

Performance-based compensation and employee motivation in pharmaceutical firms in Enugu State

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Abstract

The study evaluated the relationship between performance-based compensation and employee motivation in pharmaceutical firms in Enugu State. The specific objectives were to: determine the effect of profit-sharing scheme on employee commitment; and assess the effect of commission-based incentives on employee engagement in pharmaceutical firms in Enugu State. The population of the study consists of nine hundred and thirty-nine (939) staff. To determine the adequate sample size of 273, the study used Freund and William's statistical formula. The study used the descriptive survey design approach. The primary source of data was the administration of questionnaires. Two hundred and thirty-eight (238) staff returned the questionnaires and accurately filled them. Data were presented and analyzed using mean score, and Z-test was used to test the hypotheses. The findings indicated that: Profit-sharing schemes had a positive significant effect on employee commitment in pharmaceutical firms, $Z = 8.945$, $P < .05$; and commission-based incentives had a positive significant effect on employee engagement in pharmaceutical firms, $Z = 9.140$, $P < .05$. The study concluded that Profit-sharing schemes and Commission-based incentives have no effect on employee commitment and employee engagement in pharmaceutical firms. The study recommended, among others, that Pharmaceutical firms should implement well-structured and transparent profit-sharing schemes to ensure employees clearly understand how their contributions impact organizational profits, thereby strengthening their commitment, loyalty, and long-term engagement.

Keywords: Performance-Based Compensation, Profit-Sharing Schemes, Employee Commitment, Commission-Based Incentives, Employee Engagement.

Cite: Okonjo E. & Chris C. O. (2026). Performance-based compensation and employee motivation in pharmaceutical firms in Enugu State. *Global Journal of Business Management and Leadership*, 4 (3), 80-102. <https://doi.org/10.5281/zenodo.21975549>

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Introduction

Historically, compensation has long been recognized as a major factor influencing employee motivation and organizational productivity. Early management scholars emphasized wages and rewards as tools used by organizations to encourage employees to improve performance and commitment to organizational goals. Over time, organizations began to adopt performance-based compensation systems, where employees are rewarded based on their achievements, productivity, and measurable outcomes rather than fixed salaries alone. This approach links employee effort directly to rewards such as bonuses, incentives, commissions, and merit pay, thereby increasing motivation and encouraging higher levels of productivity (Adanlawo, Nkomo & Vezi-Magigaba, 2023).

From a global perspective, many organizations across developed and developing economies increasingly adopt performance-based compensation systems as a strategic human resource management practice. Global firms recognize that rewarding employees based on performance improves work engagement, productivity, and organizational efficiency. Empirical evidence shows that performance-linked remuneration systems such as merit pay, bonuses, and incentive schemes significantly influence employee behaviour, engagement, and commitment to organizational goals (Oloruntoba, 2024). Furthermore, research indicates that compensation policies that recognize employee contributions help strengthen motivation, job satisfaction, and overall organizational performance across different industries worldwide (Bhakuni & Saxena, 2023).

At the national level, Nigerian organizations are increasingly recognizing the importance of performance-based compensation in improving employee motivation and productivity. In a competitive business environment, firms are adopting incentive-based reward systems to attract, retain, and motivate skilled employees. Performance-based compensation helps organizations align employee goals with organizational objectives, thereby promoting efficiency and improving service delivery. Studies also reveal that organizations that link compensation to measurable performance outcomes often experience improved employee commitment and enhanced work output (Rosyidah, Perizade & Zunaidah, 2023).

At the local level, pharmaceutical firms in Enugu State operate in a highly competitive and performance-driven industry that requires skilled professionals such as pharmacists, laboratory scientists, marketers, and production personnel. These firms rely heavily on motivated employees to ensure effective drug production, quality control, marketing, and distribution of pharmaceutical products. Consequently, many pharmaceutical companies adopt performance-based compensation strategies such as bonuses, sales incentives, and productivity rewards to motivate employees and improve organizational outcomes. Effective reward systems help increase employee commitment, enhance job satisfaction, and encourage higher productivity among workers within the pharmaceutical industry (Anwar & Abrar, 2023). Therefore, the study seeks to examine the relationship between performance-based compensation and employee motivation in pharmaceutical firms in Enugu State.

Statement of the Problem

Ideally, performance-based compensation should enable pharmaceutical firms to significantly enhance employee motivation by creating transparent, equitable, and meaningful financial linkages between individual and collective performance outcomes and monetary rewards, thereby strengthening employee commitment to organizational goals and deepening their engagement with assigned responsibilities. When effectively implemented, performance-based compensation should translate into measurable improvements in both employee commitment and engagement, strengthening overall organizational performance and competitive positioning in the pharmaceutical industry.

However, many pharmaceutical firms in Enugu State continue to face significant challenges in realizing the full motivational potential of their performance-based compensation systems due to poorly designed incentive structures, inadequate communication of reward criteria, perceived inequity in reward distribution, and insufficient alignment between compensation frameworks and employee motivational needs. Consequently, despite the recognized importance of performance-based compensation as a motivational tool, a persistent gap exists between the theoretical potential of these systems and the actual motivational outcomes realized by pharmaceutical firms in Enugu State.

If this problem is not addressed, pharmaceutical firms in Enugu State risk experiencing continued workforce disengagement, rising employee turnover, declining productivity, and weakening organizational commitment in an increasingly competitive industry environment. Ultimately, failure to optimize performance-based compensation for employee motivation could undermine the long-term sustainability and competitive positioning of pharmaceutical firms operating in Enugu State.

