

Original Article

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Formulation of Hamedan's urban development vision for the 2045 horizon through a city development strategy (CDS) approach

Atiyeh Asgari^{1*}, Kianoosh Zakerhaghighi², Mehrshad Jahanabadi³

1. Department of Urbanism. South Tehran Branch, Islamic Azad University, Tehran, Iran
2. Department of Urbanism. South Tehran Branch, Islamic Azad University, Tehran, Iran
3. Department of Urbanism. South Tehran Branch, Islamic Azad University, Tehran, Iran

Abstract

Following the failure of traditional physical planning models in managing urban complexities, the CDS approach has been introduced as a new paradigm for achieving sustainability and improving governance. This study aims to rethink Hamedan's planning system and articulate the strategic vision of this city for the 2045 horizon. Hamedan, despite its rich potential, is faced with challenges such as spatially imbalanced development, planning rigidity, and institutional discontinuities. This study, relying on a mixed approach, employed documentary analysis, in-depth interviews with experts, and a three-round Delphi technique (with a Kendall coefficient of 0.74). The findings led to the formulation of an optimal vision centered on the "university-tourism city" model, which connects Hamedan's competitive advantages with the four main pillars of CDS. The results indicate that the realization of this vision requires: a. enhancing competitiveness through a knowledge-based economy and health tourism; b. increasing livability through the revitalization of the historic fabric and the eco-city model; c. improving financial sustainability through a bankability-oriented approach and the attraction of private investment; and d. establishing responsive governance to manage discursive conflicts. The innovation of the research is manifested at three levels: the indigenous modeling of CDS, the identification of institutional discontinuities through agonistic analysis, and the presentation of an operational framework for the transition from static comprehensive plans to dynamic strategic management. This strategic document, through identifying ecological and institutional risks, provides a roadmap for transforming Hamedan's symbolic capitals into absolute economic and social advantages.

Keywords

city development strategy (CDS)
Hamedan
urban vision
university-tourism city

* Corresponding Author: a_asgari@azad.ac.ir

1. Introduction

The accelerating pace of urbanization and its uneven expansion have become a global phenomenon that, particularly in developing countries, has generated numerous and complex consequences in physical, economic, social, and managerial domains (Mohammed & Mustafa, 2022). These rapid transformations have rendered urban infrastructures unable to respond to increasing demands and, as a result, have produced crises such as the intensification of spatial inequality and a noticeable decline in urban quality of life (Gakaev, 2022). In this context, the historic city of Hamedan—holding the title of the “capital of history and civilization of Iran” (Sajadzadeh, 2022)—despite its profound cultural identity and its centralized radial structure, suffers from structural limitations and organizational disarray (Hatefi Shojae, 2016). The fundamental challenges of this city include spatially imbalanced growth, the expansion of inefficient and deteriorated urban fabric, the formation of informal settlements with social and security implications, and a decline in equity in the distribution of urban services (Zic-Cardi Contigiani, 2019). The origin of many of these issues lies in conceptual and institutional inconsistencies between urban management and the spatial planning system—an inefficiency that has led to the formation of an unproductive structure that hinders the development process (Hatami, 2024). This discursive rupture and dualistic outlook among policymakers has diverted the natural evolution of development and subjected it to political and factional tendencies (Danesh-Paye & Asgari, 2023). In response to these deficiencies, the urban planning system, at its initial stage, relied on traditional comprehensive models and subsequently attempted to control the direction of development through physical and detailed plans (Kashiripoor, 2023). Nevertheless, the practical experience of plans such as Marjan, Mojda, and other comprehensive and detailed maps of Hamedan has demonstrated that these models, due to their static approach, lack of flexibility, absence of genuine stakeholder participation, and the separation between planning, implementation, and monitoring, have failed to achieve their objectives (Ghasemi et al., 2020; Bratchenko, 2024). Following the failure of traditional plans, developing countries sought to adopt a new model of urban planning that, with a forward-looking and coordinated perspective, could compensate for the shortcomings of past approaches and provide the grounds for the realization of sustainable urban

development (Chabani et al., 2025). In this regard, the CDS was introduced as an innovative framework in the second half of the twenty-first century, with direct support from the World Bank and institutions such as the Cities Alliance. The fundamental objective of this model is to achieve sustainable development through improving the quality of governance, enhancing the urban management system, and the gradual and structural reduction of urban poverty (Chabani et al., 2025). The CDS approach is an analytical and strategic process that, relying on stakeholder participation, leads to the formulation of a long-term vision for the future of the city. This model emphasizes strengthening a competitive economy, preserving and enhancing environmental quality, improving infrastructure, and reforming managerial structures. Its ultimate output is the preparation of executive programs with clearly defined timelines (González Medina, 2023).

Given the inefficiency of previous plans in Hamedan and the urgent need of the city for a comprehensive and integrated document capable of institutionalizing transformation processes, economic dynamism, and public participation along the path of urban growth (Baniamerian et al., 2024), the adoption of the CDS approach is considered an undeniable necessity. The significance of this research lies in the fact that the success of any strategy depends upon the precise definition of its underlying concepts and the achievement of theoretical consensus around them. Since cities require a shared ideal and a unified vision within the urban governance system (Ghobadi et al., 2021), clarifying these concepts constitutes a fundamental step toward moving Hamedan beyond its current unstable condition and toward balanced and sustainable development. The innovation of this study lies in its focus on identifying and explicating the key concepts forming the core of Hamedan’s urban development strategy—concepts which, rather than merely analyzing the existing situation, play a catalytic role in strengthening indigenous competitive advantages, resolving structural challenges, and directing the development trajectory. The primary objective of the research is to define and categorize these foundational concepts within the framework of a vision-oriented CDS approach.

The fundamental problem of Hamedan is the dominance of a “physical voluntarism” approach in previous development plans, which has led to the formation of spatial and functional discontinuities. Despite its high tourism and scientific potentials, the city faces three structural challenges: first, planning

rigidity that prevents flexibility in response to economic fluctuations; second, increasing marginalization and the decline of environmental quality in annexed areas; and third, the absence of a collective consensus among key stakeholders (urban management, the private sector, and citizens) in determining development priorities. These deficiencies indicate that traditional urban steering models are no longer capable of managing Hamedan's complexities. Therefore, the formulation of a vision document, based on CDS, is raised not as an option, but a necessity for the transition from "fragmented physical development" to "integrated strategic development" by the 2045 horizon.

In light of the articulated necessities, this research seeks to answer the following key questions:

- Question 1: What are the key concepts and drivers shaping Hamedan's CDS, with emphasis on its "university-tourism" identity?

- Question 2: How can the prioritization of Hamedan's future vision options for the 2045 horizon be determined based on a balance between ecological capacities and developmental aspirations?

- Question 3: What are the operational and resilient strategies for transitioning from rigid physical planning to strategic management in the city of Hamedan?

In order to precisely clarify the necessity of a paradigm shift in Hamedan's planning system, Table 1 summarizes the deficiencies of the current models in contrast with the strategic requirements of CDS and the tangible challenges of the study area.

