

**AN ANALYSIS OF THE CONSCIOUSNESS,
INITIATIVES AND CHALLENGES OF SUSTAINABLE
DEVELOPMENT AT SEREMBAN CITY COUNCIL**

BY

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**A thesis submitted in fulfillment of the requirement for the
degree of degree of Master of Science (Built Environment).**

**Kulliyyah of Architecture and Environmental Design
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ABSTRACT

The concept of sustainable development has been in existence since the 1980s. Since adopting Agenda 2030 for Sustainable Development in 2015 by the United Nations, Malaysia has taken initiatives to implement this agenda. Local governments are regarded as one of their most crucial implementation partners in implementing Sustainable Development Goals. However, after half a decade of implementing Sustainable Development Goals in a local setting, there are still uncertainties over its comprehension, interpretation, and apprehensions. This research sought to analyse the consciousness, initiatives and challenges of sustainable development at Seremban City Council. The research's objectives are identifying the sustainability consciousness factors among Seremban City Council employees, assessing the implementation of the Sustainable Development Goals initiatives and identifying the challenges of executing the Sustainable Development Goals initiatives at the Seremban City Council. This research employed a mixed-method approach to achieve its research objective. A total of 291 Seremban City Council employees were randomly selected to analyse the sustainability consciousness through exploratory factor analysis. The use of exploratory factor analysis was justified as there was a lack of theoretical underpinnings of sustainability consciousness. Additionally, five prominent employees were selected to analyse the challenges of implementing Sustainable Development Goals initiatives at Seremban City Council via thematic analysis, while the sustainable development initiatives were analysed through content analysis. The initiatives were identified from official documents from 2017 to 2019. Two instruments were developed to collect data; the first instrument was a self-administered questionnaire adopted from previous studies, and the second was an interview for the semi-structured interview. The findings indicated three principal sustainability consciousness components; the knowledge and attitude toward sustainable development, the socio-economic behaviour toward sustainable development and the environmental behaviour toward sustainable development. The findings also indicated that 104 sustainable development initiatives were implemented at Seremban City Council, of which 46 were conducted by the Planning Development Department. Also, the Seremban City Council place the most significant concern on Target 11.7 of the SDG11. Finally, this research would assert that Seremban City Council faced four main challenges; sustainability consciousness, project management, financial and governance challenges in implementing these initiatives. These results demonstrate the accomplishment of this research's aim and objectives.

ملخص البحث

سعى هذا البحث إلى تحليل وعي ومبادرات وتحديات التنمية المستدامة في مجلس مدينة سرمان. تم اختيار 291 من موظفي مجلس مدينة سرمان بشكل عشوائي لتحليل الوعي بالاستدامة. بالإضافة إلى ذلك، تم اختيار خمسة موظفين لتحليل تحديات تنفيذ مبادرات أهداف التنمية المستدامة في مجلس مدينة سرمان بينما تم تحليل مبادرات التنمية المستدامة من خلال تحليل المحتوى. كما تم تطوير أداتين لجمع البيانات؛ كانت الأداة الأولى عبارة عن استبيان يتم إدارته ذاتياً واعتماده من الدراسات السابقة، بينما كانت الأداة الثانية عبارة عن دليل مقابلة للمقابلة شبه المنظمة. أشارت النتائج إلى أن هناك ثلاث مكونات رئيسة للوعي بالاستدامة، كما أشارت النتائج إلى أن هناك العديد من مبادرات التنمية المستدامة التي تم تنفيذها في مجلس مدينة سرمان. سيؤكد هذا البحث على أنه عند تنفيذ هذه المبادرات، حيث واجه مجلس مدينة سرمان خمس تحديات رئيسة. كما توضح هذه النتائج النجاح في تحقيق أهداف هذه الدراسة.

