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# Asset Management Efficiency and Teachers' Satisfaction with Educational Facilities in a Selected School in Yunnan, China

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Abstract: This study investigates the relationship between asset management efficiency and teachers' satisfaction with educational facilities at Kunming University of Media and Communication in Yunnan, China. Utilizing a descriptive-comparative-correlational design, data were collected from 242 teachers through a structured questionnaire assessing their perceptions of resource availability, maintenance, allocation, and their resultant satisfaction with facilities. Findings indicate that teachers generally perceive asset management as effective and report satisfactory facility conditions. A significant positive correlation was identified between sustainability practices and teacher satisfaction. While demographic factors like age and gender showed no significant impact on these perceptions, the study concludes that efficient, sustainable asset management is integral to fostering a supportive educational environment. The results provide a basis for developing targeted programs to enhance resource allocation and maintenance protocols, thereby improving overall teacher satisfaction and educational outcomes.

Keywords: Asset Management Efficiency, Educational Facilities, Resource Allocation, Teacher Satisfaction

#### Introduction

Effective asset management in schools plays a crucial role in shaping the educational environment and directly impacts teachers' satisfaction with facilities. Schools with efficient asset management systems ensure that resources, equipment, and facilities are maintained and allocated appropriately, fostering a productive teaching and learning atmosphere. Recent studies emphasize the importance of streamlined asset management practices in achieving teacher satisfaction and improved educational outcomes (Gutiérrez & Navarro, 2021; Khomson & Thavorn, 2023). Teachers' satisfaction with educational facilities is closely linked to their perception of the adequacy and functionality of resources. A study by Vargas and Bonilla (2022) revealed that schools with modern, well-maintained facilities reported higher levels of teacher engagement and job satisfaction. Similarly, research conducted by Panich & Wirat (2021) highlighted the positive correlation between resource availability and teachers' motivation.

Effective school asset management is a cornerstone of providing high-quality education. Educational institutions rely on a systematic approach to managing their assets to meet the growing demands of teaching and learning. Teachers, as key stakeholders, are directly impacted by the condition and management of these assets. Their satisfaction reflects the success of asset management practices, ensuring assets are not only available but also optimally utilized, directly impacting education quality (Shakir & Ahmad, 2021). This is gaining increasing attention in educational reforms. A study in Jordan by Kanaan and Zahran (2022) showed that the adequacy and maintenance of school facilities were significant predictors of teacher job satisfaction and commitment, highlighting the importance of aligning management practices with stakeholder needs.

The general principles linking asset management to teacher satisfaction are established in the literature, but a significant gap exists in understanding this relationship within specific regional and institutional contexts, particularly in China. Most existing research, such as that conducted in Jordan (Kanaan & Zahran, 2022) or focusing on South American schools (Gutiérrez & Navarro, 2021), offers insights from different cultural and administrative frameworks. There is a lack of empirical, on-the-ground investigation into how the efficiency of asset management—across its dimensions of availability, maintenance, allocation, and sustainability—is perceived by teachers in Chinese higher education institutions and how these perceptions directly correlate with their satisfaction with facilities. This study aims to address this gap by examining this relationship at a selected university in Yunnan, China, to provide contextualized insights for improving local asset management strategies.

# Literature Review

Effective school resource management refers to the extent to which management objectives are achieved and existing resources (such as staff, teachers, and infrastructure) are used to achieve school goals. This ensures that the school's outputs benefit the broader community and create a conducive learning environment (Nurkolis & Sulisworo, 2018). A nation striving for progress must have high-quality education, as it is crucial for developing human capital (Rafiei & Davari, 2015; Prestiana & Sugito, 2021; Qutni et al., 2021). Focusing on educational outcomes, the goal is to improve

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educational quality. In education, effective human resource management (HRM) is crucial for organizing, managing, and effectively utilizing teachers to achieve institutional goals. To achieve organizational goals, HRM provides a framework for maximizing individual contributions (Silva & Lima, 2018; Boon et al., 2019). By recognizing human resources as a critical asset that needs to be carefully and strategically managed according to organizational needs, particularly in the education sector, HRM seeks to optimize individual productive inputs. Education has a significant impact on human resource development and ultimately a country's economic growth (Rahmi et al., 2020). In Indonesia, the government is collaborating with communities and the business sector to improve educational standards and equity. The correlation between student achievement and graduate output and societal needs suggests that these efforts are focused on improving educational outcomes (Sumiati and Ahmad, 2021). Student performance is often linked to school management, including human resource profiles, learning materials, and environmental factors.

