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Development of an Incentive Model to Enhance the Performance of Student Apartment Management in Nanning University, China

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Abstract

Student apartment management is a key support system for students' well-being and learning in higher education institutions. At Nanning University, increasing student enrollment has intensified management complexity, while existing practices lack effective incentive mechanisms to enhance staff performance. This study aims to 1) examine the current performance status and problems of student apartment managers at Nanning University 2) develop an incentive model aimed at enhancing the performance of student apartment managers at Nanning University and 3) implement and evaluate the effectiveness of the proposed incentive model in enhancing the performance of student apartment managers at Nanning University. A mixed-methods research design was employed. Quantitative data were collected from student apartment managers using a structured questionnaire and analyzed using descriptive statistics across five dimensions. Qualitative data were obtained through in-depth interviews and focus group discussions with managers and administrators to enrich and validate the quantitative findings. Results: 1) Student apartment managers demonstrated a high level of performance across five dimensions: job responsibility and accountability, communication and coordination, problem-solving and decision-making, professional development and work motivation, and service quality and student support; however, moderate-level problems were identified across all dimensions, indicating organizational and motivational constraints.2) Based on these findings, four incentive models were developed: Financial Incentive, Career Development and Professional Growth, Recognition and Social Incentive, and Work Environment and Psychological Incentive models. 3) The implementation and evaluation results confirmed that the proposed incentive models effectively enhanced managerial performance, motivation, and service quality.

Keywords: Incentive Model, Student Apartment Management, Performance Enhancement, Higher Education, China

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Introduction

Student apartment management is a critical component of higher education administration, as it directly influences students' living conditions, well-being, and academic engagement. Previous research has consistently shown that the quality of student housing management is closely associated with student satisfaction, psychological well-being, and learning outcomes (Kim & Park, 2022; Xu et al., 2025). As universities increasingly emphasize student-centered services, effective student apartment management has become an important indicator of institutional quality and service competitiveness (Zhang & Liu, 2022).

In the context of Chinese higher education, rapid expansion in student enrollment and large-scale campus development have significantly increased the complexity of student apartment management. Many universities continue to rely on traditional administrative approaches that prioritize routine operations and regulatory compliance, while giving limited attention to staff motivation, performance incentives, and systematic service quality improvement (Wang et al., 2023). Consequently, student apartment managers often face challenges such as inconsistent performance standards, limited professional development opportunities, and low work motivation, which adversely affect management efficiency and responsiveness to student needs (Sun & Zhao, 2024).

At Nanning University, institutional reports and internal management practices indicate similar challenges, particularly regarding performance consistency among apartment managers, staff engagement, and alignment with students' evolving expectations for residential services. Research has shown that the absence of structured incentive mechanisms can weaken employee commitment and reduce proactive service improvement in higher education service units (Herzberg, 2020; Chen & Li, 2021). As a result, operational inefficiencies and student dissatisfaction may emerge. Moreover, existing studies on student housing have largely focused on residential environments and student satisfaction, while empirical research examining incentive-based performance enhancement models for student apartment managers especially within the Chinese university context remains limited (Liu et al., 2023).

This study addresses this research gap by proposing and empirically testing a comprehensive incentive model tailored to student apartment management at Nanning University. Unlike conventional administrative approaches, the proposed model integrates financial, career development, social recognition, and psychological incentives to enhance managerial performance, drawing on contemporary motivation and performance management theories (Bakker & Demerouti, 2022). By systematically examining performance status, developing an incentive framework, and evaluating its effectiveness in practice, this study aims to contribute new empirical evidence and practical guidance for improving student apartment management and supporting sustainable development in higher education institutions.

Research Objectives

1. To examine the current performance status and problems of student apartment managers at Nanning University.
2. To develop an incentive model aimed at enhancing the performance of student apartment managers at Nanning University.
3. To implement and evaluate the effectiveness of the proposed incentive model in enhancing the performance of student apartment managers at Nanning University.