APPROVAL PAGE

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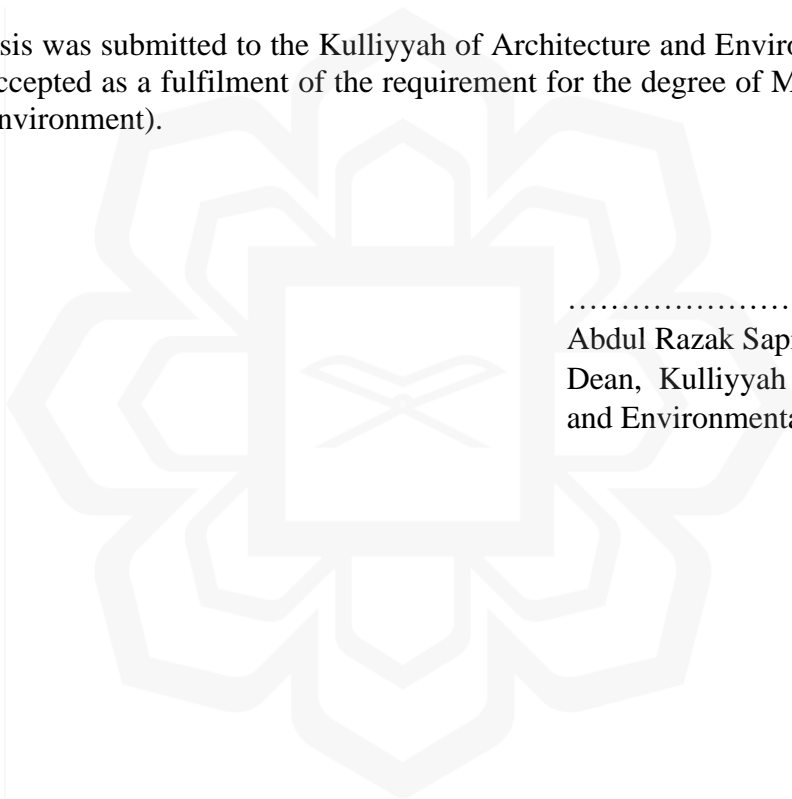
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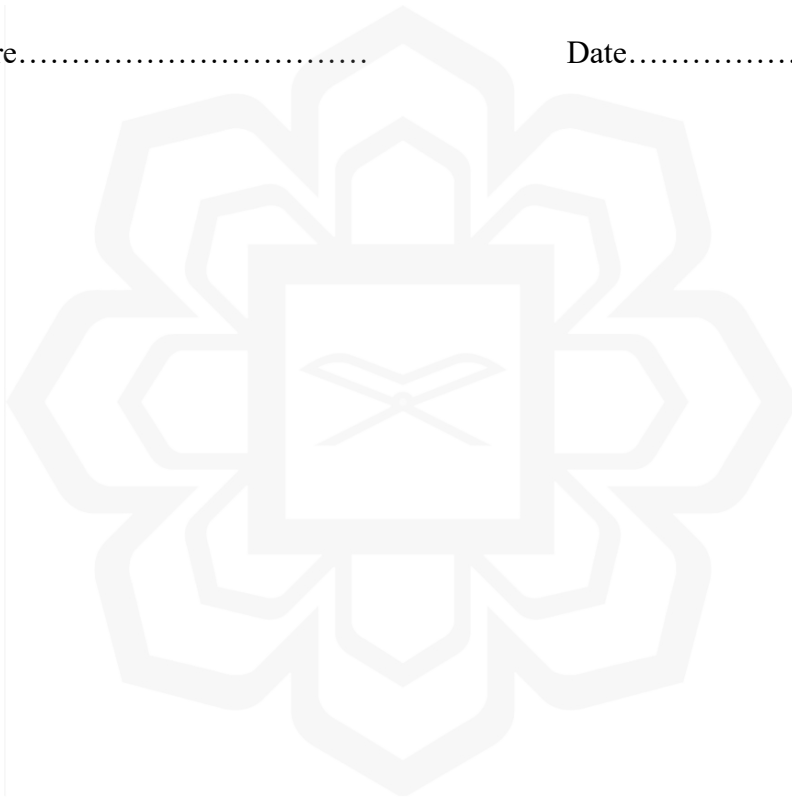
