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## INVESTIGATE THE STRATEGIES OF LOCAL AUTHORITIES TO ENABLING SMART CITIES

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### ABSTRACT

The strategies of local authorities are important in using technology to maintain smart cities with a focus on biodiversity and environmental conservation. This research article investigates the strategies of local authorities to enabling smart cities and to investigate future suggestions for the success of smart cities in the community. Smart city projects offer exciting possibilities for improving cities, but to achieve this effectively and ethically, cities must address concerns around data privacy, cyber security, and ensuring everyone benefits equally. Using In-depth interviews and focus groups will be among the qualitative research techniques used in this project to gather rich, contextually integrated data on participant experiences and viewpoints. Purposive sampling will be used to choose participants with a goal of including people from a range of backgrounds, including various socioeconomic levels, cultural backgrounds, and geographic areas. Thematic analysis will be used to analyses the data, with an emphasis on finding recurrent themes, patterns, and narratives in the data. To ensure the authenticity and depth of the results, interpretations will be based on the voices and viewpoints of the participants. The significance of Majlis Bandaraya Seremban in enabling smart cities through policy formulation strategies, urban planning and governance for sustainable urban development. An important strategy of the MBS authority is that policy implications in smart city initiatives can provide valuable insights for policymakers at various levels of government

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## 1.0 INTRODUCTION (HEADING 1)

In the last twenty years, the concept of "smart cities" has become increasingly popular, mostly due to factors related to the supply side. Kleinman (2016) observed that the private sector has taken the initiative in identifying the challenges and remedies related to smart cities. Urban environments utilize digital innovation to provide fresh economic prospects, improve the delivery of public services, and encourage citizen participation. The use of smart city technology is rapidly increasing in Malaysia, driven by programs like the Smart Selangor Blueprint and the Iskandar Malaysia Smart City Framework. These efforts aim to promote innovation and sustainable development (Statista, 2024).

The fundamental nature of a smart city resides in its capacity to enhance urban operations, stimulate economic development, and enhance the well-being of its residents by leveraging intelligent technologies and analyzing data. The key factor is not just the presence of technology, but rather its efficient use (TWI, 2022). Local authorities are crucial in promoting and supporting the advancement of smart cities. They have the ability to actively involve individuals in the planning and execution process, carry out public consultations, and solicit input to guarantee inclusivity and alignment with community expectations.

However, despite the advancements achieved, obstacles continue to exist. Data breaches, disparities in infrastructure provision, and cybersecurity risks provide substantial challenges to the achievement of smart city programmers. The necessity of addressing these difficulties is highlighted by recent instances, including data theft from civil servant e-pay slip systems and concerns regarding accessibility for impaired individuals.

In order to effectively tackle these difficulties, it is crucial for local authorities to enhance cybersecurity measures, guarantee fair access to infrastructure, and give priority to safeguarding the privacy and security of individuals. Implementing security operations centers (SOCs) and cybersecurity threat intelligence (CTI) programmers can proactively address cyber threats and reduce risks (Fikri Faisal, 2023).

This research seeks to investigate the involvement of local authorities in facilitating smart cities, analyses the obstacles that organizations encounter in this pursuit, and put forth recommendations for the future advancement of smart city efforts. The research inquiries will concentrate on clarifying the function of local authorities, recognizing obstacles, and proposing tactics for the progress of intelligent cities in the community.

In Malaysia, the pursuit of smart cities offers both prospects and obstacles. Local authorities can have a significant impact on improving the lives of inhabitants by addressing recognized problems and making use of smart technologies.

## 2.0 LITERATURE REVIEW

### 2.1 Implementing Smart City Concept in Malaysia: Contemporary Challenges, Strategies and Opportunities in The Covid-19 Era

The study offers an in-depth investigation of the implementation of smart city initiatives in Malaysia, with a specific emphasis on the viewpoints of different individuals involved in the process. The study examines the difficulties and approaches encountered by local authorities (LAs) in implementing smart city initiatives, especially in relation to national goals and the influence of the COVID-19 epidemic. The publication utilizes participatory observation and thematic analysis to emphasize the importance of finance, infrastructure, legislation, skills, technology, and trust as essential factors for the successful development of smart cities.

