

Article

Framework for Improvement of National Urban Strategy Model of Saudi Arabia by Logical Comparison with Best Practices in the World

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ABSTRACT

Background: In light of the urban developments and transformations during the past few years, there has been an increasing interest in the concept of governance in many countries, which aims to unify efforts and direct them towards achieving certain goals. In this regard, one of the most important is the concept of governance of urban strategies. This mainly aims to ensure a fair distribution of spatial development according to the economic base and the capabilities available for each region, which raises the physical and urban characteristics of a city as well as spreads and creates sustainable and balanced development.

Methods: This study focuses on the review of the existing urban strategy model of Saudi Arabia and the challenges faced in its implementation during the past years. It is followed by the identification of the anomalies in the urban strategy model of Saudi Arabia by comparing it with similar successful models being implemented in other parts of the world. The proposed framework is evaluated by the experts using the Delphi technique for its finalization.

Results: The shortcomings in each aspect of urban development were highlighted and based on the results a new framework is proposed. The final proposed version focuses on the improvement of the current model by modifying a few parameters.

Conclusions: An idea of continuous review and development of the model is also floated that shall keep the urban strategy model updated with the latest technology and needs. The research shall; be highly beneficial for the authorities in assessing the cause of partial achievement of the set goals in the previous years and would help them in the improvement of the governance strategy.

KEYWORDS: sustainable urban development; urban strategy; sustainable community; framework; governance; Delphi technique

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INTRODUCTION

In past decades, the world has faced many transformations in the field of development strategies in general and urban strategies and their governance in particular, which has resulted in many unprecedented challenges. Needless to say, strategies contribute to the development of long-term plans and directives that can help governments and decision-makers achieve their desired goal. In and through the best ways and practices, countries and governmental organizations have sought to find urban plans and policies that would draw a map for urban development, which created the so-called urban strategies considered one of the most important urban planning practices, as it is the main guide for spatial development as well as a balance to achieve population balance and a tool to identify best practices for creating cities with a balanced civilized character.

The concept of governance in recent years has begun to impose a significant impact on legislation and strategies, as it is considered a basic necessity for managing and organizing business according to rules, principles, standards, and procedures, in light of which institutions and organizations operate according to frameworks that achieve their policies and objectives so that the issue of urban governance deserves study. It offers a new perspective for the advancement of societies and making them more prosperous by creating an urban development compatible with societal needs, desired plans, and studies. With the challenges faced by local governance and with the growth in the size of cities, it becomes difficult to create a process to control them, which may result in a population increase that is difficult to control, not to mention low levels of employment and an increase in social ills such as crime, ignorance, insecurity, and the inability of public services to satisfy needs, unless they are by a clear and sustainable urban methodology.

Urban governance is a process through which the quality of life in the city develops, improves, and improves in response to urban problems by providing efficient solutions. It is also considered an explicit process toward achieving the level of quality of life desired by the beneficiaries, promoting inclusion and reducing inequality while involving all segments of society in the urbanization process [1].

Urban governance has also been defined by some development institutions as the science of making planning decisions and managing cities, while for others the concept of urban governance refers to a complex set of values, standards, procedures, and institutions through which all societies manage their development procedures and using which they resolve their disputes. It is also associated with the urban community at the local level. Urban governance becomes a criterion within a framework of concepts including participation, transparency, reliability, and accountability, as well as effectiveness, justice, and the promotion of the rule of law in managing a city or town. Hence, there is a close connection between the urban governance process, the urban human

environment, and its social, economic, and cultural lifestyle. Through this, urban governance can be considered one of the modern tools that can help in the management of cities and states to correct and evaluate the implementation of policies and in the development of urbanization in a sustainable manner and conformity with plans and strategies.

Over the past three decades, the term governance has become popular and iterative across fields and disciplines, as it turns out that there are many processes between which the scope of their interrelationships must be defined as well as the best ways and practices to tie them together. The United Nations Program for Prosperity defines it as good governance, meaning participation, transparency, accountability, justice and the development of the rule of law, political security, social and economic priority in light of people's demands, and taking into account the demands of the lower classes for participating in decision-making as well as securing the necessary resources for the prosperity process [2]. Governance is the cornerstone of any process of development and reform. It raises the level of transparency and integrity in transactions and provides credibility and trust among the various parties involved in development by creating a competitive system in an institutionalized democratic society based on the rule of law. On the other hand, governance is concerned with the process of decision-making and leadership within the city in a way that allows the primary stakeholders to fully participate in decision-making, ensuring accountability among decision-makers. In the 1980s, with low quality, increasing demand for services, high costs, weak asset management, weak revenues, and low investment rates, there was an urgent desire for change [3].

In the recent past, there has been an increasing interest in the concept called urban strategies albeit under different names: comprehensive urban planning system, spatial planning of the state, urban policies of the state, national urbanization policy, or national development strategies. This interest has only increased due to the rapid urbanization of countries, as it has become a global trend that creates opportunities for governments to achieve economic, social, environmental, and urban progress. Many studies have also confirmed that it is a crucial matter towards achieving the goals of countries to reduce the possibility of conflicts of interest between the various relevant parties. The primary requirements of an urban development strategy model are shown in Figure 1, which includes health, recreation, environment, communication, construction, and development parameters.

In this sense, urban strategies can be an important tool for achieving these national goals and the cooperation and coordination they require between all levels of government through which we can provide a new perspective for city planning by directing it within a well-thought-out framework that helps create a balanced and sustainable development, not to mention a civilized civil society, with its transformation into a sustainable development process according to well-studied policies.

