

Role of Intrinsic and Extrinsic Rewards in Enhancing Employee Productivity in Assam's Telecom Industry – A Literature Review

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Abstract

This paper examines how intrinsic and extrinsic rewards influence employee productivity in Assam's telecom industry. Drawing on foundational motivation theories - *Herzberg's Two-Factor Theory*, *Vroom's Expectancy Theory*, *Kahn's engagement framework*, and *Self-Determination Theory (SDT)* and triangulating them with recent empirical evidence and sectoral data, we build a context-specific model for frontline and network-operations roles prevalent in Assam.

Industry evidence from TRAI (*e.g. TRAI performance indicators for 2024–2025*) and Northeast connectivity initiatives (*Digital Bharat Nidhi*, *National Broadband Mission 2.0*) situate the analysis in current realities. We synthesize a set of managerial practices combining fair pay, recognition, career development, and autonomy shown to lift productivity, quality, and retention.

Keywords: Intrinsic Rewards, Extrinsic Rewards, Productivity, Telecom, Assam, Employee Engagement, Self Determination Theory, Expectancy Theory, Two-Factor Theory, Total Rewards

1. Introduction

The telecom industry in Assam plays a vital role in bridging the digital divide, creating employment, and supporting regional development. Despite rapid technological adoption and service expansion, the sector faces persistent productivity challenges, often attributed to high employee turnover, work-related stress, and limited career development opportunities (*Das, 2021*).

Human motivation theories, particularly Herzberg's Two-Factor Theory and Vroom's Expectancy Theory, suggest that both intrinsic rewards (recognition, career growth, autonomy, meaningful work) and extrinsic rewards (pay, bonuses, benefits, incentives) are essential drivers of employee behavior (*Herzberg, 1959; Vroom, 1964*). In Assam's telecom sector, where employees often work in stressful, target-driven environments, understanding the balance between intrinsic and extrinsic motivators becomes crucial.

India's telecom sector has crossed a billion wireless connections. Assam forms a distinct service area with challenging terrain and a high share of rural subscribers. According to the *Telecom Regulatory Authority of India (TRAI)*, Assam's overall teledensity stood at **71.7%** in Q2 FY2024 - 25, with **26.35 million** telecom subscriptions and a rural teledensity of **55.31%** underscoring the criticality of reliable last-mile service and field productivity in dispersed geographies (*TRAI, 2024*).

Concurrently, Government of India programs such as *National Broadband Mission (NBM) 2.0* and *Digital Bharat Nidhi* have accelerated 4G/5G and fiber coverage across the Northeast, including full mobile coverage of border villages in Assam. These shifts expand service demand while increasing performance pressure on Mobile Network Operators, Towercos, and Managed Service Partners.

In this context, productivity hinges on motivating large numbers of employees who work under rugged conditions, and dynamic targets. How to design reward systems that sustainably lift productivity remains the central management question this paper addresses. This research explores how intrinsic and extrinsic rewards impact productivity in Assam's telecom industry, offering insights for HR leaders, policymakers, and organizational strategists.

2. Theoretical Foundations

a) Herzberg's Two-Factor Theory differentiates hygiene factors (e.g. pay, policies, job security) that prevent dissatisfaction from motivators (e.g., achievement, recognition, growth) that create satisfaction and higher performance (*Herzberg, Mausner, & Snyderman, 1959/2017*).

b) Vroom's Expectancy Theory posits that performance is a function of expectancy (effort → performance), instrumentality (performance → rewards), and valence (value of rewards) (*Vroom, 1964*).

c) Self-Determination Theory (SDT) argues that intrinsic motivation thrives when work satisfies needs for autonomy, competence, and relatedness (*Ryan & Deci, 2000*).

d) Kahn's Engagement Framework identifies psychological meaningfulness, safety, and availability as conditions enabling employees to invest their full selves in role performance (**Kahn, 1990**). Reward practices that reinforce fairness, voice, and growth contribute to these conditions.

