EVALUATING THE EFFECT OF PARTICIPATORY URBAN PLANNING ON COMMUNITY WELL-BEING AND QUALITY OF LIFE

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SUMMARY

This study aimed to evaluate the impact of participatory urban planning on community well-being and quality of life. Urban planning is done to transform urban areas into sustainable cities with adequate open spaces and many features of smart cities. To achieve successful urban planning, active and involved participation of the stakeholders is necessary. Many aspects, like the social and cultural identities of the nation, its technological competencies, adequate knowledge and expertise in urban planning and sustainable development, are required. A survey of 150 Saudi professionals with expertise or interest in urban development and community well-being showed that the above results have only been partially achieved. These results were only partially and sometimes indirectly supported by the literature. Community participation in urban planning may be improved by using social media platforms and information and communication technologies. These methods will be useful to connect urban planning officials/local governments with concerned stakeholders. Although the specific social and cultural identities of Saudi Arabia need consideration in ensuring community participation, this should not be at the exclusion of non-Saudi communities.

Key words: *Participatory, urban planning, smart cities, urban open spaces, community well-being, quality of life.*

INTRODUCTION

Urban planning needs a transformative change to impact economic growth, social cohesion and environmental protection towards achieving the sustainable development goals proposed by the United Nations in 2015 [21] and thus enhance the quality of life of the citizens [4]. A This will require, among other things, public support and trust. The problem is that the politics of today is characterised by a general lack of trust. Therefore, it is difficult to get participatory support for urban planning to improve the well-being and quality of life of citizens. To address this trust deficit, new ways of community participation are being tested in many urban planning areas. Advanced digital technologies are used to reconnect citizens with decision-makers to improve trust. One important issue in this respect is that participation itself may not improve trust. A survey of 1430 public managers by [10] showed that one

reason for this lack of trust could be the poor knowledge of the public on local government roles, systems and functioning, while being concerned about the benefits given by these governments.

Seven pathways were identified by which provide a good quality of life for the citizens through urban planning. They included tours, relaxation, activities, community relationships, well-being of people, emotional responses and healthcare. The author also proposed 11 themes and strategies related to these themes to improve the well-being of citizens. However, none of the themes included community participation.

According to [22], if planning agencies and service providers want community participation and engagement, they need to build effective partnerships and working relationships with the communities towards a common vision and experience of ideas related to well-being and participation in the urban sustainability planning contexts. If the efforts for community engagement and participation fail, local people are unlikely to take active interest and provide long-term support for the urban planning activities. This may result in residents being disillusioned and poor well-being.

From the above background information, the need for participative urban planning for the well-being and quality of life of the urban community is clear. This research aims to examine the influence of participative urban planning on the well-being and quality of life of urban communities. A brief review of the related current research is done below.

LITERATURE REVIEW

General

Citing successful examples of sustainable urban development, Parekh and Smith (2024) cited examples of successful sustainable urban development and suggested conducting workshops in inclusive design in which the local communities can actively participate. Through this participative approach, it is possible to include many perspectives and requirements in the planning process. It also helps to infuse a sense of ownership and community pride among the local communities.

This participatory approach ensures the incorporation of a range of perspectives and needs into the planning process. It will also instil a sense of ownership and community pride among the local participants [18].

A review of the literature by [19] showed that the overall well-being of the communities is aimed at through a holistic approach in sustainable urban design. This considers the aspirations and requirements of members belonging to different communities when they participate actively in the planning process. This procedure achieves the aim of inclusive, resilient and vibrant urban spaces, enhancing the collective wellbeing of the community [9].

From a survey of 33 municipal environmental departments across the Metropolitan Region of São Paulo (MRSP), Bressane, Loureiro, and Almendra (2024) noted that increased levels of community participation increased access to urban green spaces (UGS) and reduced differences across socio-economic groups. Thus, the potential of involving the community in urban green spaces management was demonstrated. This will lead to an equitable and sustainable urban environment, especially in developing countries. However, to ensure these, institutional support and transport information need to be extended.