Objectives of the Study

The main objective of the study was to examine the relationship between performance-based compensation and employee motivation in pharmaceutical firms in Enugu State. The specific objectives are to:

- i. Determine the effect of profit-sharing schemes on employee commitment in pharmaceutical firms.
- ii. Assess the effect of commission-based incentives on employee engagement in pharmaceutical firms.

Research Questions

The following research questions guided the Study

- i. What is the effect of profit-sharing schemes on employee commitment in pharmaceutical firms?
- ii. What is the effect of commission-based incentives on employee engagement in pharmaceutical firms?

Statement of the Hypotheses

The following Hypotheses guided the Study

- i. Profit-sharing schemes has no effect on employee commitment in pharmaceutical firms.
- ii. Commission-based incentives have no effect on employee engagement in pharmaceutical firms.

Review of Related Literature

Conceptual Review

Performance-Based

Performance-based in human resource management refers to linking organizational policies, rewards, and evaluations directly to measurable employee or team outcomes rather than seniority or tenure. Michael Armstrong and Brown (2019), and Shields et al. (2021) noted that aligning rewards with performance motivates effort, efficiency, and goal achievement. Gerhart and Fang (2021) emphasize that it creates a meritocratic system where high performers are recognized. In pharmaceutical firms, this approach is critical, as success relies on employee

expertise, commitment, and motivated effort, making performance-linked rewards essential for individual and organizational outcomes.

Compensation

Compensation in human resource management refers to the total financial and non-financial rewards employees receive for their labor, including salary, benefits, incentives, and intrinsic rewards. Milkovich, Newman, and Gerhart (2021) describe it as both a motivational tool and a signal of organizational values, crucial for attracting and retaining talent. Aguinis (2021) adds that compensation impacts motivation, satisfaction, and commitment, as employees assess fairness through their rewards. In pharmaceutical firms, effective compensation is strategically vital due to specialized skills, competitive labor markets, and its influence on product quality, compliance, and commercial performance.

Performance-Based Compensation

Performance-based compensation in pharmaceutical firms links employee pay directly to achieving defined performance targets, aligning individual effort with organizational goals. Gerhart and Fang (2021) explain that it differentiates rewards based on contribution, moving beyond fixed pay. In pharmaceutical firms, such compensation attracts specialized talent while supporting ethical and scientific responsibilities. Shields et al. (2021) note that combining individual targets with team-based profit-sharing enhances motivation and collaboration. Well-designed systems leverage expectancy, instrumentality, and valence to boost effort, commitment, and overall performance.

Components of Performance-Based Compensation

Components of Performance-Based Compensation include: Profit-Sharing Schemes, Commission-Based Incentives, Merit Pay Increases, Bonus Programs, Stock Options and Equity Awards, Gain-Sharing Plans, Skill-Based Pay, and Team-Based Incentive Plans. Armstrong and Brown (2019), Aguinis (2021), Gerhart and Fang (2021), Milkovich, Newman, and Gerhart (2021), Shields, Brown, Kaine, Dolle-Samuel, North-Samardzic, McLean, and Plimmer (2021), Lazear and Shaw (2021), Rynes, Gerhart, and Parks (2021), and WorldatWork (2021).

Components of Performance-Based Compensation That Formed Part of the Objectives of the Study

Profit-Sharing Schemes

Profit-sharing schemes in pharmaceutical firms are compensation plans that distribute a portion of organizational profits to employees, creating a shared financial stake in performance. Douglas Kruse, Richard Freeman, and Joseph Blasi (2021) note that these schemes turn employees into active stakeholders, aligning their motivation with organizational success. In high-value, knowledge-intensive pharmaceutical firms, profit-sharing fosters collaboration, enhances commitment, and supports research, operational, and commercial performance. S. Bhargava (2021) adds that well-designed profit-sharing encourages long-term investment in the firm, reduces turnover, and strengthens loyalty. Effectiveness depends on eligibility, allocation, payment timing, and perceived link between effort and profit.

Commission-Based Incentives

Commission-based incentives in pharmaceutical firms are variable pay structures where employees, especially in sales, earn rewards proportional to the sales volume, value, or profitability they generate. John Coughlan and S. Sen (2021) note that the direct and proportional nature of commissions creates strong motivation by linking effort to reward. These incentives are crucial in medical sales, where representatives drive prescriptions and product success.

R. Anderson and Richard Oliver (2021) emphasize structuring commissions to maximize sales while meeting ethical and regulatory standards. By reinforcing the link between effort and reward, commission-based incentives boost engagement, performance, and sustained commercial success.

Employee

An **employee** is an individual contracted to provide labor, skills, or expertise in exchange for compensation. Employees operate within organizational structures while carrying personal motivations and career goals that shape engagement. Stephen and Timothy (2021) describe them as key human capital driving productivity, service quality, and innovation. Modern views see employees as influenced by incentives, relationships, interests, identity, and culture. Peter Boxall and John Purcell (2021) emphasize expectations of fairness and meaningful work, forming a psychological contract that boosts commitment and loyalty. Employees are central to success, and managing them effectively drives engagement, performance, and sustainable competitive advantage.

