Factor loadings for every variable in the maintenance manuals ranged from 0.693 to 0.794, above the minimal requirement of 0.50. With higher factor loadings (0.794, 0.787, and 0.784, respectively) than the other eight variables, three factors - having plans for future asset replacement, having a feedback mechanism on user satisfaction, and having original specifications for older buildings had a greater impact on maintenance documentation.

The findings presented in Table VIII reveal a KMO measure of sample adequacy at 0.952, surpassing the threshold of 0.5. This suggests that the correlation matrix is not an identity matrix, indicating interconnections between variables. Additionally, BTS, conducted at a 0.00 significance level, further supports this correlation among the variables.

TABLE VIII KMOBT

KMOSAM		**0.952**
BST	AC-S	2708.110
	df	120
	Sig.	0.000

Every variable in the maintenance plan has factor loadings between 0.646 and 0.778, higher than the required minimum of 0.50. This suggests that all variables might affect maintenance practices. The potential impact of six of the 16 variables, with factor loadings varying from 0.750 to 0.746, have the potential to have an even greater impact on the maintenance strategy: “have appropriate maintenance strategy,” “have effective building maintenance management,” “have strategic maintenance management,” “have total maintenance management (TMM) framework,” and “have maintenance procurement strategy.”

According to Table IX, the p-value of KMO for determining the sample adequacy in maintenance performance management is 0.952, which is higher than the 0.000 significance level (0.00). Because the p-value was less than 0.000, the correlation matrix was not shown to be an identity matrix when BTS was rejected at a 0.00 significance level.

TABLE IX KMOBT

KMOSAM		**0.952**
BST	AC-S	2445.225
	df	105
	Sig.	0.000

The component loadings for all variables included in maintenance performance management ranged from 0.688 to 0.757, greater than the bare minimum of 0.50. The use of variable loadings of 0.757, 0.751, 0.750, 0.738, 0.733, and 0.731, respectively, six out of 15 variables, using short-term detailed maintenance planning, using a system to identify and assign personnel for specific tasks, using building inspection systems, having safety procedures for maintenance operations, compiling detailed maintenance procedures, and maintaining quality parameters, have a higher potential to influence maintenance performance management.

Table X demonstrates that for the KMO measure of adequate sampling, the p-value exceeded the 0.000 significance level, which was set at 0.00. This means that maintenance should be budgeted for and audited. At a significant threshold of 0.00, BTS was also ignored. It is not an identity matrix for the correlation matrix because the p-value is less than 0.000.

TABLE X KMOBT

KMOSAM		**0.925**
BST	AC-S	1906.316
	df	55
	Sig.	0.000

All variables used in maintenance budgeting and auditing exhibited significant factor loadings ranging from 0.00 to 0.940, above the minimum criterion of 0.50. The end-of-job documentation (factor loading of 0.940), properly documented guarantees and warranties agreed upon (factor loading of 0.830), maintenance records (factor loading of 0.775), periodic and recorded assessment (factor loading of 0.746), and original specifications for older buildings (factor loading of 0.742) were the five variables with the highest potential to affect the results.

The findings in Table XI show that the sample size is appropriate for maintenance management practices because the p-value of 0.934 for the KMO measure of sampling adequacy is higher than the 0.000 significance threshold. The corresponding correlation matrix is not an identity matrix, as shown by the failure of BTS at the 0.00 significance level.

TABLE XI KMOBT

KMOSAM		**0.934**
BST	AC-S	2342.092
	df.	105
	Sig.	0.000

Factor loadings for every variable included in the maintenance management practice ranged from 0.641 to 0.764, above the minimal requirement of 0.50. Six factors have a higher chance of affecting maintenance management practices: reservations for outside resources; using a system to identify and assign personnel for particular tasks; having tools, lifting equipment, and other equipment; using building inspection systems; having safety procedures for maintenance operations; and having material and spare parts stores. The factor loadings of these variables are 0.764, 0.763, 0.745, 0.742, 0.735, and 0.725, respectively.

Table XII findings show that sampling is adequate for staffing and training because the KMO measure of sampling adequacy possesses a p-value above the significance level of 0.000, at which point it achieves a p-value of 0.914. As a result, the study’s findings can be applied to the entire population because the sample was typical of the overall population.

TABLE XII KMOBT

KMOSAM		**0.914**
BST	AC-S	1625.712
	df	66
	Sig.	0.000

All staffing and training-related variables, including understaffing and training, exhibited strong factor loadings higher than the minimum of 0.50, ranging from 0.647 to 0.769. Four factors had a greater influence on staffing and training opportunities than the other eight variables: providing staff with maintenance training, with a factor loading of 0.769; providing refresher training (internships), with a factor loading of 0.738; providing worthwhile maintenance training opportunities, with a factor loading of 0.725; and providing maintenance training by apprenticeships, with a factor loading of 0.718.

The p-value for KMO = 0.920 in Table XIII is greater than the 0.000 significance level, indicating that the sampling was sufficient for maintenance culture. As a result, a 0.00 significance level was used to reject Bartlett's test of sphericity. The correlation matrix cannot be a matrix of identity because the p-value is less than 0.000.

TABLE XIII KMOBT

KMOSAM		**0.920**
BST	AC-S	2399.373
	Df	66
	Sig.	0.000

Strong factor loadings for every variable in the maintenance culture ranged from 0.692 to 0.814, above the minimum of 0.50. Six variables out of the 12 have a higher potential to affect maintenance culture: management of maintenance resources, job planning and scheduling, preventive and corrective maintenance, backlog control and priority system adoption, work order system adoption, and performance measurement adoption.

IV. SUMMARY OF FINDINGS

The quality of maintenance was the second most important element affecting building maintenance management after the deterioration of buildings. The least important factor was the maintenance culture. Strong factor loadings (0.700-0.800) existed for each factor and impacted building maintenance management. Only a few of the 12 components (maintenance methods, culture, and management) with factor loadings ranging from 0.801 to 0.941 were found to have a significant impact. Maintenance budgeting and auditing were the remaining factors with the highest factor loadings (0.940). Building maintenance management was found to be moderately influenced by additional factors (staffing and training, maintenance strategy, maintenance performance management, maintenance management practice, maintenance information systems, quality of building maintenance, and maintenance documentation) (0.725-0.794).

V. CONCLUSION AND RECOMMENDATION

This study aims to identify suitable maintenance strategies for public buildings in the Central Region. All factors or constructs were found to have strong loadings with their respective variables. Maintenance budgeting and auditing, maintenance techniques, maintenance culture, and maintenance management were rated higher than other factors and constructs in building maintenance management. Therefore, it is recommended that building maintenance personnel in the Central Region consider the obtained factors or constructs when conducting future maintenance work. They should also involve the Development Officers of various establishments in the initial stages of maintenance work.

VI. THE IMPLICATIONS OF THE STUDY

The study reveals that organisations should practise effective maintenance management by adopting rigorous maintenance budgeting, auditing, proactive maintenance techniques and management practices, and a well-thought-through organisational culture.

VII. LIMITATIONS OF THE STUDY

Though the study provides valuable contributions, it did not consider the specific organisational uniqueness of all public institutions in generating the variables. Therefore, organisations must be careful in integrating the findings into their systems by giving thoughtful consideration to their organisational setups and operations.

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