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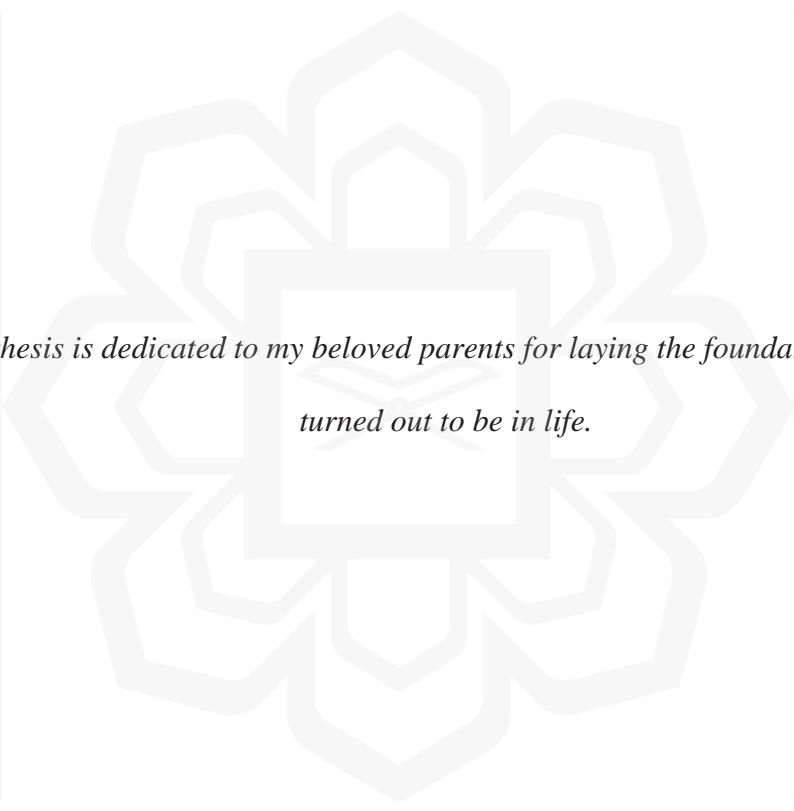
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*This thesis is dedicated to my beloved parents for laying the foundation of what I
turned out to be in life.*