Scope of the Research[

This research focuses on the development of an incentive model to enhance the performance of student apartment managers at Nanning University, China. The scope of the research is as follows.

Content Scope

The study examines the current performance status and problems of student apartment management, as well as incentive factors affecting performance. It also includes the development, implementation, and evaluation of an incentive model consisting of material and non-material incentives, professional development, and performance evaluation.

Population and Sample

The population of this study includes student apartment managers, related administrators, and students living in student apartments at Nanning University. The sample was selected in accordance with the research objectives.

Area and Time Scope

The research was conducted in student apartments at Nanning University, China, during the period specified in the research plan.

Literature Review

Student Apartment Management in Higher Education

Student apartment management is widely recognized as a vital sLupport system in higher education institutions, as it directly affects students' quality of life, safety, well-being, and academic engagement. Recent studies emphasize that effective management of student housing contributes to higher student satisfaction, stronger sense of belonging, and improved academic outcomes (Kim & Park, 2022; Xu et al., 2025). As universities increasingly adopt student-centered approaches, student apartment management has shifted from routine administration toward service-oriented and performance-based management models (Altinay et al, 2024).

In the context of Chinese higher education, student apartment management faces distinctive challenges due to large student populations, centralized administrative structures, and rapid campus expansion. Research indicates that many universities continue to rely on traditional bureaucratic management practices, which often limit flexibility, innovation, and staff motivation (Wang et al., 2021). These challenges are particularly evident in regional universities in southern China, where student apartment managers are required to handle high workloads with limited incentives and professional development opportunities (Zhang & Liu, 2022).

Performance of Student Apartment Managers

Performance in student apartment management refers to the ability of managers to deliver efficient services, maintain facilities, ensure safety, and respond effectively to student needs. Studies conducted between 2020 and 2025 reveal that management performance is strongly influenced by organizational support, clarity of roles, evaluation systems, and motivational factors (Sun & Zhao, 2024; Zhang et al., 2023). When performance expectations are unclear or evaluation criteria are inconsistent, staff motivation and service quality tend to decline.

In Chinese universities, performance assessment of student apartment managers is often based on compliance with regulations rather than service outcomes and student satisfaction. This approach may lead to passive work behaviors and limited initiative for service improvement (Li & Chen, 2023). Consequently, improving performance requires not only structural reforms but also the introduction of incentive mechanisms that align individual performance with institutional goals.

Incentive Models and Motivation Theory

Incentive models are grounded in motivation theories, including Herzberg's two-factor theory, expectancy theory, and contemporary performance management frameworks. Recent literature emphasizes that effective incentive systems should integrate both material and non-material incentives to address diverse motivational needs (Herzberg, 2020). Material incentives such as bonuses and welfare benefits can enhance short-term motivation, while non-material incentives including recognition, career advancement, and professional development contribute to long-term commitment and job satisfaction (Sun & Zhao, 2024).

Empirical studies in educational and public-sector organizations suggest that incentive models combining performance-based rewards, training opportunities, and participatory management lead to significant improvements in employee performance and service quality (Altinay et al., 2024; Zhang et al., 2023). In the context of student apartment management, participatory evaluation systems that incorporate feedback from students have been shown to enhance transparency, accountability, and staff engagement (Kim & Park, 2022).

Incentive Models in the Context of Chinese Universities

Recent research highlights the need for context-specific incentive models tailored to Chinese universities. Due to hierarchical administrative systems and limited promotion pathways, student apartment managers often perceive low career prospects, which negatively affects motivation and performance (Wang et al., 2021; Zhang & Liu, 2022). Studies conducted after 2020 emphasize that incentive models in Chinese higher education should focus on professionalization, continuous training, and fair performance evaluation to achieve sustainable improvements (Li & Chen, 2023; Xu et al., 2025).