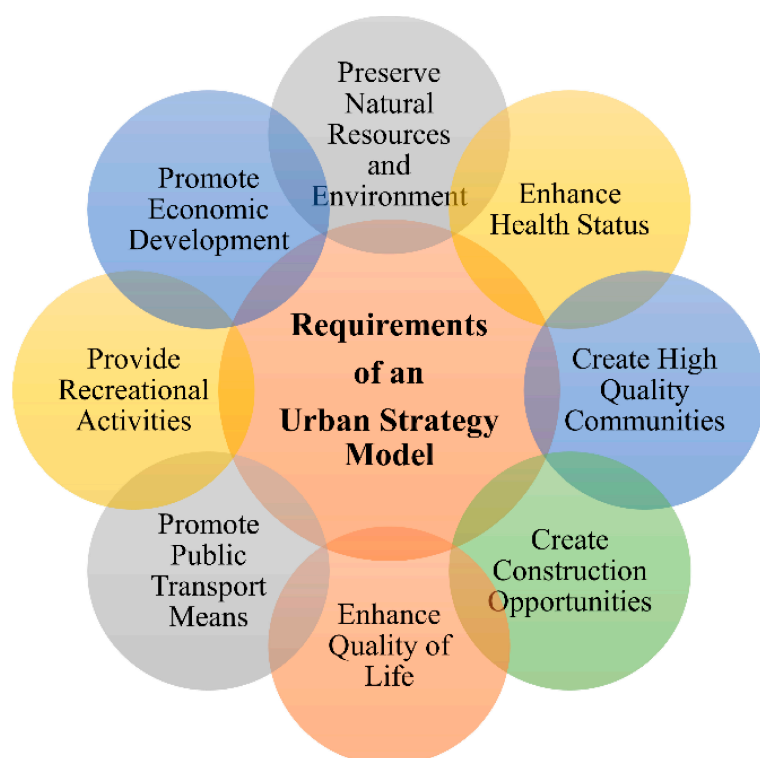


Figure 1. Basic requirements of an urban development strategy model.

LITERATURE REVIEW AND PREVIOUS STUDIES

During the past few years, there has been a shift in the concept of urban governance, which focused on the important roles of institutions related to development and sustainability, with a less centralized administration that contributes to a balancing process regarding demands and societal groups, and among the most important are the following: the principle of the rule of law, transparency, and availability, taking into account all development partners, fairness and inclusiveness, effectiveness, and efficiency, and accountability [4]. In general, there is a difference in the form and structure of governance from one country to another, but because of the desire for reform and nation-building, you may find that there is a common philosophy between them.

Accordingly, many studies and practices conducted in several countries of the world have confirmed that the issue of governance of the urban strategy is considered a crucial matter in terms of achieving the desired goals, whether in terms of development, economy, human flourishing, etc.

Metzger explained the theory of neighborhood life cycle and national urban policy [5]. Wong et al. studied strategic urban management in China by taking the case study of the Guangzhou district [6]. In another study performed in China, Ruan and Yan identified the challenges being faced for sustainable urban development [7]. In New Zealand, a comprehensive case study was performed for the urban design of local government by the Ministry of Environment [8]. Applied frameworks have been put forward by various researchers for sustainable urban development in Saudi Arabia [9–14].

In light of the developments taking place in the Kingdom of Saudi Arabia in all fields, especially in the major cities, the research problem seems clear through the existence of deficiencies in the governance of the National Urban Strategy [15], which is considered one of the most important issues that would affect the progress and movement of development in the Kingdom of Saudi Arabia. A version commensurate with the Kingdom's Vision 2030 was also issued in 2019, and to date, we note the shortcomings of the desired goals in many areas of development, whether urban, economic, or social. No study has been found that discusses the reasons for such noncompliance and the identification of anomalies in the National Urban Strategy of Saudi Arabia. Hence, there is a need for such a study that can compare the National Urban Strategy of Saudi Arabia with the best practices in the world identify the flaws in the former, and suggest the appropriate way forward for its modification and improvement. As per the literature review, there is no study available that would serve the purpose.

Hence this study has been taken up as a challenge that focuses on the identification of logical anomalies in the National Urban Strategy of Saudi Arabia when compared to the best practices in the world and its effects on the movement and progress of development in the Kingdom of Saudi Arabia. It also looks at what was confirmed by previous experiences of the existence of some deficiencies and conflicts of interest between some relevant parties. This involves ascertaining any incompatibility with the Saudi Vision 2030, which requires identifying the aspects affecting this phenomenon, especially the identification of the role of governmental and semi-governmental sectors through the inductive scientific method that depends on partial evidence, to reach the general judgment by tracking the course of events as well as matters and changes in urban development in the Kingdom of Saudi Arabia at its various levels. The study shall prove to be beneficial for the related authorities and would play a huge role in the continuous development of the Kingdom of Saudi Arabia.

RESEARCH METHODOLOGY

This study follows the descriptive, documentary, and survey approach, where records, documents, reports, and previous studies are reviewed and scientific facts ascertained. The descriptive method is defined as a method that uses records and documents of various kinds and others. Dyer believes that the descriptive approach tries to answer a specific contemporary phenomenon by carefully analyzing and auditing all the documents and reviewing the studies of the records, and documents available and related to the subject of the study [16]. This approach analyses the data comprehensively to conclude relevant to achieving the goals of the research. Bowen confirms that documentary analysis is one type of descriptive study [17]. Some believe that the documentary approach is synonymous with historical and library research and content analysis.

The theoretical study is achieved by examining the literature on urban strategies, the most prominent global experiences interested in developing urban strategies, by collecting relevant documents available from previous research and studies, and then analyzing them to identify the best practices and the most important aspects, as well as the most important variables and policies that can be proposed to deal with such cases, thereby allowing for the visualization of a proposed harmonic framework. This step is followed by presenting local and international experiences related to the topic and clarifying their connection to the topic in the research study, as well as their implications for strategic plans and spatial development in the Kingdom of Saudi Arabia in terms of policies, objectives, phases, and other related elements. After shortlisting the major aspects and the policies related to them, the opinion of experts is sought to shortlist, prioritize, and finalize the framework for Urban Strategy. Delphi technique is followed for this step where a panel of experts of the same area is invited for participation in the poll. The workflow structure for the study is shown below in Figure 2.