Table 1. Comparative analysis of the deficiencies of Hamedan's current planning system and the strategic requirements of the CDS

Key dimensions	Current status (traditional comprehensive and detailed plans)	Strategic requirements in the CDS model (2045 horizon)	Specific deficiencies and challenges in the city of Hamedan
Planning approach	Physical, static, and top-down	Process-oriented, dynamic, and participatory (bottom-up)	Emphasis on urban boundary expansion without consideration of ecological capacities
Economic component	Governmental budgeting is limited to constrained municipal resources	Emphasis on bankability and investment attraction	Incomplete urban projects and a lack of economic return from tourism potentials
Institutional structure	Institutional fragmentation (sector-oriented governance) and rigid bureaucracy	Good urban governance and consensus among stakeholders	Conflict between urban management and the cultural heritage organization within the historic fabric
Social justice	Neglect of marginalized groups and deprived neighborhoods	Reduction of structural poverty and social inclusion	Increasing growth of informal settlements in the northern and northeastern zones
Feasibility	High deviation of plans from implementation (failure of previous plans)	Linkage between vision and short-term operational programs	Non-realization of public land uses in recently approved detailed plans

2. Theoretical framework

The formulation of an urban vision, particularly in historic and cultural metropolises such as Hamedan, extends beyond the issuance of an aspirational statement (Viki & Al-Harithy, 2024). This process inherently possesses a strategic, participatory nature and is grounded in a paradigmatic transformation in urban planning and management approaches (Kalli et al., 2022). In contrast to traditional planning models and static comprehensive plans, this approach emphasizes the necessity of producing a strategic and operational document that emerges from interaction and consensus among local stakeholders, elites, executive institutions, and civil society (Rojas-Rendón, 2022). Such a document must present an accurate, coherent, and realistic image of a desirable urban

future and function as a foundation for both short-term and long-term policy-making and urban management planning (Zavedeev, 2023). CDS, introduced in the late 1990s and early 2000s by institutions such as the World Bank and the Cities Alliance, was presented as a comprehensive framework for responding to the diverse challenges of urban development in developing countries. With a focus on concepts such as urban poverty reduction, improvement of governance quality, and the achievement of dynamic and sustainable development, this framework is regarded as an effective alternative to static planning models (Abdullahi & Pradhan, 2017). In its essence, CDS is a multidimensional process that perceives the city not merely as a physical entity but as a driver of economic growth and the improvement of

citizens' quality of life. This approach emphasizes the meaningful participation of all actors and beneficiaries in the design of the vision and the formulation of development strategies (Kohli, 2024). The outcome of this process is the attainment of three fundamental components: (a), the formation of a shared and consensual vision for the future of the city; (b), the definition of requirements and executive mechanisms for its realization; and (c), the preparation of an efficient program for implementation and follow-up of defined objectives (A Smart Urbanism Management Platform, 2022). According to the World Bank's definition, the conceptual framework governing CDS is organized around four fundamental pillars that constitute the main foundations of sustainable urban development: livability, competitiveness, bankability, and good urban governance (Dyadik, 2024). Livability refers to the provision of equal opportunities for all residents to participate in and benefit from the economic and political life of the city; a concept closely associated with improving quality of life and addressing social and neighborhood-based issues (Alipour & Meshkini, 2024). Competitiveness emphasizes the creation of a strong economy characterized by employment growth, income generation, and dynamic investment, which requires the provision of appropriate conditions to enhance the productivity of individuals and institutions (Antonakakis et al., 2024). Bankability relates to the efficiency of the urban financial system in utilizing revenue and expenditure resources (Ivanova & Parkhomenko, 2022). Good urban governance, as a key element in managing the social and economic development of the city, is grounded in concepts such as transparency, accountability, and the principle of competition (Titov, 2021). Within the urban context of Hamedan, attention to the fundamental concepts of urban development holds doubled significance. With its long-standing historical and cultural background, the city requires a strategic vision that relies on its relative advantages,

such as tourism, the knowledge-based economy, and its garden-city identity (Komasi et al., 2023). Nevertheless, recent studies have indicated that the emergence of discursive conflicts and antagonistic tensions in the field of spatial planning is the result of deep ideological and structural differences that may divert the development process from a constructive trajectory and transform it into an inhibiting one. Such conditions highlight the necessity of redefining and reorganizing urban discourses on the basis of agonistic theory and strengthening public participation in decision-making processes (Hatami, 2024). Accordingly, Hamedan's future vision should be designed not merely as an aspirational statement, but as an operational framework aimed at creating synergy between indigenous advantages and the strategic pillars of CDS. This vision must present clear mechanisms for overcoming existing structural challenges—including physical crises, identity discontinuities, and weak neighborhood cohesion—in order to transform Hamedan by the 2045 horizon into a resilient, dynamic, smart city aligned with the standards of governance associated with the Islamic Revolution (Zakerhaghighi et al., 2013). The proposed approach conceptualizes urban development as a multidimensional phenomenon that extends beyond purely physical models and integrates environmental, social, cultural, and economic dimensions in pursuit of improving citizens' quality of life (Daffinà, 2024). Based on the comparative review presented in Table 2, it can be stated that the focus of urban visions within cities applying the CDS strategic planning model in Asia is on the preservation of natural resources, identity, and culture; in Europe, on the development of activities in entrepreneurship and innovation; and in Africa, on improving people's quality of life. The visions formulated in the aforementioned cities possess a defined vision-making process, and all urban dimensions have been considered in the formulation of the vision (Baris & Kaygusiz, 2023).

Table 2. Analysis of global urban visions (Baris & Kaygusiz, 2023)

City	Country	Continent	Vision	Vision statement
Olongapo	Philippines	Asia	–	1. A natural free port. 2. The traditional Philippine window to the world. 3. A dynamic, friendly, flexible, and future-oriented environment. 4. Possessing a distinct Philippine character and identity.
Xiamen	China	Asia	–	1. Xiamen will become a global communication city based on its historical international role and global logistical capacities. 2. It will play a supportive role in terms of time-sensitivity and provide customer-oriented production. 3. It will become a heavenly urban island, a place for leisure travelers, business visitors, and seekers of comfort, security, talent, and legality. 4. It will provide a calm and friendly urban lifestyle for its residents.
Shenyang	China	Asia	“An international metropolis full of vitality and dynamism”	1. Advanced equipment-based factories with high-tech industrial production and modern agriculture. 2. A regional commercial and credit information center and structural reform of the market economy. 3. Integration of natural resources and ancient cultural heritage with modern urbanization. 4. A calm and satisfying environment for citizens' living and working.
Ulaanbaatar	Mongolia	Asia	“Tourism city”	1. The city will emerge as an internationally developed capital with a vibrant economy and a competitive commercial center in education, information, science, and technology. 2. The city will implement appropriate land management and urban development policies, including the development of Ger areas with suitable infrastructure, and will improve housing conditions for all citizens. 3. The city will be healthy, with a healthy environment and a balanced social life supported by progressive laws. 4. The city will be an efficient and responsive organizational place, involving both private and public trade sectors in civic services through a participatory approach.
Salford	United Kingdom	Europe	“A city of work and life”	1. A young and regenerated place. 2. Fundamental land-use changes while maintaining the urban built boundary. 3. Provision of urban renewal. 4. Directing development and investment toward areas defined as “priority investment zones.” 5. Enhancement of environmental quality in urban and rural areas. 6. Maintenance and improvement of neighborhood centers and district centers. 7. Ensuring that all communities share in the city's economic prosperity. 8. Conservation of energy and other resources and maximum use of existing facilities to ensure sustainable urban development.
Southampton	United Kingdom	Europe	“A leading city in southern England”	1. Strong internet connectivity. 2. A strong economic base encompassing innovative and growing sectors of the national and international economy. 3. A suitable city for diversification of economic land uses and social activities. 4. Hosting a wide range of shopping centers, offices, contemporary workspaces, urban facilities, vibrant city centers, tourism, and leisure activities. 5. Possessing dynamic and memorable urban spaces.
Tartu	Estonia	Europe	“University city”	1. A university city. 2. A city of creative youth. 3. Supporting the development of entrepreneurship and innovation sectors. 4. A city with a modern and secure urban environment. 5. A sustainable lifestyle and cooperative engagement at the national level across all fields.
Tunis	Tunisia	Africa	–	1. A competitive economy. 2. Resources and services accessible to all citizens. 3. A healthy environment and an urban landscape harmonious with nature. 4. Participatory and executive urban management.
Tshwane	South Africa	Africa	–	1. Improvement of the quality of life for all citizens of Tshwane. 2. Enhancement of a development-oriented local governance system. 3. Provision of efficient and adequate services in proportion to citizens' income.