Saudi Arabian Studies

A framework aimed at public participation in sustainable urban development planning was developed by Bouregh (2022). It was aimed to provide for the contribution of people to future developments so that their surroundings are shaped properly and lead to an enhanced quality of life. The author developed the framework based on the literature and Delphi interviews with experts. It consisted of levels and stages of planning, methods to participate, sustainability pillars, and ICT use. No diagram or empirical validation of the framework was provided in this paper.

Case studies by Klingman (2023) revealed Saudi Arabia's complex reaction to entrepreneurial neoliberalism. On one hand, there are progressive initiatives aimed at fostering a more egalitarian urban environment; on the other, there are deliberate strategies to leverage megaprojects as eye-catching attractions in the global market. In this condition, a conflict arises in which socio-economic reforms, cultural practices, and the enhancement of state power are considered vital for the establishment of new transnational organisations. In this context, architecture, urban planning, and real estate serve both as tangible assets and symbolic representations. Consequently, the goals outlined in Vision 2030 may prove to be challenging.

According to [1], Saudi Arabia needs to consider its specific socio-cultural identities instead of adopting the global standards of public open space planning. This is possible only by involving the stakeholders in the planning and implementation processes. However, the studies by the authors showed that the available open spaces in these three cities were much lower than prescribed by international organisations. Despite this open space shortage, 56% (898 out of 1596) of the participants of an online survey owned gardens and parks within a short walkable distance of 300 metres, taking less than five minutes. On the other hand, these spaces were not used by 40% of the participants due to the issues related to site design, maintenance, and cleanliness. These spaces were used for physical activities only by 13% of the participants. Although access to POS was reported by 1147 at the neighbourhood scale, only 24% regularly, 35% sometimes and 36% never used POS. At the level of Saudi cities, in Jeddah, Riyadh and Dammam, 11% did not use these city spaces. Thus, only a small percentage of the urban community uses POS within their surroundings. Most others preferred to use POS on the city scale. Thus, the need for stakeholder participation in urban open space planning is demonstrated.

Mostafa (2021) used a survey of 70 participants to study the community preferences for the adjustment of public spaces for quality of the life improvement in Riyadh city. Most participants wanted to use public spaces alone, with their families or with friends. Walkability was the main preference for most participants. The highest satisfaction rate was observed in the case of the design elements of public spaces, sidewalks, safety of the walkers, and the stability of the disabled and the elderly. The lowest satisfaction rate was reported on street signage, garbage collection and disposal, furniture, trees and plants. Overall, the city was able to achieve a substantial percentage of its Vision 2030 target for quality-of-life improvement [12]

A survey of 1581 participants by Aljoufie and Tiwari (2022) showed the dire need to ensure the participation of smartphone-based communities to resolve locally relevant issues of urban development, improvement of smart city planning quality, and roles to be played by the local authorities to mobilise people for such participation [2].

To ensure smart city development with public participation in Saudi Arabia, the need to increase their information availability, recognise perceived benefits, act responsibly and adopt social norms was found to be necessary by Mutambik, Almuqrin, Alharbi, and Abusharhah (2023) through a survey of 1489 participants Aravindhan, S. (2023).

The findings of Alamoudi, Abidoye, and Lam (2023) showed that public participation in sustainable smart city [7] planning will achieve a positive correlation with the desired outcomes by engaging and empowering the citizens with responsibility, accountability, transparency and including them in the