Motivation

Motivation in organizational behavior and human resource management refers to the psychological processes that initiate, direct, and sustain goal-directed employee behavior, shaped by internal drives, needs, values, and cognitive evaluations. Edward and Richard (2021) explain that motivation includes intrinsic factors, where work is done for its own interest or meaning, and extrinsic factors, where behavior is driven by rewards or recognition, with the balance affecting performance quality and sustainability. Vroom (2021) further describes motivation through expectancy theory, where expectancy, instrumentality, and valence together determine the strength of employee effort. In pharmaceutical firms, understanding and fostering motivation is crucial, as it directly impacts product quality, research output, and commercial success.

Employee Motivation

Employee motivation in pharmaceutical firms refers to the psychological state that directs, energizes, and sustains employees' work effort, shaped by intrinsic drives, external incentives, organizational conditions, and individual characteristics. Pinder (2021) explains that motivation is central to understanding variations in performance, commitment, absenteeism, turnover, and overall organizational effectiveness. Motivation is particularly critical in pharmaceutical firms, where scientific innovation, regulatory compliance, and commercial competition make workforce engagement essential for the successful development, manufacturing, and marketing of products. Frese, and Johnson (2021) note that motivation depends on individual factors such as achievement orientation and self-efficacy, as well as organizational elements including leadership quality, reward systems, and workplace culture. Performance-based compensation enhances motivation most effectively when employees perceive the system as fair, transparent, attainable, and responsive to their actual contributions, creating a strong link between effort and organizational outcomes.

Components of Employee Motivation

Components of Employee Motivation include: Employee Commitment, Employee Engagement, Job Satisfaction, Intrinsic Motivation, Self-Efficacy, Organizational Citizenship Behavior, Autonomy and Empowerment, and Recognition and Achievement. Deci and Ryan (2021), Kanfer, Frese, and Johnson (2021), Meyer and Allen (2021), Pinder (2021), Robbins and Judge (2021), Schaufeli and Bakker (2021), Soane, Truss, Alfes, Shantz, Rees, and Gatenby (2021), and Vroom (2021).

Components of Employee Motivation that Formed Part of the Objectives of the Study

Employee Commitment

Employee commitment in pharmaceutical firms refers to the psychological attachment employees develop toward their organization, reflected in their identification with organizational goals, values, and willingness to remain with the firm. Meyer and Allen (2021) describe three dimensions of commitment affective, normative, and continuance with affective commitment most strongly linked to positive outcomes such as higher effort, improved organizational citizenship, and lower turnover intention. Commitment is particularly critical in pharmaceutical firms, where experienced and dedicated employees are essential to maintaining strict regulatory compliance, product quality, and operational excellence. Mowday, Steers, and Porter (2021) emphasize that fair and rewarding compensation systems, such as profit-sharing schemes, strengthen commitment by aligning employee interests with organizational performance and fostering long-term loyalty.

Employee Engagement

Employee engagement in pharmaceutical firms refers to a positive psychological state in which employees exhibit energy, dedication, and deep involvement in their work, going beyond basic task completion to demonstrate genuine commitment to performance. Schaufeli and Arnold Bakker (2021) link engagement to improved job performance, reduced absenteeism, lower turnover intention, higher customer satisfaction, and overall organizational productivity. In pharmaceutical firms, engagement is critical because success depends on committed employees across research, manufacturing, quality assurance, and sales. Emma Soane, Catherine Truss, Alfes, Amanda Shantz, Chris Rees, and Mark Gatenby (2021) note that engagement is influenced by effective leadership, meaningful work, and fair compensation, with commission-based incentives in sales further enhancing engagement by linking employees' efforts directly to measurable rewards.

Conceptual Framework of the Study

The study evaluated the relationship between performance-based compensation and employee motivation in pharmaceutical firms in Enugu State. The specific objectives are to: Determine the effect of profit-sharing schemes on employee commitment; and assess the effect of commission-based incentives on employee engagement in pharmaceutical firms Enugu State.

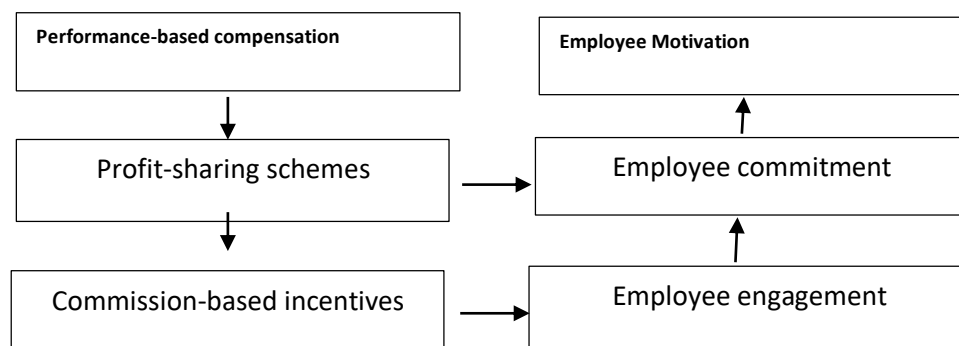


Fig.2 Conceptual diagram

The diagram above illustrates the linkage of the relationship between Performance-based compensation and employee motivation in pharmaceutical firms in Enugu State. . The independent Variable of the study Performance-

based compensation includes Profit-sharing schemes and commission-based incentives while the dependents of the Employee Motivation

Are Employee commitment and Employee engagement in Selected Tertiary Health Institutions of Enugu State, Nigeria?