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All praises are due to Allah, I seek His help and forgiveness, and I turn to Him in repentance.

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LIST OF ABBREVIATION

SDG	Sustainable Development Goals
SCC	Seremban City Council
NCP	National Community Policy
UN	United Nations
et al.	(et alia); and others
JPA	Public Service Department
UNESCO	United Nations Educational, Scientific and Cultural Organization
MHLG/KPKT	Ministry of Housing and Local Government
NLC	National Land Code
NPP	National Physical Plan
SCQ	Sustainability Consciousness Questionnaire
EPU	Economic Planning Unit
NSC	National Sustainable Council
NEM	New Economic Model
MSCF	Malaysia Smart City Framework
SCEC	Smart City Executive Committee
NGO	Non-Governmental Organisation
PLUS	Lebuhraya Utara-Selatan
LEKAS	Lebuhraya Kajang-Seremban
KLIA	Kuala Lumpur International Airport
MPN	Nilai Municipal Council
MURNInets	Malaysian Rural-Urban Sustainable Indicator Network Program
PLANMalaysia	Department of Town and Country Planning
PTD	Diplomatic and Administration Officer
EFA	Exploratory Factor Analysis
CFA	Confirmatory Factor Analysis

PCA	Principal Component Analysis
KMO	Kaiser-Meyer-Olkin
JKR	Public Works Department
MBS	Majlis Bandaraya Seremban
LA21	Local Agenda 21
SJCC	Subang Jaya City Council
SACC	Shah Alam City Council



CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND

Since the adoption of the Sustainable Development Goals in 2015, the sustainable development field has seen a resurgence of research interest. A significant reason for this was that the topic attracts a diverse range of researchers to contribute to the discourse due to the multidimensional character of sustainable development. From sustainable development governance to climate change mitigation, sustainable development's uniqueness can only be described as advantageous for the study of sustainable development because scholars from a variety of disciplines, from technologists to economists, can participate and have their say in the discourse in contrast to other narrower fields.

The proliferation of sustainable development studies has also resulted in the emergence of numerous subfields of study, which contributes to the growing body of sustainable development research. In other words, sustainability study was a relatively novel branch of study, and more work remains to be done. The need for additional research exists because discoveries continue to be uncovered, and the current study volume contains numerous gaps that must be addressed. As a result, the multifaceted subject matter must be translated into multifaceted research in order to establish a balanced vision of multidimensional sustainable development.

1.1.1 Overview of the Study

This research focused on three matters: sustainability consciousness, Sustainable Development Goals initiatives and their challenges.

The research was an exploratory study that contextualises the study of sustainability consciousness in Malaysia. Currently, there is a dearth of empirical research pertaining to Malaysia's sustainability consciousness. It was a relatively new subject of study in the realm of sustainable development that was pioneered by Michalos et al. (2012) and Gericke et al. (2018). Past empirical research has focused on assessing sustainability consciousness in primary school pupils (Olsson, Gericke, and Rundgren 2016), teachers (Colás-Bravo, Magnoler, and Conde-Jiménez 2018; Marcos-Merino, Corbacho-Cuello, and Hernández-Barco 2020), comparing sustainability consciousness between secondary school pupils in two countries (Berglund et al. 2019), and examining the effects of sustainability consciousness on the quality of life and happiness of society (Rerkklang 2018).

Thus, this research adapted the sustainability consciousness instrument to categorise the sustainability consciousness of Malaysian local government employees. The research intended to establish foundational research by explaining the sustainability consciousness factors among the Seremban City Council employees in Negeri Sembilan, Malaysia. The research reassesses the latent factors of sustainability consciousness that have been conventionally classified according to the knowledge, attitude and behaviour of the pillars of sustainable development.

Since the Sustainable Development Goals were adopted and endorsed in 2015, a plethora of policies, action plans, and initiatives have been enacted to attain them. At the federal level, the Ministry of Housing and Local Government was the primary agency charged with coordinating the practices of Malaysia's local governments (Mariana et al. 2014). The Ministry's major function was to coordinate local governments' sustainability programmes and operations through the federal government's public policy (KPKT 2020b). The Malaysia Smart City Framework (KPKT 2020a), the National Cleanliness Policy (KPKT 2019), and the National Community Policy (KPKT 2018) were among the examples of policies that contain sustainable development initiatives. Malaysia's local governments rely heavily on public policy to implement sustainable development initiatives. A case in point is the establishment of a smart city in Forest City, Iskandar Malaysia, which incorporates smart city criteria such as smart homes, smart healthcare, and smart education (Bello and Ainul Jaria 2018). Thus, this research similarly sought to identify the Sustainable

Development Goals initiatives implemented by Seremban City Council in order to highlight Sustainable Development Goals within the Council's activities.

To complement the understanding of the Sustainable Development Goals initiatives, it is also necessary to analyse the challenges to its implementation. At the moment, empirical research on the challenges to implementing Sustainable Development Goals programmes is scarce. Recent United Nations official publications identified the following challenges to achieving sustainable development: unequal opportunity, wealth, and power distribution (UN 2015); a weak urban governance system and public institutions; limited access to financial resources to support policies and action plans (UNDP 2015); weak legislation and regulatory frameworks (UNDP 2016), and a lack of innovative and efficient policy implementation mechanisms, a lack of awareness, understanding, and buy-in for the SDG framework, a lack of training, a lack of indicators tailored to the local context, local governments' limited authority and leadership to implement local action plans, and political insecurity (UCLG 2019b).