3. Literature review

Numerous studies in recent years have focused on various dimensions of urban development and its management in Hamedan, providing a strong analytical foundation for the present research. In a study conducted by Ghobadi, Jafari, and Motaghian-Nasab (2021) entitled "Formulating a proposed twenty-year vision for the city of Hamedan from the citizens' perspective," the objective was to achieve a shared ideal image of the city. The results, based on citizen surveys, indicated that the priorities of the proposed vision were respectively a "tourism city," a "smooth/efficient city," a "clean and green city," and an "eco-city." This research confirms the importance of public participation in defining aspirations and emphasizes the natural and tourism identity of the city. To complement this perspective at the managerial level, Danesh-Paye and Asgari addressed marginalization as one of the prominent manifestations of urban cultural and economic poverty in their study titled "strategic planning with a social empowerment and environmental enhancement approach for informal settlements (case study: Dizaj neighborhood – Vali-Asr township, Hamedan). Uncontrolled population growth and a shortage of infrastructural and environmental facilities give rise to unconventional or marginal neighborhoods. Furthermore, unjust and inappropriate policies within societies generate conflicts among social groups and ultimately lead to marginalization and informal settlements. Consequently, empowerment strategies for marginalized communities, facilitated through their participation in improving and renovating their living spaces, hold significant importance. This research aimed to examine the role of strategic planning in empowering informal settlements. Using field studies and records from the municipality of District 4 of Hamedan, Dizaj neighborhood (Vali-Asr township) was selected as the case study, and the existing conditions were analyzed via SWOT and QSPM techniques, ultimately yielding quantified strategy priorities. Regarding development barriers and governance, Hatami's (2024) article entitled "The discourse field of planning and antagonism in Hamedan's urban development" examined the mechanisms of meaning production surrounding urban development. Drawing on agonistic theory, the results demonstrated that the discourse field of spatial planning in Hamedan, due to fundamental and ideological differences in planning formations, has transformed into an antagonistic field

in which the politicization of planning represents the most significant obstacle to the urban development process. This finding clearly illustrates the challenges of good urban governance as a pillar of CDS in Hamedan. Similarly, Nikpour et al. (2022), in their article "zoning and spatial analysis of urban poverty: a case study of Hamedan," investigated indicators of good urban governance through an analysis of municipal performance. Their study revealed that the level of good urban governance in Hamedan is in an unfavorable condition and below average, with legality, accountability, and transparency exerting the greatest influence on improving this situation. This reflects the absence or weakness of the fundamental CDS concepts within Hamedan's urban management structure. From the perspective of physical dimensions and sustainable development, Mohammadi Rasti, Hosseinzadeh Dalir, and Azar (2025), in their article "evaluation of urban sustainable development indicators: a case study of Hamedan," examined the influence of indicators in achieving urban regeneration objectives. Their findings indicated that in Iranian metropolises, including Hamedan, physical dimensions exert the most significant positive and meaningful impact on the application of sustainable development through a regeneration approach. However, a profound understanding of sustainable development concepts within regeneration has not been sufficiently achieved. These results emphasize the importance of the physical dimension in urban planning while simultaneously revealing the necessity for a deeper interpretation of governing concepts and their reciprocal relationship with sustainability. In addition, the study by Molamirzaei and Sajadzadeh (2022), focusing on "explaining the development framework of urban historic cores with a creative city approach in Hamedan," emphasized the necessity of highlighting creativity and culture within historic fabrics and paying special attention to human and social capital. It identified the historic core as an appropriate context for implementing the creative city approach, which indicates the role of culture and innovation in development strategies. At the international level, numerous studies have addressed the explanation and evaluation of contemporary urban planning approaches, particularly in relation to CDS and its role in governance and urban competitiveness. These studies provide strong theoretical frameworks and global evaluation criteria for analyzing the governing concepts of urban development:

Peng (2019), in the article “urban competitiveness and smart cities: an empirical analysis in the context of developing countries,” examined how major cities in Africa and Asia utilize CDS to attract investment and enhance their economic position. The results showed that CDS, by emphasizing the creation of specific competitive advantages—such as technological infrastructure or specialized industrial clusters—and by strengthening participatory governance, can effectively boost a city’s standing within global economic networks. Peng concludes that CDS success lies not merely in the final document but in the process of building consensus among stakeholders to achieve a shared vision.

Rajesh and Chandrashekar (2025), in their study “exploring urban livability: frameworks and approaches for sustainable cities,” emphasized the importance of “livability” within CDS. They demonstrated that successful European cities, while focusing on economic competitiveness, base their strategic development on the quality of public spaces, social justice, and environmental sustainability. The findings of this research highlighted the comprehensive and four-dimensional nature of CDS, in which social and environmental dimensions complement economic and governance dimensions.

Dabbagh (2022), in the article “the role of management and planning in urban landscape aesthetics: a literature review,” analyzed the processes and consequences of urban vision formulation. The findings showed that the success of an urban vision is directly related to the quality of participatory governance mechanisms. Weak or symbolic participatory processes result in visions that are ultimately not accepted by citizens and local groups, consequently failing to become operational.

The book “Conflicts in Urban Future-Making” (2024) investigated how power struggles and conflicting discourses at the governance level shape—and at times obstruct—the realization of urban visions. This work confirms that an urban vision is not a neutral document but rather a political arena for negotiation and the definition of future realities, thereby corroborating Hatami’s domestic findings on antagonism in Hamedan within a global context.

Ahmad (2023), in the study “cultural heritage as a policy for competitive cities,” investigated the challenges of applying the CDS framework to cities with rich cultural and historical heritage. The results demonstrated that historic cities should build their competitive strategies upon heritage assets, ensuring

their visions promote concepts such as the “creative economy” and “sustainable tourism,” rather than focusing solely on industrial development—an observation particularly relevant to the historic city of Hamedan.

Tilaki and Hedayati (2015), in the article “Examining the barriers to implementing city development strategies (CDS) in Iranian cities: a qualitative discussion,” concluded that the primary obstacle to CDS success is the failure to translate macro-level visions into operational programs with clear budgets and responsibilities. Successful CDS implementation requires strong institutional capacity and effective monitoring mechanisms.

International research consistently emphasizes that, for the success of an urban development strategy, the four CDS pillars—competitiveness, livability, bankability, and good governance—must be defined in an integrated manner. Urban visions must be formulated through robust participatory and sociopolitical processes and ultimately translated into operational programs supported by financial and institutional resources. These findings underscore the necessity of the present study to systematically analyze the governing concepts of Hamedan’s vision in light of the four CDS dimensions and domestic governance challenges. In summary, while numerous studies have focused on dimensions of vision (citizens’ perspectives), governance (weak transparency and legality), and sustainability (physical priority) in Hamedan—and official documents have introduced macro-concepts such as garden city, smart city, and competitive city—the existing gap lies in the integrated and systematic analysis of these concepts within the city development strategy. This includes establishing a conceptual link between the formalized vision (garden-smart-competitive city) and the four fundamental CDS pillars, as well as systematically determining the relationship of these concepts with existing challenges such as discursive antagonism. The present research aims to fill this conceptual gap by defining and directly addressing these governing concepts.

4. Methodology

This study employs a mixed-method approach, prioritizing qualitative in the vision-making process, complemented by quantitative and analytical strategic tools for support and evaluation. This approach was selected due to the multidimensional character of CDS, as the success of it depends not only on statistical and economic analyses, but also on the deep

interpretation of urban discourses and stakeholder demands. Within a coherent framework, the research initially analyzes the existing conditions of Hamedan and then formulates a new and shared strategy based on the CDS vision. As applied research, the findings are directly applicable to urban management decision-making. The statistical population of this study consists of two main groups: first, (15) individuals selected via purposive sampling, including decision-makers and senior municipal managers, members of the city Islamic council, and officials from related organizations who play an important role in realizing the analyses and implementing the development document; and second, stakeholders identified through simple cluster sampling for the perception assessment section. According to the official statistics of the 2016 population and housing census, the population of the city of Hamedan was estimated at 554,406 persons. Based on the Cochran formula, with a 95% confidence level and a 5% margin of error, the minimum required sample size was determined to be 384 individuals. However, to increase analytical accuracy and to achieve maximum coverage of diverse viewpoints, 500 questionnaires were completed, which exceeds the standard statistical threshold. This research employs a sequential mixed methods approach. The process of data integration was carried out in three key stages:

1. Exploratory stage: first, qualitative data obtained from the analysis of upstream documents and interviews with 20 experts formed the basis for extracting core codes.
2. Connection stage: these qualitative codes were converted into questionnaire items via the Delphi process (a qualitative-to-quantitative transformation).
3. Explanatory stage: finally, the quantitative priorities obtained from statistical analyses were secondarily interpreted using the CDS theoretical framework and the structural characteristics of the city of Hamedan to ensure that the obtained figures aligned with the environmental and social realities of the region.