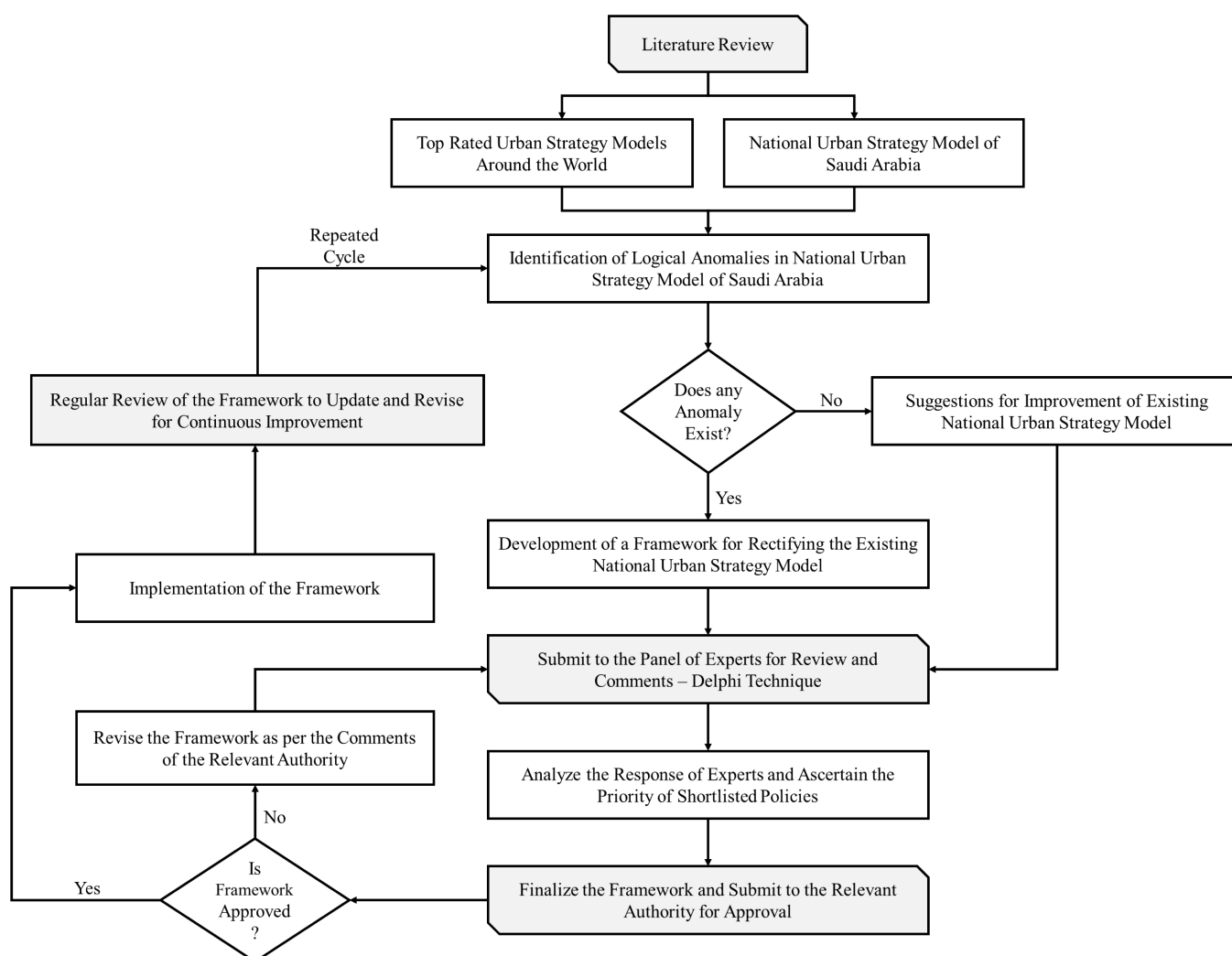


Figure 2. Workflow methodology for the research.

Okoli and Pawlowski [18] describe the Delphi technique as a group decision-making method that requires skilled experts who possess a deep understanding of the issue being studied. This technique unfolds over three rounds: (1) brainstorming, (2) narrowing down, and (3) ranking. It has been successfully applied in various scientific research projects [18–21]. In this study, the Delphi technique is deemed the most suitable method compared to other consensus-based approaches like the Nominal Group Technique (NGT). The Delphi technique is recognized for producing more comprehensive outcomes, even though the research could also be conducted using a traditional survey method. Studies employing the Delphi method tend to yield richer data due to multiple iterations and feedback, with experts generally being receptive to follow-up interviews [18,22,23].

The importance of Delphi experts is highlighted in various studies [18,20,23]. This is largely because Delphi studies rely on team decisions rather than a statistically representative sample of the broader population, necessitating experienced experts with in-depth knowledge of the research area. Consequently, this study followed five key steps to select experts based on the principles outlined by Okoli and Pawlowski [18] and Schmidt et al. [23]. The first step is the Knowledge Resource Nomination Worksheet (KRNW), designed to ensure no relevant group is overlooked and to help classify experts before they are formally recognized. The second step involves creating a list of selected experts from the KRNW, including their contact details. In the third step, the experts are contacted to invite them to participate in the study and encourage them to nominate additional experts. The fourth step consists of categorizing the experts using an appropriate framework and ranking them based on qualifications, experience, achievements, and other relevant criteria. Finally, invitations are sent to the experts to join the study.

