Maintenance Performance Characteristics (MPCs) for National Religious Secondary Schools in Malaysia

NAM Radzuan, Hairul Nizam Mansor and Ashrof Zainuddin

To Link this Article: http://dx.doi.org/10.6007/IJARBSS/v11-i1/9015  DOI:10.6007/IJARBSS/v11-i1/9015

Received: 15 November 2020, Revised: 11 December 2020, Accepted: 19 January 2021

Published Online: 31 January 2021

In-Text Citation: (Radzuan et al., 2021)
To Cite this Article: Radzuan, N., Mansor, H. N., & Zainuddin, A. (2021). Maintenance Performance Characteristics (MPCs) for National Religious Secondary Schools in Malaysia. International Journal of Academic Research in Business and Social Sciences, 11(1), 921-937.

Copyright: © 2021 The Author(s)
Published by Human Resource Management Academic Research Society (www.hrmars.com)
This article is published under the Creative Commons Attribution (CC BY 4.0) license. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this license may be seen at: http://creativecommons.org/licences/by/4.0/legalcode

Vol. 11, No. 1, 2021, Pg. 921 - 937

http://hrmars.com/index.php/pages/detail/IJARBSS  JOURNAL HOMEPAGE

Full Terms & Conditions of access and use can be found at
http://hrmars.com/index.php/pages/detail/publication-ethics
Maintenance Performance Characteristics (MPCs) for National Religious Secondary Schools in Malaysia

NAM Radzuan, Hairul Nizam Mansor and Ashrof Zainuddin
Faculty of Architecture, Planning and Surveying, Universiti Teknologi MARA, Perak Branch, Seri Iskandar Campus, 32610 Seri Iskandar, Perak, Malaysia.

Abstract
This paper is part of ongoing research on the development of maintenance performance characteristics for National Religious Secondary Schools (NRSS) in Malaysia. School building investment and maintenance have evolved a lot of public funds and having a significant impact on pupil performance. The need to elevate the performance of buildings has increased consequently in tandem with technological advancement, user demand, and economic factors. In order to do this, maintenance performance characteristics must be re-established that measure services rendered at school. Measuring performance is an essential part of the delivery of maintenance management services. In measuring maintenance performance, user-driven services are one of the characteristics that will improve productivity. Besides the complexity of school buildings and facilities to serve as teaching and learning purpose has put an urgency to look on pro-active measures may help the school administration to achieve performance optimisation. A total of 300 sets of the web-based self-administrative questionnaire using Survey-Monkey as on-line survey collection tools have been used in this research. Nonetheless, only 134 sets were answered and completed. The collected data then analyse using SPSS Statistics – Version 21. This study thoroughly measures the characteristics from the perspective of the school administrator. The finding proposed six characteristics as independent variables known as behaviour, service delivery, complaints management, safety, Islamic work ethic, and leadership.

Keywords: Maintenance Performance Characteristics, National Religious Secondary Schools, School Administrator, School Maintenance Performance

Introduction
The development of schools is far more critical than providing shelter for every civilised nation. Schools are places where knowledge transpires from teachers to their students. The official learning process starts at schools before joining tertiary education. Unlike higher education, schools differ in terms of location, accessibility, facilities, and many others. Generally, schools have been in existence for more than 100 years, with the implementation of formal education in every part of the world. Developed countries have good records of accomplishment in providing primary education, but developing countries are fast gaining
traction. The same situation occurs in Malaysia, where in some cases, schools exist since the pre-independence period and even during the colonial occupations. Nevertheless, various factors, such as the schools’ lifespans and evolution in the education systems, fail to guarantee the school maintenance performance.

Because of the above, scholars and practitioners have agreed that the maintenance of schools is a significant part of ensuring the safety of schoolchildren and achieving a conducive learning environment. In particular, the school management team must ensure that school buildings and facilities are safe and in good condition for students to use and have an impact on student outcomes (Martorell et al., 2016). The best maintenance practice for schools will protect capital investment, provide a safe environment, and support educational performance and increased intellectual achievement for all students.

Education is essential in Malaysia, where the government has made efforts to allocate ever-increasing budgets to build the foundation for the education system. In the early post-independence years of Malaya, the ruling government headed by the then Prime Minister of Malaya, Tunku Abdul Rahman, outlined in the First Malaya Plan (1966-1970), a clear direction aimed, among other things, at eliminating illiteracy and providing every citizen with easy access to primary education. (Economic Planning Unit, 1965). Malaysia, as a developing country, is not the only country facing the challenge of maintaining old school buildings. In this regard, many complaints have appeared in the media and in newspapers, where many of the school buildings in Malaysia are in dire condition and urgently need attention from the school authorities (Yong et al., 2015; Othuman et al., 2014). Even developed countries such as the United States (U.S.) are raising the same issues. Reports estimate that 14 million students in the U.S. attend schools with poor building conditions and facilities. The report of the U.S. National Center for Education Statistics (NCES) mentions that three-quarters of U.S. schools have facilities in low or poor repair states (Dickerson & Ackerman, 2016). It is clear that the maintenance of school buildings is a global issue requiring immediate attention, but at the same time, it must not jeopardize the intended purpose of schools to provide early education for all citizens.