To minimize sample bias, a quota sampling method was employed. The distribution of questionnaires through social media platforms aimed to access a wide range of age and occupational groups. To ensure representativeness, respondents' demographic data were matched with the overall population structure of the city of Hamedan. Furthermore, to include groups with limited digital access (such as the elderly and residents of deprived areas), 100 questionnaires out of the total sample were completed in person across

different urban neighborhoods—including affluent and disadvantaged areas, maintaining methodological balance and equity in representing all social deciles.

In this research, data analysis was implemented by applying both qualitative and quantitative methods with high precision:

1. Qualitative analysis: for coding and extracting key themes from in-depth interviews and upstream documents, MAXQDA software (Version 2020) was applied. The content analysis process was conducted based on three-stage coding (open, axial, and selective), which resulted in the identification of 54 initial codes and ultimately 7 main themes for Hamedan's CDS.

2. Delphi technique: this process, aiming for stakeholder consensus, was conducted in three rounds. In the first round, the indicators from the qualitative section were validated; in the second round, the indicators were weighted using a Likert scale; and in the third round, by providing feedback from the previous round to the expert panel, Kendall's coefficient of concordance (Kendall's W) reached 0.74, indicating strong agreement and saturation of expert opinions. The statistical analyses of the quantitative section were also conducted using SPSS software (Version 26).

Stakeholders included academics in the fields of urban planning and urban economics, representatives of non-governmental organizations (NGOs), and ordinary citizens whose perspectives are necessary for identifying competitive positioning and obtaining the legitimacy of the vision document. Sampling was purposive and judgmental to ensure full coverage of specialized and key viewpoints. The data collection process consisted of two main phases. In the documentary phase, primary data were collected from documentary studies, urban development plans, and environmental, social, and economic statistics to assess the city's condition and its key challenges. Subsequently, in the field and participatory phase, the Delphi technique was applied to achieve expert consensus and determine factor weights; semi-structured interviews were conducted to analyze prevailing discourses; and questionnaires, along with participatory workshops, were used to attract public participation and confirm the optimal vision. When necessary, questionnaires also provided the quantitative data required for SWOT analysis.

Data analysis was conducted in a continuous and integrated manner. First, qualitative content analysis was performed to extract core concepts and establish

a conceptual framework compatible with Hamedan's urban development. Then, an integrated swot analysis evaluated internal strengths and weaknesses alongside environmental opportunities and threats within an assessment matrix to determine the city's strategic position and its competitive niche. Finally, Delphi analysis and descriptive statistics of quantitative data were examined to depict the existing situation and determine priorities based on expert consensus. To ensure the scientific and applied validity and reliability of the research, triangulation was employed through

the use of multiple data sources and analytical methods so that findings could be mutually verified. Content validity was also reviewed and confirmed by an expert panel, and after extracting concepts, the results were presented to participants for verification and final revisions. All stages of the research were reported transparently to enable replicability for other researchers. This research approach, while maintaining coherence and precision, also facilitates the direct utilization of results by urban management.

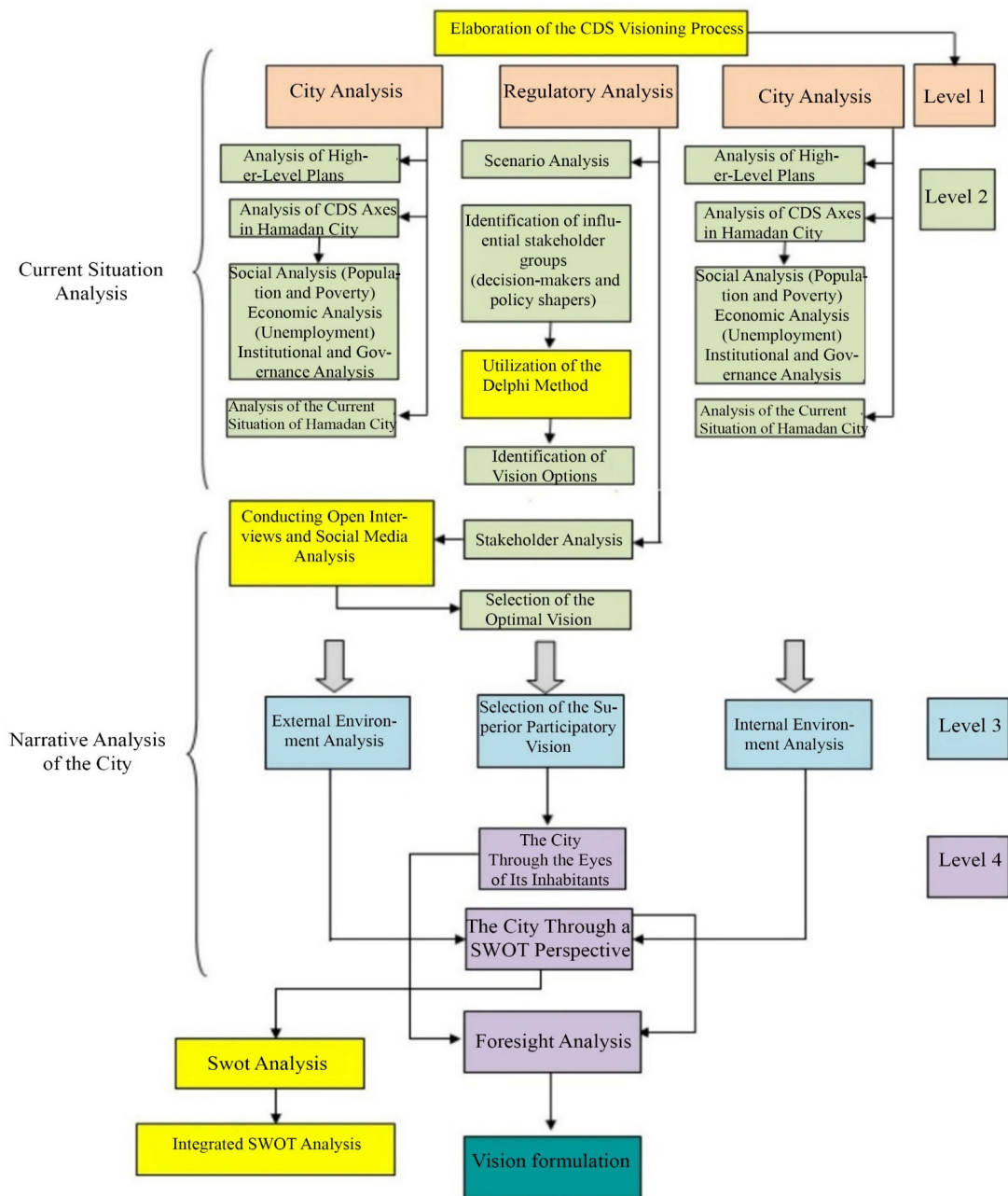


Figure 1. Conceptual model of the research

5. Findings analysis

5.1. Identification of influential and stakeholder groups in the participatory CDS vision-making process

Considering the issues raised in the city of Hamedan, the need for an urban vision based on CDS planning—capable of establishing positive interaction between officials and citizens—is strongly perceived. In the first step, stakeholder and influential groups must be identified, and subsequently, the participation of these two key groups and their roles in urban development should be examined. Although the majority of key stakeholders have regarded tourism development as the principal driver of Hamedan's urban transformation, a critical analysis of this viewpoint indicates a form of “excessive optimism” and a neglect of existing physical infrastructural weaknesses. In practice, this consensus is less grounded in the city's actual and operational capacities, and more in a dominant managerial discourse that seeks economic recovery solely via the expansion of tourism activities.