3. Literature Review

Comparative Insights on Rewards and Productivity

Intrinsic Rewards	Intrinsic motivation fosters internal satisfaction derived from meaningful work. Recognition, growth opportunities, and autonomy enhance employee productivity and long-term commitment (<i>Armstrong & Brown, 2006; Torrington et al., 2011</i>)
Extrinsic Rewards	Monetary rewards and benefits remain primary motivators for employees in high-pressure sectors. However, their impact is often short-term, creating compliance rather than sustained engagement (<i>Milkovich & Newman, 2008; Das, 2021</i>)
Balanced Systems	<i>Herzberg's (1959)</i> motivation-hygiene theory emphasizes that intrinsic motivators drive lasting satisfaction, while extrinsic rewards prevent dissatisfaction. A balanced reward framework ensures both immediate motivation and sustainable performance.
Sector-Specific Considerations	Career limitations, skill migration, and high work pressure in Assam's telecom sector make it necessary for organizations to design reward systems that integrate both intrinsic and extrinsic elements. Structured recognition programs, career development initiatives, and competitive pay packages are essential for addressing regional workforce challenges.

3.1 Intrinsic Rewards and Productivity

Intrinsic rewards refer to the sense of fulfillment employees derive from the work itself through autonomy, recognition, purpose, and opportunities for mastery. *Armstrong and Brown (2019)* emphasize that recognition and growth prospects significantly strengthen employee engagement and discretionary effort. Similarly, *Torrington, Hall, and Taylor (2011)* highlight that when employees are entrusted with challenging assignments and skill-building opportunities, creativity and productivity improve. In the context of Assam's telecom industry where routine fault restoration, customer service, and compliance tasks can otherwise feel monotonous - intrinsic rewards act as buffers against burnout, sustaining motivation and service quality over time.

3.2 Extrinsic Rewards and Employee Motivation

Extrinsic rewards including salaries, incentives, benefits, and allowances remain essential in attracting and retaining skilled talent. *Milkovich, Newman, and Gerhart (2017)* argue that competitive and transparent pay structures reduce attrition and ensure labor market competitiveness. Recent evidence from the Indian telecom sector indicates that performance-based pay tied to service delivery and sales outcomes can be a critical lever for meeting aggressive rollout and SLA targets (*Das, 2021*). Yet, research cautions that an excessive reliance on monetary incentives may only elicit short-term compliance rather than deeper organizational commitment (*Gerhart, 2017*). A balanced approach is therefore vital.

3.3 Balanced Reward Systems

Herzberg's motivation hygiene theory distinguishes between extrinsic hygiene factors (e.g. pay, working conditions) that reduce dissatisfaction and intrinsic motivators (e.g. achievement, recognition) that elevate true satisfaction and productivity (*Herzberg, Mausner, & Snyderman, 1959/2017*). Complementing this, *Kahn (1990)* showed that employee engagement is strongest when psychological conditions of meaningfulness, safety, and availability are present conditions reinforced by a judicious mix of intrinsic and extrinsic rewards. Together, these perspectives suggest that telecom organizations in Assam must design reward portfolios that both prevent dissatisfaction and fuel sustained engagement.

3.4 Sector-Specific Insights

Baruah and Dutta (2019) observed that limited career advancement opportunities have been a major driver of turnover among telecom employees in Assam, highlighting the value of structured skill-development and career-path programs. *Roy and Banerjee (2022)* further found that work-life balance and timely recognition often yield stronger effects on productivity than financial rewards alone. For employees navigating Assam's dispersed geography, this underscores the need for integrated total rewards strategies where allowances and incentives are complemented by recognition, learning opportunities, and flexibility.

3.5 Recognition and Performance

In Assam's telecom industry, where employees operate under demanding service level agreements and performance targets, structured recognition programs play a pivotal role in sustaining intrinsic motivation. Recognition conveys appreciation, strengthens a sense of belonging, and validates individual contributions. Empirical evidence shows that timely and credible recognition not only improves job satisfaction but also lowers absenteeism and disengagement (*Baruah & Dutta, 2019; Yang, Kim & Park, 2023*). When recognition is transparently tied to performance outcomes, employees perceive fairness and purpose in their roles, leading to sustained productivity even under competitive pressures.

