

Assessing the role of users in sustainable revitalization of historic urban quarters: The case of Bursa-Khans District

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Abstract

Historic urban quarters which are vital for the physical, economic and socio-cultural sustainable development of cities, are subject to fast paced changes due to the effects of globalization and rapid urbanization. Preventing the negative effects of urbanization and globalization and maintaining the unique identity of historic urban quarters for the future can only be possible by means of sustainable revitalization strategies which involve all relevant stakeholders in a holistic approach. Even though there is extensive research that focuses on the environmental, socio-cultural and economic dimensions of sustainable revitalization strategies, relatively fewer studies specifically deal with the user perceptions, images and opinions. By considering local people as a valuable resource, the aim of this paper is to assess users' role in sustainable revitalization. Khans District which is not only a historic but also a commercial and cultural center of the city of Bursa has been chosen as a case due to the ongoing transformation of this district. Methodologically, cognitive mapping and survey questionnaires have been used to obtain data. The findings showed that user sourced data can contribute to the physical, social, economic and governance dimensions of sustainable revitalization strategies. This data can also influence (1) the determination of aims and targets, (2) planning and design and (3) the management stage of sustainable revitalization process. Consequently, as a valuable resource, it has been found out that users' perceptions, images and opinions can provide important data for sustainable revitalization.

Keywords

Sustainability, Revitalization, Historic urban quarters, User perception and opinion, Bursa Khans District.



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1. Introduction

Inherited from past generations and shaped by overlapping layers, historic urban quarters are both socio-cultural and economic assets of a city. As a manifestation of cultural heritage, these areas not only reflect a unique sense of place and the identity of cities, but also trigger the economic dynamics of cities as an important source for city marketing and tourism (Al-hagla, 2010; Karmowska, 2003; Tiesdell et al., 1996). In this sense, historic urban quarters are vital for the physical, economic and socio-cultural sustainable development of cities (Tweet and Sutherland, 2007).

Today, due to the pressures caused mainly by globalisation and urbanization such as rapid population growth, mobility, increased density, the rise of new attraction centers, changing consumption habits, uncontrolled urban growth and economic and technological improvements, historic urban quarters can barely respond to the requirements of a community's changing needs and lifestyles. As a result of these pressures, historic urban quarters face a series of economic, social and physical changes. These mutual interactions can be categorized by two major forces; the first one is the dynamics of the place which transform population movements and real estate markets and the second is both perceptual and practical links between people and their physical environment (Serageldin, 2000). Over time, these changes start to threaten the unique identity of these areas and cause a process of decay and deterioration.

Preventing the many negative effects of urbanization and globalization, maintaining the unique identity of historic urban quarters for the future and revitalizing them by making adaptations to cope with the changing conditions of cities can only become possible by means of sustainable revitalization strategies which involve all relevant stakeholders in a holistic approach. Even though there is extensive research that focuses on the environmental, socio-cultural and economic components of sustainable revitalization strategies, relatively fewer studies deal specifically with the user perceptions, attitudes and opinions. Through-

out the history of sustainable revitalization, the role of local users in the area has been considered either a part of social sustainability or a stakeholder of governance process. In current literature, users have been handled at minor levels, sometimes their role defined in an ambiguous way or even ignored. Few studies have taken users as a focus of the subject and separated them from the other dimensions of sustainability where users could be conceptualized under the topic of human sustainability (Börjesson and Walldin, 2009).

It is widely known that sustainable revitalization strategies become successful only in the case where users are involved in the process. When the user group becomes a participatory actor in these strategies, their awareness about the value of the environment increases and consequently they possess and protect it. In order to carry out planning processes of revitalization projects in a democratic way, user group as one of the important bottom-up actors and the real owners of historic urban quarters are supposed to have power in the decision making process. For this reason, differentiated from the former studies, by considering local people as a valuable resource for sustainable revitalization, this study focuses on the role of users, and investigates how their perceptions, images, and opinions can be articulated in sustainable revitalization strategies and processes.