A comparison of these viewpoints with the findings of the swot analysis reveals a profound gap between the elite's inclination toward tourism development and the city's physical and financial realities. This gap must be managed as a dialectical contradiction in the formulation of development strategies. Critical analysis of data from stakeholder and expert panels indicates that the process of formulating Hamedan's 2045 vision has moved beyond creating a single consensus, instead reflecting the confrontation of diverse urban discourses. A closer examination of opinions clarifies that a “development paradox” is evident between governmental and local stakeholders when prioritizing CDS development strategies:

1. Conflict between physical and strategic discourses:

While executive managers continue to emphasize the implementation of large-scale physical projects, or mega-projects, as symbols of progress, the findings show that this approach is rooted in the structural rigidity of Iran's planning system, which has traditionally defined development primarily in physical terms. In contrast, analysis based on the bankability component of the CDS model revealed that without reforming financial and institutional structures, such projects will not only be ineffective but will also impose additional financial burdens on the city and lead to the repetition of previous comprehensive plan failures.

2. Role of influential stakeholders and sectoral bias:

The focus of certain stakeholders on Hamedan's tourism potential, although framed as a development

opportunity, may function as a development trap from a critical perspective. The neglect of environmental limitations—such as water scarcity or the limited infrastructural capacity of historic fabrics—resulting from this one-dimensional outlook indicates the dominance of a capital-oriented logic that may lead to gentrification and the exclusion of low-income groups. The focus of certain stakeholders on Hamedan's tourism potential, although seemingly evaluated as a development opportunity, can, from a critical perspective, function as a “development trap.” The neglect of environmental limitations—such as water resource scarcity or the limited infrastructural capacity of historic fabrics—resulting from this one-dimensional outlook indicates the dominance of a capital-oriented logic that may, in practice, lead to gentrification and the exclusion of low-income groups.

3. Triangulation and data validity monitoring:

To enhance scientific credibility and reduce individual bias, all statements extracted from interviews and panels were compared with upstream documents, such as the Hamedan provincial spatial planning document, and existing spatial data. This triangulation process demonstrated that elite optimism often did not correspond with environmental realities. Consequently, in the formulation of the final document, a corrective coefficient was applied to prioritize strategies capable of establishing a balance between elite aspirations and the ecological sustainability of the city.

Key influential groups

A successful CDS requires a core group of influential actors who define the key structure of development. Although this composition may be diverse and take various forms, it appears that the key influential group can be divided into two principal categories:

1. Decision-making group
2. Decision-shaping group

As is evident, the decision-making group consists of individuals holding formal positions who possess the ultimate authority to adopt strategic and operational decisions at the city level. In contrast, the decision-shaping group functions as a specialized think tank and senior advisory body for the decision-making group, comprising experts and academics from various urban-related fields.

In this research, the perspectives of these two influential spectrums in the city of Hamedan were utilized so that the Delphi method could be conducted

with the highest possible level of theoretical consensus and credibility. The detailed list of participants involved in this Delphi process, for greater transparency and validation, is presented in Table 3 of the study.

Table 3. Classification of key influential actors and stakeholders

Influential grouping	Position	Interviewee
Decision-making group	Head of the economic group of the office of the supreme leader	Dr. Ali Agha Mohammadi
	Advisor to the commander-in-chief of the Islamic Revolutionary Guard Corps	Dr. Behrouz Moradi
	Auditor of the Supreme Audit Court of the country	Eng. Ali-Heydar Nouri
	Former mayor of Hamedan	Seyed Masoud Asgarian
	Former cultural advisor to the governor of Hamedan and head of the prayer headquarters	Seyed Ahmad Hassani Helm
	Former mayor of Hamedan and member of parliament representing Hamedan	Abbas Soufi
Decision-shaping group	Former member of the board of directors of the Hamedan province engineering organization	Eng. Seyed Mehdi Khazaei
	Former head of the urban planning department/faculty member, urban planning department, Islamic Azad University of Hamedan	Dr. Ali Asghar Rahimioon
	Faculty member, urban design department, Bu-Ali Sina University	Dr. Mohammad Saeed Izadi
	Faculty member, Department of Philosophy and Art, Islamic Azad University of Hamedan	Dr. Hossein Ardalani
	Faculty member, Islamic Azad University of Hamedan / former head of the provincial environmental protection organization	Dr. Mohammad Mehdi Riyahi Khoram
	Former dean of the faculty of art and architecture, Islamic Azad University of Hamedan / vice president for research and technology, Islamic Azad University of Hamedan	Dr. Omid Dezhdar
	University lecturer – urban affairs expert	Eng. Amin Rastandeh
	Pediatric specialist and deputy director-general for welfare and household employment affairs at the targeted subsidies organization	Dr. Seyed Jalal-al-Din Arefian
	Ceo of Baba Taher Hotel and investor	Shahram Shirvani

The CDS process is necessarily grounded in consensual planning, which requires the strategic engagement of small groups whose members are carefully selected. In the Delphi method employed in this study, efforts were made to involve individuals as experts who were not only familiar with the city of Hamedan but also

possessed prior executive experience within the city, so that a reliable and well-substantiated conclusion could be presented at the end of the research. The results of the interviews conducted with the aforementioned participants are presented in the following tables:

Table 4. Interviewees

Interviewee	Position	City potentials	Urban issues	Explanatory notes	Proposed vision
Dr. Ali Agha Mohammadi	–	Western gateway connection; scientific capacity; economic/tourism capacity; pedestrian orientation; organized street vending in recreational sites; medical/health potential; cultural-religious capacity; training specialized workforce; logistics hub potential	A sense of pessimism and despair in the city	Scientific village for commercially applicable fields; expansion of IT, management, and law education; tourism-oriented central bazaar; creation of a historical urban axis to retain tourists	Hamedan as a tourism-industrial-medical-religious city

Interviewee	Position	City potentials	Urban issues	Explanatory notes	Proposed vision
Dr. Behrouz Moradi	–	Scientific; tourism (medical, sports, natural, historical); industrial (ceramics); religious	–	Communication hub of western Iran; Avicenna as a symbolic figure; presence of major universities; religious authorities; Tarik-Darreh winter sports; pottery in Lalejin; specialized hospitals	University–tourism–religious city
Eng. Ali-Heydar Nouri	–	Geographical; historical tourism; scientific; industrial (ceramics)	–	–	University–tourism city
Seyed Masoud Asgarian	Former Mayor of Hamedan	Geographical; historical tourism; scientific; industrial (ceramics)	–	–	University–tourism city
Seyed Ahmad Hassani Helm	Former Cultural Advisor to the Governor	Academic–scientific; ongoing tourism potentials	–	The tourism city concept is under discussion in the City Council	University–tourism city
Abbas Soufi	Former Mayor / MP	Geographical tourism; scientific	–	–	University–tourism city
Eng. Seyed Mehdi Khazaei	Former Board Member, Engineering Org.	Urban structural cohesion; historical–geographical tourism; scientific	Employment weakness	Acceptable income per capita; approved 2,000-hectare scientific township	University–tourism city
Dr. Ali Asghar Rahimioon	Academic	Geographical; human resources; economic; industrial; tourism	Water scarcity, weak service sector, limited international tourism, and weak cultural development	Skilled workforce; investment infrastructure; industrial cooperation with Tehran; western centrality	Industrial–tourism city
Dr. Mohammad Saeed Izadi	Academic	Geographical; historical tourism; industrial (stone mining); winter sports	–	Rich multi-period historical heritage	Tourism–industrial–sports city
Dr. Hossein Ardalani	Academic	Proximity to capital; geographical	Circular urban structure trap; excessive traditionalism; lack of activity diversity; weak urban management	Decline of former cultural spaces (like bookstores)	Environmental tourism city
Dr. Mohammad Mehdi Riahi Khoram	Academic / Former Env. Head	Tourism; commercial; scientific	–	Long commercial history	University–tourism city
Dr. Omid Dezhdar	Academic / Former Dean	Natural & historical tourism; scientific; industrial (ceramics)	Inadequate tourism infrastructure; negative citizen attitudes; brain drain; weak social cohesion	Early urban civilization origins; high income levels; 16,000 students; Karbala pilgrimage route	University–a historical tourism city

Interviewee	Position	City potentials	Urban issues	Explanatory notes	Proposed vision
Eng. Amin Rastandeh	Urban Expert	Environmental, geographical, and scientific (agriculture)	Weak industrial infrastructure	Underuse of local academic expertise	Environmental–university city
Dr. Seyed Jalal-al-Din Arefian	Welfare Official	Western regional pole potential	Weak industrial infrastructure	Underuse of local academic expertise	Tourism city
Shahram Shirvani	CEO, Baba Taher Hotel	Tourism; geographical	–	Need for facilities to retain tourists longer	Tourism city

It should be noted that participants in the Delphi process resemble situational leaders in their roles. In the Delphi method, the number of participants generally ranges between 15 and 20 individuals, and in this research, 15 participants were involved. As mentioned in the methodology section, within the Delphi approach, decision-making rules must be designed for the collection, analysis, and summarization of the judgments and insights provided by participants. Consensus on a specific issue can be reached when the returned responses concerning that issue fall within a predetermined and defined range. Accordingly, after analyzing and reviewing the viewpoints, a consensus was reached on the vision of “Hamedan as a university–tourism city,” which advanced the visioning process to its final stage.

