



ISSN:1991-8178

Australian Journal of Basic and Applied Sciences

Journal home page: www.ajbasweb.com



A Review on Challenges in Developing Maintenance Culture among the Government Agencies

Shardy Abdullah, Arman Abdul Razak, Mohd Asyraf Hussin and Mohd Hanizun Hanafi

School of Housing, Building and Planning, Universiti Sains Malaysia, 11800, Penang, Malaysia.

ARTICLE INFO

Article history:

Received 12 October 2014

Received in revised form 26 December 2014

Accepted 17 January 2015

Available online 28 February 2015

Keywords:

maintenance culture, public building, government agency

ABSTRACT

Embedding maintenance culture is important in an organization in order to improve the maintenance service and performance. Lack of maintenance culture in public sector is worrying because it will cause the government lost in billions of Ringgit Malaysia each year in order to maintain the public buildings. Therefore, the purpose of this paper is to discover the challenges that may face by the government agencies in order to develop the maintenance culture in their organisations. Literature search from various resources such as journal article, book, report and others was conducted in order to obtain the related information as needed. Finally, it is found there are 9 challenges that had been considered as influencing the development of maintenance culture in public or government agencies. The challenges are lack of training and time, lack of strategic planning program, low perception, identification of defects, lack of attention, lack of manual, no incentive program, lack of feedback, and prioritizing.

© 2015 AENSI Publisher All rights reserved.

To Cite This Article: Shardy Abdullah, Arman Abdul Razak, Mohd Asyraf Hussin and Mohd Hanizun Hanafi., A Review on Challenges in Developing Maintenance Culture among the Government Agencies. *Aust. J. Basic & Appl. Sci.*, 9(7): 235-238, 2015

INTRODUCTION

The concept of building maintenance is to keep, restore or improve every building component to an agreed standard by the balance between the need and available resources. Building maintenance activities can be understood as the essential action to preserve a building to good condition that be used for much longer period. According to British Standard (BS 8210: 1986), maintenance can be defined as the combination of all technical and administrative actions, including supervision actions, intended to retain an item in, or restore it to, a state in which it can perform a required function (Chan, A.P.C., *et al.*, 2010). Maintenance culture is essential to increase the performance of maintenance that would directly improve the performance of any property, facility or infrastructure including public building. Mark *et al.* (2006) had describe the concept of maintenance culture as internal environment between management and staff in effectively managing maintenance through the sharing of ideas, beliefs and values for each member in an organization. In general, maintenance culture is an understanding and actions taken by each individual doing their part in maintenance works of a building. Suwaibatul (Suwaibatul, I.A.S., *et al.*, 2010) had stressed that cultural beliefs, values, norms, practices and attitudes

must relate to maintenance work and had to be embedded in every individual organization doing maintenance services. In creating maintenance culture, there is emphasis in the process of promoting maintenance related activities in the base human resource development. Lateef (Lateef, O.A., 2009) had discovered that there is positive relationship between maintenance culture and community development. In the same study, it was revealed that when the morale of people will be very high when they are carried along in developments and educated as to the aims and objective of such development. Public users must realize that their involvement in maintenance work could improve the quality of life in their community. Poor maintenance of the public building in Malaysia can be attributed to lack of maintenance culture. The process of educating the maintenance culture in public sector is very important and considered as an integral part of improving maintenance project performance (Hassan, S., 2007).

Literature Review:

It is difficult to define culture in a single concept, because it has a wide range of multitude concepts, each with its own variation. Culture is a set of values and belief about what a community of people deemed desirable and undesirable, and the set of practices to support the values (Javidan, M., R.J.