The study aims to identify maintenance performance characteristics from the perspective of school administrators, covering a total of 60 NRSS in Malaysia. Researchers must continue to undertake studies relating to schools in general and maintenance in order to justify public expenditure on school buildings and facilities. The findings of such studies will contribute to the next level of the learning environment, which can be measured not only by student achievement but also by the general condition of the classrooms and facilities. A comprehensive review of the literature on maintenance performance and end-user performance has identified six constructions to be developed as school maintenance performance characteristics. In this research, the end-user subject focuses on the school administrator, who is responsible for managing the maintenance of the school. Figure 1 is the proposed National Religious Secondary School (NRSS) Maintenance Performance Conceptual Framework.
The issue on school maintenance management is also evolving the government and every stakeholder, where many complaints appeared in the official media and scholars discussing on level of maintenance services rendered to the school for sustaining the building and facilities. Lack of school maintenance is the factor leading to poor building performance. Hence it becomes global issues of maintaining school buildings and, at the same time, not to jeopardize the intended purpose of the school to provide early education for every citizen with a conducive school learning environment. The issue of lack of maintenance is not only related to abandoned physical and building facilities but is also becoming more harmful as the number of incidents that cause injuries to building users increases. This unpleasant situation has contributed to the dissatisfaction of the school community concerning maintenance management practices at schools in Malaysia (Yong et al., 2015; Ibrahim et al., 2016).

**Behaviour (BHV)**
Organ (1990) points out that Organizational Citizenship Behavior (OCB) is a behavior introduced willingly by employees in the organization. They are going beyond their original tasks to assist others. While Mushtaq (2013) described, employees often have discretionary conduct known as OCB. The OCB in school maintenance management, covering school administrators and their way to influence the school community to perform voluntarily towards sustaining and improve the school teaching curriculum and school facilities maintenance. The same recent research by Basu et al. (2017); Huei et al. (2014); Purnama (2013) have found that OCB is a great mediator of the social relationship comprised of organizational culture and job satisfaction that contributes significantly to employee performance and is positively tailored to job outcomes. The OCB is related directly to the leadership practice in school that was eventually having a significant influence on the performance of their students, teachers, and staff. It is undeniably that management with an effective monitoring and supervision system will improve the voluntary behavior of employees towards job performance. (Khan & Ghufran, 2018; Mushtaq, 2013)

**Service Delivery (SER)**
Building maintenance contributes a significant effect on the performance of completed buildings and is thus in a strategic position. Continuous improvement of the maintenance
service delivery will sustain productivity as well as ensure building user satisfaction. The quality of the maintenance service is not only limited to the maintenance outcome, but more importantly, it also encompasses the delivery methods (Lai & Lai, 2013). The maintenance team needs to conduct regular performance survey of service delivery to confirm that the acceptable and rendered maintenance practices will achieve the necessary maintenance standard. It is in line with the Total Quality Management approach (TQM), which emphasises on process orientations and continuous improvement (Jin & Chua, 2018). The building users’ experience towards the quality of maintenance service delivery is crucial in determining building performance. The maintenance team uses the positive and negative inputs from the building users to justify and further formulate service delivery strategies to improve the entire maintenance management approach (Yong et al., 2017; Olanrewaju & Abdul, 2015)

**Complaint Management (COM)**

In maintenance good practice, managing complaints is one of the criteria for measuring maintenance performance related to building user’s satisfaction. However, the process of managing complaints must be well organised, and not an ad hoc exercise. In the various empirical study (Enemuo et al., 2016; Husaini & Tabassi, 2014; Olanrewaju & Aziz, 2015), the scholars concur that maintenance complaints must be attended to promptly and the person-in-charge of the maintenance department must be competent in his role and committed to handling complaints received. Post management must result in the reduction of the number of complaints, parallel with the quality service rendered to the building users and simultaneously install confidence to the building users regarding the maintenance practices. The act of lodging a complaint on maintenance failure is unpleasant for both building users and the maintenance department. Mydin (2014) argues that in complaints management, three elements require emphasis, namely customer satisfaction, service quality, and customer complaints. A large and growing body of literature examines the importance of having an excellent and efficient platform to communicate complaints from building users to the management.

**Leadership (LED)**

The leaders often describe as someone who responds and manages to plan, organize, direct, and control his/her subordinates or followers. Leaders also contribute to create a supportive environment and facilitate the needs of followers to achieve particular objectives (House, 1971). However, Horner (1997) has established a strong relationship between leadership and motivation theory, where good leaders are able at all times to motivate their followers to be successful team leadership to achieve the organisation’s objective. In recent years the leadership could be defined in two significant terms known as Transactional leadership and Transformational leadership. Geraghty & Brown (2018) points out that Transactional leadership is task-oriented, where leaders deliver instruction and are not involved directly. Transformational leadership performed opposite ways, where appointed leaders were demonstrating how to complete the task. In the maintenance of school buildings, the role of leaders is crucial to achieving the school's objectives of providing a conducive learning environment (David et al., 2019).