planning process. The paper positions participatory planning roles for sustainable city planning as shown in Fig. 1.
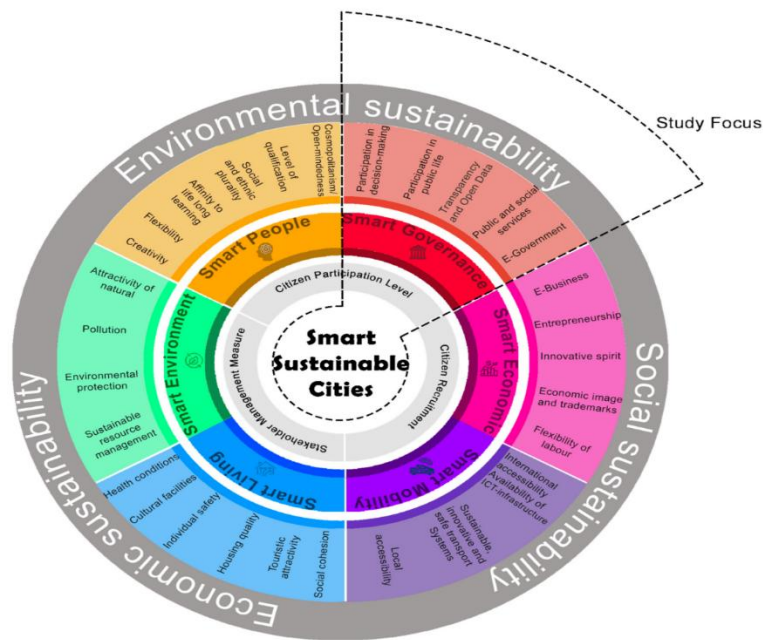

Figure 1. A diagram showing the positioning of participative roles of the urban community in sustainable city planning (Alamoudi, Abidoye, & Lam, 2023).

As shown in Fig 1, the participatory roles are in decision-making, public life, transparency, open data, public and social services and e-government.

The methods of data collection and analysis are given in the next section.

METHODOLOGY

This study used a quantitative research design using survey methodology to evaluate the effect of participatory urban planning on community well-being and quality of life in Saudi Arabia.

The study's target population consisted of Saudi professionals with expertise or interest in urban development and community well-being. Purposive sampling was used to select the participants to ensure that they had the relevant experience or knowledge in areas such as urban planning, architecture, public policy, and community development. This approach ensures the collection of informed insights directly related to the research objectives. 150 responses were collected.

A comprehensive literature review of current research on urban planning and community wellbeing strategies led to the development of the survey instrument. It consisted of four main sections: demographic information, understanding of participatory urban planning, experience with it, and the impact on community well-being and quality of life.

Data were collected over 12 weeks using the online survey platform, SurveyMonkey, to facilitate convenience and accessibility for respondents from different regions of Saudi Arabia. Participants were invited to complete the survey through email invitations, professional networks, and relevant online forums. Anonymity and confidentiality were assured to encourage honest responses.

Valid survey responses were analysed using R statistical software. The results were summarised into tables and charts as shown in this paper.

Ethical guidelines were adhered to throughout the research process. Before participation, all respondents were provided with information about the need for the study, the voluntary nature of their participation, and confidentiality assurances. Informed consent was obtained electronically. The study was approved by the appropriate institutional review board after ensuring that all ethical standards for research involving human subjects are fully complied with.

The results obtained using the above methodology are presented in the next section.

RESULTS

Demographics

The demographics of the 150 participants are given in Table 1.

Table 1 Demographics.

		Frequency	**Percent**
Age	18-24	31	20.7
	25-34	29	19.3
	35-44	30	20.0
	45-54	46	30.7
	55+	14	9.3
	Total	150	100.0
Gender	Female	44	29.3
	Male	106	70.7
	Total	150	100.0
Education	High school diploma	24	16.0
	Bachelor's degree	73	48.7
	Master's degree	17	11.3
	Doctorate	14	9.3
	Other	22	14.7
	Total	150	100.0

Out of 150, 106 (70.7%) participants were male, and 44 (29.3%) participants were female. There was an almost even distribution of the participants across different age groups in the range of 18-24, 25-34 and 35-44. There were a relatively higher proportion of 45-54 year olds . With regards to education, the largest group were people with a Bachelor's degree (48.7%).