Corresponding Author: Shardy Abdullah, School of Housing, Building and Planning, Universiti Sains Malaysia, 11800, Penang, Malaysia.
E-mail: ydrahsshardy@gmail.com

House, 2001). Culture is deemed as the key that can influence people's behaviour of getting things done correctly (Brendan, J.S., 2006). The culture is shaped by the people through the values, perception and goals in which individuals in a group shared with and learned from previous generation, and it is continued to next generation. Culture generally persists in conscious awareness because it's based from assumption on how a person should perceive, think, act and feel. In the context of building or property maintenance, the term of maintenance culture can be literally defined as the sharing of ideas, beliefs and values for each member in an organization that is creating an environment between the management and the staff in effectively managing maintenance (Eti, M.C., *et al.*, 2006). Suwaibatul and Abdul Hakim (2011) had stressed that it is important to change the culture of an organization to consider maintenance as important matter and practice it in their life. The change should be defined in the values, the way of thinking, behaviour, perception and the underlying assumptions of any individual in an organization. Most Malaysian has poor maintenance culture despite the first-world facilities available in the country (Lee, L.T., 2012). In understanding and practicing maintenance culture, a person must have the attitude to preserve public facilities on voluntary basis.

Discussion:

Based on the information found from literature, the discussion in maintenance challenges can be divided to a few elements as follows:

Lack of Training and Time:

The management should provide sufficient training for the employees regarding maintenance culture. It is crucial to train the employees about maintenance culture to educate and encourage them to practice it in their work environment. The employees require adequate training to learn and be exposed to maintenance culture and thus the management is responsible to send the employees for training. Pascual *et al.* (2009) had stressed the importance of maintenance personnel's skills in influencing the maintenance performance. There is inherent uncertain element in maintenance system, in which the uncertainty in determining the time needed in performing maintenance (Duffuaa, S.O., *et al.*, 2000).

Lack of Strategic Planning Program:

It is the responsibility of the management to organize programs for the employees regarding maintenance activities and culture. Programs such as competitions, exhibitions, and education seminars provide venues for the employees to be aware of maintenance culture. In addition, programs will encourage the employees to participate in

organizational activities and becoming proactive members in the organization. Proactive employees are beneficial to the organization, and able to provide feedbacks and criticism to the management. The lack of program organized by management to promote maintenance culture will hinder the progress of developing culture in the organization. Kadir (2009) had emphasized the responsibility of the organization not to only plan efficient system, but also to make sure the planned system will deliver successfully.

Low Perception:

The perception of the employees is that the upper management doesn't participate in the maintenance activities and culture. The organization must recognize the employees' attitudes and perceptions and organize trainings and educational sessions in influencing those attitudes and perceptions. The management must take note on the employees' perception regarding their commitment in implementing maintenance culture in the workplace. Bailey (1997) had conducted study in understanding the workers' perception of the management's commitment of to their safety, and came out with several findings.

Identification of Defects:

The employees don't have the skills to properly identify the severity of the defects in the workplace. Some defects are latent and can't be properly identified by the employees, and hence the defects will continue to deteriorate over time. In order for employees to be effective in maintenance, they must be trained to recognize potential defects and quickly report those defects for maintenance works. Untrained employees will ignore defects and will not report the defects to respective maintenance personnel and thus will potentially cost the organization more. A trained and proactive employee will bring benefits to the organization and prevent defects from threatening the operation.

Lack of Attention:

The management should take the attention toward maintenance culture. By promoting maintenance culture, the employees could improve the life expectation of the organization's assets such as furniture, structures, equipment and so on. When the awareness and attention to adequate maintenance is well understood by the whole society, then the development of the country is successful.

Lack of Manual:

The manual for maintenance culture should be organized by the organization. The management is responsible to make a manual specific regarding the employees and management's participation in maintenance activities. The manual provided must be precise and easier to understand to employees.

No Incentive Program:

By providing incentives to the employees that active in maintenance culture, employees will be more aware and feels encouraged to join and will practice the maintenance culture voluntary. Events such as competitions and exhibitions organized by the management will helps promoting rivalries and competitive avenue for the employees to gain rewards and incentives. The methods that could successfully develop employees' motivation in cultivating maintenance cultures.

Lack of Feedback:

The management must obtain feedbacks from the employees in the process of implementing maintenance culture. From time to time, the process of maintenance culture must produce significant results. If there are no significant results from the previous strategies, the management should change the strategies in implementing maintenance culture. The management should take active approaches such as positive feedback, actively seeking employee inputs and involvement, and provide venues for employees to voice their opinions and criticisms.

Prioritizing:

The management should prioritize which activities are more important and must decide accordingly. Maintenance activities are often seen as unimportant activity in most developing countries, and thus require lots of attention from the management to install new organizational culture to the employees. The management should put maintenance activities at higher priority due to the employees' insufficient knowledge about the concept.