With this aim in mind, this study methodologically uses Lynch's (1960) concept of "*a cognitive image of a city*" for the aim of defining how users perceive and construct the image of a particular district in their minds; and subsequently employs a survey questionnaire in order to learn about user opinions on the problems and suggested solutions along with the future potentials of the district. From this point of view, this study aims to assess user perceptions and opinions to obtain data for sustainable revitalization strategies of historic urban quarters. The main research questions which are posed as follows:

- What kind of data can be obtained by the participation of users for sustainable revitalization strategies of historic urban quarters?

- How and at what stages do user perceptions and opinions contribute to sustainable revitalization strategies of historic urban quarters?

Chosen as a case to investigate these research questions, Bursa Khans District which is not only a historic but also a commercial and cultural center of the city of Bursa, is now experiencing an ongoing transformation process due to both rapid population and urban growth and also the lack of a holistic approach taken by local governance. An effective integration of Khans District within city life with sustainable revitalization strategies will bring both economic and social benefits to the entire city of Bursa. In the next section, main concepts, models and theoretical approaches in sustainable revitalization of historic urban quarters and their related existing research results will be reviewed followed by an interpretation of the role of the user groups in these approaches.

2. Literature review

Extensively researched in current literature is the notion that sustainability has ecological/environmental, socio-cultural and economic dimensions, which should be considered in a complementary way (Chiu, 2004; Eastaway and Støa, 2004; Vehbi, et al., 2010). When the notion of sustainability first came to the fore in academic circles, its physical or ecological dimensions initially drew the most discussion, but in time it was understood that human and societal dimensions in particular could not be excluded from sustainability processes (Bramley and Power, 2009). Thereby, socio-cultural sustainability comes to take precedence which includes a sense of place, identity, local culture and traditions (Axelsson, et al., 2013). Besides, the economic dimension plays a catalyzing role within the inter-relationship of physical and socio-cultural sustainability. In this context, sustainable development has been described as a multidimensional and harmonious association between environmental, economic, social and cultural dimensions (Golubchikov and Badyina, 2012).

The strong relationship between urban revitalization and sustainabili-

ty (Vehbi and Hoşkara, 2009) implies that sustainable revitalization should involve not only physical, but also social and economic dimensions. Even though sustainable revitalization in historic urban quarters has been approached from many different perspectives in current literature, these three major dimensions are commonly accepted by many researchers. Since physical revitalization provides a short term strategy, a long term strategy can only be achieved by including social and economic dimensions when dealing with the physical aspect (Vehbi and Hoşkara, 2009; Tiesdell, et al., 1996).

Vehbi and Hoşkara (2009) discuss the relationship between the concepts of obsolescence and the level of sustainability and they suggest a model for measuring the sustainability level in historic urban cores. Based on physical, economic and social dimensions, this model also includes various indicators for revitalization. Since these indicators will change from place to place, this selection should be done by extensive public participation. Similarly, Doratlı (2005 and 2007) defines the theoretical foundation of revitalization strategies based on two mutually interactive concepts, which are the level of obsolescence and the dynamics of the place. Whereas the level of obsolescence can exist in physical, functional, locational and image categories, the development dynamics of the place can be described as high, static or declining.

Doratlı et al. (2004) proposed a revitalization strategy for historic urban quarters based on swot analysis. Analyzing the natural, built and socio-economic environment through various research techniques with regard to strengths, weaknesses, opportunities and threats provides input for sustainable revitalization strategies. Only the demographic characteristics of the user group as a sub-component of the socio-economic environment are considered in this model. Apart from the swot based model, there are other approaches that put special emphasis on participatory models. Taş, et al. (2009) emphasize that among social, cultural, ecological, economic and political dimensions, a participatory governance

is inevitable for the success of sustainable development. A governance system which brings the appreciation of the role of individuals, households, community and voluntary organizations directs an effective decision-making process. A high level of community involvement should be aimed in order to be able to organize the best and most suitable sustainability strategy. Likewise, “*Lonca*” (a guild system) as a civil organisation might be a good example of a participatory governance model for providing sustainable future scenarios (Vural-Arslan and Çahantimur, 2011).

According to Dupagne et al. (2004) any sustainable revitalization strategy must be based on active and effective citizen participation. Beginning in the early stages, public involvement makes a significant contribution to the success of the entire sustainable revitalization process. While a lack of participation and information may result in a passive disinterest of citizens, effective participation of the local community ensures that inhabitants accept and support the defined strategy.