OVERVIEW OF URBAN STRATEGY MODEL OF KSA AND THE REST OF THE WORLD

Available Models of Urban Strategies around the World

This stage aims to review the best international practices being followed, as well as the number of previous relevant urban strategies, their impact, and their relationship to the subject of the study, whether through alignment of objectives, strategies, geographical location, or population. Several reports and studies issued by international organizations and countries have been studied, the most important of which is the Organization for Economic Cooperation and Development [24], as well as reports issued by the Ministry of Municipal, Rural Affairs, and Housing [25], the United Nations Human Settlements Program [4,26], and other related reports [8,27]. Just as relevant are the national urban strategies for several countries, where the focus was on finding a mechanism to link them to their urban planning system with a review of

planning standards and provisions and identifying how to make decisions for each country with a simplified classification through which we can conclude the best practices and policies and the extent to which they can be used in achieving goals.

An inductive approach was followed to choose the most suitable strategies for the study area, where the general situation of the selected urban strategies was evaluated, as well as the best experiences and practices they used and the extent of their impact on the urban system. They were also chosen based on the geographical locations, the planning system used, the population census, the area, and the main driver of development in the region. The selected countries were mentioned in the international reports issued by international organizations. In addition, indicators were used to compare the scope and size of the revision of the international classifications and analyses of the experiences used and their relevance. During the review of previous studies related to urban strategies, 8 successful practices were highlighted, which are considered among the best practices, as they were agreed upon by, the United Nations Human Settlements Program [4,26], the Organization for Economic Cooperation and Development [24] and the Ministry of Municipal, Rural Affairs and Housing [25], along with clarity of their strategic structure, axes, and distribution of powers.

The review of these international experiences and practices related to urban strategies is aimed at identifying the mechanism of linking the urban strategy to the urban planning system, what are the planning standards used, what are their provisions, and how to make decisions in these countries to arrive at the proposed framework for governance, namely, the National Urban Strategy of the Kingdom of Saudi Arabia according to its Vision 2030 [28].

It is worth noting that the report for Global State of National Urban Policy issued by the Organization for Economic Cooperation and Development [29] and the United Nations Human Settlements Program [1] indicates that good urban strategies contribute to creating good urbanization and opportunities for countries that allow them to improve their economic performance and encourage growth patterns. Promoting social inclusiveness and creating sound and uncomplicated social, environmental, and economic policies that bring together national sectors and help clarify their roles and responsibilities will help manage the interdependence between levels of government, ensure policy coherence, and create sustainable development incentives that make the most appropriate use of resources.

The international best practices are summarized in Table 1, which gives us a definition of the situation, geographical location, planning system, population, area, and the main driver of development in that country. The data mentioned in the table shows that the largest area where the urban strategy model is being applied is in Australia with a value of 7.7 million km². for a small population group of 22.4 million people, whereas on the

other hand, a similar model is being applied for a large group of population in a small area is in Japan having 126.7 million people within an area of 0.38 million km². The examples are taken for various development sectors including agriculture, tourism, technology, and manufacturing industries.

Table 1. Best practices of urban strategy plans from around the world.

Country— Continent	Planning System	Population	Area	Development Sector	Reported by		
		× 10 ⁶	× 10 ⁶ km ²		UNHSP	OECD	MMRAH
Australia— Australia	National Policy Framework Smart Cities Plan	22.4	7.7	Tourism	✓	✓	✓
Malaysia— Asia	National Implementation Plan	30.1	0.39	Agriculture	✓	✓	×
Japan—Asia	National Urban Plan	126.7	0.38	Agriculture	✓	✓	✓
Germany— Europe	Concepts and Strategies for Spatial Development	80.7	0.36	Technology	✓	✓	✓
Ireland— Europe	National Urban Strategy	4.95	0.7	Technology	✓	✓	✓
France— Europe	City Policies and Contracts	67.5	0.54	Tourism	✓	✓	✓
Morocco— Africa	National Soil Plan	33.7	0.45	Industry	✓	×	✓
Chile—South America	National Urban Development Policy	17.6	0.76	Industry	✓	✓	✓

Existing National Urban Strategy of Saudi Arabia

In light of the developments and challenges faced by the Kingdom of Saudi Arabia, the relevant authorities, headed by the Ministry of Municipal, Rural Affairs and Housing (MMRAH), in cooperation with several state agencies, including the United Nations Development Program (UNDP), have focused in the past decades on the importance of creating and finding determinants and directives for creating several policies that will define and directing urban development. This has been achieved by defining many strategic goals on the local, regional, and global scale to create national urban strategies to keep pace with and organize the rapid development that the country has witnessed in the past years.

The national urban strategy focuses on drawing a balanced development in several regions and cities of the Kingdom, including industrial development in Riyadh, Jeddah, Dammam, Jubail, and Yanbu, provision of several health, educational, and specialized services in

several cities, as well as accommodating rapid urbanization. To those may be added the continuous displacement and migration by people from rural areas and villages towards major cities, achieving a balanced population distribution and working to avoid the bad results of the increasing growth in the size of major cities, and making optimal use of the existing basic equipment and public facilities, as well as working to diversify the economic base of the various regions according to the capabilities and resources of each [30].

The National Urban Strategy seeks to create a consensual general framework to guide spatial development throughout the Kingdom of Saudi Arabia on national and regional levels. At the local level, it helps to define the theoretical and practical framework for how to absorb the expected population increases and future projects, and to identify the most important development axes and the most important industrial and border areas, and how to develop them by the current data and future expectations on the geographical space of the Kingdom of Saudi Arabia [30].

Several versions have been put forward at different times over the past years. In general, it can be considered as a comprehensive spatial urban strategy that adopts the concept of urban development by drawing development axes that include a group of 130 population centers divided into 13 regions served by transport networks, geographical systems, regions, economic and environmental factors, and the relative concentration of the population [25].