**Safety (SAF)**

The definition of safety that related to work environment is usually viewed from many scholars such as Balderson (2016), where safety is implemented across the workplace,
individual, and program by incorporating persistent behavior into the organization, responsibility, and risk management are as small as realistically possible to mitigate potential injury. The latest maintenance paradigm shift now explores value development from the maintenance process with considerable thought on safety and environmental issues. In facilities and maintenance management, the safety culture is considered the obligation of managers and employees to raise awareness and maintain protection during maintenance operations. (Hon & Hinze, 2014; Jaafar & Hakim, 2017). Integrating safety and maintenance operations is very critical for maintenance contractors in achieving the organization's overall efficiency. Research has indicated that implementation of safety management strategies has important effects in organizational safety efficiency, improved operating performance, reduced accident levels, better employee protections, higher product quality, increased profitability, improved customer loyalty and business credibility, and increased innovation. (Jaafar & Hakim, 2017).

Excellent teaching facilities promote productive staff and students in teaching and learning processes.

Islamic Work Ethic (IWE)
In his classic study, Jabari (2018) has concluded, there is a strong relationship between employee performance, justice, and ownership. He also found that the Islamic work ethic (IWE) had a positive effect on workplace achievement. For example, a person who practices IWE not only looks to improve profits by way of price increases or lowering cost but puts on priority to consider the welfare of the community or stakeholders. Aldulaimi (2016) has revealed that IWE is having a significant relationship between human and his creator. It allows employers and workers to achieve the goal of equilibrium in real life. It will create a harmonious atmosphere at work and make the organization successful. In implementing school building maintenance, IWE certainly contributes to the sincerity of employers and employees in the pursuit of high quality trust and contributes to sustainable maintenance of the school's development and sustainability as a center for education for future generation. IWE also promotes good value through accountability, engagement, social relations contributing to organizational participation and job performance.

Methodology
This study adopts the quantitative approach using a questionnaire survey. Analysis of data from the survey uses the Statistical Package for the Social Sciences (IBM SPSS Statistics 21). The study involves a survey to establish the building users’ characteristics towards the administration of management services rendered to National Religious Secondary schools. The researcher develops the constructs via a rigorous review of the literature. The basis of these constructs are thematic analysis on users, building users, stakeholders, and end-users of various disciplines but mostly related to the built environment. The survey covered overall 60 nos of National Religious Secondary schools, with having similarities in features, design, and facilities attached to the schools. The purpose of the survey is to determine the factors that contribute to the maintenance performance of the National Religious Secondary school.

Results
The main objective of this study is to identify the maintenance performance characteristics for maintenance performance for NRSS. The primary data from the questionnaire survey using a web-based self-administrative of Survey Monkey and analysed by using statistical
analysis software (SPSS Statistics – Version 21). The explanations of all findings of the study resulting from the data will be as follow:

**Respondents’ Profile**
A total of 300 questionnaires were distributed to all 60 nos of NRSS through-out Malaysia. It covers all NRSS in Malaysia, including Peninsular Malaysia, Sabah, and Sarawak. The questionnaire is distributed via an on-line survey via Monkey Survey and manually distributed to individual schools. Frequency descriptive analysis was carried out to obtain background information of the respondents who answered the questionnaire. Background information on respondents who answered the questionnaire consists mainly of the position of the respondents at every NRSS. All respondents involved in this survey comprised of the school administrator, with a senior position at every school. The details are explained in Table 1 below.

| No  | Description                  | Frequency | Percentage (%) |
|-----|------------------------------|-----------|----------------|
| 1   | Total population             | 300       | 100.00         |
| 2   | Sent out questionnaire       | 300       | 100.00         |
| 3   | Returned questionnaire       | 164       | 54.67          |
| 4   | Unanswered questionnaire     | 136       | 45.33          |
| 5   | Incomplete questionnaire     | 30        | 10.00          |
| 6   | Valid questionnaire          | 134       | 44.67          |

From the analysis, 134 questionnaires answered by respondents were from the top management team known as a school administrator (academic staff and non-academic staff). The results of the analysis of the respondents’ positions are shown in Table 2.

| No  | Description  | Total | Percentage |
|-----|--------------|-------|------------|
| 1   | Principal    | 21    | 15.67      |
| 2   | Senior Assistant | 80    | 59.70      |
| 3   | Chief clerk  | 33    | 24.63      |
|     | Total        | 134   | 100.00     |

Respondent’s position presents a summary of respondents in terms of their position in the school. The description of the demographic information has no direct impact on data analysis of this study; however, it is imperative to show the reliability and validity of the respondents selected as a sample to perform this empirical research. The schools administrator answered this question. The management team in schools was busy and therefore translated into the lowest numbers of 21 respondents (15.67%); this was followed by Senior Assistants with 80 respondents (59.70%) and chief clerk with 33 respondents (24.63%) respectively.

**Data Reliability Test: Cronbachs’ Alpha**
This study chose the Cronbach’s Alpha reliability test as it is one of the most useful methods of examining the reliability of the data. The test is purposely to measure the reliability of responses given by every respondent towards items of maintenance performance from the perspective of school administrators, as per stated in the questionnaire. Cronbach’s Alpha of
1.0 is an entirely reliable test measure of the same concept. Apparently, according to Hinton et al. (2014), an Alpha ranging of score 0.5 to 0.75 is generally accepted as indicating a moderately reliable scale. The results of this analysis show that the instrument used to obtain research data has high reliability and satisfactory because such values indicate that the internal relationship between each MPCs group was highly interconnected. Thus all data surpassed the acceptable reliability to analyse further in the next section for factor analysis.