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An important finding from the study is that alternative finance models are crucial for local authorities (LAs) to maintain smart city projects. This is because traditional profit-oriented financial institutions may not fully recognize the long-term benefits that these programmes provide to the community. Furthermore, it is emphasized that there is a requirement for strong alliances across stakeholders, encompassing the public, corporate, and academic sectors, in order to promote collaboration and innovation in smart city solutions. The document emphasizes the importance of efficient communication and community engagement in the planning and implementation of smart city projects to guarantee inclusivity and fulfil local requirements.

Moreover, the case study of Putrajaya provides a significant lesson for local authorities, demonstrating the city's effective planning and construction of a smart city, as well as its blueprint. The key takeaways from Putrajaya's experience encompass the significance of pilot initiatives, different funding channels, effective allocation of expenditures, and the formation of robust collaborations with stakeholders. The document emphasizes the importance of local authorities (LAs) collaborating with academic and citizen stakeholders to jointly create smart city solutions that are customized to meet the specific needs of the community. This collaboration involves utilizing the knowledge and perspectives of local experts to inform the development of these solutions.

Furthermore, the report promotes a transition towards smart city ideas that prioritizes the needs and interests of citizens, rather than being driven simply by technology. This is to avoid a surplus reliance on corporate interests and to guarantee that smart city efforts genuinely bring advantages to residents and local communities. To boost the effectiveness and sustainability of smart city projects, local authorities (LAs) can prioritize partnerships and engage in co-creation with local academics and people. This approach fosters grassroots creativity and community participation.

Finally, the study offers a thorough examination of the obstacles, tactics, and prospects linked to the execution of smart city projects at the municipal level in Malaysia. This statement highlights the significance of working together, involving the community, and carefully planning in order to develop smart cities that are inclusive, sustainable, and focused on the needs of citizens in metropolitan areas.

## 2.2 Sustainability

The concepts described in the given context are similar to the aims and activities carried out by Majlis Bandaraya Seremban (MBS), the local governing body responsible for the management of Seremban, Malaysia. Like many cities throughout the world, Seremban faces off with sustainability issues caused by fast urbanization, limited resources, and damage to the environment. In response, MBS has progressively recognized the ideas of smart city planning, utilizing information and communication technology (ICT) to tackle these urgent concerns.

An essential element highlighted by Myeong (2023) that aligns with MBS's strategy is the significance of utilizing ICT in government operations. MBS has been actively incorporating ICT into its administrative procedures, including the digitization of services, the implementation of smart infrastructure, and the enhancement of data management systems. MBS seeks to enhance citizen happiness and promote inclusive urban development by utilizing ICT to increase efficiency, transparency, and service delivery.

Furthermore, Myeong emphasizes the importance of public participation in the governance of smart cities using communication systems based on information and communication technology (ICT). MBS has acknowledged the significance of including citizens in decision-making processes and promoting a culture of collaboration and involvement. MBS promotes active participation from residents, businesses, and other stakeholders in

determining the city's future through initiatives such as online input portals, citizen forums, and community engagement programs.

However, emphasized in the given context, there is a possibility that smart city programmed may excessively priorities ICT-centric solutions, which could potentially neglect environmental considerations. In order to avoid this potential problem, MBS must make sure that its smart city policies give priority to sustainability in addition to technology improvements. This involves incorporating environmental considerations, efficient use of resources, and strategies for adapting to and recovering from challenges into smart city projects, thereby promoting comprehensive and environmentally-friendly urban growth.

Successful implementation of smart city projects relies on the essential participation of diverse stakeholders, such as government agencies, commercial sector partners, academics, and civil society organizations. MBS should persist in cultivating alliances and cooperative efforts that advance the common objectives of sustainability, innovation, and inclusivity. By doing so, MBS may effectively use the combined knowledge and resources required to tackle intricate urban issues.

As a result, Majlis Bandaraya Seremban's efforts to establish a smart city are in keeping with the ideas described in the given context. MBS aims to establish a more comprehensive, adaptable, and sustainable urban setting for its inhabitants by utilizing ICT, encouraging public participation, and giving priority to sustainability. Nevertheless, it is crucial to continuously strive for a harmonious integration of technical progress and sustainability goals, as well as promote cooperation among all parties involved, in order to ensure the ultimate achievement of Seremban's smart city objectives in the long run.

