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Analyzing the Mechanism of the Possible Effect of Place Attachment of Residents of Iranian Neighborhoods in Improving the Level of Quality of Life (Study Example: Joolan Neighborhood in Hamedan City)

Nima Gheitarani[*1], Seyyed Arash Sohrabi[2], Seyednima Naghibi Iravani[3], Samad Dehghan[2]
[1] Arizona State University, School of Sustainability, Tempe, A.Z., U.S.; [2] Education Department, Construction Engineering Organization of East Azarbaijan Province; [3]Islamic Azad University of Sofian
[*]Email: n.gheitarani@gmail.com
Mobile: +98-9183195578

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Abstract

According to the assumptions of the present research, indicators such as the mentality of the residents of the neighborhood about people's quality of life, the mentality of the residents of the neighborhood about their quality of life, the perception of citizens towards the safety of their living environment are among the hidden variables that can have direct effects on mental quality of life as one of Internal factors and indirect effects on local quality of life. Joolan neighborhood is one of the old neighborhoods with the identity of Joolan neighborhood in Joolan neighborhood in Hamedan city, which is located in the first ring and the middle of Mahdieh Street, Madani, and Taleghani Boulevard, and it is considered the study sample of this research. Statistical analyzes in the present study show a statistically significant relationship between satisfaction with housing and overall satisfaction with life in Joolan neighborhood in Hamedan City at a significance level of less than 0.05 (Sig<0.05, R=0 208) exists. Such a correlation exists for most of the objective indicators with the overall satisfaction of quality of life, although its intensity is different. These findings can be used in the periodic repetition of the quality of life survey. Although some of the presented cases seem clear, in most of the surveys, obvious and repeated points are ignored and mistakes are repeated. The following can be mentioned from the experimental findings of the survey of quality of life awareness in Joolan neighborhood in Hamedan city.

Keywords: Place attachment, Neighborhood, Hamedan, Quality of life, Attitude towards Urban Management.

Introduction

Quality of life can be called the capacity for transformation, adaptation and adaptation, and the ability to deal with tension and crises (Troy et al., 2023). quality of life speaks of a special capacity and ability in individuals and groups, families and communities, which mainly includes learning and adapting to imposed changes, as well as the ability to adapt to conditions and requirements; in the simplest sense, this is having a perpetual beginning (Masten et al., 2021). Revival of kindness, development of adaptability, strength based on flexibility, strengthens capital and place attachment, and is the cause and achievement of quality of life at the same time (Asayesh, 2008). When a society

is faced with new needs, dangers, or threats, it will suffer a breakdown and crisis (Novak et al., 2021).

Therefore, many texts call the quick return to pre-crisis conditions quality of life; in the current study, the models for measuring public quality of life through objective and subjective indicators were all reviewed and investigated under the title of dominant approach, and it was determined that there are shortcomings in the dominant approach of measuring public quality of life, which requires revision and improvement of this approach (Iravani & Ahd, 2021-a). In this regard, a complementary approach to measure people's quality of life through internal and external factors was introduced, and a specific research and survey method was introduced to verify it (Gheitarani et al., 2020; Kahvand et al., 2015). To apply this model, an urban statistical population was selected and the aforementioned proposed model, which was codified through a complementary approach, was tested. In the internal factors section, the most critical factors affecting the quality of life of Joolan neighborhood residents were introduced.

This process was once again applied to external factors, and finally, the critical paths of the influence of hidden and subjective variables selected on the quality of life of the residents of Joolan neighborhood were determined (Asayesh, 2010; Gheitarany et al., 2013). Also, through correlation analysis, the relationship between internal and external factors was measured, and statistically, this relationship was completely and strongly established. Finally, the completed comprehensive model of promoting public quality of life was obtained. It should be added that in the structural equation model, the amount of errors considered for measurement error is related to possible variables that may not have been considered in the model (Iravani & Ahd 2021-b). In the structural equation model of the present study, this issue is also true, and it determines the significant percentage of structural errors and the measurement of the traces of such hidden mental variables. Therefore, in developing a comprehensive model for promoting public quality of life through internal and external factors, the effect of such variables should be specified under the title of other variables (Zakerhaghighi et al., 2015).

*People's quality of life***.** Neighborhood sustainability in the form of a collaborative, economic, , environmental, and physical-institutional process has been emphasized for the past several decades in developed countries as a programmatic focus of sustainable urban development and metropolitan areas. Therefore, concepts such as collective quality of life, increasing justice and cohesion, attachment to the neighborhood environment, creating equal opportunities with greater efficiency, housing value, as well as the quality of life and health of the people (not only the population of the place) are only in the shadow of the concept of neighborhood development and urban neighborhood planning. They find objectivity. Joolan neighborhood in Joolan neighborhood in Hamedan city is facing many bottlenecks regarding the optimal management of the spatial organization of the city and the current approach in its macro and centralized management due to lack of reliance on local mechanisms, people's quality of life, and sustainable local ecological systems, to sustainable development an unfinished city (Khanian et al., 2019; Zaker Haghighi et al., 2014).

Therefore, sustainability in urban areas is known as the starting point of sustainable management of Hamedan. What is considered the ultimate goal in the neighborhood sustainability approach is the people and the provision of their basic and basic needs, taking into account their living environment. The high coefficient of internal correlation and synergy in old neighborhoods, especially with a common rural base, can be a model of community unity and quality of life as the basis for the development of neighborhoods, and in the path of creating high internal and individual quali-

ty of life, it can lead to the realization of optimal quality of life in critical situations of neighborhoods. Cities, as living beings, always go through a physical life cycle in their evolution. In this way, they are born, they grow, and their quantity increases, they grow up and change their role, and they get old and wear out. In recent decades, the rapid growth of cities has caused many problems. In such a way that these problems and inadequacies have affected all aspects of urbanism and sometimes disrupted urban life.

*Place attachment***.** The words quality of life, self-improvement, freedom from demands, the state of full physical, mental, and place attachment, achievement, low unemployment, psychological quality of life, good quality of life, pleasure, and meaningful quality of life, not only in the texts related to the subject and in the discussion about constructive elements. Place attachment is used, but reconciliation between them is very difficult, if not impossible (Najat and Montazeri, 2016). According to Cummins, "Among the words used in human sciences, place attachment is the word that has the highest uncertainty in its use. The word place attachment has so many meanings that the reader must refer to the text to understand its meaning. Words like quality of life also have such conditions". A review of texts related to place attachment (Farboodi et al., 2021).

