

Research Proposal

Evaluating the Relationship between Master Plan Updates and Project Alignment with Community Needs in Yanbu

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Introduction

Urban planning is an ongoing process involving the use of the physical environment to meet the changing needs of people within the urban setting. Master plans are one of the most important planning documents that help develop the general concept of cities' development including the infrastructure and utilities and use of the territory as well. Due to the ever changing social needs of the residents, operations of business entities, and overall development in Yanbu, the master plans need to be updated periodically to accommodate the realization of the new developments. Nevertheless, the lack of immediate action for projects included in previous master reference plans frequently leads to divergence between the projects intended and the existing necessities of the society. This research aims at assessing the various master plan changes and how they impact on matching projects to community needs in Yanbu, identifying the problems and providing recommendations for the continuity and relevance of the urban development strategies.

Research Problem

Urban planning works best when projects in master plans are implemented on time. In Yanbu, there are often long delays between approving a master plan and completing its projects. For example, a project planned in 2016 might not be finished until 2023. By then, the community's needs, business environment, and urban priorities may have changed. This causes a gap between what was planned and what is now needed, leading to lower satisfaction in the community, wasted resources, and missed chances for sustainable development. This research focuses on the main question: how well do the updates of Yanbu's master plans keep urban projects in line with the community's current needs and priorities?

The Importance of the study

Understanding the relationship between master plans and new communities' requirements is the focus on sustainable urban development. The objective of this study is on enhancing the quality of life in Yanbu by ensuring that projects developed align with current necessities of the urban society in terms of infrastructure and services. They assist government planners to come up with good policies that can be adapted in case of changes in the future. It increases the economy and investors when projects address local business requirements. In focusing on delays and their potential solutions, the research provides Occidental value to urban planning in Saudi Arabia. It also highlights the role of people, businesses and professional in planning in order to achieve better urban planning.

Research Objectives

1. To evaluate how updates to master plans in Yanbu influence the alignment of urban development projects with the current needs of the community.
2. To identify the gaps caused by delays in project implementation and their impact on community satisfaction and urban functionality.
3. To gather insights from local residents, government officials, business owners, and urban planners regarding the feasibility and effectiveness of master plan updates.
4. To propose actionable strategies for improving the adaptability and relevance of master plans in addressing changing community requirements.

Research Questions

1. How well do updated master plans in Yanbu address the current needs of the community through urban development projects?
2. What key challenges arise from delays in implementing projects outlined in previous master plans?
3. How do Yanbu residents view the relevance and impact of urban projects on their daily lives and overall community well-being?
4. What perspectives do government officials have on the alignment of urban projects with existing policies and regulations?
5. How do local business owners perceive the influence of urban development plans on their operations and economic opportunities?
6. What practical recommendations do urban planners and architects suggest to make master plans in Yanbu more adaptable and achievable?

Hypotheses

This research hypotheses:

1. **H1:** There is a significant relationship between the frequency of master plan updates and the alignment of urban development projects with community needs in Yanbu.
2. **H2:** Delayed implementation of urban projects results in reduced community satisfaction and misaligned infrastructure development.
3. **H4:** Government officials' perspectives on urban policies directly impact the feasibility and effectiveness of master plan updates.

Literature Review:

Master plans and project plans need regular updates to ensure they remain relevant and align with the goals. Alignment with the goals is critical since it ensures that the final product at the end of the project is consistent with the needs of the communities (Haase & Konstantinou, 2023). Master plans are useful in identifying the needs for development and infrastructure in the coming periods. The plans need to be updated from time to time to ensure that they are consistent with the regional plans in different periods (Campisi et al., 2020). The master plans need updates to ensure they are reflective of the evolving communal changes. For the project plans, there is a need to ensure that they are updated to ensure they are reflective of changing priorities and circumstances. With regular updates, it is possible that everyone will be informed and the project aligns with the goals. Thus, the literature review provides valuable insights evaluating the relationship between master plan updates and project alignment with the communal needs in Yanbu.

Master Plan Updates and Project Alignment with Community Needs

According to Belaïd et al. (2023), the development of smart cities is an area of increasing focus. Most societies understand the need for smart cities as they embrace technology in the development of the cities. Belaïd et al. (2023) explain that the development of smart cities is an area that Saudi Arabia has embraced as it looks to transition into a developed country by 2030. Saudi Arabia Vision 2030 seeks to transform the country, and one of the areas that informs the development is transforming the cities into smart and futuristic cities. According to Belaïd et al. (2023), the public, private, and international sides all have a fundamental role to ensure the master

plan for the smart cities is aligning with the project alignment. Such strategies can ensure the resultant smart cities are designed in a way that they meet societal expectations.

Wang et al. (2024) highlight that smart city development has grown as more communities look into improving the sense of safety of residents. A sense of safety for most residents is fundamental, as more people look to live in communities where they feel there is the highest level of safety. According to Wang et al. (2024), most scholars have analyzed the technological innovation and infrastructure construction in smart communities, with only fewer studies analyzing the aspect of safety. In designing and developing smart cities, there is the need for these projects to address cultural activities for the elderly, and the sense of safety must be comprehensively addressed (Alshuwaikhat et al., 2022). Moreover, there is the need for emergency services and property services to ensure that a sense of safety in smart community development is achieved. When more people feel safe in these smart cities, more residents are likely to move to these places, thereby ensuring better communities.