## 2.0 METHODOLOGY

This section discusses the research design, target population, sample size and collection techniques, research instrument/questionnaire, and data analysis of current study. Further details one the process are provided in Table 1 Below

Table 1: Research Methodology

|                          |   |
|--------------------------|---|
| Research Design          | Qualitative research design using a semi-structured interview approach.   |
| Target Population        | Our selected interviewees were an officer that work in Majlis Bandaraya Seremban are involved in managing and making smart cities a success   |
| Sample Size              | A total of 2 respondents were involved in the interview session valid feedback was collected  |
| Data Collection          | Structured interviews conducted with face to face interview   |
| Instrument/Questionnaire | A semi-structured interview guide will be developed, outlining key questions and themes to be explored. However, the interview format allows flexibility for participants to elaborate on their experiences and raise additional points. The interview guide will likely include questions like those provided: |

- 1. What are the role of local authorities to enabling smart cities in the community?** (This question explores participants' knowledge, opinions,

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and potential involvement with local authorities to enabling smart cities)

2. **What are the challenges that organization has to face to enable smart cities in the community?** (This question delves into the perceived challenges respondent face regarding the local authorities to enabling smart cities)
3. **What are the suggestion in the future for the success of smart cities in the community?** (This final question gathers participants' insights and recommendations for mitigating potential negative impacts or fostering a positive toward the smart cities among the community)

Data Analysis

Thematic analysis will be used to identify recurring patterns and themes within the interview data. This involves coding, categorization, and interpretation of the transcribed interviews.

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## 4.0 FINDINGS AND DISCUSSION

### 4.1.1 Data Organization

The data gathered for analysis in this research, including interviews, observations, and documents, followed a methodical procedure to guarantee organization and ease of management. The following are the sequential instructions for elucidating the procedure starting from performing the interview to uploading the data into Microsoft Word for analysis:

At first, our group obtained the contact details of the assistant officer in charge of the building planning department at the Seremban City Council (MBS) and scheduled an appointment to conduct an interview with our respondents. In addition, it is necessary to furnish respondents with recording instruments such as voice recorders, video cameras, notepads, microphones, and other similar devices to gather data. The interviews were carried out using a structured or semi-structured interview guide, consisting of three specified questions aimed at investigating the involvement of local authorities in facilitating smart cities.

We did a face-to-face interview with Mr. Muhammas Sharul Azwan bin Mohd Shukor, during which we recorded his voice and video. The interview commenced with our group leader providing an introduction to both our team and the respondents. Afterwards, we proceeded with the interview by administering a questionnaire that focused on the responsibilities, difficulties, and suggestions pertaining to the Seremban City Council (MBS) in relation to smart cities. One of the initial concerns posed to Mr. Azwan is regarding the role of local authorities in facilitating the development of smart cities within the community. The second enquiry pertains to the obstacles that organizations must confront in order to facilitate the implementation of smart cities within the community. The final enquiry pertains to the prospective suggestions for ensuring the triumph of smart cities inside the community.

An interview session with Mr. Azwan is scheduled for Monday, 11th March 2024 at 2:30 pm. Throughout the interview, we documented the respondent's dialogue to get more accurate information and for our own documentation purposes. Once we gathered all the data from the participants for the research, we sorted the necessary information from the recording session. This information was manually transcribed using Microsoft

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Word. Then, using Microsoft Excel, we proceeded to the Data Analysis workshop where we categorized the data into codes, categories, additional themes, and notes.

Subsequently, we utilize the supplied data to construct a Thematic Framework, which is derived from the categorized Data Analysis.

#### **4.1.2 Interviewing Process**

As part of the data gathering phase, senior assistant town & country planning officers were interviewed. Typically, these interviews are recorded in audio format to precisely capture the participant's comments. The interviews were carried out using a structured or semi-structured interview guide, consisting of three preset questions aimed at investigating the involvement of local authorities in facilitating smart cities

#### **4.1.3 Transcription**

Following the interview, the audio recordings are converted into written form. Transcription is the process of translating spoken words from a recording into written form by listening to the audio. The task can be performed either manually by the researcher or delegated to a professional transcribe service. Transcription is the process of converting data into a format that can be easily read and analyzed.