Table 3: Reliability Analysis

| No | Construct                   | No of items | Cronbach’s Alpha |
|----|-----------------------------|-------------|------------------|
| 1  | IV Behavior (BHV)           | 5           | 0.691            |
| 2  | IV Service delivery (SER)   | 5           | 0.800            |
| 3  | IV Complaint management (COM) | 5         | 0.858            |
| 4  | IV Safety (SAF)             | 6           | 0.896            |
| 5  | IV Leadership (LED)         | 5           | 0.846            |
| 6  | IV Islamic work ethic (IWE) | 5           | 0.624            |

Preliminary Analysis

In the preliminary analysis of factor analysis, there are two statistical measures performed, which are the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett’s Test of Sphericity. The adequacy of sampling can be measured using Kaiser-Meyer-Olkin (KMO) test, whether the variables in our sample are adequate to correlate and suitable for factor analysis. According to Hinton & Murray (2014), if the KMO test generates 0.5 or higher, it indicates the data is suitable to be continued with factor analysis. Hence, in this case, KMO stands at 0.868 and highly suitable for exploratory factor analysis. Bartlett’s test of sphericity is significant (p = 0.000), so the data is suitable for factor analysis (Meyers et al., 2006)

Anti-image Correlation

The subsequent analysis is to examine the anti-image correlation matrix. It is essential to examine the diagonal elements of the anti-image correlation matrix where the values of measure sampling adequacy should be above 0.50 (Hair et al., 2014). The total 31 variables in this study have achieved value greater than 0.50, and hence all characteristics were maintained. The details can be seen in Table 4.
Table 4. Anti-image matrices

| No | The Variables | BHV1 | BHV2 | BHV3 | BHV4 | BHV5 | SER1 | SER2 | SER3 | SER4 | SER5 | COM1 | COM2 | COM3 | COM4 |
|----|---------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1  | BHV1          | 0.762| -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| 2  | BHV2          | 0.27 | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| 3  | BHV3          | 0.09 | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| 4  | BHV4          | 0.13 | 0.03 | 0.14 | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| 5  | BHV5          | 0.12 | 0.38 | 0.12 | 0.38 | 0.38 | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| 6  | SER1          | 0.20 | 0.20 | 0.10 | 0.10 | 0.10 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 |
| 7  | SER2          | 0.05 | 2    | 2    | 0.08 | 0.08 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 |
| 8  | SER3          | 0.10 | 0.10 | 0.12 | 0.12 | 0.12 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| 9  | SER4          | 0.00 | 0.13 | 0.23 | 0.23 | 0.23 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 10 | SER5          | 0.10 | 0.10 | 0.17 | 0.17 | 0.17 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| 11 | COM1          | 0.00 | 9    | 5    | 4    | 4    | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 |
| 12 | COM2          | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| 13 | COM3          | 0.05 | 3    | 1    | 0.06 | 0.06 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 |
| 14 | COM4          | 0.12 | 8    | 0.11 | 0.08 | 0.08 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |

Notes: *a* indicates significance at the 0.05 level.
| No | Variables | SAF1 | SAF2 | SAF3 | SAF4 | SAF5 | SAF6 | LED1 | LED2 | LED3 | LED4 | LED5 | IWE1 | IWE2 |
|----|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 15 | COM5      | 0.01 | 0.04 | 0.01 | 0.03 | 0.00 | 0.00 | 0.01 | 0.03 | 0.01 | 0.03 | 0.01 | 0.03 | 0.00 | 0.00 |
| 16 | SAF1      | 0.01 | 0.04 | 0.01 | 0.03 | 0.00 | 0.00 | 0.01 | 0.03 | 0.01 | 0.03 | 0.01 | 0.03 | 0.00 | 0.00 |
| 17 | SAF2      | 0.07 | 0.28 | 0.01 | 0.00 | 0.07 | 0.03 | 0.01 | 0.03 | 0.01 | 0.03 | 0.01 | 0.03 | 0.01 | 0.03 |
| 18 | SAF3      | 0.08 | 0.14 | 0.08 | 0.14 | 0.08 | 0.14 | 0.08 | 0.14 | 0.08 | 0.14 | 0.08 | 0.14 | 0.08 | 0.14 |
| 19 | SAF4      | 0.04 | 0.07 | 0.26 | 0.04 | 0.07 | 0.26 | 0.04 | 0.07 | 0.26 | 0.04 | 0.07 | 0.26 | 0.04 | 0.07 |
| 20 | SAF5      | 0.17 | 0.27 | 0.17 | 0.27 | 0.17 | 0.27 | 0.17 | 0.27 | 0.17 | 0.27 | 0.17 | 0.27 | 0.17 | 0.27 |
| 21 | SAF6      | 0.43 | 0.08 | 0.16 | 0.43 | 0.08 | 0.16 | 0.43 | 0.08 | 0.16 | 0.43 | 0.08 | 0.16 | 0.43 | 0.08 |
| 22 | LED1      | 0.03 | 0.07 | 0.22 | 0.03 | 0.07 | 0.22 | 0.03 | 0.07 | 0.22 | 0.03 | 0.07 | 0.22 | 0.03 | 0.07 |
| 23 | LED2      | 0.04 | 0.13 | 0.01 | 0.04 | 0.13 | 0.01 | 0.04 | 0.13 | 0.01 | 0.04 | 0.13 | 0.01 | 0.04 | 0.13 |
| 24 | LED3      | 0.01 | 0.05 | 0.12 | 0.01 | 0.05 | 0.12 | 0.01 | 0.05 | 0.12 | 0.01 | 0.05 | 0.12 | 0.01 | 0.05 |
| 25 | LED4      | 0.12 | 0.13 | 0.00 | 0.12 | 0.13 | 0.00 | 0.12 | 0.13 | 0.00 | 0.12 | 0.13 | 0.00 | 0.12 | 0.13 |
| 26 | LED5      | 0.04 | 0.03 | 0.18 | 0.04 | 0.03 | 0.18 | 0.04 | 0.03 | 0.18 | 0.04 | 0.03 | 0.18 | 0.04 | 0.03 |
| 27 | IWE1      | 0.01 | 0.08 | 0.00 | 0.01 | 0.08 | 0.00 | 0.01 | 0.08 | 0.00 | 0.01 | 0.08 | 0.00 | 0.01 | 0.08 |
| 28 | IWE2      | 0.05 | 0.15 | 0.02 | 0.05 | 0.15 | 0.02 | 0.05 | 0.15 | 0.02 | 0.05 | 0.15 | 0.02 | 0.05 | 0.15 |
Factors Extraction