However, existing studies tend to examine incentive mechanisms or performance issues separately, with limited empirical research integrating incentive model development, implementation, and evaluation specifically for student apartment management. This gap highlights the necessity of developing and testing an incentive model that aligns with the organizational context, management structure, and practical needs of universities such as Nanning University.

Research Gap

Based on the reviewed literature, it is evident that while incentive mechanisms and performance management have been widely studied, limited research focuses specifically on developing and empirically validating incentive models for student apartment managers in Chinese universities. Moreover, few studies incorporate implementation and evaluation phases to assess the effectiveness of such models in real institutional settings. Therefore, this study seeks to address this gap by developing, implementing, and evaluating an incentive model to enhance the performance of student apartment managers at Nanning University.

Conceptual Framework

This research is grounded in motivation and performance management theories. The conceptual framework illustrates the relationship between incentive factors and the performance of student apartment managers

The Conceptual Framework was shown on Figure 1.

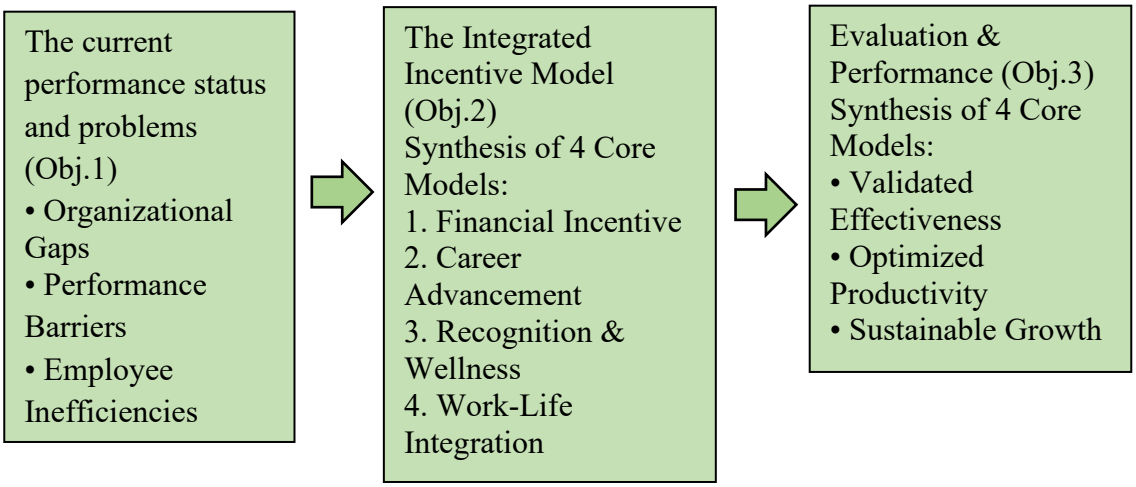


Figure 1: Conceptual Framework

Research Methodology

Research Design

This study employed a **mixed-methods research design**, integrating quantitative and qualitative approaches to comprehensively examine the performance of student apartment managers and to develop and evaluate an incentive model at Nanning University, China. The mixed-methods approach enabled data triangulation and enhanced the validity of the research findings.

Population and Sample

The research population consisted of student apartment managers, university administrators responsible for apartment management, and students residing in university apartments at Nanning University.

Purposive sampling was used to select student apartment managers and administrators who were directly involved in apartment operations and policy implementation. Stratified sampling was applied to select student participants from different apartment buildings to ensure representation of diverse residential contexts.

Research Instruments

Two research instruments were employed:

1. Questionnaire

A structured questionnaire was used to collect quantitative data on management performance, incentive factors, job motivation, and service quality. Responses were measured using a five-point Likert scale.

2. Interview Guidelines

Semi-structured interview guidelines were developed to obtain qualitative data regarding management challenges, motivational needs, and perceptions of incentive mechanisms. Interviews were conducted with selected managers and administrators.

