International Journal of Scientific Research in Engineering and Management (IJSREM)
Volume: 10 Issue: 04 | April - 2026 SJIF Rating: 8.659 ISSN: 2582-3930

# A Study on Vendor Selection and Management Process in Facility Management Services

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## Abstract

The FM services depend largely on their vendor network for the effective execution of IR&M services. The effectiveness of the vendor management process influences the quality of the service provided, the operational costs, and client satisfaction. In this study, vendor selection and management practices in FM are explored with the aim of identifying operational bottlenecks and assessing vendor performance criteria such as costs, quality, reliability, and reaction time.

The method adopted for the research is descriptive-analytical, and the data collected from 100 vendors, clients, and FM professionals show that although there is a formalized vendor selection approach in place, there is no evaluation approach. It was also noted that vendor responsiveness is an excellent criterion, and the timely delivery of the work needs improvement.

This research concludes that a formalized vendor evaluation system can greatly enhance vendor performance and remove operational challenges. This research not only provides a theoretical contribution but has practical implications as well.

## Keywords

Vendor Selection, Facility Management, Vendor Performance, Supplier Evaluation, IR&M Services, Operational Efficiency, Vendor Management System

## Introduction

Facility Management (FM) is an industry that ensures efficiency in operations within commercial, industrial, and retail establishments. As there has been an increased tendency towards outsourcing, organizations are increasingly dependent on external contractors for IR&M.

Hence, the selection and management of vendors have assumed crucial importance, affecting not only the cost effectiveness but also the quality of service and satisfaction levels of customers. Yet, FM companies may encounter problems such as poor vendor performance, tardiness in implementing service solutions, and the absence of proper evaluation processes.

The objective of this study is to examine the current practices of vendor management within the facility management services and gain an understanding of the factors contributing to effective vendor selection. The main focus will be on key performance indicators like cost, quality, reliability, and speed of response.

## Literature Review

There has been extensive research on the concept of vendor selection through the analysis of various parameters associated with cost, quality, and service levels in decision-making. Dickson (1966) provided insights into the different criteria used in the selection of suppliers, and Weber et al. (1991) underlined the significance of systematic models in supplier selection processes.

Ho et al. (2010) have pointed out the benefits of combining multiple decision-making methods, including AHP and TOPSIS, to increase accuracy in supplier selection procedures. In a similar vein, Chai et al. (2013) stressed the use of sophisticated analytical techniques to enhance objectivity.

The evaluation of vendors' performances is also important. Kannan and Tan (2002) discussed the impact of vendor relationships on enhanced performance, and Choi and Hartley (1996) underscored the need for an ongoing assessment system.

Within the scope of facility management, Amos and Gad (2018) identified responsiveness and reliability as important parameters for evaluating vendor performance. Research also discusses various operational challenges, including delays, communication problems, and a lack of standardization (Harland et al., 2003).

## Theoretical Framework

The research will be based on MCDM theory, which focuses on the assessment of alternatives on the basis of multiple criteria.

The model consists of four important factors:

- Cost Efficiency
- Service Quality
- Vendor Reliability
- Response Time

These factors together affect “Vendor Performance,” which affects operational efficiency.

## Methodology

This research utilizes a descriptive-analytical approach, which employs primary data gathered through a survey. Sample size: 100. Data is analyzed using the mean and percentage approaches. – This study employs a descriptive-analytical research methodology to analyze vendor management techniques.
Type of Data:

- Primary and Secondary
- Primary Data: Survey
- Sample Size: 100
- Sampling Technique: Convenience sampling
- Data Gathering Instrument: Google Forms (Likert Scale)
- Data Analysis Instruments: Excel software, percentage analysis, and mean score analysis

The research considers vendor performance based on four criteria: cost, quality, reliability, and response time.

## Hypothesis

$H_1$: A structured vendor evaluation framework significantly improves vendor performance $H_0$: A structured vendor evaluation framework has no significant effect on vendor performance

## Data Analysis

Data Analysis Highlights Include:

- Most respondents were 25-35 years old (professionals) (fig.1)
- The highest scores were for vendor responsiveness (mean of 4.05)
- Communications also ranked high (mean = 4.00)
- The lowest score was in timeliness (mean = 3.72) All scores exceeded neutrality (mean = 3.0).

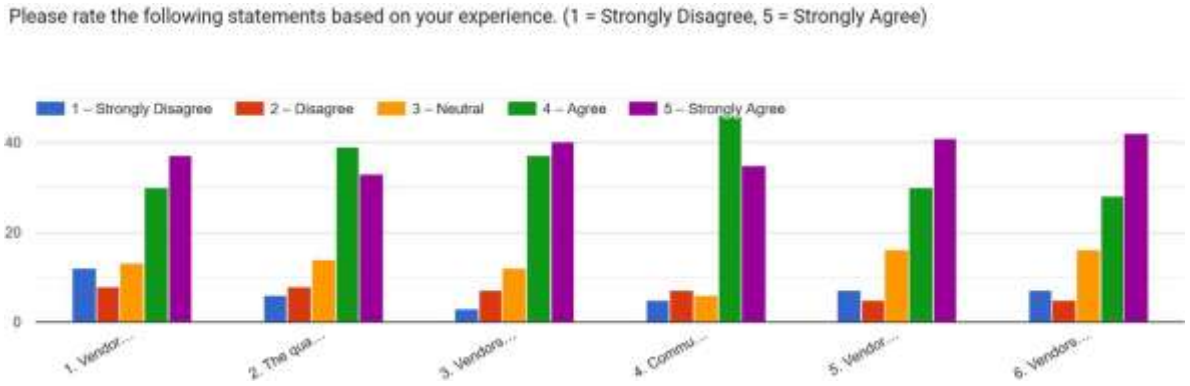


Fig.1 Vendor Performance Evaluation

**Frequency Table**

**1.Age:**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | <25 | 51 | 49.5 | 50.5 | 50.5 |
| | 25–35 | 39 | 37.9 | 38.6 | 89.1 |
| | 36–45 | 10 | 9.7 | 9.9 | 99.0 |
| | 46+ | 1 | 1.0 | 1.0 | 100.0 |
| | Total | 101 | 98.1 | 100.0 | |
| Missing | System | 2 | 1.9 | | |
| Total | | 103 | 100.0 | | |