The next stage of analysis process prior to the completion of preliminary analysis is factors extraction. This stage begins with communalities

Communalities

The communality of 1.000 in the "Initial" column means that all variances in the model are explained by the factors. (Jones & Bartlett, 2008). While the "Extraction" column shows that the variable has much in common with the other variables taken as a group when the communality is higher than 0.50 range for samples between 100 and 200 is good enough (Field, 2017). In this study used 134 samples to meet the mentioned categories. The excluded items for BHV are BHV1 (0.471), BHV2 (0.433), BHV4 (0.422). There are three items indicated communalities below 0.50. Therefore it is excluded from the analysis. The details can be seen in Table 5.
### Table 5. Communalities

| Item               | Variables                       | Initial | Extraction |
|--------------------|---------------------------------|---------|------------|
| BHV1               | Appearance                      | 1.000   | .471       |
| BHV2               | Courtesy                        | 1.000   | .433       |
| BHV3               | Communication                   | 1.000   | .586       |
| BHV4               | Engagement with building users   | 1.000   | .422       |
| BHV5               | Skills and competency           | 1.000   | .583       |
| SER1               | Level of nuisance               | 1.000   | .532       |
| SER2               | Timeliness                      | 1.000   | .736       |
| SER3               | Performed beyond the call of duty| 1.000   | .584       |
| SER4               | Based on records and documents  | 1.000   | .533       |
| SER5               | Monitoring and inspection        | 1.000   | .695       |
| COM1               | Response                        | 1.000   | .540       |
| COM2               | Requested work completed         | 1.000   | .702       |
| COM3               | Complaints handling             | 1.000   | .698       |
| COM4               | Complaint procedures            | 1.000   | .753       |
| COM5               | Recurring complaints            | 1.000   | .603       |
| SAF1               | Safety culture                  | 1.000   | .719       |
| SAF2               | Visibility of safety information| 1.000   | .762       |
| SAF3               | Involved building users         | 1.000   | .612       |
| SAF4               | Application of personal protective equipment (PPE) | 1.000 | .678 |
| SAF5               | Near miss and accident rates    | 1.000   | .695       |
| SAF6               | Monitoring of safety practices  | 1.000   | .672       |
| LED1               | Sense of authority and confidence| 1.000 | .584  |
| LED2               | Goes beyond self-interest       | 1.000   | .575       |
| LED3               | Articulates a clear vision for the future | 1.000 | .636 |
| LED4               | Good values and beliefs         | 1.000   | .598       |
| LED5               | Spends time coaching            | 1.000   | .655       |
| IWE1               | Cover “Aurat”                    | 1.000   | .696       |
| IWE2               | Accompanied by school representative | 1.000 | .657 |
| IWE3               | Privacy of building users       | 1.000   | .698       |
| IWE4               | Prohibited activities in Islam  | 1.000   | .642       |
| IWE5               | Time of worship                 | 1.000   | .776       |

Extraction Method: Principal Component Analysis

**Initial Eigenvalues**

According to (Hair et al., 2014; Leech, 2012), the eigenvalues which are greater than 1.0 is considered significant and retained. For this study, seven factors can be extracted which are factor 1 = 12.227; factor 2 = 2.443; factor 3 = 2.337; factor 4 = 1.824; factor 5 = 1.630; factor 6 = 1.286. The next one is factor 10 = 0.932, which is less than 1.000. Hair (Hair et al., 1995; Hair et al., 2014) claimed that, in the social sciences, where information is often less precise, it is not unusual to find a solution that reflects 60% of the overall variance and, in some cases, as acceptable as 50-60%. In this study, six factors have cumulative variance explained of...
60.33% and therefore exceeding 60% of the total variance explained. The total variance explained is tabulated in Table 6.