*Internal and external experiences***.** In this part of the research, experiences are presented through expression and reference to the work to avoid duplication of content in the form of table (1).

Table 1. The defining indicators of the concept of quality of life based on the existing theoretical literature

Names of theorists	Number of referrals	The indicators provided are theoretical
Mohammadkhani, M. , Karkehabadi, Z. , & Arghan, A. (2020). Kupec, J. , Mahoney, D. , & Parish, R. (2019). Mendonça, D. , Amorim, I. , & Kagohara, M. (2019). Khayambashi, E. (2017). Sadashiva, V. , Mowll, R. , Uma, S. R. , Lin, S. L. , Heron, D. , Horspool, N. ,. . . & Daly, M. (2021). Davis, C. A. (2017, October). Banwell, K. (2017). Khayambashi, E. , & Zarabi, A. (2018). Farhadpour, S. , & Hosseinali, F. (2020), Coar, M. , Sarreshtehdari, A. , Garlock, M. , & Elhami Khorasani, N. (2021). Coccossis, H. , Delladetsimas, P. M. , & Katsigianni, X. (2021). Vishnu, N. , Kameshwar, S. , & Padgett, J. E. (2021). Wither, D. , Orchiston, C. , Cradock-Henry, N. , & Nel, E. (2021). Talebloo, S. , & Alias, A. (2021). Yuan, F. , Liu, R. , Mao, L. , & Li, M. (2021). Huang, G. , Li, D. , Zhu, X. , & Zhu, J. (2021). Shang, Q. , Guo, X. , Li, Q. , Xu, Z. , Xie, L. , Liu, C. ,. . . & Wang, T. (2020). Dong, S. , Mostafizi, A. , Wang, H. , Gao, J. , & Li, X. (2020). Koc, E. , Cetiner, B. , Rose, A. , Soibelman, L. , Taciroglu, E. , & Wei, D. (2020). Sun, W. , Bocchini, P. , & Davison, B. D. (2020). Ma, J. , Feng, X. J. , Li, G. Y. , & Li, X. N. (2020). Hecht, A. A. , Biehl, E.	12	1. Trust
	4	2. Mass communication
	10	3. Individual communication
	14	4. A sense of responsibility
	9	5. Convergence of values
	19	6. Collaborative tools
	8	7. Information about the results of quality of life
	12	8. Scale of society
	16	9. Contagiousness of the decision
	20	10. Ensuring effectiveness
	11	11. Citing successful records
	3	12. Citing existing real-

Names of theorists	Number of referrals	The indicators provided are theoretical
, Barnett, D. J. , & Neff, R. A. (2019). Sasaki, Y. , Aida, J. , Tsuji, T. , Koyama, S. , Tsuboya, T. , Saito, T. ,. . . & Kawachi, I. (2019). Wang, L. , Behera, P. , Haghani, S. , & Xu, J. (2019, June). Roussou, G. , & Pozoukidou, G. (2019), Mowll, R. , & Russell, D. (2018). Tang, J. , & Heinimann, H. R. (2018).		ity
	21	13. Efficiency of organizing devices
	22	14. Ensuring not to be affected by the consequences of votes
	23	15. Motivation
	11	16. Similar experiences
	12	17. Appropriate and accurate information
	7	18. Proving the importance of quality of life
	19	19. Being local
	22	20. Comprehensibility
	12	21. Continuity
	5	22. Possibility of non-quality of life

Source: Author (citing sources), 2023

Theoretical indicators of quality of life. After examining and studying the ideas raised in the field of quality of life, in this part, quality of life indicators will be explained in a table. Table (2) shows the theoretical indicators provided by Iranian and foreign theorists and researchers. It should be noted that in Table (2), the explanatory indicators of quality of life have been categorized according to the number of references of theorists in their works. Due to the overlap of some of these indicators with each other in tables (2-5), the indicators that overlapped with each other were removed and finally, indicators that were distinct and effective remained.

Table 2. Indicators of the concept of quality of life

Name of theorist/researcher	Number of referrals	The indicators provided are theoretical
McConnell, E. A., Janulis, P., Phillips II, G., Truong, R., & Birkett, M. (2018). Zhang, J., Zhang, J., Zhou, M., & Yu, N. X. (2018). Kwok, A. H., Becker, J., Paton, D., Hudson-Doyle, E. , & Johnston, D. (2019). Frantzeskaki, N., Van Steenbergen, F., & Stedman, R. C. (2018). Kwok, A. H., Paton, D., Becker, J., Hudson-Doyle, E. E., & Johnston, D. (2018). Spialek, M. L., & Houston, J. B. (2019). Delilah Roque, A., Pijawka, D., & Wutich, A. (2020).	13	1. Compliance
	22	2. Risk taking
	19	3. Programmability
	9	4. Purposefulness
	7	5. Hopeful perseverance
	4	6. Intellectual flex-

Name of theorist/researcher	Number of referrals	The indicators provided are theoretical
Sadri, A. M., Ukkusuri, S. V., Lee, S., Clawson, R., Aldrich, D., Nelson, M. S.,. . . & Kelly, D. (2018). Sanders, J., Munford, R., & Boden, J. (2017). Hosseini, K. A., & Izadkhah, Y. O. (2020). Lee, J., & Fraser, T. (2019). Ntontis, E., Drury, J., Amlôt, R., Rubin, G. J., & Williams, R. (2020). Scannell, L., Cox, R. S., & Fletcher, S. (2017). Place-based loss and quality of life among disaster□affected youth. Journal of community psychology, 45 (7), 859-876. Patel, R. B., & Gleason, K. M. (2018). The association between cohesion and community quality of life in two urban slums of Port au Prince, Haiti. International Journal of Disaster Risk Reduction, 27, 161-167. Meyer, M. A., Hendricks, M., Newman, G. D., Masterson, J. H., Cooper, J. T., Sansom, G.,. . . & Cousins, T. (2018). Scorgie, F., Baron, D., Stadler, J., Venables, E., Brahmbhatt, H., Mmari, K., & Delany-Moretlwe, S. (2017). Wardekker, A., Wilk, B., Brown, V., Uittenbroek, C., Mees, H., Driessen, P.,. . . & Runhaar, H. (2020). Sina, D., Chang-Richards, A. Y., Wilkinson, S., & Potangaroa, R. (2019). Cubrinovski, M., Bradley, B. A., Elwood, K. J., Johnston, D., Orchiston, C., Sullivan, T., & Wotherspoon, L. M. (2020). Xin, Y., Liu, C., Peng, X., Fu, H., & Li, L. (2021). Fekete, A., Asadzadeh, A., Ghafory-Ashtiany, M., Amini-Hosseini, K., Hetkämper, C., Moghadas, M.,. . . & Kötter, T. (2020). Davis, C. A. (2018). Abdoli, I., Ghahroudi Tali, M., & TavakoliNia, J. (2021). Salimi Tari, A., Babaei Semiromi, F., Tabesh, M. R., Arjmandi, R., & Heidari, A. (2020). Poursharifi, J., Tabibian, M. , Masoud, M., & Toghyani, S. (2020).		ibility
	8	7. Collaborative flexibility
	18	8. Collective flexibility
	16	9. Universality
	9	10. Collectivist uniformity
	11	11. Hope
	4	12. Tangible returns