3.6 Employee Engagement and Productivity

Employee engagement emerges as a critical determinant of productivity in telecom environments characterized by high customer expectations and rapid technological disruption. Engagement strategies that integrate both intrinsic and extrinsic motivators such as development pathways combined with equitable pay are found to foster consistent performance. *Bhattacharya (2023)* notes that organizations that invest in learning opportunities alongside financial incentives achieve higher employee commitment and productivity outcomes. In Assam, where customer service challenges are often magnified by geographic dispersion, engaged employees exhibit resilience and adaptability.

3.7 Psychological Empowerment

Repetitive, target-driven roles in telecom create a risk of monotony, making psychological empowerment an essential lever for sustaining motivation. *Self-Determination Theory* (Ryan & Deci, 2000) underscores that autonomy, competence, and relatedness drive performance more sustainably than financial incentives alone. Practical strategies such as job rotation, team-based projects, and problem-solving opportunities empower employees, enhance ownership, and stimulate innovation. Organizations in Assam that grant employees the autonomy in routing or troubleshooting decisions often report measurable gains in productivity and employee engagement.

3.8 Sector-Specific Challenges in Employee Productivity

Assam's telecom sector faces a dual challenge - meeting aggressive customer service standards while managing employee well-being. *Das and Baruah (2013)* emphasize that while Extrinsic rewards such as competitive compensation are critical for talent retention. Intrinsic motivators—career development, recognition, and meaningful work are essential for long-term performance.

Long working hours, complex customer interactions, and stress from meeting daily targets amplify attrition risks. A hybrid reward system, combining fair pay with structured professional growth, recognition, and wellness initiatives is essential for maintaining consistent output.

3.9 Technological Disruptions and Continuous Learning

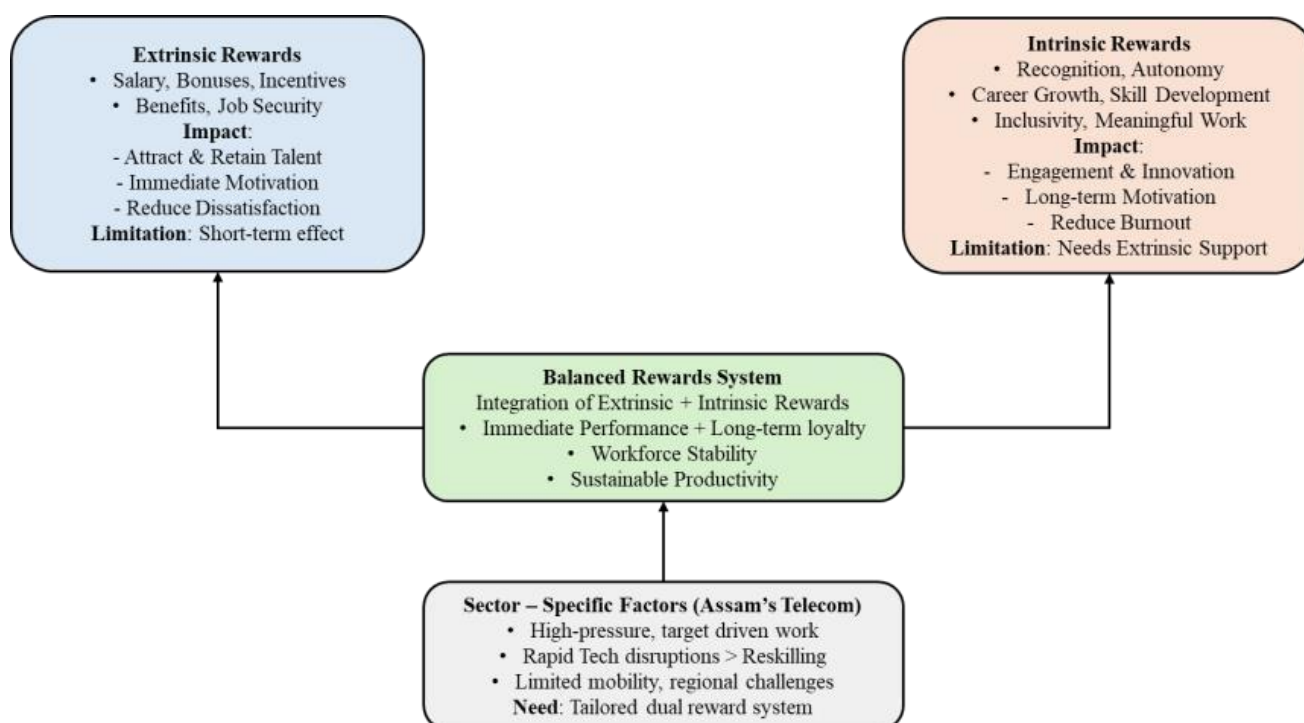
With digital services, mobile broadband, and 5G rollout reshaping customer expectations, continuous learning has become both an intrinsic and extrinsic reward for telecom employees. *Gupta and Sharma (2015)* found that training investments and career-development programs foster loyalty while directly enhancing performance. In Assam, organizations that provide access to e-learning platforms, technical certifications, and leadership development initiatives not only upskill their workforce but also strengthen commitment. By positioning learning as both a reward and a necessity, firms navigate technological transitions more effectively and improve long-term productivity.