A nation's dignity and human potential can be enhanced through education, as evidenced by the academic achievements of its people. Despite numerous initiatives aimed at improving educational standards, problems such as underachievement persist at all levels (Hasudungan and Kurniawan, 2018). Law No. 20 of 2003 on the National Education System and Law No. 14 of 2005 on Teachers and Lecturers are two key pieces of legislation that set requirements for teacher competencies and management skills. Human resource management continues to be a cornerstone of improving educational quality by addressing planning, organization, leadership, and control to enhance productivity and drive long-term success (Nababan et al., 2022). Human resource planning is crucial in order to effectively identify resource requirements and ensure that corporate goals are achieved (Dedi et al., 2021).

# Statement of problems

This study will explore the relationship between asset management efficiency and teacher satisfaction with their school's educational facilities.

The findings will inform plans to improve facility access and equity.

Specifically, this study will answer the following questions:

- 1. The demographic characteristics of the teacher respondents are as follows:
- 1.1. Gender;
- 1.2. Age;
- 1.3. Education;
- 1.4. Years of Service;
- 2. How do the teachers rate their school's asset management efficiency?
- 2.1. Resource Availability;
- 2.2. Asset Care and Maintenance;
- 2.3. Allocation and Distribution;
- 2.4. Resource Utilization:
- 2.5. Sustainability Practices
- 3. Are there significant differences in the teacher's evaluation of their school's asset management efficiency when grouped by their characteristics?
- 4. How do the teachers rate their school's educational facilities? These evaluations were based on the following aspects:
- 4.1. Adequacy of facilities;
- 4.2. Functionality and maintenance;
- 4.3. Availability of dedicated spaces;
- 4.4. Support for inclusive and innovative teaching; and
- 4.5. Conformity with professional expectations.
- 5. Are there significant differences in self-assessed satisfaction with school facilities among teachers grouped according to their profile?
- 6. Is there a significant relationship between teachers' assessment of the efficiency of school asset management and their satisfaction with school facilities?

#### Research Design

This study employed descriptive, comparative, and correlational research methods, characterized by clear definitions, meticulous documentation, comprehensive analysis, and a deep understanding of contextual

interactions. According to Alvarez and Pereira (2024), descriptive research seeks to systematically identify and examine the essential characteristics, behaviors, and properties of a phenomenon within its natural context. Its primary goal is to construct a detailed profile of a specific entity or gain an in-depth understanding of its current state, thereby laying a solid foundation for future research.

This study aimed to investigate teachers' assessments of asset management efficiency and their self-assessments of satisfaction with their school's educational facilities.

This research method enabled the researchers to conduct numerical, comparative, and correlational analyses of the relationships between the dependent variables involved in the study.

#### **Research Location**

This study was conducted at Kunming University of Media and Communication (formerly Wenhua College, Yunnan Arts Institute) in Yunnan Province, China. Kunming University of Media and Communication (formerly Wenhua College, Yunnan Arts Institute) is a general undergraduate institution approved by the Ministry of Education. The university currently has 12,148 students and 650 faculty members, including 602 full-time faculty and 48 part-time faculty.

#### Sampling Method

The 242 faculty respondents for this study will be drawn from the 650 faculty members at Kunming University of Media and Communication in Yunnan Province, China. Stratified random sampling will be used to select the faculty respondents. Stratified random sampling is a sampling method that divides the population into smaller groups, called strata. In stratified purposive sampling, or stratified sampling, strata are formed based on shared attributes or characteristics. To calculate the required number of respondents, at least 242 faculty members were randomly selected from the 650 faculty members at Kunming University of Media and Communication in Yunnan Province, China, using a 5% margin of error.

#### **Research Instruments**

After collecting the required data, researchers will develop a self-designed questionnaire to investigate teacher respondents' assessments of their school's asset management effectiveness and their self-assessment of their satisfaction with their school's educational facilities.

The questionnaire will be administered face-to-face or on-site.

The questionnaire consists of the following sections:

Part I: This section identifies the demographic information of the teachers surveyed.

Part II: This section identifies the teachers' assessments of their school's asset management effectiveness.

Part III: This section identifies the teachers' satisfaction with their school's educational facilities.

The adapted questionnaire and the researcher-developed questionnaire will undergo content validation by experts in the research field. The experts' suggestions will be incorporated into the questionnaire.

