition) cannot be ruled out. Longitudinal or experimental designs would provide stronger causal evidence, as noted in O'Connor *et al.*'s (2024) five-wave longitudinal study. Secondly, while steps were taken to mitigate common method bias (including obtaining supervisor ratings for a subset of performance data), the reliance on self-reported data for many variables introduces potential method variance. The marker variable analysis suggested this was not a significant concern, but it remains a methodological limitation according to contemporary standards (Fuller *et al.*, 2016).

Thirdly, the measurement of employee performance, while multi-dimensional, did not incorporate objective performance metrics. Future research combining subjective assessments with objective indicators (e.g., sales figures, productivity metrics, absenteeism rates) would strengthen confidence in observed relationships, as per Rožman *et al.*'s (2023) recommendation. Fourthly, the study's focus on predefined categories of non-financial incentives may have overlooked other important rewards or organizational practices that influence performance. Qualitative exploration might identify additional incentive types or nuances within the categories examined, following recent calls by McCarthy and Turner (2021) for mixed-method approaches to reward research.

Fifthly, while the sample included multiple organizations and industries, it was geographically limited to the six states of Northeast Nigeria. Cultural differences, as documented in Mdhlalose's (2024) cross-cultural reward study, about how incentives are perceived and valued, may limit generalizability to other regions or countries, particularly those with significantly different cultural values regarding recognition and autonomy. And finally, the study did not fully explore potential mediating mechanisms (e.g., intrinsic motivation, organizational commitment, psychological empowerment) that might explain how different incentives influence performance. Understanding these mechanisms would provide deeper theoretical insight and more targeted practical guidance, following recent theoretical models (Michael & Tummolini, 2025).

Future Research Directions

Building on this study's findings and limitations, several promising directions for future research emerge. Firstly, longitudinal studies tracking how incentive practices influence performance trajectories over time would strengthen causal inferences and reveal whether certain incentives produce more sustainable performance improvements than others (O'Connor *et al.*, 2024). Secondly, experimental or quasi-experimental designs manipulating different incentive types would provide more definitive evidence of causal effects while controlling for potential confounding factors. Field experiments comparing the effectiveness of different incentive interventions would be particularly valuable for practice (Abubakar *et al.*, 2020).

Thirdly, future research might explore the psychological mechanisms mediating incentive-performance relationships. Investigating whether tangible and intangible incentives operate through different pathways (e.g., extrinsic motivation, intrinsic motivation, perceived organizational support, psychological empowerment) would advance theoretical understanding and guide more targeted interventions, extending a recent work (Olafsen and Halvari, 2017). Fourthly, additional research on contingencies beyond those examined here would enhance understanding of when different incentives are most effective. Potential moderators include personality traits (e.g., achievement orientation, extrinsic/intrinsic motivational orientations), job characteristics, organizational culture, and national culture, building on emerging contingency frameworks (Salisu *et al.*, 2025).

Fifthly, exploring the optimal combination and sequencing of different incentive types would provide practical guidance for developing integrated reward strategies. This might include examining whether certain incentive combinations create synergistic effects or whether particular incentives are more effective at different career stages or for different types of performance (e.g., routine vs. creative work) (Byron & Khazanchi, 2012; Frederiksen & Takats, 2004). And finally, investigating potential negative effects or boundary conditions of non-financial incentives would provide a more nuanced understanding of their appropriate application. For example, research might examine whether public recognition creates negative effects for some employees, whether autonomy becomes overwhelming without adequate structure, or whether gift-giving creates perceptions of indebtedness rather than appreciation in certain contexts, addressing critical gaps (Phillips *et al.*, 2017).

Conclusion

This study provides empirical evidence for the positive impact of both tangible and intangible non-financial incentives on employee performance, while establishing that intangible incentives generally yield stronger effects. Among specific dimensions, psychological rewards emerged as the most powerful predictor of performance, followed by social rewards, honorary awards, and treats/gifts. These relationships were moderated by education and tenure, indicating that incentive effectiveness varies across employee groups.