#### **4.1.4 Note Taking**

While transcribing, the researcher has the option to make additional notes to record non-verbal cues, observations, or any other pertinent details that may not be recorded in the audio recording. These remarks serve to offer supplementary context and enhance understanding throughout the data analysis stage.

#### **4.1.5 Data Transfer to Microsoft Word**

After the transcription and note-taking process is complete, the data is transmitted to Microsoft Word for additional analysis. Every interview is documented individually, with distinct identification of the participant's name or unique identity. This facilitates convenient referencing and retrieval of precise data during the analysis procedure. Subsequently, we imported the data into Microsoft Excel for the purpose of doing data analysis. We then proceeded to categorize the data based on its respective category, code, theme, and additional notes. Subsequently, we include information into a Thematic Framework, which is derived from the Data Analysis we have conducted.

### **4.2 Data Cording**

The coding process in qualitative research starts with the gathering of data, usually obtained through interviews or observations. Once the data gathering phase is finished, researchers proceed to transcribe the recorded interviews and initiate the coding process in order to identify themes, patterns, or categories within the data. The initial stage of highlighting or annotating significant scripts enables researchers to focus on analyzing and identify important segments for future study during coding.

| Transcript  | Code        | Themes     |
|---|-------------|------------|
| Ensuring the success of this smart community city is to first establish the smart city based on the highest level of federal policy, by issuing a specific smart city policy. | Officer     | Experience |
| Framework for low carbon  | Officer     | Experience |
| In the state of Negeri Sembilan, the state government will have the authority to implement the smart city   | Authority   | Law        |
| Associated with the city planning department  | Planning    | Strategies |
| A pilot project of one of the Smart traffic lights  | Planning    | Strategies |
| We are in a low carbon action plan  | Database    | System     |
| Jo Seremban's program for us to coordinate all departments using JIS in the same database.  | Financial   | Financial  |
| challenges in making smart cities planning a success because we are experiencing financial constraints  | Financial   | Financial  |
| we have to make sure we have an organized plan  | Planning    | Strategies |
| Like in Seremban, it has potential, particularly with the KTM Seremban station.   | Environment | Strategic  |

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|   |             |                |
|---|-------------|----------------|
| To succeed in creating a smart city like those we see in Shah Alam and Putrajaya, we should prioritize human-scale planning.  | Planning    | Strategies     |
| The latest development is that KTM Seremban has been upgraded to Seremban Sentral, resembling Kuala Lumpur Sentral to some extent.  | Environment | Strategic      |
| Once we establish Seremban Sentral, we can achieve a transit-oriented development status where people will disembark at Seremban Sentral and travel to various destinations, whether by walking or using other modes of transportation such as bicycles or beams. | Facilities  | Facilities     |
| MBS must implement all the actions listed in the action plan.   | Action plan | Change         |
| If we look into the action plan, there are numerous initiatives or, more simply put, actions on various projects that the Municipal Council (MBS) needs to implement between 2021 and 2027.   | Action plan | Change         |
| One of the things to consider when implementing this smart city is to look at the allocation for our budget or costing.   | Budget      | Financial      |
| We have one flagship project, and within a year, we can only apply and implement one project.   | Project     | Change         |
| We also cannot do all the projects at once,   | Budget      | Financial      |
| The allocation will also be divided among the departments and sections within MBS.  | Department  | Responsibility |

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|  |            |           |
|--|------------|-----------|
| The projects listed in the action plan have not been implemented, possibly due to financial constraints  | Budget     | Financial |
| According to the allocation that we have for that year.  | Allocation | Financial |
| We are experiencing financial constraints.   | Budget     | Financial |
| In every development plan, there are individual projects outlined, but only projects 2 through 8 have been implemented because of the lack of budget | Budget     | Financial |
| "We have the ideas, but the allocation in terms of budget is proving to be a challenge."   | Budget     | Financial |
| What I see in the Seremban area is a lack of pedestrian walkways   | walkways   | Weakness  |

### 4.3 Theme Developmental

Smart city efforts are essential for enhancing urban living conditions, fostering sustainability, and improving efficiency. However, the implementation of these plans often encounters several obstacles and requires careful planning and allocation of resources. This study focuses on the establishment of a smart city in Seremban, Malaysia. The section examines the main concepts, presents relevant quotations, and discusses the variations or differences found within these topics.