Understanding of Participatory Urban Planning

Table 2 gives the data on the understanding of participatory urban planning among the survey participants.

Table 2. Understanding of participatory urban planning

		Frequency	**Per cent**
How familiar are you with the concept of participatory urban planning?	Neutral	32	21.3
	Not familiar at all	23	15.3
	Not very familiar	25	16.7
	Somewhat familiar	39	26.0
	Very familiar	31	20.7
	Total	150	100.0

In your opinion, how important is participatory urban planning for urban development?	Extremely important	27	18.0
	Moderately important	31	20.7
	Not at all important	39	26.0
	Slightly important	27	18.0
	Very important	26	17.3
	Total	150	100.0

Some contradictions between the responses to the two questions are evident. Generally, the level of importance perceived by the participants was higher than their familiarity with participatory urban planning. While 31 (20.7%) of the participants were very familiar, only 27 of them considered it very important. Out of 150, 39 were somewhat familiar, but only for 27, it was slightly important. When 23 were not familiar at all, 39 considered it not at all important. These trends may indicate the need to train them on participatory urban planning for any Saudi urban planning to be successful.

Experience with Participatory Urban Planning

The experience of the survey participants with participatory urban planning is presented in Table 3.

Table 3 Experience with Participatory Urban Planning.

		Frequency	Percent
Have you been involved in any participatory urban planning projects in Saudi Arabia?	No	83	55.3
	Yes	67	44.7
	Total	150	100.0
How effective do you believe participatory urban planning is in fostering community well-being?	Not effective at all	30	20.0
	Not very effective	23	15.3
	Neutral	30	20.0
	Somewhat effective	26	17.3
	Very effective	41	27.3
	Total	150	100.0

While only 83 participants were involved in participatory urban planning projects, only 67 said they were very effective or somewhat effective. The remaining 83 participants said they were neutral or not very effective or not effective at all. Without involvement in such projects, the two response trends do not match.

Impact on Community Well-being and Quality of Life

Table 4 provides the survey participants' perceptions about the impact of participatory urban planning on the community's well-being and quality of life.

Table 4: Impact on Community Well-being and Quality of Life

		Frequency	Per cent
To what extent do you believe participatory urban planning will improve the quality of life in your community?	Significantly improved	25	16.7
	Somewhat improved	30	20.0
	Neutral	37	24.7
	Somewhat worsened	30	20.0
	Significantly worsened	28	18.7
	Total	150	100.0
Which aspect of community well-being will show the most improvement due to participatory urban planning?	Cultural vitality	29	19.3
	Economic opportunities	38	25.3
	Environmental sustainability	39	26.0
	Social cohesion	44	29.3
	Total	150	100.0

Two interrelated aspects of the impact were measured in this data. While 37 (24.7%) of the participants were neutral to the question on the impact, 55 (36.7%) participants felt the community's well-being and quality of life improved somewhat (n=30, 20%) or significantly (n=25, 16.7%). An almost equal number of participants (n=58, 38.7%) felt the impact had somewhat (n=30, 20%) or significantly (n=28, 18.7%) worsened. The responses to the aspects of improvement were the lowest (n=29, 19.3%) for cultural vitality and the highest for social cohesion (n=44, 29.3%). The improvement in economic opportunities and environmental sustainability was almost equal for both (around 25%).

DISCUSSION AND CONCLUSION

Discussion

In Saudi Arabia, the low level of community participation in urban planning is caused by their unwillingness to participate and the absence of an interactive social media platform for urban development authorities to enable their participation [5] although the professionals, officials and experts supported the idea with equal participation of men and women [8].

Ji et al (2021) stressed the need to understand the preferences of citizens and this is indeed the aim of participatory urban planning leading to their improved well-being and quality of life. The findings of this study are indicative of these achievements to some extent. The survey participants lacked familiarity and experience and had doubts about their needs or effectiveness. They were not clear about the exact impact or barriers to participatory urban planning. These factors might have contributed to the less-than-desirable extent of participatory urban planning and its impact on the well-being and quality of life of the urban community.