| Component | Initial Eigenvalues | Extraction Sums of Squared Loadings |
|-----------|---------------------|-------------------------------------|
|           | Total               | % of variance | Cumulative % | Total | % of variance | Cumulative % |
| 1         | 12.227              | 33.965        | 33.965       | 12.227 | 33.965       | 33.965       |
| 2         | 2.443               | 6.785         | 40.750       | 2.443  | 6.785        | 40.750       |
| 3         | 2.337               | 6.492         | 47.242       | 2.337  | 6.492        | 47.242       |
| 4         | 1.824               | 5.067         | 52.309       | 1.824  | 5.067        | 52.309       |
| 5         | 1.603               | 4.454         | 56.763       | 1.603  | 4.454        | 56.763       |
| 6         | 1.286               | 3.572         | 60.335       | 1.286  | 3.572        | 60.335       |
| 10        | .932                | 2.589         | 72.316       |
| 31        | .109                | .304          | 100.000      |

Extraction Method: Principal Component Analysis

Factors Extraction

According to Field (2017), samples between 100 and 200 can be good enough with communalities in the 0.5 range, given that there are relatively few factors with only a small number of indicator variables. While Hinton & Murray (2014) conclude, the ratio recommended is 2:1 (participants to variables). Nonetheless, more participants than variables should always be established. In this study, a total of 31 variables, with 134 participants has generated a ratio of 4.3:1, surpassed the recommended minimum ratio of 2:1. Factor loadings, which are less than 0.50, must be removed. A total of 31 factors were analyzed. Out of these, three factors were removed earlier, known as BHV1, BHV 2, and BHV4, due to failure to meet the requirement of indicators for the process of preliminary analysis until factor rotation in factor analysis. Therefore only the remaining 28 factors were analysed. The two factors were removed due to factor loading less than 0.5, known as SER3 and COM5. Thus the remaining factor to be further analysed is 26 factors.
Table 7. Rotated Component Matrix

| No | Items              | MPCs          | 1   | 2   | 3   | 4   | 5   | 6   |
|----|--------------------|---------------|-----|-----|-----|-----|-----|-----|
| 1  | BHV3 Communication  | .545          |     |     |     |     |     |     |
| 2  | BHV5 Skills and competency | .507      |     |     |     |     |     |     |
| 3  | SER1 Level of nuisance | .594      |     |     |     |     |     |     |
| 4  | SER2 Timeliness     | .829          |     |     |     |     |     |     |
| 5  | SER4 Based on records and documents | .586      |     |     |     |     |     |     |
| 6  | SER5 Monitoring and inspection | .722     |     |     |     |     |     |     |
| 7  | COM1 Response       | .510          |     |     |     |     |     |     |
| 8  | COM2 Requested work completed | .624      |     |     |     |     |     |     |
| 9  | COM3 Complaints handling | .697     |     |     |     |     |     |     |
| 10 | COM4 Complaint procedures | .682     |     |     |     |     |     |     |
| 11 | SAF1 Safety culture | .694          |     |     |     |     |     |     |
| 12 | SAF2 Visibility of safety information | .723     |     |     |     |     |     |     |
| 13 | SAF3 Involved building users | .668     |     |     |     |     |     |     |
| 14 | SAF4 Application of personal protective equipment (PPE) | .634     |     |     |     |     |     |     |
| 15 | SAF5 Near miss and accident rates | .676     |     |     |     |     |     |     |
| 16 | SAF6 Monitoring of safety practices | .659     |     |     |     |     |     |     |
| 17 | LED1 Sense of authority and confidence | .687     |     |     |     |     |     |     |
| 18 | LED2 Goes beyond self-interest | .624     |     |     |     |     |     |     |
| 19 | LED3 Articulates a clear vision for the future | .667     |     |     |     |     |     |     |
| 20 | LED4 Good values and beliefs | .650     |     |     |     |     |     |     |
| 21 | LED5 Spends time coaching | .532     |     |     |     |     |     |     |
| 22 | IWE1 Cover “Aurat” | .777          |     |     |     |     |     |     |
| 23 | IWE2 Accompanied by school representative | .674     |     |     |     |     |     |     |
| 24 | IWE3 Privacy of building users | .751     |     |     |     |     |     |     |
| 25 | IWE4 Prohibited activities in Islam | .768     |     |     |     |     |     |     |
| 26 | IWE5 Time of worship | .840          |     |     |     |     |     |     |

Discussion
The Rotated Component Matrix has made up 26 MPCs into six groups;

The first group consists of two MPCs, namely (i) Communication and (ii) Skills and competency. All these two MPCs have been grouped into one group factor, which is “Behavior” with the eigenvalue 12.227 and a total variance of 33.965%.

Group two consists of four MPCs, namely (i) Level of nuisance; (ii) Timeliness; (iii) Based on records and documents, and (iv) Frequency of monitoring and inspection. All these four MPCs have been grouped into one group factor, which is “Service Delivery” with the eigenvalue 2.443 and a total variance of 6.785%.