Based on an integrated approach which includes the revitalization of the economic social and physical components of the district, Vural-Arslan, et al. (2011) proposed a strategic development project for sustainable revitalization. Starting with a natural, physical, social and economic analysis of the current situation, the development project next included a swot analysis. Derived from these comprehensive analyses, the design team followed some significant revitalizing principles. These principles include renewal of the district's current uses, adaptive re-use of abandoned buildings, encouraging mixed land uses, visual and physical integration of the district with the surrounding urban fabric, functional diversification for attracting different age groups, proposing new public open spaces including cafes and restaurants, making accessibility easier and making users feel secure.

3. Methodology

The methodology which was employed in the case study is comprised of two research techniques, which are

cognitive mapping and a survey questionnaire. One hundred respondents participated in the study, volunteer participants were chosen from a random sample, who are the users of the Bursa Khans District. Based on Lynch's (1960) cognitive image elements which are landmarks, nodes, paths, districts and edges; the respondents were asked to draw Khans District on a blank paper as if they are explaining it to a stranger. The aim of cognitive mapping is to reveal how users perceive the district and what image elements they hold in order to form the image of the district in their minds.

The survey questionnaires is comprised of four sections. The first section includes questions which can be answered by drawing and putting sticker icons on the map. The questions were designed in order to obtain data about borders, the most used routes, sub-districts, nodes, the symbols of the district, the most liked and disliked buildings and open spaces of the district. These questions, which are cognitive image elements asked in another way, aim to cross-check data gathered in the first stage. The second section of the questionnaire focused on usage density of the district and questions were designed to learn why respondents come to the district and where the most commonly used places of the district are. The third section covers open-ended questions to learn user opinions and attitudes about the district. The survey concludes by gathering the demographic characteristics of users such as age, gender and education.

In the following case study section, firstly Bursa Khans District will be introduced with its location and importance, afterwards the city's brief history and the urban development processes it has gone through will be summarized. Finally, the results of the cognitive mapping and survey will be presented.

4. Case study: Khans District of Bursa

4.1. Historic background of Bursa and Khans District

Bursa, as the first capital of the Ottoman Empire, was always a city with a unique character. Located in the north-western part of Anatolia, the city is one

of its oldest settlements with a set of very rich historic, cultural, geographic and natural values. Having hosted many civilizations, Bursa was established with the name Prusa during the reign of the Bithynian King Prusias in 185 BC. The history of Bursa then continued with the Roman, the Byzantine, the Ottoman and the Turkish Republican eras (Turgut and Yıldız, 2002; Kaplanoğlu and Cengiz, 2005). During the Ottoman Empire, the city became one of the most important production and commercial centers in the world due to its location on the silk and spice routes (Dostoğlu, 2001).

After the foundation of the Turkish Republic in 1923, the city received many immigrants from the Balkans and Bulgaria. The establishment of the first Organized Industrial District of Turkey in Bursa in 1962 triggered the city to become an attraction point both for inner and outer migrations. Beginning from the mid-20th century, these developments and changes caused the city to be subjected to significant transformations not only at the periphery but also at the historic center of the city (Dostoğlu, 2001), thus the historic commercial city center began to lose its importance (Shakur, et al. 2012).

Throughout the history of Bursa, many urban planning processes have been carried out such as the plans of Lörcher (1924), Prost (1940), Piccinato (1960) and 1976/1984 plans of the Metropolitan Municipality of Bursa. However, there was no continuity in these planning efforts (Dostoğlu and Vural, 2002). Either being partly implemented or not considered as a holistic approach, these plans could not respond to the physical, social and economic changes of the city. At present, Bursa is still undergoing a rapid industrialization and urbanization process, which has resulted in the area having one of the highest population increase rates in Turkey. Thus, as an important commercial center, the city has become the fourth largest city in Turkey. With the efforts of the Metropolitan Municipality of Bursa, Khans District which consists of 36 registered historic buildings built in the early foundation period of the Ottoman Empire was inscribed as a UNESCO World Heritage Site in 2014

(Bursa and Cumalıkızık: The Birth of the Ottoman Empire, 2015) (Figures 1 and 2).

At the end of this development process, it was seen that the problems of Khans District still continue at present, thereby needing further attention and would benefit from holistic sustainable strategies actively involving users.