Main Theme identified:

#### 1. Limitations in financial resources:

Mr. Azwan highlights the significance of financial constraints for smart city initiatives, claiming that budget limitations frequently lead to project delays and limitations. The reliance on internally generated revenue, such as property taxes and fines, impacts the speed and extent of smart city initiatives. Mr. Azwan, an influential party with a financial interest, recognises this difficulty.

- "One of the main challenges we face is financial limitation... our ability to implement smart city projects depends on our budget allocation."
- "This financial constraint often leads to delays or the inability to implement certain planned projects."

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## 2. Project Implementation:

Budget constraints dictate the number of projects that can be completed annually, leading to delays and challenges in executing planned initiatives. Detailed planning, including external collaborations, is necessary for complex projects like smart traffic lights:

- "We can only implement projects based on our allocated budget for that year."
- "We have ideas but allocation is a challenge."

## 3. Planning and allocation:

Effective planning is necessary for the success of Seremban as a smart city, highlighting the importance of well-structured plans and effective deployment of funds. The difficulties in carrying out a project arise from limitations in funding, which limit the efficient distribution of resources.

- "To make Seremban a successful smart city, we need proper planning."
- "We have to make sure we have an organized plan."

## 4. Infrastructure Development:

To improve mobility and encourage non-motorized transportation, it is crucial to address the lack of pedestrian walkways, bike lanes, and the need to create appealing focal points. Converting locations such as Seremban Sentral into transit-oriented hubs is considered a crucial technique for achieving success in smart cities.

- "One key aspect we need to address is the lack of pedestrian walkways and cycling lanes, which are often disjointed."
- "We also need attractive focal points... to encourage pedestrian and bicycle usage."

## 5. Transit-Oriented Development

It is important to designate Seremban Sentral as a transit-oriented hub in order to promote the use of public transportation and non-motorized modes of transport. Implementing human-scale planning, similar to the developments in Shah Alam and Putrajaya, is recommended for developing a successful smart city ecosystem in Seremban.

- "Seremban has potential, especially with developments like Seremban Sentral, which can serve as a transit-oriented hub."
- "Once we establish Seremban Sentral, we can achieve a transit-oriented development status where people will disembark at Seremban Sentral and travel to various destinations."

## 4.4 Data Frequencies

### Word Cloud Analysis



A Word Cloud or Tag Cloud Chart is an illustration that shows the relative frequency of terms in a document or other text source. The most often used terms are displayed in a larger and more prominent font, while less frequently used terms are shown in gradually lower font sizes (Admin, 2024). Using the interviews we performed, we created a word cloud to visually represent the frequency of specific terms or phrases stated during the interview with Mr. Hazwan at the Seremban City Council. A word cloud is a graphical depiction of text data in which the size of each word is proportional to its frequency in the input of the conducted interview. Through the examination of word clouds, we can get understanding regarding the primary themes and subjects that were mentioned in the interviews.

However, the primary data from the transcript highlights the significant term "budget," suggesting that financial limitations pose a crucial obstacle to the implementation of smart city programmes in the Seremban area. In order to delve deeper into the conversation about budgeting and financial elements, we may create a word cloud that emphasises relevant terms such as "revenue," "allocation," and "costing." This word cloud will visually depict the importance given to financial considerations and the difficulties encountered in obtaining funding for smart city initiatives.

Furthermore, the interview also highlighted the significance of local government in facilitating and ensuring the development of the smart city. To provide a clearer explanation of this issue, we might create a word cloud that emphasises terms like "local authority," "role," "success," and "implementation." The word cloud has facilitated our comprehension of the diverse duties and initiatives undertaken by local authorities to promote the advancement of smart cities in the Seremban region.

Moreover, the interview also discussed the significance of strategic planning and proactive measures in the advancement of intelligent urban areas. To go into this topic, we can create a word cloud that emphasises terms such as "planning," "action," "project," and "initiative." This word cloud will offer a glimpse into the plans and

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activities implemented by local authorities to convert Seremban into a smart city, highlighting the need of organised planning and decisive measures.