The questionnaire will be submitted to at least five experts for face-to-face validation. A preliminary test will be conducted to assess reliability. This pre-test will be calculated using Cronbach's alpha in the Statistical Package for the Social Sciences (SPSS). Researchers welcome suggestions from experts and will make necessary revisions to ensure the validity of the instrument. The overall reliability of the questionnaire was Cronbach's Alpha = 0.941, indicating that the results of all items were very consistent. The reliability test results showed that the research instrument was statistically reliable.

# **Ethical Considerations**

#### 1. Conflict of Interest

The researchers for this study will ensure that there are no conflicts of interest. The researchers will explain the purpose of this study in detail and clearly to the selected respondents. The researchers must also adhere to the purpose of collecting personal information and data. All collected data must not be used for any form of exploitation of the respondents. The researchers must adhere to the goals and objectives of the study.

### 2. Privacy and Confidentiality

Before conducting this study, the researchers will assure the respondents that all collected information will remain confidential and that the results will not be disclosed to anyone other than the researchers and the individuals completing the questionnaires. The researchers will not mention the respondents' names when providing the collected data to protect their privacy. The respondents' identities will remain anonymous and will not contain any clues or hints that could lead to their connection or association.

# 3. Informed Consent Process

Before administering the questionnaire, the researchers will obtain an informed consent form confirming that the respondents understand the purpose and objectives of the study and agree that the data collected will enhance the researchers' research findings. The researchers will ensure that all information is explained clearly and comprehensively to the respondents, without any deception. Furthermore, the researchers will discuss the process of participating in this study and any potential risks.

# 4. Recruitment

The participants in this study are physical education teachers. Participants have the right to freely exercise their right to consent or withhold consent. Participants will not be coerced into participating and have the right to refuse participation at any time.

#### 5. Risks

The researchers will ensure that participation in this study is risk-free. Participants will ensure that any data and information collected will not harm their life or reputation. Participants have the right to stop asking questions at any time if they feel harassed, the questions are too personal, or intrusive.

#### Results and Discussion

# Profile of the Respondents

In terms of age, 3 teachers (approximately 1.2%) were between 25 and 30 years old. 12 teachers (approximately 4.8%) were between 31 and 35 years old, and 25 teachers (approximately 10%) were between 36 and 40 years old. 60 teachers (approximately 24%) were between 41 and 45 years old, while the largest group, 150 teachers (approximately 60%), were between 46 and 50 years old. This means that the majority of teachers surveyed were between 46 and 50 years old. This suggests that most of the teachers surveyed are in the later stages of their careers, likely possessing extensive experience and greater maturity.

In terms of gender, 128 teachers (approximately 51.2%) were male, and 122 teachers (approximately 48.8%) were female. This means that the majority of teachers surveyed were male. This indicates a relatively balanced gender composition, with a slight preponderance of male teachers.

In terms of educational attainment, 100 teachers (approximately 40%) held a bachelor's degree. 62 (approximately 24.8%) respondents had completed master's degree programs, and 50 (approximately 20%) had master's degrees. 25 (approximately 10%) had completed doctoral programs, and 13 (approximately 5.2%) held doctoral degrees. This suggests that the majority of surveyed faculty hold a bachelor's degree. This indicates that while many respondents are pursuing or have completed graduate and postgraduate programs, the majority remain at the undergraduate level, potentially indicating potential areas for career advancement.

In terms of years of service, 62 (approximately 24.8%) respondents had less than five years of service. 75 (approximately 30%) had between five and ten years of service, 50 (approximately 20%) had between 11 and 15 years, 38 (approximately 15.2%) had between 16 and 20 years, and 25 (approximately 10%) had over 20 years of service. This suggests that the majority of surveyed faculty have between five and ten years of teaching experience. This suggests that a large portion of the teaching workforce is in mid-career and may still be open to innovation and career development.