Group three consists of five MPCs, namely (i) Response; (ii) Requested work is completed within the time needed; (iii) Complaints handling and (iv) Complaint procedures. All these four
MPCs have been grouped into one group factor, which is “Complaint Management” with the eigenvalue 2.337 and a total variance of 6.492%.

Group four consists of six MPCs, namely (i) Safety culture; (ii) Visibility of safety information; (iii) Involved building user in setting safety objective; (iv) Application of personal protective equipment; (v) Near miss and accident rates and (vi) Monitoring of safety practices. All these six MPCs have been grouped into one group factor, which is “Safety” with the eigenvalue 1.824 and a total variance of 5.067%.

Group five consists of five MPCs, namely (i) Sense of authority and confidence; (ii) Goes beyond self-interest for the good of the school community; (iii) Articulates a clear vision for the future; (iv) Good values and beliefs and (v) Spends time coaching. All these five MPCs have been grouped together into one group factor, which is “Leadership” with the eigenvalue 1.603 and a total variance of 4.454%.

Group six consists of five MPCs, namely (i) Cover “aurat”. (ii) Accompanied by school representative; (iii) Privacy of building users; (iv) Prohibited activities in Islam and (v) Time of worship. All these five MPCs have been grouped together into one group factor, which is “Islamic Work Ethic” with the eigenvalue 1.286 and a total variance of 3.572%.

Conclusion
This research paper concluded that the theoretically defined MPCs group for maintenance in schools based on previous research has resulted in minor changes when certain items are withdrawn compared to the empirical group MPCs. The finding shows that when only 5 MPCs items have been omitted when factors rotation are performed. Based on empirical evidence that is consistent with the theory, the final MPCs that can measure maintenance service performance of the NRSS are including “Behavior” (consisting of two MPCs); “Service Delivery” (consisting of four MPCs); “Complaint Management” (consisting of four MPCs); “Safety” (consisting of six MPCs); “Leadership” (consisting of five MPCs) and “Islamic Work Ethic” (consisting of five MPCs). In conclusion, the determination of the factors influencing the building users’ characteristics for NRSS is imperative to measure the success of competitive maintenance performance from the user’s point of view. The study findings reveal that the independent variables related to building users’ characteristics are from six listed constructs known as Behaviour, Service delivery, Complaints management, Safety, Islamic work ethic, and Leadership. The identification of MPCs for NRSS will position the end-user as one of the catalysts for measuring school maintenance performance that eventually will lead to achieving a conducive school environment. It is recommended that further research can be conducted in order to explore the result and findings to the next level using Structural Equation Modelling (Smart-PLS). Therefore it will further develop a model for MPCs from perspective of Schools’ administrators for National Religious Secondary School in Malaysia.

Acknowledgments
This research is part of an ongoing PhD research at the Faculty of Architecture, Planning and Surveying, Universiti Teknologi MARA, Cawangan Perak. The authors would like to express their deepest gratitude to the Institute of Graduate Studies, Faculty of Architecture, Planning and Surveying, Universiti Teknologi MARA, Cawangan Perak.
References
Al-jabari, M. (2018). The relationship between Islamic work ethic and workplace outcome. *Emerald Insight, 47*(7), 1286–1308. https://doi.org/10.1108/PR-05-2017-0138
Aldulaimi, S. H. (2016). Fundamental Islamic perspective of work ethics. *Islamic Accounting and Business Research, 7*(1), 59–76. https://doi.org/10.1108/JIABR-02-2014-0006
Au-Yong, C. P., Ali, A.-S., Ahmad, F., & Chua, S. J. L. (2017). Influences of key stakeholders’ involvement in maintenance management. *Property Management, 35*(2), 217–231. https://doi.org/10.1108/PM-01-2016-0004
Balderson, B. D. (2016). Safety Defined, A means to provide a safe work environment. *Professional Safety, 61*(5), 63–68.
Basu, E., Pradhan, R. K., & Tewari, H. R. (2017). Impact of organizational citizenship behavior on job performance in Indian healthcare industries: The mediating role of social capital. *International Journal of Productivity and Performance Management, 66*(6), 780–796. https://doi.org/10.1108/IJPPM-02-2016-0048
Dickerson, D. E., & Ackerman, P. J. (2016). Risk-based Maintenance Management of U.S. Public School Facilities. *Procedia Engineering, 145*, 685–692. https://doi.org/10.1016/j.proeng.2016.04.069
Economic Planning Unit, M. (1965). First Malaysia Plan (1966-1970). Government of Malaysia. Retrieved from http://www.epu.gov.my/sites/default/files/chapt11.pdf
Enemuo, O. B, Ejikeme, J. N. U, Edward, C. (2016). The role of customer satisfaction and maintenance culture in the sustainability of hospitality industries in Umunia North and South Local Government Areas of Abia State. *Journal of Hospitality and Management Tourism, 7*(1), 1–10. https://doi.org/10.5897/JHMT2015.0164
Field, A. (2017). *Discovering Statistics Using IBM SPSS Statistics*. SAGE (5th Editio). Los Angeles, London, New Deli, Singapore, Washington DC, Melbourne: SAGE Publication Ltd. https://doi.org/10.1017/CBO9781107415324.004
Geraghty, A., & Paterson-brown, S. (2018). Leadership and working in teams. *Surgery, 36*(9), 503–508. https://doi.org/10.1016/j.mpsur.2018.07.013
Hayati, K., & Caniago, I. (2014). Islamic Work Ethic : The Role of Intrinsic Motivation, Job Satisfaction, Organizational Commitment, and Job Performance. International Congress on Interdisciplinary Business and Social Science 2012 (ICIBSoS 2012), 65(ICIBSoS 2012), 1102–1106. https://doi.org/10.1016/j.sbspro.2014.05.148
Horner, M. (1997). Leadership theory : past, present, and future. *Team Performance Management An International Journal, 3*(4), 270–287.
Huei, T. Y., Mansor, N. N. A., & Tat, H. H. (2014). Role of OCB and demographic factors in the relationship between motivation and employee performance. *Intangible Capital, 10*(3), 425–447. https://doi.org/10.3926/ic.435
Husaini, A. I. A., & Tabassi, A. A. (2014). Performance Assessment of Maintenance Practices in Government Office Buildings : Case Study of Parcel E, Putrajaya. *MATEC Web of Conferences, EDP Sciences, 10*, 7.
Ibrahim, N. M., Osman, M. M., Bachok, S., & Zin, M. (2016). Assessment on the Condition of School Facilities : A case study of the selected public schools in Gombak district. *Procedia - Social and Behavioral Sciences, 222*, 228–234. https://doi.org/10.1016/j.sbspro.2016.05.151
Jaafar, S., & Hakim, A. (2017). Facilities maintenance employees’ priority of safety management practices A research study in Malaysia. *Facilities, 35*(5), 319–334. https://doi.org/10.1108/F-03-2015-0012
Jin, S., & Chua, L. (2018). Maintenance of high-rise residential buildings. *International Journal of Building Pathology and Adaptation, 36*(2), 137–151. https://doi.org/10.1108/IBPA-09-2017-0038