Source: Author (citing sources), 2023

Methodology

In the current research, according to the general purpose of the research, this research can be considered as applied research. Applied research is research that uses the theories, rules, principles, and techniques developed in basic research to solve practical and real issues. This type of research emphasizes more on the most effective action and pays less attention to the causes (Najat and Montazeri, 2016). This emphasis is more because applied research is directed towards the practical application of knowledge (Brown et al., 2004). We use the quantitative research method - content analysis in the investigation of the studied area and investigate and evaluate the criteria and indicators extracted from the theoretical framework of the research at the level of the studied area and find the critical paths of influence on the subjective quality of life of citizens. In the content analysis me-

thod, an attempt is made to provide a comprehensive understanding of the phenomena by observing all aspects of a concrete phenomenon and examining its process about other phenomena that surround it. Some consider a case study as a research design that can be used for the systematic study of a phenomenon (Brown et al., 2004).

Explanation of the primary research model of internal (objective and subjective) and other structures. According to the assumptions of the present research, indicators such as the mentality of the residents of the neighborhood about people's quality of life, the mentality of the residents of the neighborhood about their quality of life, the perception of citizens towards the safety of their living environment are among the hidden variables that can have direct effects on mental quality of life as one of Internal factors and indirect effects on local quality of life. Figure 1 shows the mental hidden variables that have been raised in the assumptions of the present study along with the proposed influencing paths (direct and indirect). In this Figure, the mechanism of influencing the mentality of the residents of the neighborhood from people's quality of life directly on the variable of subjective quality of life and also through the effects it has on the perception of security and the formation of capital among citizens.

Figure 1 shows the proposed model of other influencing factors on quality of life consisting of mental hidden variables.

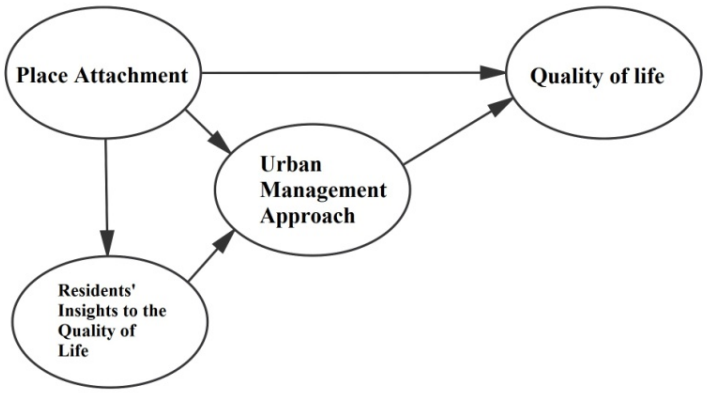

Figure 1. The proposed model of other influencing factors on quality of life consisting of mental hidden variables (drawn in Amos software).
Source: Gheitarani et al., 2020.

In each statistical population model, it can be different. For example, in the exploratory factor analysis, the cluster random sampling method to record maximum opinions, and the structural equations method measuring the relationship between the urban management approach and the subjective and objective quality of life of the citizens of Hamedan can be selected as the statistical population (Iravani & Dehghan, 2022). Determining the sample size in the structural equation method should be at least 200 questionnaires and at most 400 questionnaires (Keramat et al., 2011). The sampling method is generally the cluster sampling method. In the exploratory factor analysis, the Likert scale will be used to determine the sample size.

Descriptive statistics of Joolan neighborhood (study area). Joolan neighborhood is one of the old neighborhoods with the identity of Joolan neighborhood in Joolan neighborhood in Hamedan

city, which is located in the first ring and the middle of Mahdieh Street, Madani, and Muftah Boulevard. Which overlooks one of the old hills of the city called Mosli Hill from the side of Taleghani Boulevard (which is equal to the ancient Hegmataneh Hill in terms of historical records). The historical elements in that neighborhood have turned it into a historical neighborhood, which requires preservation. Also, a part of the neighborhood is dilapidated and needs reconstruction and in some cases renovation. Joolan neighborhood has an area equal to 26 hectares and a population of approximately 6000 people. This neighborhood has 35 blocks and 770 plaques, which mostly lack geometric order and average grain (Najat and Montazeri, 2016).

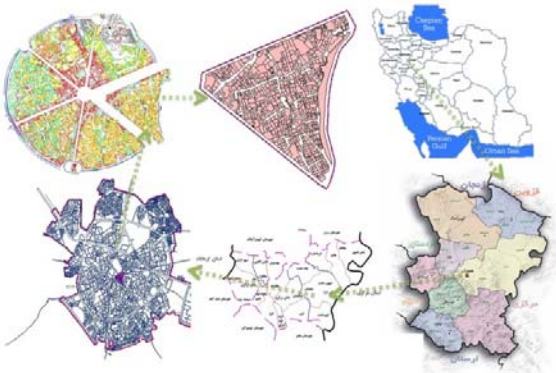

Figure 2. The position of the neighborhood in the skeleton of the city
Source: Author, 2024

Figure 3. A panoramic figure of the current situation of Joolan neighborhood in Joolan neighborhood in Hamedan city in 2023
Source: Author, 2024

Considering that the main approach of the present studies is the mental model and the objective indicators to facilitate their interpretation and explanation and the comparison of the ranking results of the districts and regions on the one hand and the other hand due to facilitating the feasibility of various, economic and physical factors. In this study, it is selected for use in the process of studies in the future stages. The data extraction method will be as follows. In this chapter, while introducing concepts related to methodology and data analysis techniques that will be used in the next chapters, the theoretical framework of the research and the data analysis process were drawn. Also, the theoretical models that were formed based on the assumptions of the present study were introduced. In the comprehensive model proposed to improve the level of citizens' quality of life, measuring factors were categorized and how they affect the overall quality of life was drawn. In the section on other factors of mental hidden variables, the assumed regression relationship between them

and the mechanism of their effect on mental quality of life in Amos software was drawn and introduced.