# Assessment of the Teacher Respondents of the AssetManagement Efficiency in their School on Availability of Resources

Question	Mean SD		Qualitative Description	Rank
1. The school provides sufficient resources for teaching and learning activities.	3.32	0.78	Agree	4
2. Classroom materials and equipment are readily available when needed.	3.37	0.74	Agree	1
3. The school ensures that teaching resources are available for all subject areas.	3.09	0.75	Agree	9
4. Teachers can easily access the resources they need to teach.	3.32	0.82	Agree	4
5. Adequate supply of textbooks, technology, and other learning materials.	2.93	0.82	Agree	10
6. There are sufficient resources for extracurricular activities.	3.37	0.76	Agree	1
7. The school regularly reviews its resource inventory to ensure adequate availability.	3.31	0.83	Agree	6
8. The school provides resources to address both student and teacher needs.	3.28	0.74	Agree	7
9. Teachers can rely on the availability of essential classroom tools and equipment.	3.26	0.77	Agree	8

10. The school ensures that resources for special education and diverse learning needs are available.	3.34	0.79	Agree	3
Composite Mean	3.26	0.6	Agree	

The highest-rated items, both rated 1, were "Are classroom materials and equipment readily available when needed?" and "Are resources needed for extracurricular activities readily available?", with an average score of 3.37. This indicates that teachers agree that their school does a good job of ensuring the availability of essential classroom and extracurricular resources. This reflects positively on the school's efforts in asset management, ensuring that commonly used resources are readily available when needed.

The lowest-rated item, rated 10, was "Adequate supply of textbooks, technology equipment, and other learning materials," with an average score of 2.93. While this is still qualitatively described as "agree," the lower average score indicates that teachers are relatively concerned about the adequacy of core teaching materials and technology resources, which are essential for effective teaching.

The overall average for this dimension was 3.26, which falls under the qualitative description of "agree," interpreted as "This is certainly the case in my school." This indicates that, overall, respondents believe their school's resources are adequate, although some areas—particularly the supply of textbooks and technology—could be improved to improve asset management efficiency.

Assessment of the Teacher Respondents of the Asset Management Efficiency in their School on Maintenance and Upkeep of Assets

Question	Mean	SD	Qualitative Description	Interpretation	Rank
1. The school that ensures teaching is well- and equipment maintained functional.	3.3	0.74	Agree	True of My School	5
2. There is a regular schedule for the maintenance of school facilities.	3.23	0.76	Agree	True of My School	8
3. The school promptly addresses repairs to damaged or worn-out resources.	3.31	0.79	Agree	True of My School	4
4. Classrooms and teaching spaces are properly maintained and conducive to learning.	3.32	0.73	Agree	True of My School	3
5. The school has a system in place for tracking and maintaining assets.	3.47	0.7	Agree	True of My School	1
6. Technology and digital equipment are regularly updated and serviced.	3.19	0.78	Agree	True of My School	9
7. The school ensures that outdoor and recreational areas are properly maintained.	3.3	0.83	Agree	True of My School	5
8. All school assets are regularly inspected for safety and functionality.	3.35	0.79	Agree	True of My School	2
9. There is an efficient process for reporting and addressing asset maintenance issues.	3.06	0.81	Agree	True of My School	10
10. Maintenance of school assets is done proactively rather than reactively.	3.28	0.86	Agree	True of My School	7
Composite Mean	3.28	0.45	Agree	True of My School	

The highest-rated item (ranked 1st) was "The school has established an asset tracking and maintenance system," with an average score of 3.47. This indicates that teachers agree that the school has established structured procedures to effectively monitor and manage its assets. This reflects that the school has laid a solid foundation for ensuring the maintenance and longevity of school resources through an organized maintenance system.

The lowest-rated item (ranked 10th) was "The school has established an effective process for reporting and handling asset maintenance issues," with an average score of 3.06. While still within the "agree" range, this relatively low score indicates that after reporting maintenance issues, people perceive them to be handled inefficiently or with delays. This indicates a gap between the identification of issues and the actual response or resolution, which may impact overall asset functionality over time.

The overall average score was 3.28, described as "agree," which translates to "My school definitely does this." This indicates that respondents generally believe that their school adequately maintains its facilities and equipment. However, the data also suggests that there is room for improvement in ensuring timely and effective reporting and repair mechanisms to further strengthen maintenance practices.