Jones and Bartlett. (2008). Factor Analysis, Path Analysis, and Structural Equation Modeling. Khan & Ghufran. (2018). The Mediating Role of Perceived Organizational Support between Qualitative Job Insecurity, Organizational Citizenship Behavior, and Job Performance. *Journal of Entrepreneurship & Organization Management, 07*(01), 1–7. https://doi.org/10.4172/2169-026x.1000228

Leech. (2012). IBM SPSS for Intermediate Statistics (Second Edi). Lawrence Erlbaum Associates. https://doi.org/10.4324/9780203821848

Lepkova, N. (2012). Study on Customer Satisfaction With Facilities Management Services in Lithuania, XX(4), 1–16.

Martorell, P., Stange, K., & Jr, I. M. (2016). Investing in schools: capital spending, facility conditions, and student achievement. *Journal of Public Economics, 140*, 13–29. https://doi.org/10.1016/j.jpubeco.2016.05.002

Mydin, M. A. O. (2014). Key Performance Indicator of Building Maintenance and Its Effect on the Building Life Cycle. *Analele Universitatii‘Eftimie Murgu Resita*, (1), 193–202. Retrieved from http://anale-ing.uem.ro/2014/20.pdf

Meyers, L. S., Gamst, G., & Guarino, A. J. (2006). Applied Multivariate Research Desing and Interpretation. SAGE Publications.

Mwanza, B. G., & Mbohwa, C. (2017). Safety in Maintenance: An Improvement Framework. *Procedia Manufacturing*, 8(October 2016), 657–664. https://doi.org/10.1016/j.promfg.2017.02.084

Olanrewaju, A. L., & Abdul-Aziz, A. R. (2015). Building maintenance processes and practices: The case of a fast developing country. Building Maintenance Processes and Practices: The Case of a Fast Developing Country. https://doi.org/10.1007/978-981-287-263-0

Mydin, O. M. A., Agus Salim, N. A., Tan, S. W., Tawil, N. M., & Ulang, N. M. (2014). Assessment of Significant Causes to School Building Defects. *In Web of Conferences (Vol. 3, pp. 1–7).* https://doi.org/10.1051/e3conf/20140301002

Purnama, C. (2013). Influence Analysis of Organizational Culture Organizational Commitment Job and Satisfaction Organizational Citizenship Behavior (OCB) Toward Improved Organizational Performance. *International Journal of Business, Humanities and Technology, 3*(5), 86–100.

Ugwulashi, S. C. (2017). Educational Facilities: Appropriate Strategy for School Safety Management in Rivers State, Nigeria. *International Journal of Academic Research in Progressive Education and Development, 6*(2), 11–19. https://doi.org/10.6007/IJARPED/v6-i2/2317

Tai, C.-C. L., Chang, C.-M., Hong, J.-Y., & Chen, L.-C. (2012). Alternative Models for the Relationship among Leadership, Organizational Citizenship Behavior, and Performance: A Study of New Product Development Teams in Taiwan. *Procedia - Social and Behavioral Sciences, 57*, 511–517. https://doi.org/10.1016/j.sbspro.2012.09.1218