The findings contribute to motivation theory by providing systematic comparisons between different types of non-financial incentives and identifying boundary conditions for their

effectiveness. For practitioners, the results suggest prioritizing psychological and social rewards in motivation strategies, while tailoring approaches to workforce characteristics.

As organizations continue seeking cost-effective approaches to enhancing employee performance, non-financial incentives represent a powerful and often underutilized resource. By strategically implementing and combining different types of non-financial incentives—with particular emphasis on autonomy, meaningful work, development opportunities, and recognition—organizations can significantly enhance employee performance while building more engaging and supportive work environments.

Future research employing longitudinal and experimental designs, exploring mediating mechanisms, and identifying additional contingencies will further enhance our understanding of how various non-financial incentives influence employee performance across contexts. This knowledge will continue refining evidence-based approaches to motivation and performance management in contemporary organizations.

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Appendix: Survey Instrument

Section 1: Tangible Non-Financial Incentives

Treats and Gifts

Please indicate your level of agreement with the following statements:

(1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, 5 = Strongly agree)

1. My organization provides meaningful gift items to recognize good performance.
2. I have received treats (e.g., meals, refreshments) as rewards for work accomplishments in the past year.
3. Gift items provided by my organization are valuable to me.
4. My organization uses gift cards or merchandise as part of its reward system.
5. Receiving tangible gifts from my organization makes me feel appreciated.
6. My organization provides experience-based rewards (e.g., event tickets, special activities).
7. The treats and gifts provided by my organization are appropriate for the level of achievement they recognize.

Honorary Awards

Please indicate your level of agreement with the following statements:

(1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, 5 = Strongly agree)

1. My organization has a formal program for awarding symbolic recognition items like trophies or certificates.
2. I have received honorary awards (e.g., certificates, plaques, trophies) for my work in the past year.
3. Honorary awards in my organization are presented in a way that makes recipients feel special.

4. Receiving honorary awards in my organization is considered prestigious.
5. The criteria for receiving honorary awards in my organization are clear.
6. Honorary awards in my organization are visible to others (displayed in public areas, announced in meetings).

Section 2: Intangible Non-Financial Incentives

Social Rewards

Please indicate your level of agreement with the following statements:
(1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, 5 = Strongly agree)

1. My supervisor publicly acknowledges my accomplishments in team meetings.
2. I receive verbal praise when I perform well.
3. My colleagues recognize and appreciate my contributions to the team.
4. My achievements are communicated to others in the organization.
5. I receive prompt positive feedback when I do good work.
6. Senior leaders in my organization acknowledge excellent performance.
7. My supervisor expresses genuine appreciation for my efforts.
8. My contributions are recognized through internal communication channels.

Psychological Rewards

Please indicate your level of agreement with the following statements:
(1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, 5 = Strongly agree)

1. I am given opportunities to work on challenging tasks that develop my skills.
2. I have a meaningful say in how my work is performed.
3. My organization provides opportunities for professional growth.
4. I am entrusted with important responsibilities.
5. I have opportunities to participate in decisions affecting my work.
6. My work allows me to use my skills and abilities to their fullest.
7. I find the work I do meaningful and purposeful.
8. My manager delegates important projects to me.
9. I have access to learning opportunities that support my development.
10. My organization offers flexible work arrangements that accommodate my needs.

Section 3: Employee Performance

Please indicate how frequently the following statements apply to your work:
(1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often, 5 = Always)

Task Performance

1. I consistently meet or exceed my formal performance requirements.
2. I complete assigned tasks efficiently and correctly.
3. I fulfil all the responsibilities specified in my job description.

Contextual Performance

4. I help colleagues who have work-related problems.
5. I voluntarily do more than the job requires to help others or contribute to organizational effectiveness.
6. I take initiative to solve work problems.

Adaptive Performance

7. I adapt effectively to changes in my work environment.
8. I adjust well to new work processes, technologies, or changes in how work is performed.
9. I am flexible when dealing with difficult work circumstances.

Creative Performance

10. I develop new, innovative approaches to problems.
11. I suggest novel ideas to improve work processes, products, or services.
12. I search for new technologies, processes, or methods to improve performance.