Identification of stakeholder groups in the participatory CDS visioning process

As previously stated, purposeful urban development can only be expected when all those who live in the city are aware of its future and play a role in

determining the vision and in the path toward achieving it. One of the key characteristics of the CDS is citizen participation in all stages of its preparation. The public participation process is a two-way process, involving both informing the public and receiving their opinions, concerns, and cooperation. After reviewing the opinions of influential groups in the city of Hamedan, online social networks were utilized to examine public perspectives regarding the future of Hamedan.

5.2. Compatibility and incompatibility of proposed visions

In order to determine the options for stakeholder consultation, the proposed visions put forward by the influential group were first examined within a compatibility and incompatibility matrix. Subsequently, the compatible options were transferred to the next table, and based on the number of votes from the influential group, the top options were selected as the primary alternatives for stakeholder polling.

Table 5. Compatibility and incompatibility of the proposed visions

Vision dimension	Tourism	University	Industrial	Medical	Environmental	Sports	Religious
Tourism	Fully compatible	Compatible	Relatively compatible	Relatively compatible	Compatible	Compatible	Compatible
University		Fully compatible	Compatible	Compatible	Compatible	Compatible	Relatively compatible
Industrial			Fully compatible	Incompatible	Incompatible	Incompatible	Relatively compatible
Medical				Fully compatible	Compatible	Compatible	Relatively compatible
Environmental					Fully compatible	Compatible	Compatible
Sports						Fully compatible	Relatively compatible
Religious							Fully compatible

Identification of vision options for Hamedan city

The realization of Hamedan’s 2045 vision, beyond being a purely aspirational depiction, is a function of macro variables and environmental uncertainties. In this research, for the first time, key risks have been categorized at three levels:

1. Institutional risks: the continuation of sectoral fragmentation and the reluctance of parallel organizations toward integrated urban governance, which may lead to “implementation failure.”
2. Economic uncertainties: macroeconomic fluctuations in Iran that may challenge the bankability of development-driving projects through liquidity

constraints.

3. Ecological risks: water stress in the Hamedan region, which, as a limiting factor, may drive the “university–tourism city” scenario into a deadlock if water resource management is not properly addressed.

Accordingly, the proposed vision has been formulated not as a rigid construct, but as a “flexible structure” capable of revision and adaptation in the event of any of these risks materializing. In continuation, a comprehensive and advanced risk matrix has been designed for the city of Hamedan that encompasses all dimensions—economic, physical, environmental, and institutional.

Table 6. Multidimensional threats of uncertainties and strategic risks in achieving the Hamedan 1424 vision

Risk category	Risk/uncertainty title	Impact level	Probability of occurrence	Description and consequences in the context of Hamedan	Mitigation and resilience strategy
Ecological	Land subsidence and hydrological stress crisis	Critical	Very high	Threat to historical infrastructures and suspension of physical development in the Hamedan plain due to the decline of groundwater levels.	Redefining the vision from “physical expansion” toward “compact and smart development,” prioritizing water recycling in urban industries and services.
Financial	Bankability trap	High	Medium	Private sector reluctance to invest in CDS projects due to exchange rate volatility and inflation.	Establishment of a local development fund and definition of small-scale development-driving projects with rapid returns.
Institutional	Heritage-governance fragmentation	High	High	Severe conflict of interest between the Ministry of Cultural Heritage and the Municipality regarding the treatment of the first urban ring and valuable historic fabrics.	Formulation of a joint cooperation protocol and creation of a unified historic-fabric management body as a prerequisite for implementing the vision document.
Spatial	Rapid growth of informal settlements	Medium	High	Deviation from the vision due to the physical expansion of the city in northern zones (Tehran road margins) and the consumption of agricultural lands.	Implementation of a “smart green belt” policy and regeneration of existing inefficient neighborhoods instead of annexing new lands to the urban boundary.
Social	Exclusion through gentrification	Medium	Medium	Rising land prices following the transformation of Hamedan into a tourism hub and the displacement of native residents from the central fabric.	Adoption of affordable housing policies in the central fabric and genuine participation of local communities in tourism-generated benefits.
Technological	Digital gap in urban management	Low	Medium	Inability of executive institutions to implement the “smart city” infrastructures envisioned in CDS.	Investment in municipal human-capital training and creation of citizen-monitoring platforms for tracking the realization of vision goals.

The mapping of the aforementioned risks indicates that Hamedan’s 2045 vision is founded upon a

principle of “dynamic sustainability.” For instance, in confronting the critical risk of hydrological stress, the

vision document shifts from a static model to a flexible one, meaning that if vital resources—particularly water—face severe depletion, strategic priorities will redirect from “attracting new population” toward “enhancing the quality of life of the existing population.” This approach ensures that the CDS

document, despite the economic and environmental uncertainties prevailing in Iran, will not encounter structural failure in the long term.

The identification of vision options for the City of Hamedan was conducted based on the table below.

Table 7. Determination of Hamedan city vision options

Vision options	Opinions of influential actors	Selected / priority visions
Tourism – university	Maximum votes	Tourism – university
University – industrial	Maximum votes	University – industrial
University – medical	Maximum votes	University – medical
Tourism – environmental	Average votes	
University – environmental	Below average votes	University – environmental
Medical – environmental	Average votes	
Tourism – sports	Below average votes	Tourism – sports
University – sports	Average votes	
Medical – sports	Average votes	
Environmental – sports	Average votes	
Tourism – religious	Average votes	
Environmental – Religious	Average votes	

Legend

Category	Description
Maximum votes	Maximum votes
Average votes	Average votes
Below average votes	Below average votes
Minimum votes	Minimum votes
No votes	No votes

Stakeholder survey results

After preparing the questionnaire and formulating the priority vision options, the survey question was employed in the following manner. The data collection process for the “Hamedan 2045” study was conducted through two approaches: field-based and online (virtual) methods via social networks. In the first phase, face-to-face interviews with 100 citizens of Hamedan who did not have access to social media

platforms were carried out in order to gather their perspectives regarding the future of the city. In the second phase, data were extracted through the analysis of the opinions of 400 users from Hamedan across four active social media pages related to urban issues. The results of this stage, after being shared within influential urban groups in the virtual space, were met with significant public engagement and facilitated the attainment of the final research findings.

Table 8. Analysis of the opinions of influential groups

Vision option for Hamedan 2045	Number of votes obtained
Hamedan as a university–tourism city	257
Hamedan as a university–industrial city	54
Hamedan as a tourism–sports city	101

Vision option for Hamedan 2045	Number of votes obtained
Hamedan as a university–medical city	7
Hamedan as a university–environmental city	81
Total	500

Based on the results obtained from the analysis of the above table, Hamedan in the 2045 horizon is envisioned as a “University–Tourism City.”