Also, the research method and analytical approach used in the present study were introduced. In the next chapter, the statistical population and the study of this treatise and its characteristics will be described. Also, the theoretical model (other factors) of this study will be verified using real survey data. Also, while distributing the questionnaire to measure the objective quality of life according to the selected objective indicators that were selected in the second season, the objective quality of life level of the citizens will be evaluated. Finally, it will be investigated what are the critical paths in the influence of other factors on the subjective quality of life of the residents of Joolan neighborhood in Joolan neighborhood in Hamedan City and finally the correlation relationship between the objective and subjective indicators of the investigation and the final model of the influencing mechanism of the measurement factors It will be investigated on the general quality of life of residents of Joolan neighborhood in Joolan neighborhood in Hamedan city**.**

Research findings and discussion. Measuring people's quality of life through objective and subjective indicators (internal factors). During the last few decades, two new scientific approaches have been proposed in the measurement of public quality of life. Objective approach or indicators approach and subjective quality of life approach. The approach of indicators focuses on "measurement". Subjective quality of life research is instead related to people's subjective experience of their lives. The basic idea and premise of this approach is that quality of life can be defined based on the conscious experience of people in terms of hedonic feelings (feelings related to happiness and unhappiness) or cognitive quality of life.

This research area is based on the assumption that to understand and understand the quality of life, the experience of people should be directly investigated, based on how a person feels about his life in the framework of his standards. Considering the above two approaches, Bruce Wick and Duffy have presented three broad perspectives on public quality of life:

A) People's quality of life from the point of view of the real conditions of a person's life,

b) People's quality of life from the point of view of individual quality of life, and

c) People's quality of life from a combined point of view, both from the perspective of real-life conditions and from the perspective of individual quality of life from those conditions.

A critical review of these three general views and models along with the fourth conceptual model of public quality of life, which is outlined in the following figures respectively, has been done by Flase and Perry, great experts on public quality of life (Keramat et al., 2011). According to Landsman's definition of this concept, one of the possible models is to consider people's quality of life as synonymous with the total objective and measurable conditions of life that are experienced by people (model/Figure no. 1). These conditions may include physical health, personal characteristics (wealth, etc.), relations, functional activities, and wider economic and abilities. The mental response to such conditions is in the field of personal quality of life in life. The existing weaknesses in the definition of public quality of life in terms of, regardless of the subjective interpretation of the individual's perception and reaction to such conditions, force us to pay attention to the subjective assessment and subjective quality of life.

From this point of view, model one in the definition of popular quality of life is considered a synonym of personal quality of life. Despite this, equating popular quality of life with mental quality of life has faced criticism. According to Ejrton, there is a possibility of independence or lack of connection between external events and mental reports of mental quality of life. From his research and

other research, he testifies that the report of mental quality of life is more dependent on the conditions and internal state of people than their external state. It is tempting to equate high quality of life with maximum well-being unless the priorities are expressed under conditions of free choice, unlimited opportunities, equality of expectations, and a standard reference frame of comparison. But such conditions do not exist in reality. Mental quality of life is a personal assessment, its frame of reference is personal and it is affected by personal experiences and also his judgment about what is possible and usual for a person in certain circumstances. Figures (3-5) show the definition of public quality of life from the point of view, mental quality of life, and both together.

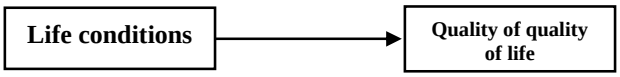

Figure 4. Definition of public quality of life from the point of view of life conditions
Source: Author, 2024.

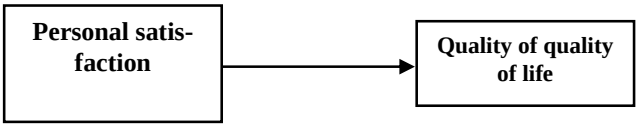

Figure 5. Definition of public quality of life from the point of view of life quality of life
Source: Author, 2024.

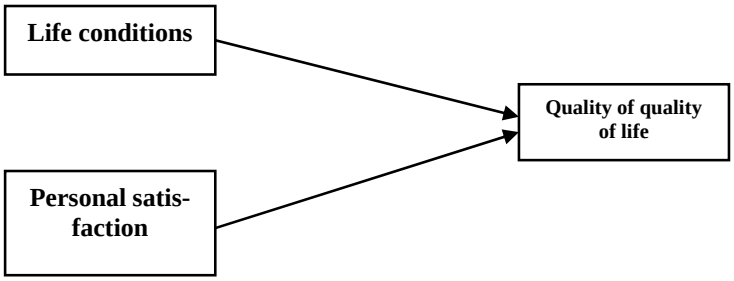

Figure 6. Definition of people's quality of life from a combined point of view, both from the perspective of real-life conditions and quality of life
Source: Author, 2024.

The defining indicators of the concept of quality of life are based on the existing theoretical literature.

Table 3. The defining indicators of the concept of quality of life based on the existing theoretical literature

Names of theorists	Number of referrals	The indicators provided are theoretical
Mohammadkhani, M. , Karkehabadi, Z. , & Arghan, A. (2020). Kupec, J. , Mahoney, D. , & Parish, R. (2019).	12	1. Trust
	4	2. Mass communication