4.2. Evaluation of cognitive mapping

Most of the users drew their cognitive maps starting from Atatürk Boulevard. Beginning to draw cognitive maps with a main street supports the idea that users perceive and learn urban spaces from the transportation networks (Erkan, 2012). The rest of the users started their cognitive maps with the landmark, the Grand Mosque, which tells us that it is a highly perceivable and important landmark for the district. Thus we can infer that Atatürk Boulevard and the Grand Mosque are the most important cognitive elements which construct the image of the district in the users' minds.

When we analyzed the direction of the maps, they were drawn by 44% of the users in a northern direction and by 52% of the users in a southern direction. The users who drew their maps in a northern direction perceived the district from Atatürk Boulevard, the rest directed themselves to Uludağ. It has been thought that the reason for this difference might be the location of the users' dwellings, but after the analysis of all the maps, this assumption could not be proved. 16% of the users included some important monumental landmarks such as Yeşil Külliye (Islamic-Ottoman social complexes), Emir Sultan Mosque, Yıldırım Külliye and Muradiye Külliye in their maps even though their location is out of the case study district. These users perceived the city center larger than Khans District. The cognitive maps did not reveal any important differences in terms of users' duration of residing in the city. Even though they were born in Bursa, the age groups of 18-24 and 25-34 could not provide much data related to the inner part of the district.

The cognitive maps of users have provided 78 cognitive image elements for the district, 65% of which are land-



Figure 1. Case study area shown in satellite image and the locations of important buildings (Source: Bursa Metropolitan Municipality, 2013. Other images were taken by the authors).

marks, 27% of which are paths, 4% of which are nodes, 3% of which are districts and 1% of which is the edge. Figure 3 shows the overlapping data which has been indicated in a rate of more than 10% by the entire respondents.

Based on the 51 landmarks which were obtained from the cognitive maps, the most frequently indicated ones are the Grand Mosque (76%), Koza Khan (76%), Orhan Gazi Mosque (60%), the Municipality Building (36%), Rice Khan (36%), Zafer Plaza (35%), the Post Office Building (34%), Emir Khan (29%), Bedesten (19%), Silk Khan (18%), Tayyare Cultural Center (18%), the Ziraat Bank Building (18%), the Government Office (17%), restaurants and cafes (17%), Fidan Khan (16%), Ulu Bazaar (14%), Balibey Khan (13%)

and Ahmet Vefik Pascha Theatre (10%).

The analysis of 21 paths which were obtained from the cognitive maps showed the most frequently indicated ones as being Atatürk Boulevard



Figure 2. An aerial photo of the Bursa Khans District looking in a northerly direction (Source: Bursa Metropolitan Municipality Archive).

(78%), the Covered Bazaar (53%), the Long Bazaar (43%), Ulu Cami Street (37%), Cumhuriyet Boulevard (33%), Coppersmiths' Bazaar (31%), Cemal Nadir Boulevard (18%), Maksem Street (18%), 2. Osman Gazi Street (17%), İnönü Boulevard (12%) and Reyhan Bazaar (10%). Among all these paths, the Long Bazaar, the Covered Bazaar and Coppersmiths' Bazaar are the most important historic commercial routes of the district which are pedestrianized and covered by a roof.

Three major nodes which were highlighted in the cognitive maps are Orhangazi Square (43%) Heykel (24%) and Çakırhamam (14%). Located on the southern edge of the district, Orhangazi Square functions like an entry point to the district and includes the only greenery existing around the district. Thus, being perceived easily, it is the most important landscaped public square in the district. The other two nodes are located at the intersection points of the main roads which make borders to the district.

The users defined two major districts in their cognitive maps; 25% of users stated Tophane and 12% of users indicated Salt Bazaar. Stated by a rate of 11% of the users, the historic city walls are the only edge elements which were found on the cognitive maps. Overall, the results which were obtained from the cognitive maps can be summarized as follows:

The cognitive image of Khans District is predominantly comprised of landmarks. The other cognitive image elements in order of importance are paths and nodes. The Grand Mosque and Koza (Cocoon) Khan are the most important landmarks in the district.