Data Collection

Data collection was conducted in four stages:

(1) preliminary review of relevant literature and institutional documents;

(2) administration of questionnaires to student apartment managers and students;

(3) semi-structured interviews with managers and administrators; and
(4) pilot implementation and evaluation of the developed incentive model.

Data Analysis

Quantitative data were analyzed using **descriptive statistics** to summarize performance levels, incentive factors, and service quality. Comparative analyses were conducted to examine changes before and after the implementation of the incentive model.

Qualitative data were analyzed using **thematic analysis** to identify key themes related to performance challenges, incentive mechanisms, and management improvement. Findings from both methods were integrated to support comprehensive interpretation.

Data Validity and Reliability

Content validity of the questionnaire was established through expert review, and reliability was assessed through a pilot test. Data triangulation was applied by comparing quantitative and qualitative findings, and member checking was used to enhance the credibility of interview interpretations.

Results

The research findings are presented in accordance with the three research objectives as follows.

Objective 1: **Current Performance Status and Problems of Student Apartment Managers**

The findings indicate that the overall performance of student apartment managers at Nanning University was at **a high level** across five dimensions: job responsibility and accountability, communication and coordination, problem-solving and decision-making, professional development and work motivation, and service quality and student support.

Despite the high performance levels**, moderate-level problems** were identified in all dimensions. These problems were mainly related to unclear job roles, heavy workloads, limited decision-making authority, insufficient training opportunities, inadequate recognition, and constraints in service delivery caused by large student populations and limited resources.

The integration of quantitative and qualitative findings confirms that organizational, structural, and motivational factors restrict further performance improvement. These results highlight the need for a systematic incentive mechanism to address existing problems and enhance sustainable performance.

Objective 2: **Results of the Development of Incentive Models**

Based on the identified performance status and problems, **four incentive models** were developed to enhance the performance of student apartment managers at Nanning University.

The **Financial Incentive Model** focuses on performance-based rewards linked to clear performance indicators, such as service quality, workload responsibility, and problem resolution outcomes.

The **Career Development and Professional Growth Model** emphasizes continuous training, transparent promotion criteria, and professional skill development to support long-term motivation and performance sustainability.

The **Recognition and Social Incentive Model** aims to strengthen motivation and organizational commitment through formal recognition, awards, and social acknowledgment.

The **Work Environment and Psychological Incentive Model** addresses workload

management, psychological well-being, welfare support, and flexible working arrangements to improve job satisfaction and service effectiveness. The findings suggest that combining financial and non-financial incentives is essential for addressing diverse motivational needs and enhancing overall management performance.

Objective 3: Results of the Implementation and Evaluation of the Incentive Models

The four incentive models were implemented in an integrated manner on a pilot basis. The evaluation results demonstrate that the incentive models had a **positive impact** on managerial performance, motivation, and service quality. Post-implementation assessments revealed improvements in responsibility, communication, problem-solving ability, work motivation, and service quality. Financial incentives enhanced accountability and efficiency, while career development initiatives improved professional competence and long-term motivation. Recognition-based incentives strengthened morale, teamwork, and organizational commitment. Improvements in the work environment and psychological support contributed to reduced stress, higher job satisfaction, and more sustainable performance.

Overall, the evaluation confirms that the integrated incentive models effectively enhanced the performance of student apartment managers and improved the quality of student apartment management at Nanning University.

Discussion

This section discusses the research findings in relation to the three research objectives. The discussion integrates quantitative and qualitative results, interprets the findings through relevant theoretical perspectives, and compares them with recent empirical studies (2020–2025). The discussion is organized according to the research objectives to ensure clarity and alignment with the study framework.

Objective 1: Current Performance Status and Problems of Student Apartment Managers

The discussion of Objective 1 is structured around the five performance dimensions identified in the findings. Overall, the results indicate a pattern of high performance levels coexisting with moderate operational problems, suggesting that student apartment managers demonstrate strong professional commitment despite structural and organizational constraints.