3.10 Gender Diversity, Inclusivity, and Motivation

Diversity and inclusion are increasingly recognized as strategic levers for motivation and performance. *Sen and Ghosh (2019)* argue that equitable workplace policies act simultaneously as intrinsic motivators (psychological safety, belonging) and extrinsic reinforcements (equal pay, parental benefits). In Assam's telecom sector, female participation remains comparatively low in technical and managerial roles, making inclusive practices particularly impactful. Measures such as flexible schedules, childcare support, and transparent promotion systems create a supportive ecosystem that motivates employees across genders. Intrinsically, inclusive workplaces nurture collaboration and innovation; extrinsically, they reinforce fairness and stability. Together, these outcomes enhance productivity and retention across the sector.

3.11 Interaction of Intrinsic and Extrinsic Rewards in Enhancing Productivity

The reviewed literature suggests that intrinsic and extrinsic rewards are not isolated motivators but rather complementary forces that collectively influence employee productivity. The following conceptual framework summarizes this interaction within Assam's telecom industry context:



1. Extrinsic Rewards (Short-Term Drivers)

- **Components:** Salary, bonuses, incentives, allowances, health benefits, and job security.
- **Impact:**
 - Attract and retain talent in a competitive industry.
 - Provide immediate motivation for meeting sales and service targets.
 - Reduce dissatisfaction and financial stress.
- **Limitation:** Effects are often short-lived and may create compliance rather than commitment.

2. Intrinsic Rewards (Long-Term Drivers)

- **Components:** Recognition, meaningful work, autonomy, career growth opportunities, skill development, and inclusivity.
- **Impact:**
 - Enhance job satisfaction and psychological empowerment.
 - Build employee engagement, creativity, and innovation.
 - Sustain motivation beyond monetary compensation, reducing burnout.
- **Limitation:** Without adequate extrinsic support, intrinsic rewards alone may not overcome financial pressures.

3. Balanced Reward Systems (Synergistic Effect)

- **Integration:** A dual framework combining competitive compensation with recognition and development opportunities.
- **Impact:**
 - Generates both immediate performance gains (extrinsic) and long-term loyalty and productivity (intrinsic).
 - Enhances resilience in high-stress environments such as telecom operations in Assam.
 - Supports workforce stability despite regional challenges such as migration and limited career mobility.

4. Contextual Factors (Sector-Specific)

- High pressure and target-driven work culture in telecom intensifies the need for stress management and work-life balance.
- Rapid technological disruptions demand continuous upskilling (both a reward and necessity).
- Regional constraints such as limited career mobility and infrastructure gaps make recognition and career development critical for retention.

3.12 Summary of Literature Review

The reviewed literature underscores that in Assam's telecom industry, extrinsic rewards provide the foundation by reducing dissatisfaction and ensuring financial stability, while intrinsic rewards build deeper engagement, motivation, and long-term productivity. A balanced system, tailored to the sector's unique challenges, creates a sustainable workforce where employees are both motivated to achieve immediate goals and committed to organizational success over time.

4. Research Methodology

4.1 Research Design

This study adopts a qualitative, literature-based approach. Secondary data from academic journals, HRM books, industry reports, and government publications related to telecom employment in Assam were analyzed.