However, in contrast to official publications, the local government study lacked empirical evidence on the challenges of implementing Sustainable Development Goals initiatives in a local government. As such, this research intended to evaluate the challenges to implementing Sustainable Development Goals programmes through the eyes of Seremban City Council personnel.

It can be summarised that this research focused on sustainability consciousness, Sustainable Development Goals initiatives and their challenges. These three themes form the spine of the thesis, and subsequently, the research questions were formulated to reflect them.

1.2 SUSTAINABILITY CONSCIOUSNESS, INITIATIVES AND CHALLENGES: A LOCAL CONTEXT

Although the notion of sustainable development has been present since the 1980s, there were still arguments to be made that it has not permeated deeply into people's consciousness, particularly among local government employees. There are uncertainties about the sustainability consciousness among local government employees. The United

Cities and Local Governments endorsed this position, stating that local government personnel require a greater grasp and awareness of sustainable development (UCLG 2019a).

A 2014 research of 55 local governments in Malaysia discovered that staff members of local governments required a greater understanding and awareness of sustainable development (Sulzakimin, Seow, and Goh 2014). To successfully implement the Sustainable Development Goals, the employees who function as its implementation agent must acquire the necessary knowledge and establish a good attitude and sustainable behaviour toward sustainable development. A local government employee with consciousness about sustainability should be well equipped to properly plan, integrate, implement, and monitor sustainability initiatives to achieve the Sustainable Development Goals by 2030 (Rafika et al. 2016).

The Knowledge, attitude and behaviour theory was frequently used to measure sustainability awareness. The earliest model used to measure and explain environmental, and sustainability awareness was the pro-environmental behaviour model proposed by Ramsey and Rickson (1976). This model became known as the KAP model, which stands for knowledge, attitude, and practice or also called behaviour (Mohd Hilmi and Kamaliah 2013). This model prioritised knowledge as an attitude and behaviour variable (Flamm 2006). According to the KAP model, increasing people's knowledge will result in an attitude shift. A change in attitude will result in a change in their practises or behaviour. It was asserted that knowledge determined attitude, intention, and behaviour. With exposure to new information through talks, classes, media, lectures, and other scholarly activities, one's knowledge can be expanded.

A comprehensive examination of the sustainability consciousness factors among local government employees served as the first step in developing fundamental sustainability consciousness research in Malaysia. Given that the consciousness concept has an inner nature and obeys subjective processes, it is critical to establish verifiable context-specific manifestations of sustainability consciousness to develop sustainability consciousness (Colás-Bravo, Magnoler, and Conde-Jiménez 2018), and identifying the sustainability consciousness factors can serve as a point of departure to reach that end.

The local government is positioned at the forefront of implementing SDGs at the local level. Given that the local government is the primary agency responsible for urban services, including implementing sustainability initiatives within its operating area, it makes sense that the same agency was well prepared with the appropriate consciousness toward sustainable development. Lack of understanding about sustainable development may result in local government employees implementing sustainable development in an unfavourable manner (Sulzakimin, Seow, and Goh 2014).

In addition to that, currently, there is a lack of empirical study on implementing Sustainable Development Goals in the local government (Allen, Metternicht, and Wiedmann 2018). There is also a lack of empirical research examining the challenges of implementing Sustainable Development Goals (Leal Filho et al. 2017). Due to this, local governments cannot accurately assess their degree of Sustainable Development Goals implementation.