Summary:

The finding of this paper has discussed 9 challenges which are highlighted in previous literature as the challenges that affected the development process of maintenance culture in public sector. The existence of these challenges must be considered in any effort of developing maintenance in a public agency. Therefore, a detailed study needs to be done in line to fully identify and understand the actual factor which caused the occurrence of these challenges. In fact, with ability to identify and understand the challenges, government agency organisations will be more capable to improve the effort of adopting an effective maintenance culture in respective public agency organisation. Apart from that, by comprehending the challenges, a proper or systematic implementation strategy or framework could be created in earlier stage of maintenance culture development. Shortcomings in each challenge should be addressed and rectified if the government is keen in reforming and revamping its maintenance programme for the better. Finally, detailed and extensive research is

certainly needed to supplement the government's efforts, with the ultimate aim to make the maintenance of public building in Malaysia a truly efficient, viable and efficacious practice.

ACKNOWLEDGEMENT

The authors would like to thank Universiti Sains Malaysia for providing the financial support of this research as it was sponsored under the Research University (RU) Grant (account no.: 1001/PPBGN/816231) entitled 'Determining The Critical Components of Maintenance Culture among Public Building Users'

REFERENCES

- British Standard Institution. BS 8210: 1986. British Standard Guide to Building Maintenance Management, London, UK.
- Chan, A.P.C., F.K.W. Wong, M.C.H. Yam, D.W.M. Chan, C.K.H. Hon, Y. Wang, H. Biggs, 2010. RMAA Safety Performance-How does It Compare with Greenfield Projects?. In W099-Special Track 18th CIB World Building Congress May 2010 Salford, UK, pp: 13.
- Mark, C., C. Eti, S.O.T. Ogaji, S.D. Probert, S.D. Strategic, 2006. Maintenance Management in Nigerian Industries. *Journal Applied Energy*, 83(3): 211-277.
- Suwaibatul, I.A.S., M. Abdul Hakim, S.S. Fatin, S. Sheelah, A. Mariah, 2010. Isu Budaya Penyelenggaraan Aset Tak Alih Kerajaan, Conf. Proceeding SSPNS2010, Pulau Pinang.
- Lateef, O.A., 2009. Building maintenance management in Malaysia. *Journal of Building Appraisal*, 4(3): 207-214.
- Hassan, S., 2007. National asset and facility management development. In Proceeding of the National Asset and Facilities Management (NAFAM) Convention, Kuala Lumpur, Malaysia, 13 August. Frost & Sullivan.
- Javidan, M., R.J. House, 2001. Cultural acumen for the global manager: Lessons from project GLOBE. *Organizational Dynamics*, 29(4): 289-305.
- Brendan, J.S., 2006. Optimising the Maintenance Function - It's Just as Much About the People as the Technical Solution, WCEAM 2006, of pp: 095.
- Eti, M.C., S.O.T. Ogaji, S.D. Probert, 2006. Strategic maintenance-management in Nigerian industries. *Applied Energy*, 83(3): 211-227.
- Suwaibatul, A.S., M. Abdul Hakim, 2011. Key Factors in Developing Maintenance Culture of Public Asset Management, Int. Building & Infrastructure Technology Conference, pp: 281-287.
- Lee, L.T., 2012. Malaysian must work to develop a strong maintenance culture. *The Star*.
- Pascual, R., G. Del Castillo, D. Louit, P. Knights, 2009. Business-oriented prioritization: a

novel graphical technique, *Reliability Engineering & System Safety*, 94(8): 1308-13.

Duffuaa, S.O., A. Raouf, J.D. Campbell, 2000. *Planning and control of maintenance systems*. Wiley, Indianapolis.

Kadir, A., 2009. *Sistem Pengurusan Kualiti – Pengurusan Dan Pelaksanaan Di Malaysia*. Bangi: Universiti Kebangsaan Malaysia, Malaysia.

Bailey, C., 1997. Managerial factors related to safety program effectiveness: an update on the Minnesota Perception Survey, *Professional Safety*, 8: 33-35.