Names of theorists	Number of referrals	The indicators provided are theoretical
Mendonça, D. , Amorim, I. , & Kagohara, M. (2019). Khayambashi, E. (2017). Sadashiva, V. , Mowll, R. , Uma, S. R. , Lin, S. L. , Heron, D. , Horspool, N. ,... & Daly, M. (2021). Davis, C. A. (2017, October). Banwell, K. (2017). Khayambashi, E. , & Zarabi, A. (2018). Farhadpour, S. , & Hosseinali, F. (2020), Coar, M. , Sarreshtehdari, A. , Garlock, M. , & Elhami Khorasani, N. (2021). Coccossis, H. , Delladetsimas, P. M. , & Katsigianni, X. (2021). Vishnu, N. , Kameshwar, S. , & Padgett, J. E. (2021). Wither, D. , Orchiston, C. , Cradock-Henry, N. , & Nel, E. (2021). Talebloo, S. , & Alias, A. (2021). Yuan, F. , Liu, R. , Mao, L. , & Li, M. (2021). Huang, G. , Li, D. , Zhu, X. , & Zhu, J. (2021). Shang, Q. , Guo, X. , Li, Q. , Xu, Z. , Xie, L. , Liu, C. ,... & Wang, T. (2020). Dong, S. , Mostafizi, A. , Wang, H. , Gao, J. , & Li, X. (2020). Koc, E. , Cetiner, B. , Rose, A. , Soibelman, L. , Taciroglu, E. , & Wei, D. (2020). Sun, W. , Bocchini, P. , & Davison, B. D. (2020). Ma, J. , Feng, X. J. , Li, G. Y. , & Li, X. N. (2020). Hecht, A. A. , Biehl, E. , Barnett, D. J. , & Neff, R. A. (2019). Sasaki, Y. , Aida, J. , Tsuji, T. , Koyama, S. , Tsuboya, T. , Saito, T. ,... & Kawachi, I. (2019). Wang, L. , Behera, P. , Haghani, S. , & Xu, J. (2019, June). Roussou, G. , & Pozoukidou, G. (2019), Mowll, R. , & Russell, D. (2018). Tang, J. , & Heinimann, H. R. (2018).	10	3. Individual communication
	14	4. A sense of responsibility
	9	5. Convergence of values
	19	6. Collaborative tools
	8	7. Information about the results of quality of life
	12	8. Scale of society
	16	9. Contagiousness of the decision
	20	10. Ensuring effectiveness
	11	11. Citing successful records
	3	12. Citing existing reality
	21	13. Efficiency of organizing devices
	22	14. Ensuring not to be affected by the consequences of votes
	23	15. Motivation
	11	16. Similar experiences
	12	17. Appropriate and accurate information
	7	18. Proving the importance of quality of life
	19	19. Being local
	22	20. Comprehensibility
	12	21. Continuity
	5	22. Possibility of non-quality of life

Source: Author (citing sources), 2023

Theoretical indicators of quality of life. After examining and studying the ideas raised in the field of quality of life, in this part, quality of life indicators will be explained in a table. Table (3) shows the theoretical indicators provided by Iranian and foreign theorists and researchers. It should be noted that in Table (4), the explanatory indicators of quality of life have been categorized according to the number of references of theorists in their works. Due to the overlap of some of these indi-

cators with each other in table number (4), the indicators that overlapped with each other were removed and finally, the indicators that were distinct and effective remained.

Table 4. Indicators of the concept of quality of life

Name of theorist/researcher	Number of referrals	The indicators provided are theoretical
McConnell, E. A. , Janulis, P. , Phillips II, G. , Truong, R. , & Birkett, M. (2018). Zhang, J. , Zhang, J. , Zhou, M. , & Yu, N. X. (2018). Kwok, A. H. , Becker, J. , Paton, D. , Hudson-Doyle, E. , & Johnston, D. (2019). Frantzeskaki, N. , Van Steenbergen, F. , & Stedman, R. C. (2018). Kwok, A. H. , Paton, D. , Becker, J. , Hudson-Doyle, E. E. , & Johnston, D. (2018). Spialek, M. L. , & Houston, J. B. (2019). Patel, R. B. , & Gleason, K. M. (2018). The association between cohesion and community quality of life in two urban slums of Port au Prince, Haiti. International Journal of Disaster Risk Reduction, 27, 161-167. Wardekker, A. , Wilk, B. , Brown, V. , Uittenbroek, C. , Mees, H. , Driessen, P. ,... & Runhaar, H. (2020). Sina, D. , Chang-Richards, A. Y. , Wilkinson, S. , & Potangaroa, R. (2019). Cubrinovski, M. , Bradley, B. A. , Elwood, K. J. , Johnston, D. , Orchiston, C. , Sullivan, T. , & Wotherspoon, L. M. (2020). Xin, Y. , Liu, C. , Peng, X. , Fu, H. , & Li, L. (2021). Fekete, A. , Asadzadeh, A. , Ghafory-Ashtiany, M. , Amini-Hosseini, K. , Hetkämper, C. , Moghadas, M. ,... & Kötter, T. (2020). Davis, C. A. (2018). Abdoli, I. , Ghahroudi Tali, M. , & TavakoliNia, J. (2021).	13	1. Compliance
	22	2. Risk-taking
	19	3. Programmability
	9	4. Purposefulness
	7	5. Hopeful endurance
	4	6. Intellectual flexibility
	8	7. Collaborative flexibility
	18	8. Collective flexibility
	16	9. Universality
	9	10. Collectivist uniformity
	11	11. Hope
	4	12. Tangible returns

Source: Author (citing sources), 2023

Common indicators of quality of life and quality of life. After categorizing the defining indicators of the two concepts of quality of life and quality of life concerning theoretical theories and literature and applied research conducted inside and outside of Iran, this part is based on two-way communication and the prevalence of using these Two groups of indicators, joint indicators of quality of life and quality of life and the number of references and use of indicators in sources will be determined (Najat et al., 2016). Table (5) shows the common indicators of quality of life and quality of life and the number of references to these indicators. In Table (5), sixteen indicators to explain the concept of quality of life and six indicators to explain the concept of quality of life are shown.

Table 5. Common indicators of quality of life and quality of life about each other

Number of referrals	Quality of life indicators	Number of referrals	Quality of life indicators
13	conformity	12	1. Comprehensibility
22	risk-taking	22	2. Being local

Number of referrals	Quality of life indicators	Number of referrals	Quality of life indicators
19	Programmable	14	3. Motivation
18	Collective flexibility	19	4. Ensuring not to be influenced by the consequences of votes
16	Universal	23	5. Efficiency of organizing devices
11	Hope	16	6. Ensuring effectiveness
		20	7. Collaborative tools
		11	8. A sense of responsibility
		22	9. Continuity
		23	10. Contagiousness of the decision
		10	11. Scale of society
		11	12. Appropriate and accurate information
		21	13. Trust
		19	14. Similar experiences
		12	15. Citing successful records
		12	16. Personal communication

Source: Author, 2024

Measuring the internal factors of quality of life in Joolan neighborhood in Hamedan city. In the aspect of housing, there are various questions such as satisfaction with the size of the housing, satisfaction with the design and furniture of the housing, satisfaction with the price of the housing, etc., which are considered very clear and transparent questions in the eyes of the people. And on the other hand, they are considered standard indicators of quality of life in the physical dimension, they have been set (Najat et al., 2016). In terms of facilities and equipment, similar to the documented indicators of this section, the services related to the internal environment of the residential unit, which is mostly infrastructure facilities and includes the satisfaction of facilities and equipment such as water, electricity, gas, telephone, and sewage, have been regulated. The relevant indicators have very clear questions and have a special place in the texts related to life literature.