Furthermore, the interview emphasised the significance of incorporating environmental factors into the planning of smart cities. In order to provide additional clarification on this topic, we may create a word cloud that specifically highlights terms such as "environment," "sustainability," "low carbon," and "green initiatives." This word cloud will visually represent the level of focus and consideration given to environmental sustainability and the incorporation of eco-friendly practices in the strategic plans for the development of smart cities.

To summarise, through the process of creating and examining word clouds that are generated from the frequency of specific terms or phrases found in the data results and interview inputs, we may obtain a thorough comprehension of the primary themes and subjects that were covered. This visualisation offers a concise overview of the material presented by Mr. Hazwan, focusing on the difficulties, responsibilities, strategic planning, financial elements, and environmental factors involved in the establishment of smart cities in the Seremban region.

#### 4.5 Data Interpretation

| Narrative   | Code    | Theme      | Interpretation   |
|---|---------|------------|--|
| “Ensuring the success of this smart community city is to first establish the smart city based on the highest level of federal policy, by issuing a specific smart city policy.” | officer | Experience | The statement implies that the success of a smart community city hinges on the foundational establishment of policies aligned with federal standards, indicating that policy compliance is a fundamental factor in achieving smart city objectives |
| “Framework for low carbon”  | officer | Experience | The interviewee mention of a low carbon framework signifies a commitment to sustainability and environmental considerations in urban planning, reflecting a focus on eco-friendly practices within smart city initiatives                          |

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|  |                  |                   |  |
|--|------------------|-------------------|--|
| <p>“In the state of Negeri Sembilan, the state government will have the authority to implement the smart city”</p> | <p>authority</p> | <p>Law</p>        | <p>The interviewee granting authority to the state government for smart city implementation highlights the need for clear governance structures and decision-making processes in driving smart city projects</p>   |
| <p>“Associated with the city planning department”</p>  | <p>Planning</p>  | <p>Strategies</p> | <p>The association with the city planning department emphasizes the strategic nature of urban development, indicating a need for well-thought-out planning strategies to guide smart city initiatives effectively</p>  |
| <p>“A pilot project of one of the Smart traffic lights”</p>  | <p>planning</p>  | <p>Strategies</p> | <p>The interviewee states a pilot project involving Smart traffic lights indicates a focus on implementing innovative technologies like smart traffic systems. This theme highlights the integration of data-driven solutions to enhance traffic management and efficiency within the city</p> |

|   |                  |                  |   |
|---|------------------|------------------|---|
| <p>“We are in a low carbon action plan”</p>   | <p>database</p>  | <p>System</p>    | <p>Being part of a low carbon action plan indicates a strategic approach to urban development that prioritizes sustainability. This theme underscores the importance of incorporating sustainable practices and technologies in smart city projects to achieve long-term environmental goals and reduce the city's carbon footprint</p> |
| <p>“Jo Seremban's program for us to coordinate all departments using JIS in the same database.”</p> | <p>Financial</p> | <p>Financial</p> | <p>Implementing a program to centralize data in a shared database aims to improve efficiency and accessibility to information across departments. This theme reflects an objective to enhance data-driven decision-making, streamline processes, and promote transparency within the smart city governance structure</p>                |

|   |                  |                   |  |
|---|------------------|-------------------|--|
| <p>“challenges in making smart cities planning a success because we are experiencing financial constraints”</p> | <p>financial</p> | <p>financial</p>  | <p>The interviewee state financial constraints as a challenge in smart city planning highlights the critical role of budget allocation and financial management in the success of smart city projects. This theme underscores the need for effective financial planning, resource optimization, and budget prioritization to overcome obstacles and ensure the successful implementation of smart city initiatives</p> |
| <p>“we have to make sure we have an organized plan”</p>   | <p>planning</p>  | <p>Strategies</p> | <p>The emphasis on having an organized plan underscores the importance of strategic planning in smart city development. This theme highlights the need for structured and well-defined plans to guide the implementation of smart city initiatives effectively, ensuring that projects are executed in a coordinated and efficient manner</p>  |