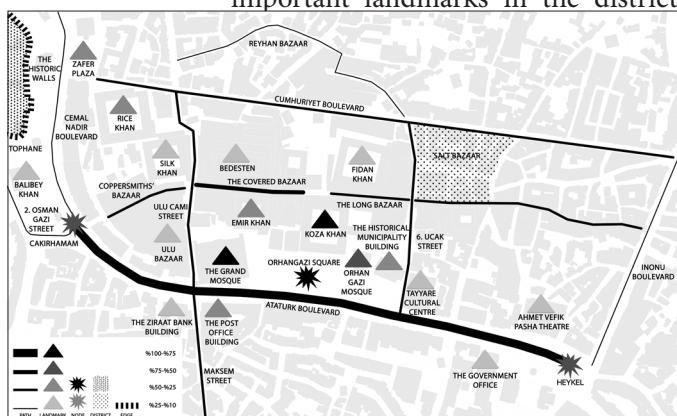


Figure 3. The cognitive map of Bursa Khans District.

Ataturk Boulevard and the Covered Bazaar came into prominence regarding the paths. Orhangazi Square and Heykel are of great importance when it comes to the nodes in the district. Analyzing these image elements all together, it has been seen that the most southern area of Khans District is perceived better by the users.

As for the main cognitive image element of the district, many of the landmarks are significant historic monuments. Thus, it is clear that these historic buildings are of great importance in terms of perceiving and constructing the image of the area.

Among users, the age groups of 18-24 and 25-34 could not provide many image elements about the inner part of the district. Based on this data we can infer that these user groups who are mostly young people perceive the district with its borders. Thus, it can be stated that there are not adequate activities in the inner part of the district which attract these young users.

Even though there are many historic buildings which are located in the inner part of the district, very little data referring to these buildings was obtained from the cognitive maps. This is because of the many disordered and unplanned buildings surrounding them, thus forming a dense urban fabric which causes these buildings to be hidden and consequently they are barely perceived.

During the cognitive mapping, it has been seen that some users (12%) do not know the exact names of the important historic buildings. Instead of stating their exact names, they addressed them by indicating a path, a khan, etc. The way these places are mentioned by the users demonstrate that there is not sufficient informational signage for all the historic buildings in the district. Another reason may be the lack of awareness and interest in the district's history on the part of the users.

4.3. Evaluation of the questionnaire survey

After the cognitive mapping, a questionnaire survey was also conducted with the users. The first section of the survey started with the question about what comes first to the respondents'

minds when someone mentions the historic city center of Bursa. They stated, in order, the Grand Mosque (38%), Ottoman Period and history (19%), Tophane (12%), tomb-mosque-public bath (9%) and Khans District (8%). Fewer respondents reported the Covered Bazaar, Heykel and Koza Khan as their first image element. It was seen that the majority of the users gave answers either related to the historic buildings or to the history of the district. Based on these answers, it is clear that the historic identity is important in forming the image of the district.

The users were also asked to draw the borders of the district on the map. 28% of the respondents defined the borders of the district with the streets of Atatürk-İnönü-Cumhuriyet and Cemal Nadir Boulevards. The second important borders defined by the users (11%) are Atatürk, Cemal Nadir and Cumhuriyet Boulevards and 6. Uçak Street which is a smaller area than the first one. However, it is noteworthy that the majority of the users (47%) considered the district much larger than the map which was given to them showing the core of the Khans District.

According to the responses, the most used route of the Khans District (26%) is the Grand and the Long Bazaar axis, the second most used ones are Ulu Cami Street (13%), 6. Uçak Street (13%) and Atatürk Boulevard (13%). Thus, the most used route in the district is the historic commercial route which is pedestrianized and covered by a roof.

The respondents were asked to indicate commercial buildings in the district. Koza Khan (56%), Coppersmiths' Bazaar and Ulu Bazaar (55%) were highlighted by many of the users in comparison to the mostly used historic commercial route.

When asked about the most dense traffic nodes of the district, the majority of the answers were the nodes of Heykel (60%) and Çakırhamam (40%). The users stated that there is very dense traffic on Cemal Nadir, Atatürk and İnönü Boulevards and that they feel uncomfortable due to the noise and visual and environmental pollution.

When respondents were asked the symbol of the district, more than

three quarters (83%) stated the Grand Mosque, the rest of the respondents reported Heykel, Koza Khan and Tophane. These answers highlighted just how important the Grand Mosque is as a landmark for the district.