According to the research by Shandiz et al. (2021), achieving net-zero operational greenhouse gas emissions at the communal level is a valuable endeavor since there are synergies and efficiency gains realized through mixed energy uses, economies of scale, and a broader range of technological options. For communities to achieve net-zero operational greenhouse gas emissions, there is the need for a clearer definition of the key terms, the availability of supporting tools, and the energy planning approaches that are instrumental in the design and decision-making processes. Shandiz et al. (2021) explain that for communities to have net-zero emissions, the planning stage must align with the overall outlook of community development. In the planning stage, information must be made on the areas where there will be reductions in the overall

emissions of greenhouse gases. With proper alignment of the planning for the communities, it is possible that net-zero emissions can be achieved.

Permatasari et al. (2021) use village development to highlight the significance of planning to ensure that it aligns with the master plans. In this case, the master plan includes the sustainable development goals. According to Permatasari et al. (2021), using village funds in undertaking village activities relating to SDGs ensures that there is an opportunity to ensure societal needs are met. When the greater plan aligns with the simple projects undertaken at the village level, then the possibility of success increases, explaining why it is necessary to adopt these approaches across all levels of projects and master plans. Kaplan & McMillan (2020) explain that the triple bottom line approach has increasingly become popular in areas of finance, environment, and societal metrics. Using the balanced scorecard approach is effective to ensure that multi-stakeholder strategies are achieved for triple bottom line performance. According to Kaplan & McMillan (2020), using these strategies can ensure that there is greater alignment throughout the project. It is valuable for any success to be attained in an organizational setup.

Al-Sayed et al. (2022) explain that the development of futuristic smart cities is one of the biggest developmental concerns in Saudi Arabia. The development of such cities incorporates lots of processes and ideas to ensure that Saudi Arabia develops some of the most attractive environments. Therefore, significant coordination is required across different levels to ensure all the parties align with the objectives of such developments. Alanazi (2023) explains that one of the most significant developments in such environments are smart mobility systems. With the developments in other areas, including South Korea, Singapore, and Japan, there is immense opportunity for Saudi Arabia to ensure that smart mobility projects are consistent with the greater objectives in the development of the smart cities. The literature review highlights valuable insights

on what is needed as project teams work to ensure there is alignment between the master plan and project details. Going through the master plan from time to time can ensure chances of alignment and success increase.

Methodology

The research methodology for this study focuses on collecting and analyzing data in a systematic way to thoroughly evaluate how master plan updates align with the evolving needs of the Yanbu community. This study uses a quantitative approach, with surveys as the main method for gathering data. Surveys are chosen because they allow the collection of structured, measurable insights from various stakeholders, such as residents, business owners, government officials, and urban planners involved in urban development. This approach ensures a broad and reliable understanding of the topic while addressing the research questions effectively.

Survey Design:

Surveys will be distributed to four key stakeholder groups:

- **Local Residents:** To assess their satisfaction with current projects and gather feedback on unmet needs.
- **Government Officials:** To evaluate their insights on project alignment with policies and urban strategies.
- **Business Owners:** To explore the impact of development plans on their operations and identify areas for improvement.
- **Urban Planners and Architects:** To obtain professional perspectives on the feasibility and adaptability of master plans.

The survey will consist of closed-ended Likert-scale questions to ensure consistency and facilitate quantitative analysis.

Structure of the Survey

- 1. Demographic Information**
- 2. Survey Dimensions**
 - **Community Satisfaction**
 - **Government Officials' Insights**
 - **Business Impacts**
 - **Urban Planners' Perspectives**

Data Collection:

Surveys will be conducted electronically using Google Forms to ensure wide accessibility and efficient data collection. A statistical formula will be used to determine the sample size, ensuring sufficient representation from all stakeholder groups. The total population will be divided into strata, including residents, government officials, business owners, and urban planners. Proportional sampling will then be applied to each group to ensure balanced and accurate insights from all relevant perspectives. This method ensures that the data collected reflects the diverse viewpoints necessary for a comprehensive analysis.

Scope of the Study

This study is focused on the city of Yanbu, Saudi Arabia, specifically examining urban development projects outlined in its master plans and their implementation. The research aims to evaluate how updated master plans align with the changing needs of the community, drawing insights from the perspectives of four key stakeholder groups: local residents, government officials, business owners, and urban planners. Structured surveys are used as the primary data collection method to gather relevant and measurable feedback from these groups, ensuring a comprehensive analysis of the topic.

Limitations of the Study

- While efforts will be made to ensure diverse representation, some voices may remain underrepresented due to limited access to certain groups.
- Respondents may provide subjective opinions, which could introduce bias into the findings.
- The time required to collect and analyze data may limit the ability to address real-time changes in urban development policies or projects.
- Findings are specific to Yanbu and may not be directly applicable to other cities in Saudi Arabia or globally.

Data Analysis

The collected survey data will be systematically analyzed to ensure meaningful insights are derived regarding the alignment between master plan updates and community needs. The steps for data analysis are as follows:

Descriptive Analysis:

Comparative Analysis:

Correlation Analysis:

Visualization of Results:

Conclusion

This research proposal outlines a comprehensive framework to examine the correlation between the updates of master plans and degree of compliance of urban projects to needs of the community in Yanbu. Through capturing the views from residents, government representatives, businesspersons, and The study will therefore provide action-oriented solutions to enhance the flexibility and suitability of master plans. Exploratory and descriptive research methods will be employed, with the quantitative data gathered from the questionnaires systematically given a qualitative and quantitative consideration to discover the key issues and concerns in the organization of Yanbu's city. The research will therefore fill in gaps such as the causes of delays in project implementation and the impact of such delays on the community and growth. These findings will add up useful information to the practice of urban planning in Saudi Arabia. The goal of this study is to offer clear recommendations to policymakers, urban planners and stakeholders,

and help Yanbu to progress in the right way toward the desired future envisioned by the residents of the city and its surrounding communities.

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