Self-Assessment of the Teacher Respondents of their Satisfaction with Educational Facilities in their School on Functionality and Maintenance

Question	Mean	SD	Qualitative Description	Interpretation	Rank
1. I am satisfied with the timeliness of the maintenance and repair of school facilities.	3.3	0.83	Agree	True of Me	1
2. I am satisfied with the condition of the classroom furniture and equipment.	3.2	0.82	Agree	True of Me	7
3. I am satisfied with the condition and functionality of classroom electrical equipment.	3.28	0.83	Agree	True of Me	2
4. I am satisfied with the climate control systems (air conditioning/heating) in classrooms.	3.21	0.93	Agree	True of Me	6
5. I am satisfied with the cleanliness and upkeep of classrooms and common areas.	3.22	0.82	Agree	True of Me	5
6. I am satisfied with the frequency of cleaning and maintenance in my classrooms.	3.24	0.83	Agree	True of Me	3
7. I am satisfied with how quickly maintenance issues are addressed.	3.16	0.83	Agree	True of Me	8
8. I am satisfied with the overall safety of the school's physical environment.	3.11	0.84	Agree	True of Me	9
9. I am satisfied with the condition of the library and media center facilities.	3.24	0.88	Agree	True of Me	3
10. I am satisfied with the upkeep of outdoor and recreational facilities.	3.04	0.88	Agree	True of Me	10
Composite Mean	3.2	0.6	Agree	True of Me	—

Teachers expressed the highest level of satisfaction with the timeliness of school facility maintenance and repairs, with an average rating of 3.30. This indicates that, overall, teachers believe that repair and maintenance tasks are handled promptly, contributing to the smooth operation of the school environment. Satisfaction with the condition and functionality of classroom electrical equipment was also quite high, ranking second with an average rating of 3.28, indicating that teachers have a positive attitude towards the reliability of basic classroom technology.

On the other hand, satisfaction with the maintenance of outdoor and recreational facilities was the lowest, with an average rating of 3.04, ranking tenth. This suggests that teachers believe that maintenance of outdoor spaces needs improvement. Furthermore, safety concerns related to the physical environment ranked low (with an average rating of 3.11, ranking ninth), potentially indicating that teachers believe overall safety measures could be improved.

Other areas, such as classroom cleanliness, cleaning frequency, and the condition of library facilities, all received moderate satisfaction ratings, all above 3.20, indicating that teachers generally have positive attitudes towards these functional and maintenance factors. The composite mean of 3.20 indicated that teachers believed that the functionality and maintenance of the school's educational facilities were adequate, but also highlighted that some specific areas, particularly outdoor maintenance and safety, required further attention to improve overall satisfaction.

#### Conclusions

This study demonstrates a clear and significant relationship between efficient asset management and heightened teacher satisfaction with educational facilities. Faculty at the institution generally perceived resource availability, maintenance systems, and utilization as effective, which correlated positively with their overall satisfaction. The strongest finding was the significant positive correlation between sustainability practices and satisfaction, underscoring that teachers highly value long-term, forward-thinking resource management that ensures facility reliability and environmental conscientiousness. This suggests that effective asset management is not merely an operational task but a critical strategic function that directly contributes to creating a supportive and conducive work environment for educators.

However, the study also identified specific areas requiring intervention to enhance satisfaction further. Concerns regarding the equitable distribution of resources, the responsiveness to maintenance requests, and the condition of outdoor facilities indicate that procedural and communicative aspects of asset management can be improved. Furthermore, the desire for more flexible learning spaces and advanced assistive technology points to an opportunity to align asset management more closely with modern, innovative pedagogical needs. Therefore, while the current asset management framework is fundamentally sound, targeted efforts to improve transparency, responsiveness, and strategic investment in next-generation teaching tools are recommended to fully optimize teacher satisfaction and, consequently, educational outcomes.

#### Recommendations

- 1. School administrators should prioritize ensuring an adequate supply of basic teaching tools, such as textbooks, technology, and classroom equipment, to address the areas with the lowest resource availability scores.
- 2. Strengthen procedures for reporting and resolving maintenance issues to ensure timely and effective responses, particularly for non-classroom and outdoor facilities.
- 3. Review and revise existing allocation strategies to promote fairness and transparency in resource allocation across departments and classrooms.
- 4. Promote cross-departmental collaboration and teamwork to effectively utilize resources, improve overall efficiency, and optimize teaching outcomes.
- 5. Given the significant positive impact of sustainability principles on teacher satisfaction, they should be more firmly integrated into resource planning and decision-making processes. 6. Redesign classrooms to include more space for group work and team teaching to meet the need for flexible, collaborative learning environments.
- 7. Invest in assistive technologies and tools to enable differentiated instruction and innovative pedagogies to meet the needs of diverse learners.
- 8. When planning facility upgrades, consider the impact of varying levels of education and years of service on faculty satisfaction, recognizing that more experienced and educated faculty tend to have higher expectations.
- 9. Incorporate sustainability topics into institutional and regional workshops to reinforce its importance in asset management and its impact on satisfaction.

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