All previous and current urban strategies for the Kingdom of Saudi Arabia work on the same spatial space and use the main strategies, which are the main development hubs and growth centers. All major projects must be reversed during the next stage to reach comprehensive and sustainable development. Unfortunately, the level of implementation and coordination is still weak, reflecting the lack of a clear framework for coordination and implementation at the national level [15].

The first edition of the National Urban Strategy was released in 2000. This version was mainly focused on three aspects: the consolidation of medium and small cities, the use of spatial development, and the classification and identification of growth centers of the Kingdom. Considered as a review of the first, the second edition of the National Urban Strategy was released in 2016. A review of past urban strategies was presented and their suitability for the current situation and integration into the urban process, their effectiveness, and applicability, were studied [30,31]. This review also called for more dialogue and integration between urban stakeholders across sectors and spatial scales, and realizing the vision by calling for making the municipal sector distinct and contributing to an urban environment within a framework of justice and competitiveness in all regions of the Kingdom, as well as realizing the mission aimed at creating efficient urban environments with high quality of life promotion of community participation.

The third and current version was released in 2019 and was named the National Urban Strategy 2030 as it was prepared to achieve the goals of Saudi Vision 2030. The National Urban Strategy 2030 represents a forward-looking, integrated, and flexible framework that allows for optimal guidance and management of spatial development policies and priorities on a national scale through the creation of effective government action, aimed at coordinating policies and programs between all sectors and regions.

According to the report of the City Planning Agency of the Ministry of Municipal, Rural Affairs, and Housing [25], the previous urban strategy achieved a few remarkable developmental goals, but it did not achieve most of them due to its lack of a clear vision, as well as the weakness of sectoral and community participation in its preparation and implementation, and lack of clear governance and implementation mechanisms.

Linking of Existing Urban Strategy and Saudi Vision 2030

Vision 2030 of the Kingdom of Saudi Arabia, released in 2016, adopts the strengths and key success factors. It works to raise the efficiency of the Kingdom's economic and industrial capabilities, strengthen local industries, benefit from global expertise, create more job opportunities, enhance transparency, and improve services, health care, housing, etc. The Kingdom's Vision 2030 is based on three major areas: a vibrant society enabling a prosperous and healthy life, a thriving economy enhancing development and economic diversification while raising employment rates, and an ambitious nation led by an effective government, and empowered social responsibility [28]. According to the Saudi Cities Report [15], the vision of the Kingdom of Saudi Arabia 2030 involves many broad parameters from the perspective of urban governance and management, a few of which are listed below:

- Commitment to ensuring a high level of security and development in cities.
- Reducing pollution, combating desertification, and achieving optimal use of water resources.
- Providing equal job opportunities for all.
- Increasing the contributions of small and medium enterprises towards development.
- Increasing the contributions of the private sector in the long run and raising its economic productivity.
- Modifying the regulations related to facilitating the work environment to attract investments and improve the level of quality of services provided.
- Transforming the government's role from a provider of services to a regulator and monitor.

- Applying international legal and commercial standards to create an environment conducive to long-term investment.
- Activating high standards of transparency and administrative and financial accountability.
- Enhancing communication channels between government agencies and citizens, as well as the private sector.
- Establishing a clear distinction between the decision-making process, its implementation, and the monitoring of that implementation, along with ensuring coordination among all government agencies and relevant stakeholders to track and improve performance.

As mentioned above, it can be seen that the Saudi Vision 2030 already covers most of the basic requirements of urban development as previously shown in Figure 1 as well. The urban strategy model of Saudi Arabia must include all of these requirements in its systems to be consistent with the nation's policy of urban development.

RESULTS AND DISCUSSION

Anomalies in the Existing National Urban Strategy of Saudi Arabia

By reviewing a group of related studies, as well as reviewing several reports issued by the relevant authorities, whether governmental or non-governmental, local or international, the most important causes of the deficiency of governance in the National Urban Strategy of the Kingdom can be listed as follows:

- Lack of a sustainable framework: No framework has been found that would work to create efficiency, consistency, and harmony between the components of the urban system to generate urban development that achieves the vision and spatial impact planned according to government legislation and regulations such as urban strategies, five-year plans, development plans, and regional plans, etc.
- Weakness of the spatial impact: This is found due to the lack of application of a mechanism through which a clear impact of urban development in regions and cities is created. Spatial impact contributes to the formation of a stereotyped image of the goals that have been achieved on the ground and the extent of their impact on human resources, investments, equipment, facilities, assets, etc.
- Weak government coordination: This results in conflicts in terms of achieving the objectives of the relevant authorities. Also, directly or indirectly, it further weakens the government targets in terms of urbanization and performance indicators related to urban development.
- Weak interconnection between the various levels of urban development: This is due to the lack of clear classification of urban planning. Well-formed communication creates a unified approach in all urban dealings that helps raise the efficiency of urban plans.

Given the most important negative repercussions of the lack of governance between the national urban strategy of the Kingdom of Saudi Arabia and the Saudi Vision 2030, the following may be stated:

- Failure to achieve the objectives of the National Urban Strategy: This is the failure to achieve the targets set in the urban strategy of the Kingdom of Saudi Arabia during the year 2000, which led to its updating in the year 2016 and the addition of several targets in recent periods.
- The randomness of development projects: This appears in the varying levels of development in the regions and cities of the Kingdom of Saudi Arabia, which led to the emergence of differences and discrepancies in the levels of development in the regions, leading to a weakness in functional diversity in residential communities, as well as the continued overcrowding in major cities.
- The weakness of urban agglomerations: This appears in regional disparity, lack of integration between the regions of the Kingdom, and different levels of development with limited economic diversification of the regions, which led to overcrowding in major cities and low tangible development return.
- Lack of national competencies: The lack of experts in the Kingdom of Saudi Arabia who are interested in developing and activating the national urban strategy constitutes an obstacle to achieving its objectives. Also, the lack of continuous development has been observed.
- Lack of local scientific literature: It is important to note that the related scientific studies are either not done or not available on international scientific platforms.