|  |                    |                   |   |
|--|--------------------|-------------------|---|
| <p>“Like in Seremban, it has potential, particularly with the KTM Seremban station.”</p>   | <p>environment</p> | <p>strategic</p>  | <p>The reference to the KTM Seremban station indicates a focus on infrastructure development and transportation facilities. This theme emphasizes the significance of enhancing transportation infrastructure to support smart city goals, improve connectivity, and drive economic development within the city</p> |
| <p>“To succeed in creating a smart city like those we see in Shah Alam and Putrajaya, we should prioritize human-scale planning.”</p>        | <p>Planning</p>    | <p>Strategies</p> | <p>This study has prioritizing human-scale planning is crucial for creating liveable and sustainable smart cities akin to those in Shah Alam and Putrajaya. This underscores the significance of considering human needs and scale in urban development for successful smart city projects</p>                      |
| <p>” The latest development is that KTM Seremban has been upgraded to Seremban Sentral, resembling Kuala Lumpur Sentral to some extent.”</p> | <p>environment</p> | <p>strategic</p>  | <p>The upgrade of KTM Seremban to Seremban Sentral reflects a shift towards transit-oriented development, promoting efficient transportation modes and connectivity within the city for enhanced mobility and accessibility</p>   |

|  |                    |                   |   |
|--|--------------------|-------------------|---|
| <p>“Once we establish Seremban Sentral, we can achieve a transit-oriented development status where people will disembark at Seremban Sentral and travel to various destinations, whether by walking or using other modes of transportation such as bicycles or beams.”</p> | <p>facilities</p>  | <p>facilities</p> | <p>The focus on establishing Seremban Sentral to achieve a transit-oriented development status highlights a strategic approach to urban planning. This theme emphasizes the importance of creating transportation hubs that promote multi-modal connectivity, pedestrian-friendly environments, and efficient mobility options to support sustainable urban development and enhance accessibility within the city</p> |
| <p>” MBS must implement all the actions listed in the action plan.”</p>  | <p>action plan</p> | <p>Change</p>     | <p>The emphasis on MBS implementing all actions listed in the action plan underscores the importance of structured planning and execution. This theme highlights the necessity of following through with planned initiatives to achieve smart city goals, emphasizing the significance of accountability, progress tracking, and effective project management within the smart city development framework</p>         |

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| <p>“If we look into the action plan, there are numerous initiatives or, more simply put, actions on various projects that the Municipal Council (MBS) needs to implement between 2021 and 2027.”</p> | <p>action plan</p> | <p>Change</p>    | <p>Implementing all actions listed in the action plan between 2021 and 2027 is crucial for achieving smart city goals, highlighting the importance of structured planning, execution, and accountability within municipal councils like MBS</p>   |
| <p>“One of the things to consider when implementing this smart city is to look at the allocation for our budget or costing.”</p>   | <p>Budget</p>      | <p>Financial</p> | <p>The statement suggests a focus on financial planning and costing as essential components of smart city development. This theme reflects an objective to assess and allocate resources effectively, prioritize projects based on budget constraints, and optimize financial strategies to support the implementation of smart city initiatives in a cost-effective manner</p> |

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| <p>“We have one flagship project, and within a year, we can only apply and implement one project.”</p> | <p>Project</p> | <p>Change</p>    | <p>This statement mentions having one flagship project and the limitation to implement only one project within a year highlights the importance of project prioritization. This theme emphasizes the need to focus on key initiatives, allocate resources effectively, and ensure that the chosen project aligns with strategic objectives and priorities within the smart city development plan</p>  |
| <p>“We also cannot do all the projects at once,”</p>   | <p>Budget</p>  | <p>financial</p> | <p>The statement highlights the need for project prioritization and phased implementation due to constraints such as financial limitations. This theme underscores the importance of selecting key projects strategically, focusing on one project at a time, and implementing initiatives in a phased manner to ensure effective resource allocation and successful outcomes within the constraints faced by the Municipal Council (MBS) in Seremban</p> |