5.4. Integrated analysis of the optimal vision of Hamedan city

In this method, the SWOT matrix is employed in a comparative–integrative form. In other words, strengths, weaknesses, opportunities, and threats are

intersected across six criteria: natural attractions; historical, cultural, religious, and man-made attractions; tourism facilities and services; economic conditions; educational–tourism capacities; and higher education. Through this cross-analysis, a comprehensive and unified assessment of the current situation is ultimately achieved. This type of analysis can be observed in the following table.

Table 9. Comparative–adaptive SWOT matrix

Dimension	Educational			Tourism		
	Higher education	Educational–tourism	Economy	Tourism facilities & services	Historical–cultural–religious & man-made attractions	Historical–cultural–religious & man-made attractions
Natural attractions	<ul style="list-style-type: none"> Potential for research activities in protected areas and pristine nature 	<ul style="list-style-type: none"> Low public awareness regarding conservation and expansion of natural resources and their role in sustainable quality of life 	<ul style="list-style-type: none"> Potential for tourism utilization of untouched landscapes and land resources Possibility of winter tourism festivals Identification of new opportunities, especially eco-tourism 	<ul style="list-style-type: none"> Insufficient information dissemination regarding pristine natural attractions Ability to stimulate curiosity and excitement among domestic and international tourists through media and non-media advertising 	<ul style="list-style-type: none"> Increased deterioration of historical attractions due to climatic conditions during winter 	SWOT
Historical, cultural, religious & man-made attractions	<ul style="list-style-type: none"> Lack of public awareness and recognition of local scholars and mystics 	<ul style="list-style-type: none"> Some historical buildings, despite deterioration, retain significant research and heritage value 	<ul style="list-style-type: none"> Presence of strong historical tourism resources 	<ul style="list-style-type: none"> Absence of adequate information centers regarding cultural–historical attractions 	SWOT	
Facilities & services	<ul style="list-style-type: none"> Short distance from other provincial capitals Existence of a railway network Adequate road infrastructure Insufficient welfare facilities for students 	<ul style="list-style-type: none"> Potential establishment of scheduled flights between the provincial center and other tourism destinations Possibility of short- and medium-term applied training programs related to tourism 	<ul style="list-style-type: none"> Availability of tourism facilities such as hotels, guesthouses, camping sites, and temporary accommodations Insufficient public and private investment Relatively prepared conditions to host diverse income groups of tourists 	SWOT		

		Educational		Tourism			
Dimension		Higher education	Educational–tourism	Economy	Tourism facilities & services	Historical–cultural–religious & man-made attractions	Historical–cultural–religious & man-made attractions
Tourism	Economy	<ul style="list-style-type: none"> • A considerable number of higher education institutions with national and regional influence • Private sector willingness to invest in research centers • Economic capacities enabling the establishment of higher education centers linked to handicrafts 	<ul style="list-style-type: none"> • Low education and skill levels among the workforce in the tourism service subsector • Potential creation of handicraft clusters such as carpet weaving, pottery, and leather industries 	SWOT			
	Educational – tourism	<ul style="list-style-type: none"> • Large student population, which, if properly trained and skilled, can form a strong basis for tourism development 	SWOT				
	Higher education	SWOT					

5.3. Future-oriented analysis of the city

Foresight analysis, oriented toward the future within the framework of Hamedan’s optimal urban vision, is conducted in two complementary forms. The first analysis examines the stated objectives of the CDS with reference to Hamedan as a “university–tourism city.” The second analysis presents a structured mapping of opportunities and threats in relation to the same envisioned identity.

First analysis: a future-oriented view of the city based on urban development planning objectives

The strategic goal-setting of CDS for the 2045 horizon is concentrated on three fundamental and widely recognized pillars within the specialized literature:

poverty reduction, with an emphasis on inclusive development and the enhancement of livelihood opportunities for vulnerable groups; economic growth, aimed at increasing urban competitiveness and developing sustainable revenue sources; and urban management/governance improvement, with a focus on transparency, accountability, and institutional efficiency. Accordingly, the realization of the defined vision for the city of Hamedan in the 2045 horizon—namely, its transformation into a “University–Tourism City”—necessitates the articulation and formulation of clear strategic horizons and objectives under each of these three pillars. Table 7, as the principal analytical output, systematically presents these strategic horizons in a structured and disaggregated manner.

Table 10. CDS planning

Urban development strategy goals	Hamedan (2045). Horizons
Poverty reduction in Hamedan	Implementation of urban population control programs
	Establishment of sustainable employment in Hamedan
Economic growth of Hamedan	Improvement of the quality of life in Hamedan
	Development of a strong tourism industry at the global level, particularly in the Middle East region
	Establishment of Hamedan as a higher education hub in the Middle East
	Increase in private sector investment in Hamedan.
Improvement of urban management in Hamedan	Achievement of integrated urban governance in Hamedan
	Public participation in urban decision-making processes
	Strengthening citizens' sense of belonging to the city

Hamedan 1424 vision – Hamedan as a “university–tourism city.”

Our city is a friendly city for all ages, incomes, and abilities. Its regional reputation is defined by its identity as a university and research city, a center of publishing and innovation, and by its rich natural and historical tourism attractions. Our city is an environment in harmony with nature, characterized by a sustainable lifestyle and cooperative engagement at the national level across all spheres. It successfully integrates natural resources and cultural heritage with modern urbanism, creating a historical setting that responds to contemporary needs while safeguarding heritage for future generations and visitors, and fostering a balanced social life under progressive civic principles. We are committed to preserving the heritage and natural beauty of our city, and we welcome change insofar as it generates new opportunities for the vitality of our community. Our city will be recognized as the leading pedestrian-oriented city in the Middle East. It will stand among the top twenty travel destinations in terms of tourist arrivals and tourism revenues. Hamedan will be an active, diverse, and integrated community, serving as a national and regional center of higher education, equipped with advanced university complexes that attract outstanding students across all academic disciplines and levels, and annually graduate scholars of the highest academic standing. A significant portion of our urban fabric is designed around pedestrian movement, reinforcing urban identity and place attachment. The ring-shaped structure of Hamedan, combined with commercial uses and tourism-related activities concentrated in the central ring, justifies the pedestrianization of this core urban area. In our city,

all citizens actively participate in the tourism industry, and annual national and international training programs in tourism are organized to facilitate the exchange of up-to-date knowledge and expertise. At our international airport, regular daily flights connect Hamedan to major tourism destinations across Iran and the world. Visitors of all income levels are able to access high-quality tourism facilities and services. Hamedan is an excellent place to grow, live, work, and retire, where residents experience a strong sense of safety and security. Citizens enjoy sustainable employment, a high-quality urban environment enriched with expansive green spaces, vibrant retail areas, and an elevated quality of life. Hamedan is a city where all residents feel a deep sense of belonging and pride, and wherever they may be in the world, they will proudly say: “I am from Hamedan.”

6. Discussion and conclusion

The present study, conducted with the aim of clarifying the core strategic concepts underlying the vision of Hamedan, has directly addressed the fundamental and discursive challenge prevailing in Iran’s urban planning arena—namely, the dominance of static physical comprehensive and detailed plans over dynamic strategic approaches such as the CDS. From this perspective, the research demonstrates a significant competitive advantage over previous studies. Earlier works have generally been limited to the identification of structural urban problems such as spatial imbalance, marginalization, and inefficient urban fabrics. In contrast, this study moves beyond mere diagnosis and, by focusing on discursive and structural misalignments in urban management—which have fostered an anti-development

environment—offers a methodological and institutional response. The primary strength of this research lies in its refusal to produce yet another static document. Instead, through a participatory mixed methodology—including in-depth interviews with influential actors and a specialized Delphi process—it has created a conceptual and institutional consensus-building platform, which is essential for the success of contemporary urban development strategies. This participatory process implicitly answers the critical question: How can the politicization and socio-political rejection of development strategies be prevented? The answer lies in institutionalizing participation and conceptual consensus in defining strategic pillars prior to drafting executive programs. Such an approach ensures that the vision is not merely aspirational but becomes an institutional commitment. The central features and key achievements of the study can be summarized in two innovative elements. First, the attainment of expert consensus on the optimal vision of “Hamedan as a University–Tourism City” for the 2045 horizon represents a localized and advantage-based response—rooted in the city’s scientific and historical capacities—to the question of what should be the primary development priority of Hamedan in regional and global competition? This vision transforms relative advantages into absolute economic and institutional competitive strengths. Second, by linking this localized vision to the four global pillars of CDS—competitiveness, livability, bankability, and good governance—the study systematically answers the question of what structural, economic, and managerial requirements are necessary to realize a native vision. This integration guarantees that the vision is not only achievable and financially viable but also capable of enhancing the quality of life. These achievements collectively demonstrate the urgent necessity of replacing traditional comprehensive plans with a strategic vision document, given the inability of past structures to control uneven development and marginalization, as well as the pressing need for transparent and effective governance. Furthermore, through the precise identification of key influential actors, the research addresses another essential question: How can a vision document be translated into a successful and monitorable operational program? The answer lies in strengthening institutional

capacity to manage conflicts and maintain strategic coherence, particularly by empowering institutions capable of converting strategy into budgeted operational programs.