Identification of Major Aspects of Framework

Given the most important causes of the problem of deficiency of governance in the national urban strategy of the Kingdom of Saudi Arabia in line with the Kingdom's Vision 2030 and the expected repercussions of this problem, the proposed framework was established based on a review of the literature in addition to a review of international best practices related to national urban strategies as well as reports issued by several international and local organizations. The proposed framework comprises five major aspects: environmental, economic, social, governmental, and temporal and spatial. Each of these is discussed below separately.

Environmental Aspect

This aspect tries to adopt several important issues that will help create a comprehensive environmental system that works to encourage good agricultural practices, reduce desertification, diversify and preserve food and water sources, as well as restore biodiversity and achieve zero climate neutrality while creating a stimulating environment for the use of the best modern and friendly technologies. For the environment, it will contribute

to adapting to climate change, cities, and urban areas that are responsible for 70% of carbon emissions and consume nearly 60% of natural materials [2]. Many regions and dry lands are also exposed to climate change and extreme natural phenomena, which makes them more vulnerable to desertification and affects urban development. According to the latest statistics, the population of these regions is approximately 500 million [32], while the Earth's surface temperature has increased faster since 1970 compared to any other period over the past 2000 years at least. The World Food Program also indicates that nearly 800 million people do not have enough to eat daily, equivalent to one person for every nine, which causes the death of 3.1 million children annually [4]. The aforementioned literary reviews and previous global experiences and practices confirm for us the need to include the environmental aspect within the proposed harmonious framework, as its inclusion is considered very important. Through it, a number of the objectives mentioned in the previous experiences and studies have been transformed into several key policies, namely; combating desertification, creating strong urban and rural links, controlling land uses and sustainably developing them, encouraging means to reduce the heat in cities and promoting the management of water resources, modernizing consumption and food security practices, encouraging increased local and sustainable production, and updating the classification of cities according to their functional roles towards achieving a sustainable urban system.

Economic Aspect

This aspect focuses on several policies and targets related to the economic aspect, which would raise economic growth rates, build a solid economic base that enhances the business environment, empower and support the private sector, and make the business environment more effective while improving the efficiency of local content, and creating a promising economic environment while maintaining sustainability and financial stability. To be noted that cities and urban areas are strong points for economic growth, as they contribute about 60 percent of the global gross domestic product [2]. Also, over the past years, the G20 countries have allocated \$233 billion for activities that support the production and consumption of fossil fuels, compared to \$146 billion for renewable energy, energy efficiency, and low-carbon alternatives such as cycling. Also, according to the statistics from 2007, it confirmed that half of the world's population lives in urban areas, which has led to a high demand for housing in urban spaces. In the next thirty to forty years, 90% of the global demand for housing will be in cities and urban areas, which leads to increased pressure on those areas, underlining the importance of developing infrastructure in the coming period [33]. There is also a need for large investments in infrastructure over the next fifteen years, to the tune of about \$90 trillion by 2030 [1], and through the aforementioned literature reviews, previous global experiences and practices have

confirmed that we need to include the economic aspect within the proposed consensual framework. Its inclusion is very important, for through it targets contained in previous experiences and studies were transformed into several key policies. These involve focusing on the quality of daily life as a competitive factor, shifting towards a green economy, conserving resources, reducing dependence on non-renewable energy, upgrading tourist and marine areas, enhancing the comparative advantages of rural and desert areas, improving regional competitiveness to attract private investment and employment, focusing on smart technologies to increase the capacity of global competitiveness, and diversification of the economy based on major projects, centers of excellence and logistical hubs.

Social Aspect

Social aspect looks at the most important social practices and needs, tangible practices and behaviors for citizens and residents, and the extent of their impact on the urban system in general, whether it be urban strategy or other related plans. Therefore, this aspect aims to reach community satisfaction that enhances community participation and equal opportunities and services. According to the latest statistics from the year 2015, 10% of the world's population lives in extreme poverty, and there is concern by the International Development Economics Research Institute of repercussions such as raising the poverty level. This will be the first time that global poverty has increased in thirty years. Also, one of the most important goals of sustainable development is quality education, as the objectives of this goal stem from the need for all girls and boys to enjoy free, equitable, and quality primary and secondary education, which leads to the achievement of appropriate and effective educational outcomes by 2030. Also, global unemployment decreased to 5.6% in 2017, from 6.4% in 2007 [2], and through the foregoing literary reviews and previous global experiences and practices, they confirm the need to include the social aspect within the proposed consensual framework, where its inclusion is considered very important, for through it several targets mentioned in the previous experiences and studies have been referred to in terms of key policies, which are ensuring the quality of life, services, and security, making cities more lively, providing housing in existing settlements, public participation to ensure the success of the urban strategy, holding consultations, intensive public participation with state authorities, utility councils, and service providers, dialogues with a selected group, creating an interactive opinion poll, involving all segments of society, achieving social welfare, and achieving equal access to services.

Governmental Aspect

This aspect focuses on procedures and policies that can contribute to raising the efficiency of compatibility and coordination between the relevant sectors, thereby ensuring harmonization between the goals set

for each entity according to the framework of the national urban strategy in a parallel manner. Both the public and private sectors participate in the effort to attain them, helping to achieve many important and influential goals. In developing governmental systems, improving the services provided and achieving excellence in government performance is aimed at achieving integration between the urban spaces through relevant government policies, as well as reducing differences and disparities between the various levels of urban development while ensuring justice in services and opportunities. Previous global practices assure us of the need to include the government aspect within the proposed harmonious framework. Through this, several targets contained in previous experiences and studies were transformed into several key policies. These include directing mechanisms for monitoring financial resources and project priorities based on the objectives of the National Urban Strategy, evaluating the National Urban Strategy, measuring its spatial development effects continuously, enabling the Urban Strategy to be the guiding platform for regional and local plans, managing and directing urban development in the Kingdom, and protecting the Kingdom's borders. According to global and regional developments and changes, enabling risk and crisis management to increase the resilience of cities and regions involves making decisions related to the strategy at the highest level while ensuring technical support from the relevant ministries.