The various response trends might indicate some confusion among the participants regarding the true impact of participative urban planning on community well-being and quality of life. There were also diverse opinions on the aspects impacted and the types of barriers.

Most people (n=37, 24.7%) chose to be neutral to the extent of impact. The reasons may be that they did not know the exact impact, were not certain about the impact or did not understand what the question meant.

Regarding the aspect of impact, there was no scope to be neutral. They had to select out of the five specific impacts. Most participants selected social cohesion (44, 29.3%) as the most impacted aspect. Economic opportunities (38, 25.3%) and environmental sustainability (39, 26%) should have got the highest response as they are the impacts aimed by community participation in urban planning, but did not.

The many advantages of participatory urban planning have been shown by many workers in different contexts. Three reviewed papers [20]; Omolo et al., 2024; and [13] provided the support in a general way. Specific cases of support from Saudi studies are exemplified by seven papers [11][14][15][16][17] Addas & Maghrabi, 2020;; Aljoufie & Tiwari, 2022; Mutambik et al., 2023; Alamoudi et al., 2023).

Among them, participatory planning for sustainable urban development/urban green spaces was stressed by the three general papers and by the Saudi papers of Bouregh, (2022),

The role of ICT uses in ensuring participation was shown by Bouregh, (2022). Klingmann, (2023) gave it a transnational/global dimension.

The need to consider the socio-cultural identity of Saudi Arabia for participative urban planning was stressed by Addas & Maghrabi, (2020). This observation indirectly and partly supports the inclusion of social and cultural dimensions as two aspects of impacts obtained in this study. This may mean the exclusion of non-Saudi communities. The record so far on the extent of available open spaces for various quality-of-life-enhancing activities has been low.

Although not included in this study, how Saudi citizens use open spaces needs to be considered in designing urban open spaces as a part of smart city planning. This is evident from the findings obtained by Mostafa, (2021).

Smartphones and social media platforms are excellent tools for promoting local community participation in urban planning [6]. This finding can be used on a large scale for all the Saudi smart city programs included in Vision 2030.

Improvement in services as an impact of local participation (observed in this study) is possible only if they have access to information, recognise perceived benefits, act responsibly and adopt social norms, as was shown by Mutambik et al. (2023).

CONCLUSION

The survey results among Saudi professionals reveal a mixed understanding and experience of participatory urban planning. While a portion of the respondents acknowledges its importance and has been involved in relevant projects, there are significant knowledge gaps and varying perceptions of its effectiveness and impact. This indicates a need for increased awareness, education, and training about participative practices in urban planning to bridge these gaps.

Crucially, the study identifies several barriers to successful participatory urban planning in Saudi Arabia. These include bureaucratic hurdles, lack of community engagement, insufficient funding, and expertise deficits. Addressing these barriers is essential for fostering more inclusive and impactful urban planning processes. The findings suggest that incorporating digital technologies, such as social media and smartphone-based tools, could facilitate broader community engagement and participation.

Despite these challenges, the research also points to areas of potential improvement. For instance, aspects of social cohesion and cultural vitality emerge as strong suits where participatory planning has made noticeable strides. Additionally, the alignment of participatory efforts with key objectives of environmental sustainability and economic opportunities holds promise if pursued diligently.

To transform participatory urban planning into a potent tool for enhancing community well-being and quality of life, there needs to be a concerted effort to integrate the unique socio-cultural dimensions of Saudi Arabia with the global best practices. This balance will ensure that both the local identity and international standards are reflected in urban development plans.

Overall, public participation in sustainable smart city planning will achieve a positive correlation with the desired outcomes if the citizens are engaged and empowered with accountability and responsibility, transparency, participation, and inclusion in the planning processes [3].

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