Given that Assam's telecom sector faces unique challenges due to its geographical constraints, workforce expectations, and industry competition, this research design helps assess how total rewards strategies have been applied in similar contexts across India. The study also identifies patterns, trends, and gaps in total rewards adoption within telecom organizations, providing a foundation for future empirical research.

4.2 Data Collection

The data for this research was collected from ten literature sources, which included:

- **Published books** on human resource management, compensation strategies, and employee engagement.
- **Peer-reviewed journal articles** focusing on total rewards frameworks, motivation theories, and workforce retention in India.
- **Industry reports** from national and international organizations analyzing HR trends in the telecom sector.
- **Government reports and policy documents** on employment and labor market trends in Assam.
- **Credible websites**, such as research portals, telecom industry insights, and HR management platforms.

The selection criteria ensured that the sources provided diverse perspectives, including both theoretical and practical applications of total rewards strategies. The focus was on studies conducted within India, particularly Assam to ensure contextual relevance.

4.3 Data Analysis

A thematic analysis was conducted to categorize findings into intrinsic and extrinsic reward categories, such as compensation, benefits, motivation, work-life balance, performance, career development, and recognition. These themes were analyzed in relation to their impact on employee retention and performance, with special attention to how they have been applied in Assam's telecom sector.

The study also identified potential gaps in existing research, highlighting areas where further investigation is required to develop industry-specific total rewards models.

This methodological approach ensures that the research provides evidence-based insights and recommendations that can be applied within Assam's telecom industry to improve employee productivity within Assam's telecom sector.

5. Findings and Analysis

The examination of total rewards strategies within Assam's telecom industry highlights a strong linkage between extrinsic and intrinsic rewards and overall employee productivity. Evidence from recent studies shows that organizations adopting holistic total rewards frameworks achieve not only higher performance but also reduced attrition and stronger engagement. In a sector marked, balanced reward portfolios become critical levers for sustaining workforce commitment. The following subsections detail the impact of extrinsic and intrinsic rewards, followed by comparative insights.

5.1 Impact of Impact of Extrinsic Rewards

- Competitive pay packages, travel allowances, and sales-linked incentives remain core motivators for telecom employees, particularly in frontline and customer-facing roles (*Das, 2021*).
- Firms introducing performance-linked pay schemes reported up to 22% gains in sales productivity, alongside improved SLA adherence (*Bhattacharya, 2023*).
- Nonetheless, studies caution that excessive reliance on monetary incentives fosters stress and short-term compliance, rather than enduring organizational commitment (*Gerhart, 2017*).

5.2 Impact of Intrinsic Rewards

- Recognition, structured career paths, and opportunities for skill mastery significantly enhance job satisfaction and employee loyalty (*Baruah & Dutta, 2019*).
- Telecom companies offering systematic recognition frameworks and leadership development initiatives achieved 18 - 25% higher productivity levels compared to peers (*Roy & Banerjee, 2022*).
- Intrinsic rewards particularly recognition and growth opportunities have been shown to mitigate burnout in high-pressure operational environments, thereby sustaining employee engagement over the long term (*Ryan & Deci, 2000*).

5.3 Comparative Insights

The overall findings resonate with *Herzberg's Motivation Hygiene Theory*, which distinguishes between hygiene factors (extrinsic rewards that prevent dissatisfaction) and motivators (intrinsic rewards that stimulate higher performance). In Assam's telecom sector, financial incentives are indispensable in an intensely competitive labor market; however, they alone cannot foster enduring commitment. Instead, career advancement opportunities, recognition, and meaningful job roles emerge as core drivers of sustained productivity, reinforcing the need for integrated total rewards strategies.

5.4 TRAI Insights & Research Implications

TRAI Data Point	Implication for Assam's Telecom Workforce
100% mobile coverage in Assam's border villages (2025)	Full coverage means telecom employees in Assam are operating in increasingly connected - and potentially more demanding - environments. This underscores the need for both extrinsic rewards (to manage pressure) and intrinsic support (to maintain engagement and well-being).
Over 1.17 billion wireless subscribers in India (2025)	While the national scale reflects massive expansion and competitive pressures, frontline telecom staff in Assam likely face higher performance expectations - reinforcing the argument for structured reward systems to sustain productivity.
National Broadband Mission 2.0 goals (2025–30): Fiber to 270K villages; 100 Mbps target	Scaling up infrastructure elevates the complexity of telecom work and heightens demands on employees' skills and adaptability - highlighting why intrinsic rewards like training, recognition, and autonomy matter even more.