Temporal and Spatial Aspect

It sheds light on many policies and practices that have had a negative temporal and spatial impact in terms of land use, infrastructure development, and addressing related planning issues while strengthening the spatial relationship between the Kingdom and neighboring countries, developing and raising the relationship between regions within the Kingdom and providing full support to cities. As far as regions are concerned, to improve their effectiveness, raise their efficiency, and enhance the comparative advantages of each of them, the foregoing literary reviews and previous global experiences and practices have confirmed the need to include the temporal and spatial aspects within the proposed harmonious framework. Through it, several targets mentioned in previous experiences and studies were transformed into several key policies, which are strengthening the Kingdom's gates to neighboring countries and beyond, developing religious infrastructure for several cities in the Kingdom's regions, and connecting a network of public utilities and infrastructure in the Kingdom with major external networks, linking national, regional and local urban policies. This also includes plans and strategies with budget allocations, while directing development using major projects and enhancing support and smart integration between medium and rural regions and cities, creating strong rural links and harmonizing land use planning and transportation systems and establishing urban and rural links, increasing the quality of public

services and infrastructure and raising the classification level of several cities.

Evaluation and Validation of Proposed Framework

After identifying the primary aspects of the framework and shortlisting the relevant policies in each area through the literature review, the proposal was forwarded to several experts seeking their opinion as one of the steps of the Delphi Technique methodology. All of the experts had rich experience in the area of urban planning and management. A total of 65 experts were invited out of which 53 experts accepted the invitation to participate in the activity and submitted their response.

An analysis of experts' opinions on the compatibility of the proposed framework with Saudi Vision 2030 and the Saudi National Urban Strategy indicates that 88% of experts agree with the compatibility of the proposed framework, while only 9% of them disagreed and 3% chose not to respond to any of the options, as shown in Figure 3. While inquiring from those experts who responded towards disagreement, the feedback received showed that they found few anomalies in the current Urban Strategy Model and selected the disagreement option.

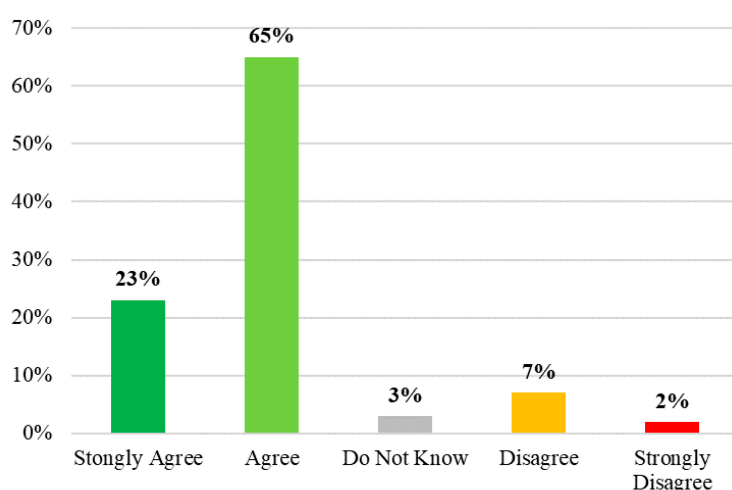


Figure 3. Opinion of experts on compatibility of proposed framework with the Vision 2030 and the National Urban Strategy.

However, the anomalies put forward by them were found to be the same as highlighted in this research. Hence, their response of disagreement can be considered null and void as they couldn't understand the question properly. Similarly, another analysis of experts' opinions on how important a governance framework is for the National Urban Strategy of the Kingdom of Saudi Arabia in light of the current changes indicated that 85% of experts believe that the existence of a consensus framework is mandatory, while only 9% believed that it is not important to have a consensus framework for the urban development, as shown in Figure 4.

Through data analysis, it was noticed that the majority of experts emphasized the importance of the aspects and policies included in the proposed framework. Also, the identified aspects were evaluated based on the level of importance from the point of view of experts.

Five-point Likert scale method was used to measure the results statistically based on the opinions of experts to determine the level of approval and disagreement. The results show that the economic aspect was found to be the most important aspect playing its role in the urban development strategy as per the opinion of experts with an average value of 4.71 on a scale of 5, as shown in Figure 5.

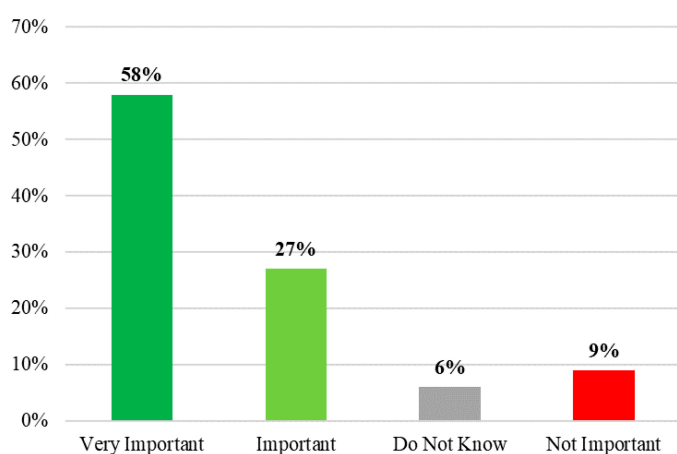


Figure 4. Opinion of experts on the importance of having a consensual framework.