Fig.2 Frequency Analysis of Age

Interpretation: Most respondents (50%) fall within the 25–35 age group, indicating that the study primarily represents young professionals actively involved in vendor management processes.

**2.Gender:**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Male | 71 | 68.9 | 71.0 | 71.0 |
| | Female | 29 | 28.2 | 29.0 | 100.0 |
| | Total | 100 | 97.1 | 100.0 | |
| Missing | System | 3 | 2.9 | | |
| Total | | 103 | 100.0 | | |

Fig.3 Frequency Analysis of Gender

**Descriptives**

**Descriptive Statistics**

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| [1. 1 work is completed within the agreed timeframe.]" | 100 | 1 | 5 | 3.72 | 1.356 |
| [3. 1s respond promptly to service requests.]" | 99 | 1 | 5 | 4.05 | 1.044 |
| [2. The 2 of work delivered meets expectations.]" | 100 | 1 | 5 | 3.85 | 1.149 |
| ( [6. 1s maintain documentation (before-after photos, WCRs) properly.]" | 98 | 1 | 5 | 3.95 | 1.205 |
| [4. 5 between 1s and the internal team is effective.]" | 99 | 1 | 5 | 4.00 | 1.079 |
| [5. 1 performance is reviewed and feedback is shared regularly.]" | 99 | 1 | 5 | 3.94 | 1.194 |
| [7.The 1 database or portal used is effective and updated regularly.] | 97 | 1 | 5 | 3.99 | 1.220 |
| Valid N (listwise) | 96 | | | | |

Fig.4 Descriptive Analysis of KPI

## Interpretation:

The item "Respond promptly to service requests" recorded the highest average score, M=4.05, indicating that responsiveness is a major strength. This is closely trailed by "Communication between the team is effective" with an average of M=4.00.

All variables showed mean scores ranging from 3.72 to 4.05. As these figures are significantly above the neutral midpoint of 3.0, it implies that respondents generally "Agree" or "Strongly Agree" that performance standards are being achieved.

The statement "Work is completed within the agreed timeframe" garnered the lowest mean score of M=3.72. Although still positive, this indicates that timely task completion is the area that has the most potential for enhancement when compared to other metrics.

## Results and Discussion

The study's findings reveal several important insights regarding vendor selection processes. While such processes are indeed present, they currently lack a standard framework, leading to inconsistencies across different evaluations. Key factors that influence decision-making in the selection of vendors include cost-effectiveness, product quality, reliability, and timely response. Notably, vendor responsiveness has been identified as a strong point, reflecting a commitment to addressing client needs promptly.

However, the research also uncovered significant challenges, particularly related to delays in the approval of quotations and the execution of contracts. These delays are detrimental, as they negatively impact overall performance and can hinder the operational flow.

Furthermore, the study highlights that employing structured evaluation frameworks can yield substantial benefits. These frameworks enhance vendor accountability, ensure greater consistency in service delivery, and improve overall operational efficiency. Consequently, the alternative hypothesis ($H_1$) has been accepted, reinforcing the notion that systematic evaluation practices lead to better outcomes in vendor management.

## Conclusion

This study shows how important it is to manage vendors effectively in facility management services. Even though there are processes in place, challenges continue because there is no standard way to evaluate vendor performance. Creating a clear method to assess vendors could greatly improve their productivity and response times. The research offers practical recommendations for using data-driven strategies in vendor management systems, which can lead to a more efficient and responsive operation.

## Limitations of the study

- Based on self-reported survey data
- Limited sample size (100 respondents)
- Convenience sampling limits generalization
- Focus restricted to the facility management sector

## References

1. Dickson, G. W. (1966). An analysis of vendor selection systems. *Journal of Purchasing*, 2(1), 5–17.
2. Weber, C. A., Current, J. R., & Benton, W. C. (1991). Vendor selection criteria. *European Journal of Operational Research*, 50(1), 2–18.
3. Ho, W., Xu, X., & Dey, P. K. (2010). Multi-criteria decision-making. *EJOR*, 202(1), 16– 24.
4. Chai, J., Liu, J., & Ngai, E. (2013). Decision-making techniques. *Expert Systems with Applications*, 40(10), 3872–3885.
5. Kannan, V. R., & Tan, K. C. (2002). Supplier selection. *Journal of Supply Chain Management*, 38(3), 11–21.
6. Choi, T. Y., & Hartley, J. L. (1996). Supplier selection practices. *Journal of Operations Management*, 14(4), 333–343.
7. Harland, C., Brenchley, R., & Walker, H. (2003). Risk in supply networks. *JPSM*, 9(2), 51–62.
8. Mitchell, A., & Rich, M. (2022). Literature reviews in business research. *EJBRM*.
9. Fazilatfar, A. M. et al. (2018). Citation instruction and plagiarism. *SAGE Open*.
10. Gupta, D. P. et al. (2024). Ethics in research. SSRN.