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| <p>“The allocation will also be divided among the departments and sections within MBS.”</p>                      | <p>Department</p> | <p>Responsibility</p> | <p>By dividing the allocation among departments within MBS implies a strategic approach to financial planning for project implementation. This theme underscores the need for coordinated efforts, clear communication, and efficient resource utilization across departments to drive successful project execution, meet objectives, and achieve desired outcomes within the allocated budget constraints in smart city development</p> |
| <p>“The projects listed in the action plan have not been implemented, possibly due to financial constraints”</p> | <p>Budget</p>     | <p>Financial</p>      | <p>Financial constraints pose a significant challenge to successful smart city planning, emphasizing the importance of financial management, budget allocation, and resource optimization in overcoming obstacles to project implementation</p>  |

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|---|-------------------|------------------|--|
| <p>“According to the allocation that we have for that year.”</p>  | <p>allocation</p> | <p>Financial</p> | <p>The interviewee mention Challenges related to budget allocation impact project implementation, emphasizing the need for careful financial planning, project prioritization, and resource distribution among departments to ensure successful smart city initiatives</p> |
| <p>“We are experiencing financial constraints.”</p>   | <p>Budget</p>     | <p>Financial</p> | <p>Financial constraints pose a significant challenge to successful smart city planning, emphasizing the importance of financial management, budget allocation, and resource optimization in overcoming obstacles to project implementation</p>                            |
| <p>“In every development plan, there are individual projects outlined, but only projects 2 through 8 have been implemented because of the lack of budget”</p> | <p>Budget</p>     | <p>Financial</p> | <p>Challenges related to budget allocation impact project implementation, emphasizing the need for careful financial planning, project prioritization, and resource distribution among departments to ensure successful smart city initiatives</p>                         |

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| <p>"We have the ideas, but the allocation in term of budget is proving to be a challenge."</p> | <p>Budget</p>   | <p>Financial</p> | <p>The statement implies the need for strategic budget planning to address the challenge of budget allocation. This theme underscores the importance of aligning project ideas with available budget resources, exploring innovative financing mechanisms, and developing a structured approach to financial management to navigate budget challenges and ensure the realization of smart city objectives within financial constraints</p> |
| <p>What I see in the Seremban area is a lack of pedestrian walkways</p>                        | <p>walkways</p> | <p>Weakness</p>  | <p>The observation of a lack of pedestrian walkways underscores an infrastructure weakness that needs addressing in urban planning to enhance pedestrian safety and accessibility within the Seremban area</p>   |

## 5.0 CONCLUSION

In conclusion, the research technique utilized in this study provides a systematic and comprehensive approach to examining the involvement of local authorities in facilitating smart cities within the community. The study will use a qualitative research design to thoroughly explore the viewpoints and encounters of important individuals involved in smart city projects, specifically within the framework of Majlis Bandaraya Seremban (MBS) in Malaysia.

The use of semi-structured interviews as the main method for collecting data allows for a detailed examination of the difficulties, approaches, and effects related to MBS's endeavors to promote the development of smart cities. This methodology enables participants to openly articulate their perspectives, thereby offering valuable

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and comprehensive understanding of the intricacies and processes involved in smart city administration and execution.

The research sampling strategy utilizes a combination of purposive sampling and snowball sampling procedures to guarantee the involvement of a wide range of viewpoints from relevant stakeholders, such as MBS officials, urban planners, technological specialists, and community leaders. The study aims to achieve a comprehensive understanding of the many aspects of smart city facilitation within the MBS jurisdiction by selecting a diverse and saturated group of participants.

Thematic analysis is a reliable methodological tool for analyzing data. It allows for the detection and interpretation of repeating patterns, themes, and insights that are gained from interview transcripts. The study seeks to use analytical methods to reveal important facts and consequences regarding the function of MBS in smart city development. This will add to the existing knowledge of urban governance and sustainability.

To improve the reliability and thoroughness of the research results, the study follows ethical principles and practices, such as obtaining informed consent, ensuring confidentiality, and respecting participant autonomy. By adhering to ethical principles, the study guarantees the honesty, trustworthiness, and accuracy of its research results, hence strengthening the dependability and importance of the findings for guiding policy, practice, and future research efforts.

As a result, the research technique described in this paper provides a strong foundation for examining the intricacies and dynamics of smart city facilitation in the MBS context. The project aims to use a qualitative method to produce significant insights and recommendations that can help promote smart city programs in Malaysia. This will contribute to sustainable urban development and improve the quality of life for communities.

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