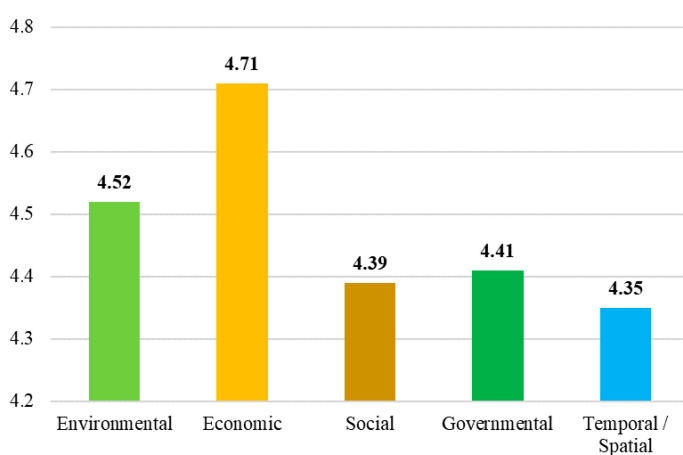


Figure 5. Opinion of experts about the priority of identified aspects in the proposed Urban Strategy Framework.

This confirms the need to focus on this aspect and the policies included in it to ensure the achievement of the goals related to the National Urban Strategy and Saudi Vision 2030.

The economic aspect was followed by the Environmental aspect having a value of 4.52 and the least important was found to be the Temporal and Spatial aspect with an average value of 4.35 on a scale of 5. The aspects are arranged in their order of priority in the proposed framework.

In the open-ended comments section, the experts praised the proposed framework, with several observations incorporated into the finalized version of the framework. There were recommendations on increasing the number of policies in economic and governmental aspects to keep it in line with the objectives of the Saudi Vision 2030, as well as to shift a few policies from one aspect to another where they are better suited. The experts set a minimum average value of 4.25 for acceptance of any aspect to be applicable. All the identified aspects scored an average value of more than 4.25 hence all were included in the finalised proposed framework.

Proposed Framework for an Improved Urban Strategy Model

The results point out the five major aspects distributed within the consensual framework that contribute to enhancing the implementation of the listed policies and reaching tangible results in both the National Urban Strategy of the Kingdom of Saudi Arabia and the Saudi Vision 2030. The aspects and related policies included within the consensual framework reflect several goals and objectives that must be achieved for the betterment of urban development. As shown in Figure 6, the policy of ensuring the quality of life, services, and security and making cities more vibrant, falls within the social aspect.



Figure 6. Proposed framework for modification of National Urban Strategy Model of Saudi Arabia.

Similarly, the policy of protecting the borders of the Kingdom of Saudi Arabia according to global and regional developments and variables, falls under the governmental aspect. The policy of raising the efficiency, quality, and sustainability of projects through the creation of a joint evaluation and follow-up system, the policy of food security, and encouraging the increase of local and sustainable production are also included. The policy of promoting Islamic identity and culture maximizing authentic societal values, customs, and customs, and reducing the extraneous customs in society are mentioned to improve the overall ethical level in the society.

The experts also stressed the importance of achieving food security, diversifying the economy, and creating development and urban links with long-term returns that contribute to strengthening the concept of architecture and urban governance and creating a visual identity for cities and regions, as well as creating strong urban and rural links that enhance the preservation of the environment, reduce the random consumption of environmental resources, and reduce and address deficiencies and shortcomings resulting from the urban policies followed during the past periods.

CONCLUSIONS

Urban governance has evolved into a crucial factor for achieving urbanization and managing areas comprehensively and sustainably. It focuses on decision-making and regulating relationships between institutions and communities to fulfill key sustainable development goals. Effective urban governance is essential for promoting sustainable urbanization and enhancing city management, ensuring that it is inclusive, safe, adaptable, and resilient. This approach has significant implications for urban development's economic, political, environmental, and social dimensions.

A review of past experiences and studies reveals that the objectives of the national urban strategy have not been fully realized, which is at odds with Saudi Vision 2030. Logical inconsistencies were identified by comparing the current national urban strategy with global best practices. Enhancing the National Urban Strategy represents a forward-looking approach closely tied to urban processes and the nation's context.

A framework has been developed to assess the urban strategy and implement necessary adjustments across all areas of urban development. Initially, key dimensions of the Urban Strategy Framework were identified, including Economic, Environmental, Governmental, Social, and Temporal & Spatial aspects, which serve as primary monitoring measures. Subsequently, the characteristics of each dimension were discussed and compiled to identify the most significant features for inclusion in the framework. The framework's effectiveness was validated through expert feedback, with 85% of experts agreeing on the necessity of a consensus-based framework. Furthermore, 88% confirmed that the proposed framework aligns with the requirements of Saudi Vision 2030. In a

subsequent survey, the Economic aspect was ranked highest among the parameters, followed closely by the Environmental and Governmental aspects.

Continuous monitoring and review are fundamental principles for achieving successful development. Therefore, an ongoing process of review and enhancement has been included in the framework to adapt to evolving technologies and systems over time. Additionally, incorporating public feedback into the analysis and review process can help inform future revisions of the urban strategy model. A notable feature of this framework is its flexibility, promoting coordination among relevant authorities linked to the transformation process.

DATA AVAILABILITY

The datasets generated and analyzed during the research are available with the corresponding author and can be furnished upon request.

AUTHOR CONTRIBUTIONS

Conceptualization, AAAA and AA; Methodology, AA and AMA; Validation, AAAA and AA; Formal Analysis, AMA, SIA and SMA; Investigation, AA and AMA; Resources, AAAA; Writing—Original Draft Preparation, AAAA, AA; Writing—Review & Editing, AMA, SIA and SMA; Supervision, AA; Project Administration, AA.

CONFLICTS OF INTEREST

The authors declare that they have no conflicts of interest.

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