Theoretical Framework

The following theories guided the study

- i. **Expectancy Theory**, formulated by Victor H. Vroom (1964)
- ii. **Agency Theory**, developed by Jensen and Meckling (1976)

The study was anchored on the Expectancy Theory, developed by Victor H. Vroom (1964), because the theory highlights the need for organizations to establish a transparent and reliable link between performance and rewards. When employees clearly understand that higher performance will lead to tangible incentives such as bonuses, commissions, or profit-sharing, they are more likely to be motivated, engaged, and committed to achieving organizational goals.

Expectancy Theory of Motivation

Expectancy Theory, formulated by Victor H. Vroom (1964) and refined by Lawler & Porter (1968), explains motivation through three factors: expectancy (effort → performance), instrumentality (performance → reward), and valence (value of reward). In pharmaceutical firms, it shows how profit-sharing and commission incentives boost motivation when employees see clear, credible, and fair links between effort, performance, and rewards.

Agency Theory

Agency Theory, developed by Jensen and Meckling (1976) and extended by Eisenhardt (1989), explains how performance-based compensation aligns employee (agent) behavior with employer (principal) goals. By linking rewards to outcomes, principals reduce the risks of divergent interests and moral hazard. In pharmaceutical firms, this theory underpins profit-sharing and commission schemes, ensuring employees' financial stakes support organizational performance and motivation.

Empirical Review

Profit-Sharing Schemes and Employee Commitment

Odunayo and Falola (2021) assessed 265 employees in Nigerian pharmaceutical firms to determine the impact of profit-sharing schemes on employee commitment using structured surveys and regression analysis. Results showed a statistically significant relationship ($r = 0.51$, $p < 0.05$) between profit-sharing participation and employee commitment scores. Firms with active profit-sharing programs reported approximately 18% higher levels of affective organizational commitment compared to firms without such schemes.

Hansen and Noe (2021) conducted a study on the effect of profit-sharing schemes on employee commitment among 340 employees across pharmaceutical firms in the United States. Using a cross-sectional survey and multiple regression analysis, the study examined the relationship between profit-sharing participation and organizational commitment outcomes. Findings revealed a significant positive relationship ($\beta = 0.59$, $p < 0.01$) between profit-

sharing scheme membership and employee commitment. Firms with well-structured profit-sharing programs reported average increases of 22% in commitment scores and 14% reductions in voluntary turnover.

Adeyemi and Okafor (2022) investigated the relationship between profit-sharing schemes and employee commitment in 220 Nigerian pharmaceutical employees using structured questionnaires and correlation analysis. Results showed a significant relationship ($r = 0.53$, $p < 0.01$) between profit-sharing participation and organizational commitment. Pharmaceutical employees receiving profit-sharing distributions reported 20% higher affective commitment and significantly lower turnover intentions.

Chukwu and Emeka (2023) examined 195 employees in Nigerian pharmaceutical manufacturing firms to evaluate how profit-sharing affected employee commitment using survey research design and regression analysis schemes. The study found a significant positive relationship ($r = 0.62$, $p < 0.05$) between profit-sharing participation and organizational commitment. Firms with active profit-sharing arrangements reported 24% higher commitment levels and 19% reductions in voluntary turnover.

Patel and Singh (2024) studied 380 pharmaceutical employees in India to assess the effect of profit-sharing schemes on employee commitment using questionnaires and regression estimates. Findings indicated a significant positive relationship ($\beta = 0.64$, $p < 0.001$) between profit-sharing scheme participation and employee commitment. Pharmaceutical firms with comprehensive profit-sharing programs saw average increases of 21% in affective commitment and 25% reductions in disengagement behaviors. The study concluded that profit-sharing directly supports employee commitment in pharmaceutical firms.

Commission-Based Incentives and Employee Engagement

Mensah and Dartey-Baah (2021) conducted a study on 290 pharmaceutical sales employees in Ghana to examine the impact of commission-based incentives on employee engagement. Using a structured survey and regression analysis, the study found a significant positive relationship with employee engagement ($\beta = 0.55$, $p < 0.01$). Pharmaceutical employees receiving commission-based incentives reported average engagement score increases of 19% and significantly higher levels of vigor and dedication in their sales responsibilities. The authors concluded that commission-based incentive systems enhance employee engagement and competitive commercial performance.

Yamoah and Maiyo (2022) investigated 310 pharmaceutical sales representatives in Kenya to evaluate the relationship between commission-based incentives and employee engagement. Using questionnaires and correlation analysis, results showed significant positive relationships between commission incentive participation and engagement ($r = 0.57$, $p < 0.05$). Pharmaceutical employees on commission structures reported 21% higher engagement scores and 16% reductions in absenteeism.

Park and Kim (2022) investigated 275 pharmaceutical sales employees in South Korea to determine the impact of commission-based incentives on employee engagement and productivity. With survey design and regression analysis, results showed a significant positive relationship with engagement ($\beta = 0.58$, $p < 0.05$). Employees on commission-based structures reported improved engagement levels of 23% and productivity increases of 17%. The researchers concluded that commission-based incentive quality significantly strengthens employee engagement in pharmaceutical firms.

Osei and Amponsah (2023) examined 240 pharmaceutical employees in Ghana to assess the effects of commission-based incentives on employee engagement and job satisfaction. The study used survey data and multiple regression analysis, revealing significant positive relationships between commission incentive participation and engagement ($\beta = 0.61$, $p < 0.01$). Employees receiving commission-based rewards reported 26% higher engagement scores and

significantly improved job satisfaction ratings. The authors recommended continuous calibration of commission structures to maintain motivational impact.

