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

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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.

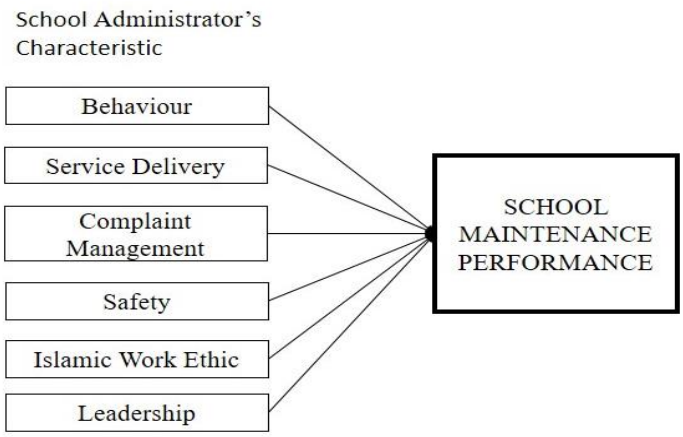

Figure 1: Maintenance Performance Characteristics

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 improvise 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.

Table 1: Overall data acquisition

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.

Table 2: Respondents' position

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-OIkin (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	COM5
1	BHV1	.762a														
2	BHV2	-0.276	.634a													
3	BHV3	0.093	-0.126	.831a												
4	BHV4	-0.138	-0.037	-0.146	.895a											
5	BHV5	-0.128	0.033	-0.386	-0.128	.852a										
6	SER1	0.09	-0.203	-0.208	-0.102	0.088	.855a									
7	SER2	-0.053	0.032	0.202	-0.087	-0.137	-0.271	.824a								
8	SER3	-0.103	-0.135	-0.11	-0.125	0.025	-0.029	0.034	.915a							
9	SER4	-0.005	-0.135	0.027	0.18	-0.231	0.007	-0.233	-0.044	.907a						
10	SER5	0.116	-0.103	0.09	0.081	-0.173	-0.021	-0.273	-0.185	-0.078	.928a					
11	COM1	-0.003	0.159	0.005	-0.03	0.034	-0.061	0.021	-0.179	0.105	-0.132	.918a				
12	COM2	-0.032	-0.019	-0.038	0.047	-0.115	-0.031	-0.245	0.003	-0.037	-0.073	-0.015	.884a			
13	COM3	-0.053	0.053	0.02	0.001	-0.064	-0.147	0.141	0.064	0.096	-0.131	-0.274	-0.147	.893a		
14	COM4	-0.127	0.128	-0.111	-0.086	0.251	-0.039	0.016	-0.169	-0.216	-0.061	-0.016	-0.163	-0.392	.861a	

15	COM5	0.016	0.046	-0.281	-0.016	-0.006	0.019	0.037	-0.079	-0.037	-0.013	0.009	-0.323	-0.069	-0.085	.917a	

No	The Variables	SAF1	SAF2	SAF3	SAF4	SAF5	SAF6	LED1	LED2	LED3	LED4	LED5	IWE1	IWE2	IWE3	IWE4	IWE5
16	SAF1	.906a															
17	SAF2	-0.073	.940a														
18	SAF3	-0.085	-0.149	.913a													
19	SAF4	-0.040	-0.079	-0.267	.915a												
20	SAF5	-0.177	-0.277	0.060	-0.334	.883a											
21	SAF6	-0.438	-0.080	-0.161	0.031	-0.102	.857a										
22	LED1	-0.035	-0.070	-0.227	0.016	-0.118	0.008	0.893a									
23	LED2	0.043	-0.110	0.137	0.011	-0.021	-.0168	-0.291	.880a								
24	LED3	0.012	-0.236	-0.002	0.051	0.124	-0.005	-0.246	0.059	.881a							
25	LED4	-0.127	0.151	-0.139	0.004	-0.181	0.089	0.121	-0.188	-0.516	.890a						
26	LED5	-0.044	-0.035	-0.034	-0.188	0.004	0.118	0.074	-0.189	-0.229	-0.028	.933a					
27	IWE1	0.015	-0.061	-0.148	0.084	-0.006	0.000	-0.015	0.195	0.009	0.046	-0.068	.734a				
28	IWE2	0.053	0.153	-0.038	-0.067	0.024	-0.057	0.001	-0.011	-0.027	0.083	-0.239	-0.069	.822a			

29	IWE3	0.031	-0.016	0.055	-0.067	0.024	-0.057	0.086	-0.173	-0.152	-0.002	0.047	-0.194	-0.419	.838a		
30	IWE4	0.107	-0.139	-0.020	-0.077	-0.034	-0.148	0.082	-0.032	0.026	0.072	0.029	0.004	-0.002	-0.076	.591a	
31	IWE5	-0.252	-0.033	0.200	-0.041	0.166	0.004	-0.263	0.057	0.046	-0.115	0.051	-0.473	-0.172	0.033	-0.19	.647a

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.

Table 6. Total variance explained

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.

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