The specialized conclusion of this study indicates that realizing the university–tourism city vision requires simultaneous commitment to four integrated CDS pillars:

1. Competitiveness through a knowledge-based and creative economy, including the development of specialized clusters such as health tourism and the establishment of a regional innovation and business hub, rather than reliance solely on mass tourism. This responds to the question of how sustainable revenue can be generated from scientific and historical potentials.
2. Livability through the institutionalization of the eco-city and garden-city concepts, enhancement of spatial and social justice, pedestrianization of the urban core to reinforce identity, and social empowerment to address marginalization and regenerate inefficient fabrics.
3. Bankability by reforming urban financial structures and maximizing transparency to attract investor confidence and finance catalyst projects—thus answering how financial sustainability can be achieved beyond dependence on governmental credits.
4. Good urban governance through the institutionalization of transparency, accountability, and legality in implementation, monitoring, and evaluation processes, supported by strong mechanisms for managing discursive conflicts and ensuring strategic continuity despite managerial changes.

This research, by presenting a consensus-based conceptual framework, provides a comprehensive roadmap for transforming Hamedan into a resilient, vibrant, and intelligent city of global standing. Ultimately, the findings demonstrate that the Hamedan 2045 vision transcends a mere physical plan and instead constitutes a strategic covenant, integrating competitiveness, spatial justice, and identity within a unified structure. The study confirms that moving from rigid physical planning toward CDS is not merely an option but a structural necessity for sustainable urban transformation.

Table 11. Final synthesis matrix: alignment of objectives, findings, and resilient strategies for the Hamedan 1424 vision

Research objective/question	Key findings	Resilient/operational strategies	Strategic impact
1. Identification of CDS concepts and drivers	Failure of physical master-plan models (e.g., Marjan/Mojda) due to rigidity; recognition of knowledge-based economy and smart governance as primary driving forces	Resilient strategy: transition from centralized budgeting to micro-financing models and public-private partnerships (PPP) to reduce dependence on oil-based and governmental revenues	Financial flexibility in the face of national macro-economic fluctuations
2. Formulation of a strategic vision	Prioritization of the “sustainable historical-tourism city” scenario; necessity of preventing horizontal expansion toward the northern and eastern zones of Hamedan	Resilient strategy: implementation of infill development policies and regeneration of the historic fabric with emphasis on creative industries to prevent identity erosion and land subsidence	Preservation of the ecological stability of the Hamedan plain and revitalization of cultural capital
3. Management of institutional deficiencies	Deep fragmentation between the Ministry of Cultural Heritage and the municipality; absence of citizens’ voices in upper-level planning documents	Resilient strategy: establishment of a “Hamedan 2045 vision steering council” including NGOs and academic representatives for continuous monitoring and rolling-plan revisions	Assurance of implementation continuity beyond successive changes in urban management
4. Confronting environmental uncertainties	Identification of water crisis and land subsidence as potential failure factors for mass-tourism scenarios	Resilient strategy: redefinition of urban green-space standards toward xeriscaping and conditioning tourism-infrastructure development on water-recycling systems	Prevention of long-term ecological deadlock and enhancement of urban environmental resilience

Ultimately, the findings of this research elucidate the reality that the realization of the vision “Hamedan 2045: a sustainable metropolis with a specialized university-tourism function” requires a transition from rigid physical planning toward an adaptive framework grounded in the CDS model. The core innovation of the proposed resilient strategies lies in the synergy between symbolic capital—represented by the historical fabric and tourism potential—and human capital, embodied in the academic and university community. In contrast to previous master plans that sought development primarily through the physical expansion of urban rings, this study, through the identification of failure risks such as hydrological stress and institutional fragmentation, proposes strategies that redirect development toward inner regeneration and a knowledge-based tourism economy. In this manner, the 2045 vision is not merely an ultimate objective but a strategic pathway, in which the university functions as the think tank of urban governance while tourism operates as the driver of project bankability and financial sustainability. The proposed model, by anticipating risk scenarios and introducing flexible regulatory mechanisms, ensures that Hamedan’s historical-cultural identity is not subjected to physical distortion throughout the

development process. The outcome of this approach is the attainment of a city in which economic competitiveness is balanced with spatial justice and ecological resilience, thereby redefining Hamedan as a leading model of a “strategic city” in West Asia.

6.1 Policy and managerial implications

The findings of this research provide direct implications for policy-makers and urban managers of Hamedan in advancing the realization of the 2045 vision. Based on the results, three key domains of structural reform are recommended:

1. Institutional reform in urban governance

It is recommended that Hamedan’s urban management transition from a “single-voice municipal model” toward the establishment of an “urban development consortium.” This body should operate through the joint participation of leading universities—serving as providers of knowledge and analytical content—and private-sector tourism stakeholders. Its primary mandate would be to supervise the alignment of development and infrastructure projects with the CDS document, thereby preventing institutional fragmentation between cultural heritage authorities and urban development agencies.

2. Adoption of a “catalytic regeneration” policy
Urban managers should shift budgetary priorities from boundary expansion and horizontal growth toward the revitalization of central inefficient fabrics through mixed-use development approaches. The allocation of tax incentives and financial benefits for the conversion of historically valuable residential properties into knowledge-based co-working and innovation hubs can operationalize the linkage between the university and tourism pillars within the historic core of the city.

3. Intelligent environmental resource management (resource resilience)

Given the critical risk of water stress in Hamedan, any policy aimed at expanding tourism must be conditioned upon the principles of low-water-consumption tourism. Policy-makers are required to revise standards for urban green spaces and service infrastructures by transitioning from traditional landscaping models toward water-recycling technologies and xeriscaping practices, thereby safeguarding the city’s ecological sustainability in the 2045 horizon.

Collectively, these policy directions emphasize that achieving the university–tourism vision depends not only on strategic planning but also on institutional integration, targeted regeneration, and environmentally resilient management practices.

6.2. Suggestions for future research

The present study opens a novel pathway toward strategic planning in historical university cities; however, in order to deepen scholarly understanding in this field, the following directions are recommended for future research:

Assessment of ecological resilience under development scenarios:

In light of the risks identified in this research—particularly water stress in the Hamedan plain—future studies are encouraged to model the impacts of tourist population loading on groundwater levels and land subsidence through the application of artificial intelligence and predictive simulation models.

Stakeholder social network analysis (SNA):

Examining the power dynamics and influence networks among stakeholders involved in the implementation of the CDS document, as well as identifying facilitating or obstructive coalitions within Hamedan’s historic fabric, can significantly clarify the pathways toward effective vision implementation.

Evaluation of gentrification impacts:

Investigating the social and economic consequences of transforming deteriorated and historical urban fabrics

into tourism- and university-oriented zones—particularly their effects on the livelihoods and residential stability of local communities—constitutes both an ethical and professional necessity for subsequent research.

International comparative studies:

Conducting comparative analyses between the Hamedan CDS model and analogous cases in other developing countries—such as historic cities in India or Turkey—would enable the extraction of best practices in heritage-oriented governance and adaptive strategic planning.

Authors’ Contributions

The first author contributed 35%, the second author 35%, and the third author 30% to this research.

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Conflict of Interest

The authors declare no conflict of interest.

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