Boateng and Asiedu (2024) conducted a study on 330 pharmaceutical sales and commercial employees across Ghanaian and Nigerian firms to evaluate how commission-based incentives influence employee engagement and retention. Using structured questionnaires and regression tests, findings indicated significant associations with engagement ($\beta = 0.65$, $p < 0.001$). Pharmaceutical employees on well-structured commission incentive programs reported average engagement increases of 28% and significantly higher retention rates.

Summary of Empirical Review

The empirical review shows that performance-based compensation positively influences employee motivation and performance in many organizations, including pharmaceutical firms. Studies indicate that incentives such as bonuses, salaries, and reward systems encourage higher effort, job satisfaction, and productivity among employees. However, most existing studies were conducted in other sectors or outside Enugu State, leaving a gap in empirical evidence specifically on the relationship between performance-based compensation and employee motivation in pharmaceutical firms in Enugu State.

Methodology

Research Design

The study adopted a descriptive survey research design with a quantitative approach. The choice of this design is appropriate because it allows for the systematic collection of data from respondents to examine the relationship between performance-based compensation and employee motivation. Survey design has been widely used in compensation and motivation studies to establish causal and associative relationships among variables.

Area of the Study

The study was conducted in Enugu State, Nigeria, located in the South-East geopolitical zone. Enugu State is a growing commercial hub with several pharmaceutical firms engaged in drug production, distribution, and retail operations. The state provides a suitable environment for this research due to the presence of both small- and medium-scale pharmaceutical companies as well as branch operations of large firms. These firms employ a considerable number of staff across administrative, technical, and sales departments, making the state appropriate for examining compensation structures and employee motivation within the pharmaceutical sector.

Sources of Data

Sources of data collection included primary and secondary sources.

Primary Sources

Primary data refer to original data collected basically for the purpose of the study. In collecting primary data for the study two devices was adopted the use of questionnaire.

Secondary Sources

Secondary data was obtained from facts already documented by others which are considered valid for the study. The secondary source of data for the study included textbooks, internet, journals, articles and unpublished works.

Population of the Study

The population of the study comprised all employees of selected pharmaceutical firms in Enugu State, including managerial and non-managerial staff. These employees were considered relevant because they are directly affected by compensation policies and motivational practices within their organizations. The total population for the study was Nine hundred and thirty-nine (939). The population for the study included all staff in the list of inspected local pharmaceutical manufacturing facilities in Nigeria (2018-2019) using WHO key elements in Enugu under South East, Nigeria by National Agency for Food and Drug Administration and Control (NAFDAC). Therefore, the study was limited to the population of all staff of each of these organizations, namely: Bulger Pharm Ltd, No.1 North First Avenue, Trans- Ekulu, and Ceenek Pharmaceutical Products Limited, Plot 219, Ibeagwa Aka (Unity Street), Nike Community Layout Extension, Phase II Enugu, Cinnamon Drugs Limited, Plot C9 Emene Industrial layout, Emene, A.C. Drugs Ltd, 4, Alor Road, Edward Nnaji Layout, AbakpaNike, Gloria-G Pharm Ltd, Behind NRC Junior staff Quarters, Asata, ENUGU, Nigeria

Table 3.1 Population Distribution

	Firms	Staff	
		Total	Percent
1.	Gloria-G Pharm Ltd,	291	31
2.	Cinnamon Drugs Limited	177	18
3.	A.C. Drugs Ltd	138	15
4.	Bulger Pharm Ltd	140	15
5.	Ceenek Pharmaceutical Prod	193	21
	Total	939	100

Source: Administrative office, 2026

Table 3.1 study shows that ten firms which was selected from Enugu state in South East as approved by National Agency for Food and Drug Administration and Control (NAFDAC).

Sample Size Determination

To determine the adequate sample size, the study adopted the Freund and Williams's statistical formula. In calculating the sample size, the study used the statistic formula for selecting a finite population as formulated by Freund and Williams (as quoted by Uzoagulu, 2011).

$$n = \frac{Z^2 N(pq)}{N(e)^2 + Z^2(pq)}$$

Where n = Sample Size N = the population

p = Probability of success/proportion

q = Probability of failure/proportion

Z = Standard error of the mean

e = Limit of tolerable error (or level of significance)

N = 939

p = .5

q = (1 – .5) = .5

Z = 95 percent = 1.96

e = 0.5 percent

$$\begin{aligned} \text{Substituting} &= \frac{(1.96)^2 \times 939 \times .5 \times .5}{939(0.05)^2 + (1.96)^2 \times .5 \times .5} \\ &= \frac{3.8416 \times 939 \times .25}{2.3475 + 3.8416 \times .25} = \frac{901.8156}{3.3075} = 272.657 \\ n &\approx 273 \end{aligned}$$

Proportional allocation formula for stratified sampling was used to allocate the samples:

$$nh = \frac{n(Nh)}{N}$$

Where:

Nh = Group population from each stratum

n = overall sample size

N = the overall population

nh = sample size from each stratum, in this case each state

Table 3.2 Computation/Allocation of Sample Size

	Organisations	Population	Calculation	Sample	
1.	Gloria-G Pharm Ltd,	291	$\frac{291 \times 273}{939}$	85	31
2.	Cinnamon Drugs Limited	177	$\frac{177 \times 273}{939}$	51	19
3.	A.C. Drugs Ltd	138	$\frac{138 \times 273}{939}$	40	15
4.	Bulger Pharm Ltd	140	$\frac{140 \times 273}{939}$	41	15
5.	Ceenek Pharma.Prod	193	$\frac{193 \times 273}{939}$	56	20
	Total	939		273	100

Source: Field Survey, 2026

Sampling Technique

A stratified random sampling technique was adopted to divide employees into strata (e.g., management and non-management staff), followed by simple random sampling within each group. This approach ensures that all categories of employees are fairly represented.