The respondents were asked the most liked building in the district. The majority of the users (70%) indicated the Grand Mosque and the second most liked building (14%) was Koza Khan. Likewise, the most liked open public space was asked to the users; in order of importance, the answers were the courtyard of Koza Khan (36%), Orhangazi Square (32%) and Tophane (13%).

The respondents were asked to mark the most disliked buildings in the district. Even though they are located out of the map which was given, the majority of the users (36%) indicated the Doğanbey TOKI Houses. The most disliked buildings in the district was shown as firstly Zafer Plaza (9%) and secondly Rice Khan (6%). As can be seen from these findings, the users feel very dissatisfied with the Doğanbey TOKI Houses due to their out of scale, large and high-rise masses which overwhelm the historic district. These houses also form an aesthetically displeasing background for the historic district and destroy the silhouette. Moreover, they have increased the already dense population and traffic in the center. Seen from many perspectives while approaching the historic district (Figure 4), these houses have no connection with the nearby city fabric.

When the respondents were asked the most disliked open public space in the district, many users stated their dissatisfaction due to the lack of open public spaces, as is seen from the an-



Figure 4. Doğanbey TOKI Houses which are disliked by the majority of respondents.

swer of one of the users who says “I wish there were many more open public spaces and then I would choose which one I do not like.” Since there are very few open public spaces in the district, this question was answered by a lower rate of users. 9% of users only stated the courtyard of Rice Khan as the most disliked open public space.

In the second section of the survey, questions related to the usage quality and density of the district were directed to the respondents. In this context, the first question was about the major reasons for the users to come to the district. These reasons can be listed, in order of importance, as shopping (29%), religious practice (23%), strolling (15%), business (15%) and social activities (13%). It has been found out that commercial and religious uses of the district are the most important functions that attract people.

The respondents were also asked how they access the district. The majority of the users (50%) stated that they come on foot to the district, the rest of the users expressed, by private car (14%), by subway (14%), by minibuses (11%) and by public buses (9%).

The last question of the third section was about the most densely used spaces of the Khans District. The respondents indicated the Covered Bazaar (34%), the Long Bazaar (22%), Orhangazi Square (13%) and the Grand Mosque (12%). The responses show that the users evaluated the most important commercial spaces of the district as the most densely used spaces.

In the third section of the survey, the user opinions on the district have been evaluated. Firstly, the users were

asked the qualities that make Khans District unique and different from the other districts of Bursa; they stated the district's historic structure (55%), commercial qualities (18%) and its central location (11%).

The respondents were asked whether they have a special feeling related to the various parts of the district or not, as a result of which 42% of the users stated religious reasons with an attachment to the Grand Mosque, 22% of the users indicated that they like sitting and resting in Koza Khan and 13% of the users said that they are fond of the peace and tranquility that is created by the historic and spiritual atmosphere of the district.

The respondents stated the most important problems of the district as follows: Traffic density (43%), the disordered and unplanned structure of the district (17%), the lack of car parking space (15%), crowdedness (13%) and the rest of the answers which have a ratio less than 10% included deterioration of the historic fabric, the Doğanbey TOKI Houses and the lack of tourist guides and historical awareness of people. The respondents were also asked about the opportunities which they feel will provide further development of the district. They stated that the district could be developed by improving its historic aspect (32%), commercial aspect (22%) and tourism (17%).

The respondents stated the weaknesses of the district as follows: the complex and disordered structure of the district (19%), traffic density (19%), crowdedness (17%), and the lack of car parking space (10%). The rest of the answers include the lack of promotion of the district and tourist guides, barely perceivable historic buildings, the lack of open public spaces, cleanliness, seating and security, the Doğanbey TOKI Houses and the poor coordination of government offices. On the contrary, the respondents described the two major strengths of the district as its historic aspect (48%) and its commercial aspect (22%). The remaining answers included its central location in the city, being the center of tourism, having mixed-uses, being an alive and vibrant area and the spiritual atmosphere of