6. Discussion

The results of this study strongly reinforce Herzberg's motivation hygiene theory (*Herzberg, Mausner, & Snyderman, 1959/2017*), which distinguishes between extrinsic "hygiene factors" and intrinsic "true motivators." In Assam's telecom industry, extrinsic rewards such as salary, bonuses, allowances, and performance-linked incentives function primarily as hygiene factors. These rewards are crucial in reducing dissatisfaction and maintaining a baseline perception of fairness in a highly competitive labor market. However, they rarely cultivate enduring commitment. Employees motivated solely by financial compensation often exhibit compliance- oriented behaviors, producing temporary performance gains but falling short of sustained loyalty or engagement (*Gerhart, 2017*). Conversely, intrinsic rewards emerge as the principal drivers of long-term productivity. Opportunities for career progression, skill development, recognition, and meaningful work provide employees with deeper purpose and psychological fulfillment. In Assam, where telecom employees face demanding work conditions, extended travel requirements, and comparatively limited career mobility relative to metro hubs, these intrinsic motivators become especially salient. Organizations that invest in structured recognition frameworks, mentorship, and professional growth pathways are better positioned to enhance retention and commitment.

The findings therefore highlight the necessity of a balanced total rewards approach, one that combines extrinsic hygiene factors with intrinsic motivators. Such integration not only sustains productivity but also builds resilience, engagement, and workforce stability in Assam's telecom sector.

7. Conclusion and Recommendations

7.1 Conclusions

This study concludes that both intrinsic and extrinsic rewards significantly influence employee productivity, albeit through distinct mechanisms. Extrinsic factors such as competitive pay, allowances, incentives, and benefits are indispensable in attracting and retaining talent, while also alleviating financial insecurity. These are particularly important in telecom, where attrition often results from competitors offering marginally better financial packages. However, their motivational effect is generally short-term and insufficient to foster sustained commitment.

Intrinsic rewards, by contrast, emerge as powerful long-term motivators. Recognition, autonomy, career advancement opportunities, and meaningful work instill a sense of purpose and belonging that financial compensation alone cannot deliver. In Assam's high-pressure telecom environment characterized by demanding SLAs, customer-service intensity, and constrained mobility such intrinsic motivators are critical to maintaining engagement and reducing turnover.

The study therefore reaffirms that a balanced total rewards strategy is not optional but essential. When extrinsic hygiene factors are reliably provided and coupled with intrinsic motivators, organizations can foster resilience, reduce attrition, and sustain productivity over the long term.

7.2 Recommendations

To enhance productivity in Assam's telecom sector, organizations should adopt an integrated total rewards model that strategically combines intrinsic and extrinsic motivators. Specific recommendations include:

- 1. Strengthen Compensation Structures:** Ensure pay packages are benchmarked against industry standards. Introduce transparent performance-linked pay and loyalty rewards to mitigate high attrition. Conduct regular appraisals and salary audits to maintain fairness.
- 2. Enhance Benefits and Work-Life Balance:** Offer comprehensive health coverage, family-support programs, and flexible leave policies. Introduce wellness initiatives—such as stress management workshops, counselling, and flexible scheduling—to address the pressure of telecom roles in Assam.
- 3. Prioritize Career Development:** Develop structured training curricula, mentorship programs, and leadership pipelines. Provide continuous learning opportunities, certifications, and transparent promotion pathways to reduce outmigration to metro cities.
- 4. Expand Recognition Systems:** Implement multi-tier recognition frameworks (peer-to-peer, manager-driven, and organizational-level). Publicly celebrate achievements, reward innovation, and create digital recognition platforms to reinforce intrinsic satisfaction.
- 5. Foster Inclusivity and Engagement:** Establish inclusive policies that promote gender equity, transparency in decision-making, and employee involvement in strategy. Encourage participative forums to strengthen belonging and psychological safety among diverse employee groups.

By institutionalizing these practices, telecom organizations in Assam can build sustainable engagement, improve productivity, and enhance organizational resilience in a rapidly evolving industry.

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