Instrument for Data Collection

The main instrument used for data collection was a structured questionnaire designed in a Likert scale format (Strongly Agree to Strongly Disagree). Structured questionnaires are commonly used in similar studies to gather measurable data for statistical analysis

Validity of the Instrument

The instrument was subjected to content and face validity by experts in business administration and human resource management. Their feedback ensured that the questionnaire items adequately captured the variables under study.

Reliability of the Instrument

The reliability of the instrument was tested using the Cronbach Alpha method. A reliability coefficient of 0.71 or above was considered acceptable, indicating internal consistency of the instrument. The formula is as follows:

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	10	100.0
	Excluded	0	0
	Total	10	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	No. of Items
.71	10

Scale reliabilities were calculated using Cronbach's Alpha; the result obtained was 0.71. This shows that the internal consistency of the scale is good for the purpose of this study because it is 0.71 which was good.

Methods of Data Analyses

The questionnaire responses were cleaned, grouped into various categories and entered in the SPSS software to facilitate analysis using descriptive statistics. Frequency distribution tables was used to summarize the data from the respondents. Data from the questionnaire was collected and analyzed using simple percentages, mean and standard deviation, Z- test statistic tool was used to test the hypotheses.

Z –Test

$$Z = \frac{\bar{X} - \mu}{\frac{\sigma}{\sqrt{n}}}$$

Where;

$\bar{X}$ = Population mean

μ = Sample mean

σ = Standard deviation

n = Sample size

The questionnaire was structured in a five point Likert scale. The likert scale grading follows:

Strongly Agreed	-----	5
Agreed	-----	4
Neutral	-----	3
Disagree	-----	2
S. Disagree	-----	1

Decision Rule

If Mean > 3.0 , the respondents agree

If mean ≤ 3.0 , the respondents disagree

Data Presentation and Analyses

However, this section commenced with distribution and return of the questionnaire, followed by, data relating to research questions, testing of hypotheses and discussion of findings.

Distribution and Return of Questionnaire

Table 4.1 Distribution and Return of the Questionnaire

Firms	Distributed	No Returned	Percent	No not Returned	Percent
Gloria-G Pharm Ltd,	85	80	29	5	2
Cinnamon Drugs Limited	51	47	17	4	2
A.C. Drugs Ltd	40	30	11	10	4
Bulger Pharm Ltd	41	38	14	3	1

Ceenek Pharma.Prod	56	43	16	13	4
Total	273	238	87	35	13

Source: Field Survey, 2026

Table 4.1 shows that two hundred and seventy-three (273) copies of the questionnaire were distributed to the respondents from which two hundred and thirty-eight (238) copies were returned representing eighty-seven percent (87%) while thirty-five (35) copies representing thirteen percent (13%) were not returned and were not used.

The effect of profit-sharing schemes on employee commitment in pharmaceutical firms

Table 4.2.1.1: Responses on the effect of profit-sharing schemes on employee commitment in pharmaceutical firms

		5	4	3	2	1	ΣFX	-	SD	Decisio n
		SA	A	N	DA	SD		X		
1	Profit-sharing schemes motivate employees to align their efforts with organizational goals, enhancing commitment in pharmaceutical firms.	690	216	51	32	13	1002			Agree
		138	54	17	16	13	238	4.21	1.172	
		58.0	22.7	7.1	6.7	5.5	100%			
2	Employees who benefit from profit-sharing feel valued, which strengthens their loyalty and commitment to the firm.	650	192	51	54	16	963			Agree
		130	48	17	27	16	238	4.05	1.297	
		54.6	20.2	7.1	11.3	6.7	100%			
3	Profit-sharing encourages a sense of ownership among employees, leading to increased dedication and long-term commitment.	670	192	51	44	17	974			Agree
		134	48	17	22	17	238	4.09	1.283	
		56.3	20.2	7.1	9.2	7.1	100%			
4	Sharing profits creates a collaborative work environment, motivating employees to stay committed to achieving company objectives.	625	192	51	60	18	946			Agree
		125	48	17	30	18	238	3.97	1.337	
		52.5	20.2	7.1	12.6	7.6	100%			
5	Employees engaged in profit-sharing schemes are more likely to demonstrate consistent effort and commitment to the success of pharmaceutical firms.	645	192	51	58	15	961			Agree
		129	48	17	29	15	238	4.04	1.294	
		54.2	20.2	7.1	12.2	6.3	100%			

Total Grand mean and standard deviation	4.072	1.2766
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Source: Field Survey, 2026

Table 4.2.1.1, 192 respondents out of 238 representing 80.7 percent agreed that Profit-sharing schemes motivate employees to align their efforts with organizational goals, enhancing commitment in pharmaceutical firms with mean score of 4.21 and standard deviation of 1.172. Employees who benefit from profit-sharing feel valued, which strengthens their loyalty and commitment to the firm 178 respondents representing 74.8 percent agreed with mean score of 4.05 and standard deviation of 1.297. Profit-sharing encourages a sense of ownership among employees, leading to increased dedication and long-term commitment 182 respondents representing 76.5 percent agreed with mean score of 4.09 and standard deviation of 1.283. Sharing profits creates a collaborative work environment, motivating employees to stay committed to achieving company objectives 173 respondents representing 72.7 percent agreed with mean score of 3.97 and 1.337. Employees engaged in profit-sharing schemes are more likely to demonstrate consistent effort and commitment to the success of pharmaceutical firms 177 respondents representing 74.4 percent agreed with a mean score of 4.04 and standard deviation 1.294.