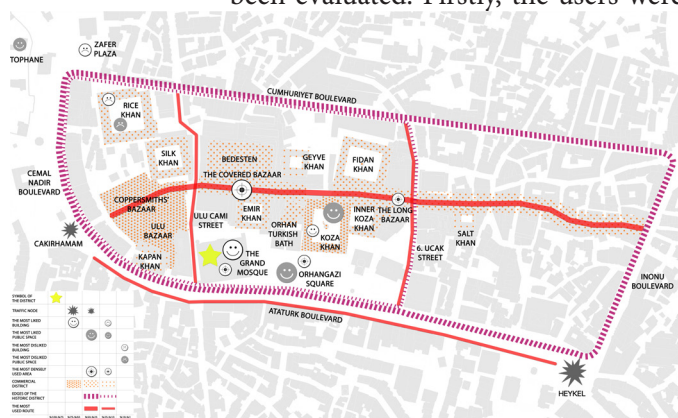


Figure 5. The image mapping of Khans District based on the survey data.

the district.

The user opinions were asked about what should be done in order to make Khans District more vivid, alive and user friendly. The majority of the respondents stated that greater promotion of the area should be made (24%) and that also some planning and design activities are needed (10%). The other answers highlighted these issues: Car parking space and tourist guides should be provided; buildings which are not in harmony with the historic fabric of the district should be demolished, the traffic problem should be solved and there should be meetings or planned organizations which are open to the public.

The respondents were asked how aware they are of the urban development of Khans District being carried out by the local municipality. 37% of the users said that they are informed, 8% of the users stated that they partly know about the current efforts for the development of the district and 55% of the users said that they do not know anything about the work which has been carried out around the Khans District recently. Even though it is a significant effort, fewer respondents have been informed about the inscription of Khans District in the UNESCO World Heritage List. When respondents were asked their opinions about the current efforts for the development of the district, while the majority of the users (49%) reported that these efforts are not enough, 28% of the users stated that they are enough and 18% of the users said partly enough.

In the last section of the survey, the demographic characteristics of the respondents were asked. Gender rates show that 56% of the respondents are female and 44% of the respondents are male. The distribution of the respondents according to age groups is as follows: 18-24 (26%), 45-54 (20%), 25-34 (18%), 35-44 (17%) and the remaining population is over 55 years of age. This data reveals that the sample group is comprised of mostly young and middle aged people. The majority of the respondents (51%) were born in Bursa and have lived in the city for a long time. The educational pattern of the respondents shows that the sample

group has a high education level, 44% of them are college graduates and 29% of them are high school graduates.

Overall analysis of the questionnaires can be summarized as follows:

- The image of the district which was perceived by the users is mainly comprised of historic, commercial, touristic and religious aspects. In this context, these aspects should be preserved and maintained for the future in different ways.
- The Grand Mosque and Koza Khan represent the most liked buildings. The Covered Bazaar, the Long Bazaar and Orhangazi Square, which are the most densely used spaces, have special significance for achieving the sustainability of the district.
- The most important problems of the district are dense traffic, disordered and unplanned urban development, the lack of car parking space, promotion of the area and tourist guides, poor maintenance of the district, overcrowdedness, deterioration of the historic fabric, difficulty in perceiving the historic buildings and a lack of awareness towards the value of the district's historic assets.

4.4. Results

When we compared the data from cognitive mapping and the survey questionnaire, it has been found out that the results are mostly coherent. The district has been perceived with its boundaries and the boundaries of the district have been defined by the surrounding roads based on the findings gathered from both the cognitive mappings and the survey. Similarly, when comparing the findings of the cognitive mapping with the survey, even though their rank order changed, similar image elements regarding landmarks, paths and nodes have been obtained with slight differences.

The respondents emphasized historic, commercial, touristic and religious aspects of the district in their responses to various questions. These three major attributes of the district are the ones that need to be preserved and maintained. One of the important problems of the district which have been indicated by the users is that the

historic buildings are hidden by the unplanned, disordered and aesthetically displeasing buildings. This causes them to be barely perceived, which also creates difficulties and inconveniences for tourists. Verified by the findings of both cognitive mapping and questionnaires, this result requires the removal of these unplanned developments. In addition, creating an informative and directing tourist trail would encourage the touristic development of the district (Gedik, 2015).