1. Job Responsibility and Accountability

The findings indicate that student apartment managers exhibit a high level of responsibility and accountability, even though moderate problems related to unclear responsibilities and weak monitoring mechanisms remain. This suggests that managers are driven by a strong sense of duty rather than formal control systems alone.

This result can be explained by Role Theory, which proposes that individuals maintain responsible behavior when they internalize role expectations and perceive their roles as meaningful, even in the presence of role ambiguity (Kahn et al., 2020). In the university context, apartment managers often perceive themselves as guardians of student safety and discipline, reinforcing responsible performance. However, consistent with recent studies in higher education administration, unclear job descriptions and overlapping responsibilities may undermine long-term accountability if not systematically addressed (Chen & Li, 2021).

2. Communication and Coordination

The findings reveal that communication and coordination are generally effective in routine operations, while moderate problems persist in cross-unit collaboration and feedback processes. This indicates that communication is functional but structurally constrained.

From the perspective of Institutional Theory, formal and hierarchical communication systems enhance stability and control but may limit flexibility and horizontal interaction (Scott, 2021). Similar patterns have been reported in higher education service organizations, where reliance on formal channels reduces responsiveness and interdepartmental coordination (Wang et al., 2023). These findings suggest that without more participatory and collaborative communication mechanisms, coordination efficiency may remain limited.

3. Problem-Solving and Decision-Making

The results show that student apartment managers are capable of solving routine problems effectively, while facing moderate constraints in complex decision-making situations. This reflects adequate individual competence but limited organizational empowerment. This finding aligns with **Empowerment Theory**, which emphasizes that effective decision-making depends not only on skills and experience but also on delegated authority and access to resources (Spreitzer, 2020). Consistent with previous research in campus housing management, hierarchical approval processes were found to restrict timely responses, even when managers possess sufficient expertise (Zhang et al., 2022; Liu et al., 2023). Enhancing managerial autonomy is therefore critical for improving proactive problem-solving.

4. Professional Development and Work Motivation

The findings indicate high levels of work motivation alongside moderate problems related to professional development opportunities. This suggests that motivation is largely intrinsic, but institutional support mechanisms remain insufficient. According to Self-Determination Theory, intrinsic motivation can sustain performance when individuals find their work meaningful and socially valuable (Ryan & Deci, 2020). However, the absence of structured training, career pathways, and advancement opportunities reflects a lack of key motivators identified in **Herzberg's Two-Factor Theory** (Alshmemri et al., 2020). Recent studies confirm that insufficient professional development limits long-term motivation and retention among university staff (Chen et al., 2024).

5. Service Quality and Student Support

The results demonstrate that student apartment managers maintain high service quality and strong commitment to student support, despite moderate operational challenges. This indicates a service-oriented professional culture under conditions of high workload.

This pattern is consistent with the **Job Demands–Resources (JD-R) Model**, which explains that high job demands combined with limited resources place sustained pressure on service providers (Bakker & Demerouti, 2022). Similar findings have been reported in higher education student services, highlighting risks related to burnout and service sustainability when resource constraints persist (Li et al., 2024).

Objective 2: Results of Development of Incentive Models to Enhance Performance

The discussion of Objective 2 focuses on the rationale and theoretical grounding of the four incentive models developed in this study. The models reflect the empirical findings from Objective 1 and emphasize the need for a multidimensional incentive system to address both performance strengths and structural weaknesses.

Model 1: Financial Incentive Model

The Financial Incentive Model emphasizes monetary rewards such as salary adjustments, bonuses, and welfare benefits. This model is grounded in Expectancy Theory, which suggests that motivation increases when employees perceive a clear linkage between

effort, performance, and rewards (Lunenburg, 2021).Consistent with recent empirical studies, financial incentives remain a significant motivator in operational and service-oriented roles within higher education institutions (Li & Zhao, 2023). In this study, financial incentives were identified as essential for recognizing workload intensity and reinforcing accountability.