The effect of commission-based incentives on employee engagement in pharmaceutical firms

Table 4.2.1.1: Responses on the effect of commission-based incentives on employee engagement in pharmaceutical firms

		5	4	3	2	1	ΣFX	-	SD	Decision
		SA	A	N	DA	SD		X		
1	Commission-based incentives motivate employees to actively participate in achieving sales and organizational targets in pharmaceutical firms.	670 134 56.3	220 55 23.1	51 17 7.1	24 12 5.0	20 20 8.4	985 238 100%			Agree
2	Employees earning commissions are more focused and proactive, enhancing overall engagement in their work.	650 130 54.6	212 53 22.3	51 17 7.1	50 25 10.5	18 18 5.5	981 238 100%			Agree
3	Commission-based rewards encourage healthy competition, which boosts employee involvement and commitment.	705 141 59.2	168 42 17.6	51 17 7.1	36 18 7.6	20 20 8.4	980 238 100%			Agree
4	Incentives tied to performance inspire employees to contribute innovative ideas and improve productivity.	705 141 59.2	184 46 19.3	51 17 7.1	42 21 8.8	13 13 5.5	995 238 100%			Agree
5	Employees motivated by commissions are more likely to stay engaged and dedicated to meeting the firm's objectives.	705 141 59.2	184 46 19.3	51 17 7.1	42 21 8.8	13 13 5.5	995 238 100%			Agree
Total Grand mean and standard deviation							4.144		1.2472	

Source: Field Survey, 2026

Table 4.2.2.1, 189 respondents out of 238 representing 79.4 percent agreed that Commission-based incentives motivate employees to actively participate in achieving sales and organizational targets in pharmaceutical firms with mean score of 4.14 and standard deviation of 1.257. Employees earning commissions are more focused and proactive, enhancing overall engagement in their work 183 respondents representing 76.9 percent agreed with mean score of 4.10 and standard deviation of 1.235. Commission-based rewards encourage healthy competition, which boosts employee involvement and commitment 183 respondents representing 76.8 percent agreed with mean score of 4.12 and standard deviation of 1.310. Incentives tied to performance inspire employees to contribute innovative ideas and improve productivity 187 respondents representing 78.5 percent agreed with mean score of 4.18 and 1.217. Employees motivated by commissions are more likely to stay engaged and dedicated to meeting the firm's objectives 187 respondents representing 78.5 percent agreed with a mean score of 4.18 and standard deviation 1.217.

Test of Hypotheses

Test of Hypotheses One: Profit-sharing schemes has no effect on employee commitment in pharmaceutical firms.

One-Sample Kolmogorov-Smirnov Test

	Profit-sharing schemes motivate employees to align their efforts with organizational goals, enhancing commitment in pharmaceutical firms.	Employees who benefit from profit-sharing feel valued, which strengthens their loyalty and commitment to the firm.	Profit-sharing encourages a sense of ownership among employees, leading to increased dedication and long-term commitment.	Sharing profits creates a collaborative work environment, motivating employees to stay committed to achieving company objectives.	Employees engaged in profit-sharing schemes are more likely to demonstrate consistent effort and commitment to the success of pharmaceutical firms.
N	238	238	238	238	238
Uniform Parameters ^{a,b}					
Minimum	1	1	1	1	1
Maximum	5	5	5	5	5
Absolute	.580	.546	.563	.525	.542
Most Extreme Difference					
Positive	.055	.067	.071	.076	.063
Negative	-.580	-.546	-.563	-.525	-.542

Decision Rule

Kolmogorov-Smirnov Z	8.945	8.427	8.686	8.103	8.362
Asymp. Sig. (2-tailed)	.000	.000	.000	.000	.000

a. Test distribution is Uniform.

b. Calculated from data.

If the calculated Z-value calculated is greater than the critical Z-value (i.e $Z_{cal} > Z_{critical}$), reject the null hypothesis and accept the alternative hypothesis accordingly.

Result

With Kolmogorov-Smirnon Z – value ranges from $8.103 < 8.945$ and on Asymp. Significance of 0.000, the responses from the respondents as display in the table is normally distributed. This affirms the assertion of the most of the respondents that **Profit-sharing schemes had positive significant effect on employee commitment in pharmaceutical firms**

Decision

Furthermore, comparing the calculated Z- value ranges from $8.103 < 8.945$ against the critical Z- value of 0.000 (2-tailed test at 95 percent level of confidence) the null hypothesis was rejected. Thus the alternative hypothesis was not rejected meant that **Profit-sharing schemes had positive significant effect on employee commitment in pharmaceutical firms**

Test of Hypotheses Two: Commission-based incentives has no effect on employee engagement in pharmaceutical firms.

Decision Rule

If the calculated Z-value calculated is greater than the critical Z-value (i.e $Z_{cal} > Z_{critical}$), reject the null hypothesis and accept the alternative hypothesis accordingly.