The findings of cognitive mappings showed that especially young people could not state any image elements located in the inner part of the district. This finding implied that promoting

diverse activities such as hotels, cafes, restaurants, leisure and entertainment is necessary in order to attract every age group of citizens and especially younger people. During the survey, when some of the respondents saw the map of the district, they mentioned that there are buildings in the district that they do not know at all. Many of the respondents said that they feel uncomfortable because of their lack of knowledge and unawareness about the history of the district. The users stated that they want presentations, seminars or public meetings in order to be informed about the value of the district. Informing the local community is significant since it will establish a strong

Table 1. The inputs gathered from user perceptions and opinions for the sustainable revitalization of Khans District of Bursa.

	Physical	Socio-cultural	Economic	Governance
1. Aims and targets				
Preserving and restoring the significant landmarks	√			
Maintaining the historic identity	√			
Maintaining the commercial landuse			√	
Promoting tourism in terms of both design and management			√	
Preserving and enriching existing historic commercial route			√	
Raising the awareness of the community about the historic value of the area and ongoing revitalizing works via seminars, public meetings, etc.		√		
Removing the complex and unordered buildings of the district and bringing an order				
Providing connection with the surrounding urban fabric visually and physically	√			
2. Planning and design				
Raising the perceptibility of important landmarks	√			
Enriching the quality of existing public spaces	√			
Proposing new public spaces	√			
Landscaping of public spaces	√			
Solving traffic and parking problems	√			
Proposing adaptive reuse for abandoned buildings				
Making courtyards of khan buildings more livable by landscaping and adding new functions	√			
Attracting young people to the inner part of the area by means of new functions such as entertainment or leisure facilities, etc.		√		
Promoting different types of activities for people from diverse age groups, such as hotels, restaurants, cafes, etc.		√		
Creating of a tourist trail in order to encourage people to explore the district	√			
Adding informative signage for historic buildings	√			
More seating in public spaces	√			
3. Management				
Increasing the number of qualified tourist guides which will make easier for tourists to experience the area				√
Carrying out maintenance, providing order and general upkeep of the district and monitoring these works by the local government				√
Providing coordination of all the administrative units in the city				√

public consciousness about the value of the district. We know that Bursa Metropolitan Municipality is organizing UNESCO meetings for the public; this data shows that these efforts must keep continuing.

The evaluation of the entire data collected from cognitive mappings and questionnaires has shown that the input not only can be categorized according to the four major dimensions of sustainable revitalization, which are physical, socio-cultural, economic and governance; but also contribute to the different stages of sustainable revitalization of the Khans District, which are (1) the determination of aims and targets, (2) planning and design and (3) management (Table 1).

5. Conclusion

Making connections between past, present and future, sustainability in historic quarters should be handled in such a way that combine physical, social, economic and governance dimensions in an interactive, holistic and complimentary process. Moreover, sustainable revitalization needs a special attention in terms of users. Unless local community's perceptions, current needs, requirements and opinions as well as their expectations towards the future are defined well, sustainable revitalization can not be successfully realized. Thus, taking Khans District of Bursa as a case, this paper focuses on the users and by assessing their perceptions, images and opinions, aims to present how data which can be obtained from the users can then be articulated in sustainable revitalization strategies and processes.

User oriented data which are collected by participatory processes can contribute to sustainable revitalization in various ways. First of all, it will raise the awareness of community. The user group will be aware of the value of the historic environment and want to protect and possess it and take an active role in maintaining its unique identity. Moreover, being a reliable source, user groups can be beneficial for defining the problems of an area and a specific management model which is unique for the district (Vural-Arslan, 2015). For this reason, users should take part

in the sustainable revitalization processes since it will directly influence their lives.

Overall results of the study can be summarized as follows:

- It has been seen that the data which were obtained from the assesment of user perceptions, images and opinions can contribute to the physical, social, economic and governance dimensions of sustainable revitalization strategies.
- These data can influence (1) the determination of aims and targets, (2) planning and design and (3) management stages of sustainable revitalization strategies.
- Consequently, as a valuable resource, user perceptions, images and opinions can provide important data for sustainable revitalization.

The implications of this study will be beneficial for the future development of sustainable revitalization strategies in historic urban quarters in terms of involving users' perceptions and opinions. Nevertheless, further research on taking users as a participatory agent in sustainable revitalization by using various research techniques such as participatory observations, in-depth interviews etc. should be carried out for different cases.

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