Model 2: Career Development and Professional Growth Model

This model focuses on training, skill development, and structured career pathways, drawing on Human Capital Theory, which emphasizes investment in employee development as a driver of organizational performance (Chen et al., 2024). Recent studies indicate that continuous professional development enhances motivation, competence, and job performance among university support staff (Huang et al., 2022; Zhang et al., 2024). Linking training opportunities to promotion and career advancement was found to be particularly effective in sustaining long-term motivation.

Model 3: Recognition and Social Incentive Model

The Recognition and Social Incentive Model highlights non-financial rewards such as praise, awards, and public acknowledgment. This model aligns with **Herzberg's Two-Factor Theory**, which identifies recognition as a key motivator that enhances job satisfaction and performance (Alshmemri et al., 2020).Empirical evidence suggests that recognition-based incentives strengthen employee engagement and organizational commitment in higher education settings (Kim & Park, 2021). In student apartment management, such incentives foster professional identity and a sense of belonging.

Model 4: Work Environment and Psychological Incentive Model

This model emphasizes improvements in working conditions, psychological well-being, and work-life balance, consistent with the **JD-R Model** (Bakker & Demerouti, 2022). Recent studies confirm that supportive work environments and psychological incentives reduce burnout and improve service quality among university staff (Li et al., 2024). The findings of this study reinforce the importance of psychological safety and environmental support in sustaining performance.

Objective 3: Results of Implementation and Evaluation of the Incentive Models

The discussion of Objective 3 focuses on the outcomes of implementing and evaluating the incentive models within the student apartment management context.

Results of Implementation

The implementation of the four incentive models led to observable improvements in managerial performance, motivation, and service practices. These results are consistent with Change Management Theory, which emphasizes that effective organizational change requires attention to both structural systems and human motivation (Kotter, 2020).Furthermore, the findings support **Systems Theory**, which suggests that performance improvement is maximized when organizational subsystems—such as rewards, training, recognition, and work environment are aligned and mutually reinforcing (Scott, 2021).Results of Evaluation

The evaluation results confirm that all four incentive models positively contributed to performance enhancement across key dimensions, including responsibility, communication, problem-solving, motivation, and service quality. This aligns with **Outcome Evaluation Theory**, which emphasizes assessing effectiveness through measurable outcomes and stakeholder perceptions (Rossi et al., 2021).

In addition, the findings are consistent with **Expectancy Theory**, as clear performance indicators and transparent evaluation criteria strengthened managers' confidence in the incentive system (Lunenburg, 2021). If maintained and refined, these incentive models have strong potential to support sustainable performance improvement in university apartment management

Conclusion and Recommendations

This study revealed that student apartment managers at Nanning University exhibited high performance across key dimensions despite facing moderate organizational challenges, which differs from previous studies that often report lower performance under similar conditions. Based on these findings, four integrated incentive models : financial, career development and professional growth, recognition and social incentives, and work environment and psychological incentives were developed to address both material and non-material needs. The implementation and evaluation results demonstrated that the integrated incentive framework effectively enhanced managerial performance, motivation, and service quality, highlighting its value as a sustainable approach to improving student apartment management in the university context.

Recommendations 1) Policy Implications Universities should establish a clear incentive policy for student apartment management that integrates financial and non-financial incentives. Emphasis should be placed on transparent performance evaluation, role clarity, and accountability to support sustainable management performance. **2) Practical Implications** The implementation of incentive models should combine financial rewards, professional development, recognition, and supportive work environments. Clear performance indicators, regular feedback, and adequate decision-making authority are essential to enhance motivation and service effectiveness. **3) Recommendations for Future Research** Future research should explore the long-term effects of incentive models and conduct comparative or longitudinal studies across different university contexts to strengthen the generalizability of findings.

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