Result

With Kolmogorov-Smirnon Z – value ranges from $8.686 < 9.140$ and on Asymp. Significance of 0.000, the responses from the respondents as display in the table is normally distributed. This affirms the assertion of the most of the respondents that **Commission-based incentives had positive significant effect on employee engagement in pharmaceutical firms**

Decision

Furthermore, comparing the calculated Z- value ranges from $8.686 < 9.140$ against the critical Z- value of 0.000 (2-tailed test at 95 percent level of confidence) the null hypothesis was rejected. Thus the alternative hypothesis was not rejected meant that Commission-based incentives had positive significant effect on employee engagement in pharmaceutical firms.

One-Sample Kolmogorov-Smirnov Test

	Commission-based incentives motivate employees to actively participate in achieving sales and organizational targets in pharmaceutical firms.	Employees earning commissions are more focused and proactive, enhancing overall engagement in their work.	Commission-based rewards encourage healthy competition, which boosts employee involvement and commitment.	Incentives tied to performance inspire employees to contribute innovative ideas and improve productivity.	Employees motivated by commissions are more likely to stay engaged and dedicated to meeting the firm's objectives.
N	238	238	238	238	238
Uniform Parameter ^{a,b}					
Minimum	1	1	1	1	1
Maximum	5	5	5	5	5
Absolute	.563	.546	.592	.592	.592
Most Extreme Difference ^s					
Positive	.084	.055	.084	.055	.055
Negative	-.563	-.546	-.592	-.592	-.592
Kolmogorov-Smirnov Z	8.686	8.427	9.140	9.140	9.140
Asymp. Sig. (2-tailed)	.000	.000	.000	.000	.000

a. Test distribution is Uniform.

b. Calculated from data.

Discussion of Findings

Profit-sharing schemes effect on employee commitment in pharmaceutical firms.

From the result of hypotheses One, the calculated Z- value ranges from $8.103 < 8.945$ against the critical Z- value of 0.000 which implies that **Profit-sharing schemes had positive significant effect on employee commitment in pharmaceutical firms**. In support of the result in the literature review, Odunayo and Falola (2021) assessed profit-sharing schemes on employee commitment using structured surveys and regression analysis. Results showed a statistically significant relationship between profit-sharing participation and employee commitment scores. Hansen and Noe (2021) conducted a study on the effect of profit-sharing schemes on employee commitment. Findings revealed a significant positive relationship between profit-sharing scheme membership and employee commitment.

Commission-based incentives effect on employee engagement in pharmaceutical firms.

From the result of hypotheses two, the calculated Z- value ranges from $8.686 < 9.140$ against the critical Z- value of 0.000 which implies that Commission-based incentives had positive significant effect on employee engagement in pharmaceutical firms. In support of the result in the literature review, Mensah and Dartey-Baah (2021) conducted a study on 290 pharmaceutical sales employees in Ghana to examine the impact of commission-based incentives on employee engagement. Pharmaceutical employees receiving commission-based incentives reported average engagement score increases of 19% and significantly higher levels of vigor and dedication in their sales responsibilities. Boateng and Asiedu (2024) conducted a study on to evaluate how commission-based incentives influence employee engagement and retention. Using structured questionnaires and regression tests, findings indicated significant associations with engagement. Pharmaceutical employees on well-structured commission incentive programs reported average engagement increases of 28% and significantly higher retention rates.

Summary of Findings, Conclusion, Recommendations and Contribution to Knowledge

Summary of Findings

- i. Profit-sharing schemes had positive significant effect on employee commitment in pharmaceutical firms, $Z (8.945, P. < .05)$. This implies that when pharmaceutical firms implement profit-sharing schemes, employees feel more valued and directly connected to the organization's success, which strengthens their commitment, loyalty, and willingness to contribute effectively toward achieving organizational goals.
- ii. Commission-based incentives had positive significant effect on employee engagement in pharmaceutical firms, $Z (9.140, P. < .05)$. This implies that commission-based incentives encourage employees to be more actively involved in their work, increasing their enthusiasm, dedication, and willingness to go the extra mile, thereby improving overall employee engagement in pharmaceutical firms.

Conclusion

The study concluded that Profit-sharing schemes and Commission-based incentives has no effect on employee commitment and employee engagement in pharmaceutical firms. In conclusion, performance-based compensation plays a significant role in enhancing employee motivation in pharmaceutical firms in Enugu State. When employees are rewarded based on their performance, it increases their commitment, productivity, and overall job satisfaction, thereby improving organizational effectiveness.

Recommendations

- i. Pharmaceutical firms should implement well-structured and transparent profit-sharing schemes to ensure employees clearly understand how their contributions impact organizational profits, thereby strengthening their commitment, loyalty, and long-term engagement.
- ii. Pharmaceutical firms should design fair and performance-driven commission-based incentive systems that are clearly communicated to employees, as this will motivate higher engagement, boost enthusiasm, and encourage consistent effort toward achieving organizational targets.

Contribution to Knowledge

The study contributes to knowledge by providing empirical and context-specific evidence that performance-based compensation significantly enhances employee motivation in pharmaceutical firms in Enugu State. It expands existing human resource management literature by demonstrating how specific compensation strategies such as

profit-sharing and commission-based incentives influence employee attitudes, commitment, and engagement within a developing economy context. Additionally, the study offers practical insights that can guide managers in designing effective compensation systems to improve workforce productivity and organizational performance.

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