It is possible that many indicators related to quality of life if they have positive conditions, cannot have a favorable result without the relevant infrastructure indicators. For example, access to good drinking water affects many health indicators (Ibid, 2010). On the other hand, in this section, a special question has been prepared that measures the level of current satisfaction compared to the level of satisfaction of the past four years and shows that the subjective perception of the people of Joolan neighborhood in Hamedan city about mental quality and the improvement or degradation of mental quality indicators in How can the length of a period be evaluated?

In other words, quality of life in its general meaning has been measured in previous years and compared to the exact current situation. To complete the mental image of the people in the past, and present and the mental prediction of the future based on their special requirements, another question has been prepared that shows the level of hope of the people of Joolan neighborhood in Hamedan city regarding the improvement of quality of life indicators in the future. The quality of life recognition questionnaire in Joolan neighborhood in Hamedan City was designed after extensive studies in the field of quality of life and using the selected conceptual model of the study (Ibid,

2010). It has also been tried to match the conceptual model, dimensions, indicators, questions, and items with the special conditions of Joolan neighborhood in Hamedan city.

This questionnaire is based on 13 main dimensions. The total number of parameters is 107 and at the end of the questionnaire, 16 questions related to the characteristics of the respondent are included such as age, type of housing ownership, occupation of the respondent, cost of living, and level of education. The designed questionnaire has the necessary comprehensiveness so that based on thirteen main dimensions, measuring the condition of housing, facilities and equipment, urban facilities and services, transportation, employment and economic conditions, education, recreation and entertainment, health and healthcare, Civil society and urban governance, family, security, environment and overall satisfaction with life are predicted. Table 6 shows the number of items in each dimension.

Table 6. The number of measures of each dimension of quality of life

Number of indices	Indices numbers	Aspect	Row	Number of indices	Indices numbers	Aspect	Row
6	60 to 65	Recreations and entertainment	8	11	1 to 11	Housing	1
6	66 to 71	health and hygiene	9	7	12 to 18	Facilities and equipment	2
19	72 to 90	Civil society and governance	10	12	19 to 30	Municipal facilities and services	3
6	91 to 96	Security and safety	11	9	31 to 39	Urban transport	4
7	97 to 103	the environment	12	9	40 to 48	Employment and economic conditions	5
4	104 to 107	Overall satisfaction	13	5	49 to 53	Education	6
				6	54 to 59	Family	7

Source: Author, 2024

The answers to the questions are also arranged in the form of a five-point Likert scale and the form of the level of satisfaction separately (very high, high, medium, low, and very low). To easily answer each question and avoid wasting time, a five-point spectrum has been designed in front of each question so that the respondent can easily choose the desired option according to his wishes and according to his mental requirements. An example of a duplicated questionnaire for the survey is given in the previous chapter. This questionnaire was completed based on the sampling method determined in Joolan neighborhood in Hamedan city.

The time frame of carrying out the quality of life survey in Joolan neighborhood in Hamedan city. Time and cost are two important factors in conducting field surveys. The reason for this is to create a time and cost limit in the navigation, which can be effective in how to do it. The initial estimate for conducting the survey was considered to be about 2 working months (from July 2023), and considering the implementation process, there was not much problem in this field. Conducting

survey preparations, including questioning, preparing and duplicating questionnaires, providing basic supplies, etc., for about 10 days, conducting survey for about 40 days, and entering data from questionnaires and converting them into electronic files for analysis with The desired software was considered for about 15 days.

Analytical statistics related to internal factors. Statistical analyzes in the present study show a statistically significant relationship between satisfaction with housing and overall satisfaction with life in Joolan neighborhood in Hamedan City at a significance level of less than 0.05 (Sig<0.05, R=0 208) exists. Such a correlation exists for most of the objective indicators with the overall satisfaction of quality of life, although its intensity is different. In table 7, these relationships are specified.

Table 7. Information related to the correlation between objective and subjective indicators (internal factors) of quality of life measurement

Correlation intensity	The significance level	The correlation coefficient	The second variable	The first variable
Strong	Sig<0. 05	0.67	place attachment	Satisfaction with the housing situation
Poor relationship	Sig<0. 05	0. 23	place attachment	Condition of facilities and equipment
Poor relationship	Sig<0. 05	0. 26	place attachment	State of urban facilities and services
Average relationship	Sig<0. 05	0. 44	place attachment	State of urban transport
too strong	Sig<0. 001	0.81	place attachment	Employment status and economic conditions
Poor relationship	Sig<0. 05	0.35	place attachment	Education status
Poor relationship	Sig<0. 05	0.61	place attachment	Your family situation
Average relationship	Sig<0. 05	0. 47	place attachment	The state of recreation and entertainment
Average relationship	Sig<0. 05	0. 48	place attachment	Health status and healthcare
too strong	Sig<0. 05	0.87	place attachment	Satisfaction with civil society and urban governance
Poor relationship	Sig<0. 05	0. 36	place attachment	Security and safety situation
Average relationship	Sig<0. 05	0. 43	place attachment	The state of the environment

Source: Author, 2024

As in table 7, it is shown that among all the internal factors and their indicators, satisfaction with housing and employment conditions and economic conditions are significantly smaller with

correlation coefficients (0.67 and 0.81) respectively. From 0.001, they have the highest correlation with the variable of overall satisfaction with life. Also, among these, the variables of satisfaction with the state of facilities and equipment, urban facilities and services, and satisfaction with civil society and urban governance have the lowest correlation with the variable of overall satisfaction with life at a significant level of less than 0.001. Table number (8) shows Cronbach's alpha coefficient for each of the variables of the internal factors, the average value of each variable, and the standard deviation for them.

Table 8. Survey tool of quality of life measurement model through internal factors

Cronbach's alpha	The standard deviation	Average	Variable name
0.82	0. 786	3. 42	Satisfaction with the housing situation
0.83	0.679	2. 83	Condition of facilities and equipment
0. 78	0.771	3. 24	State of urban facilities and services
0. 79	0.812	2. 11	State of urban transport
0.81	0. 703	3. 48	Employment status and economic conditions
0. 78	0.886	2. 91	Education status
0.84	0.790	3. 33	Your family situation
0.82	0.619	3. 40	The state of recreation and entertainment
0.80	0.679	2. 67	Health status and healthcare
0. 79	0.842	3. 24	Satisfaction with civil society and urban governance
0.82	0. 738	3. 12	Security and safety situation
0.83	0.643	3. 16	The state of the environment
0.81	0.877	3. 49	Overall satisfaction with life

Source: Author, 2024

Out of a total of 653 people who participated in the survey related to the internal factors of quality of life measurement, a total of 589 people filled out the questionnaire correctly and completely and participated in the study. Therefore, the response rate of the participants to the current questionnaire was 90.19%. As shown in this table, all the Cronbach's alpha coefficients related to the variables are higher than 0.7, which shows the adequate reliability of the present questionnaire.

