# UNIVERSITI TEKNOLOGI MARA

# FACILITIES MANAGEMENT PERFORMANCE INDICATORS FOR BALANCED SCORECARD APPLICATION IN LOCAL AUTHORITIES

# NORASHIKIN BINTI RAHMAT

# PhD

# September 2021

# AUTHOR'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

| | | |
|---|---|---|
| Name of Student | : | Norashikin Binti Rahmat |
| Student I.D. No. | : | 2013122589 |
| Programme | : | Doctor of Philosophy (Built Environment) – AP991 |
| Faculty | : | Architecture, Planning and Surveying |
| Thesis Title | : | Facilities Management Performance Indicators for Balanced Scorecard Application in Local Authorities |
| Signature of Student | : | ………………………………………….. |
| Date | : | September 2021 |

# ABSTRACT

Local authorities have always been considered as organizations that can provide better services in terms of service delivery and facilities. However, the lack of performance indicators for Facilities Management (FM) is becoming crucial for the local authorities to measure the performance of FM. The term FM itself is still relatively new in Malaysia even though FM is important in every organization. Thus, there is an urgent need for FM to be measured in the local authorities. This due to the use of the performance measurement in the local authorities is driven by the increased demands from the public for the local authorities' accountability and greater interest on the local policymakers in performance related information that can assist in evaluating and resource allocation decisions. Furthermore, rapid changes in the demanding environment and the growth of demands especially for a various range of services and facilities are creating more challenges for the local authorities. Therefore, this research's aim is to propose the FM performance indicators for BSC application among local authorities. It specifically studies the FM performance indicators that are applicable and suitable within the Malaysian context. Moreover, this research is based on data obtained from mixed methods included in the questionnaire and interviews based on the performance indicators of FM which could be applied for BSC in the local authorities. The data from the questionnaire was analysed using the Analytic Network Process (ANP) to obtain the ranking priority of performance indicators for FM and to acquire the inter-relationship between the indicators. Meanwhile, the data analysis for the interview was analysed using the Atlas Ti. to obtain in-depth explanations on the performance indicators. From the analysis, it showed five (5) main perspectives (stakeholders, learning and growth, internal business process, services and facilities, plus financial) while 29 performance indicators were selected as the main performance indicators for FM that can be applied for BSC application in the local authorities. Subsequently, this study also conducted a correlation test using Kendall's Tau correlation coefficient to obtain the strength of the relationship between the 36 performance indicators with the actual performance of the local authorities. The results indicated that there were 32 performance indicators which were significant and 4 four performance indicators that were not significant. The results from the study also specified that maintenance, revenue growth and facilities condition were the highest three performance indicators in FM. The study recommends that there is needs for the local authorities to strategies and equipped with new knowledge on the essential performance indicators that will contribute to the robustness of the local authorities in enhancing the service delivery and the provision of public facilities. This study also can contribute to the enhancement of FM in the local authorities, as well as the improvement in service delivery of the local authorities in order to fulfil the demands from the public.

# ACKNOWLEDGEMENT

# TABLE OF CONTENTS