Several works of literature have documented the Sustainable Development Goals initiatives in local government in Malaysia, such as (Rohana, Dasimah, and Puziah 2019). However, the researcher also admitted a lack of implementation in sustainability programmes by the local government. Therefore, more research is required to document urban sustainability initiatives to help develop comprehensive action plans and avoid implementing initiatives on an ad hoc basis (Zeemering 2018). The justification for research also lies in the statement that a standard and precise assessment method is needed to evaluate sustainable development programmes (Zakiah et al. 2011). Having a standardised method for assessing SDGs initiatives at the local government level can result in more effective policy formulation and execution.

Typically, implementing SDGs at the local government level encounters problems, obstacles, and issues. According to Gusmão Caiado et al. (2018), studying these challenges to implementing Sustainable Development Goals initiatives is necessary. A previous study by Noor Azlina (2016) demonstrated an issue confronting the local government regarding sustainability consciousness, revealing a lack of awareness of the importance of sustainable development among Shah Alam City Council employees and a lack of interest in participating in sustainable development programmes.

The research on sustainable development challenges is necessary to develop solutions to challenges, such as capacity building to address these challenges (Robinson 2004), anticipating problems before they occur, and preparing necessary training for local government employees to act when confronted with these challenges.

1.3 STATEMENT OF THE PROBLEM

Agenda 2030 for Sustainable Development has permeated all facets of local government administration. Critically, the local government's adoption of the Sustainable Development Goals creates uncertainties over its comprehension, interpretation, and apprehensions. Thus, the present study aims to analyse the consciousness, initiatives and challenges of sustainable development.

The study of sustainability consciousness is critical since most social science research on sustainability has focused on individual-level environmental behaviours and has yet to create new theories tailor-made to the three-domain model of sustainability (Zwickle and Jones 2018). This problem could be solved by developing theoretical models based on latent constructs where researchers could test a broader range of hypotheses and drive the discipline toward cutting-edge, sustainability-tailored theories. However, the first step towards achieving this is identifying the latent constructs of sustainability itself.

Additionally, there was a dearth of sustainability initiatives reported by local governments (Adams, Muir, and Hoque 2014). This condition raised concerns about the extent to which the local government managed its sustainability efforts. Empirical research on local government Sustainable Development Goals initiatives can highlight the current state of Sustainable Development Goals implementation, provided an academic voice in place of voluntary reports, and shed light on the current state of policy interpretation, resulting in improvements in Sustainable Development Goals practise. To solve this problem, the researcher ascertains the extent to which the local government has adopted Sustainable Development Goals through initiatives implementation.

Finally, addressing the challenges associated with executing Sustainable Development Goals initiatives may identify fundamental themes that can guide the implementation of Sustainable Development Goals at the local level. By identifying the challenges to achieving the Sustainable Development Goals, local government managers may conceptualise their implementation in relevant and appropriate ways to the local context. This issue may be resolved by determining local governments' challenges while implementing Sustainable Development Goals initiatives.

Thus, the present study has three-pronged objectives; to identify sustainability consciousness factors among the Seremban City Council employees, identify the Sustainable Development Goals initiative implemented by a local government, and understand the challenges of executing the Sustainable Development Goals programmes at the Seremban City Council. These three objectives were achieved using a mixed-method strategy.

A local government was chosen as the research site since they are one of the most critical Sustainable Development Goals implementing agencies. As the Sustainable Development Goals were scheduled to be achieved in 2030, Malaysian scholars should engage in debates about sustainability consciousness to bring a local perspective to the discussion and highlight Malaysia's local government as a leader in implementing the Sustainable Development Goals.

1.4 OBJECTIVES OF THE RESEARCH

The objectives of the study are threefold.

1. To identify the sustainability consciousness factors among Seremban City Council employees.
2. To determine the implementation of the Sustainable Development Goals initiatives executed by the Seremban City Council.
3. To identify the challenges of executing the Sustainable Development Goals initiatives at the Seremban City Council.
4. To recommend an improvement for the Seremban City Council's implementation of Sustainable Development Goals initiatives.