Table 9. The number of measures of variables related to external factors of quality of life measurement

Number of indices	Gauge numbers	Aspect	Row
5	1 to 5	Neighborhood residents' mentality of quality of life	1
5	6 to 10	capital	2
5	11 to 15	Urban management approach	3
3	16 to 18	Quality of life	4

Source: Author, 2024

The answers to the questions are also arranged in the form of a five-point Likert scale and the form of the level of satisfaction separately (very high, high, medium, low, and very low). To easily answer each question and avoid wasting time, a five-point spectrum has been designed in front of each question so that the respondent can easily choose the desired option according to his wishes and according to his mental requirements. An example of a duplicated questionnaire for the survey is given in the previous chapter. This questionnaire was completed based on the sampling method determined in Joolan neighborhood in Hamedan city.

Table 10. Indicators suggested by some researchers

Proposed indexes								Scholar's name
R^2	SRMR	PNFI	NNFI	NFI	CFI	RMSEA	X^2	
			*	*	*		*	McDonald ,R. P. & Ho, R. M.
	*		*		*	*		Hu, L. T &bentler, P. M. 1999
*	*				*	*	*	Kline, R. B. 2005
*	*				*	*	*	Boomsma, A. 2000
	*	*			*	*	*	Hooper et al,2008

Source: Author, 2024

Homan declares the acceptable limit for the above indicators as follows. In this chapter, the writer based on his opinion compiles the indicators of his model based on the criteria mentioned by Homan (Najat et al., 2016). Table 11 shows Cronbach's alpha coefficient for each of the variables of the internal factors, the average value of each variable, and the standard deviation for them.

Table 11. Survey tool of quality of life measurement model through internal factors

Cronbach's alpha	The standard deviation	Average	Variable name
0. 8. 7	0.853	3. 47	Neighborhood residents' mentality of quality of life
0.83	0. 788	3. 39	capital
0.85	0.806	3. 12	Urban management approach
0.85	0.841	2. 97	Quality of life

Source: Author, 2024

Out of a total of 237 people who participated in the survey related to the internal factors of quality of life measurement, a total of 200 people filled out the questionnaire correctly and completely and participated in the study. Therefore, the response rate of the participants to the current questionnaire was 84.38%. Table number (12) shows the average values, standard deviation, and Cronbach's alpha for each of the variables related to the internal factors of quality of life. As shown in this table, all the Cronbach's alpha coefficients related to the variables are higher than 0.7, which shows the adequate reliability of the present questionnaire.

The model fit indices were measured as (CFI=0.935, RMSEA=0.03, X2/DF=1.43, RMR=0.05), which shows the acceptable level of model fit. Also, all the standardized factor loadings for the hidden variable measurement model of place attachment were statistically significant and were calculated at an average level (about 0.6). All standardized factor loadings for the capital

variable were also factorially significant and measured at an average level (0.4). These values were measured for the security perception variable at an average level (0.4) and for the mental quality of life variable at an average level (0.55).

In the present sample, the chi-square value with 85 degrees of freedom is equal to 122.086, which is not statistically significant because its significance level is relatively large (more than 0.05), (Ghadarjani et al., 2013). It can be concluded that the chi-square test confirms the exact fit of the model with the observed data. On the other hand, the chi-square ratio to the degree of freedom is equal to 1.436 and smaller than 2. In addition, the root mean square error of estimation (RMSEA) is equal to 0.038 and its 90% confidence interval is between 0.035 and 0.086.

Because the lower limit of this value is less than 0.05, it can be concluded that the degree of approximation of the model in the community is not large. The root mean square residual index of the root mean square residual (RMR) is equal to 0.052, which is very small and indicates the small error of the model and the acceptable fit of the model. Table 13 shows the fit indices of the model.

Table 13. Model fit indices

Indices	Acceptable Range	Calculated
Chi-square (X^2)	Smaller is better	122. 086
Chi-square/degree of freedom	Below 2. 0	1. 43
Root Mean Square Error of Approximation	Below 0. 05	0. 038
Root mean residual (RMR)	Below 0. 07	0. 052
CFI	More than 0. 9	0. 92

Source: Author, 2024

Measuring the relationship between internal and external factors of measuring quality of life. Considering the general purpose of the present study, which is to verify the comprehensive model of promoting urban quality of life through internal and external factors, at this stage, we measure the correlation between the set of internal and external factors. For this purpose, through correlation analysis, the statistical relationship of the set of internal and external factors in measuring urban quality of life is investigated. To measure the correlation between internal and external factors, the correlation between both sets of data should be tested. In the part of internal factors, subjective quality of life is measured and measured through citizens' perceptions of their living conditions and objective variables. In the field of external factors, however, subjective quality of life is measured by other subjective factors that affect citizens' judgment of their life conditions apart from objective factors. Therefore, it will be possible to examine the relationship between internal and external factors through citizens' perceptions of their living conditions.

Through correlation analysis, it was found that two categories of internal and external factors have a strong correlation with each other. In this context, the value of the correlation coefficient or the value of the coefficient (R) is 0.83 at the significance level of $p<0.001$ was calculated that the magnitude of this coefficient indicates the existence of a very strong and statistically significant relationship between the two variables of mental quality of life in the questionnaire of internal factors and the questionnaire of external factors. Therefore, it can be concluded that in the comprehensive model of measuring quality of life through internal and external factors, there is a strong relationship between internal and external factors.

Therefore, in the comprehensive model of promoting quality of life through internal and external factors, both variables of subjective quality of life can be shown in the form of one variable and the mechanism of the effect of this variable on overall quality of life can be depicted. Table 14 shows the result of correlation analysis between internal and external factors.

Table 14. The result of the correlation analysis between internal and external factors

		SP1	SP2
SQOL1	Pearson Correlation	1	0. 83**
	Sig. (2-tailed)	-	0. 000
	N	200	200
SQOL2	Pearson Correlation	0. 83**	1
	Sig. (2-tailed)	0. 000	-
	N	200	200

**** Correlation is significant at the 0. 01 level (2-tailed).**
Source: Author, 2024

Results and Discussion

Library research and searching among related documents show that despite the gradual importance of the concept of quality of life among researchers and city managers, the measurement of quality of life in a systematic way has not been taken into account so far. Only a few study groups can be mentioned in connection with this issue. For example, the studies of academic centers, research centers, and some urban institutions that pay attention to one or more dimensions of quality of life, such as the quality of the urban environment, justice, governance, health, security, etc, or studies that pay attention to macro-concepts connected with quality of life such as sustainability, development, etc. Some studies pay attention to the concept of quality of life directly, but they are mainly conducted in the form of small research studies or case surveys.

These cases are often pursued by academic centers in the form of educational theses and their results are sometimes published in the form of articles. In the present study, all objective and subjective variables were investigated, measured, and evaluated through dominant approaches and complementary approaches.

In the internal factors affecting the general concept of quality of life, it was found that the variable of satisfaction with employment status and economic conditions has the most relationship with life satisfaction. This means that in Joolan neighborhood in Hamedan City, the citizens consider having a job and sufficient income as the primary condition for living happily. It seems that access to sufficient financial resources and having enough capital to create sustainable employment is the main concern of the citizens of Hamedan, which overshadows other aspects of life. Suitable working hours with the ability and income of the citizens have had a tremendous impact on creating a sense of well-being among the citizens of Hamedan (Ghadarjani & Gheitarani, 2013). The mentality of the citizens of Hamedan towards the category of paying taxes, especially among business owners, has been the factor affecting their satisfaction with their lives. Mainly, the citizens of Hamedan have classified the issue of class difference as an important factor in determining their life status as a happy or unhappy person. The increase in the price of goods on an annual basis has worried the citizens of Hamedan and this issue has cast a shadow on their perception of happiness.

The thing that has the least effect on the level of satisfaction with life among the citizens of Hamedan is the satisfaction with urban facilities and services. In this regard, for example, access to cinemas and entertainment centers in the city and neighborhood, access to shopping centers, postal and banking services, and access to the Internet are not as expected in the well-being of citizens. Citizens' feelings towards urban furniture, street lighting, and the number of residents in a neighborhood have not been seen by citizens as important factors that affect the level of satisfaction with citizens' lives. Perhaps this issue can be justified by the population scale and area of Joolan neighborhood in Hamedan city and the neighborhoods of this city.

Citizens' quick and easy access to most of the mentioned services may have prevented them from being considered important by citizens. Perception of security is a factor that, as a rule, and based on existing theoretical sources, should affect mental quality of life, but this causal relationship has not been established in Joolan neighborhood in Hamedan city. The perception of security could not affect the life satisfaction of the citizens of Hamedan. In justification of this case, it can be mentioned again that the current urban society of Joolan neighborhood in Hamedan City (in 2015) consists of urban and rural-to-urban migrants, and the perception of security is a multidimensional phenomenon that has a dynamic nature. Therefore, creating a sense of satisfaction from life, which usually happens through known factors, cannot reduce or increase itself with the dynamic nature of the perception of security from being in a particular place. Citizens also proved this important, and the causal relationship between the perception of security and the subjective quality of life of citizens was not proven.

Conclusion

Field and experimental research have common and distinct points with each other. Each survey also has similarities and differences with previous surveys, and paying attention to these matters in the form of gained experience can be effective in increasing the quality, and accuracy reducing survey errors, and in some cases reducing the costs and time of the survey. In this context, it seems necessary to transfer the experimental findings in the survey of quality of life. These findings can be used in the periodic repetition of the quality of life survey. Although some of the presented cases seem clear, in most of the surveys, obvious and repeated points are ignored and mistakes are repeated. The following can be mentioned from the experimental findings of the survey of quality of life awareness in Joolan neighborhood in Hamedan city.

The briefing session before starting the questioning is very effective in reducing the error of the questioner and training the correct questioning. The findings of the pre-test can be used to clarify the questioner's mind about the survey field. It is very important to control and guide the questioners in the field when the survey starts. It is necessary to fully control the activity of each questionnaire in the first days of the survey. Therefore, in the early days, the presence of experienced supervisory and control forces is very important. Using the SMS system to control the questioners during the survey is one of the things that helped to conduct the survey more regularly. The time of entry, exit, and the number of questionnaires completed by the questioner will be announced to the project supervisor by SMS when leaving the field and this information will be recorded.

The delivery time of questionnaires completed by the questioner, logical control, and validation of the questionnaire is necessary. Paying attention to the way of answering and comparing several questionnaires can indicate the presence or absence of mental bias of the questioner. In some cases, due to the mental bias of the questioner (after completing several questionnaires and some-

what identical opinions of people), the questioner may accidentally make a questioning error. The control upon receiving the completed questionnaires will prevent the repetition of such an error. If the questionnaire is ready to be completed by the respondent himself, it is more useful to deliver the questionnaire and receive it after the time required for answering, than to conduct a face-to-face interview with the questioner.

Conducting repeated interviews along with expressing numerous problems on the part of the respondent will prolong the interview time, in this case, it is better to complete the questionnaire in the form of "self-filling" by the respondent. Also, the rate of people's response to some questions that are related to the private sphere of people is more in the "self-filling" mode than during the face-to-face interview. The willingness of citizens to answer the questionnaire has been different in different areas of Joolan neighborhood in Hamedan city.

In this survey, the northern areas of Joolan neighborhood in Hamedan city were less willing to complete the questionnaire than the residents of the southern areas of the city. Therefore, the attitude of the questioner should be different in different areas of Joolan neighborhood in Hamedan city. In some cases, it is necessary to emphasize the importance of surveying the respondent. Surveying a wide level requires permission from law enforcement and security centers. To avoid any incidents that cause problems for the questioners, it is necessary to obtain permission before starting the survey.

In the current study, the models of measuring urban quality of life through objective and subjective indicators were all reviewed and investigated under the title of dominant approach, and it was determined that there are shortcomings in the dominant approach of measuring urban quality of life, which requires revision and improvement of this approach. In this regard, a complementary approach to measuring urban quality of life through internal and external factors was introduced, and a specific research and survey method was introduced to verify it. To apply this model, an urban statistical population was selected and the aforementioned proposed model, which was codified through a complementary approach, was tested. In the internal factors section, the most critical factors affecting the satisfaction of Hamedan citizens were introduced.

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