Innovative Urban Process to Revitalize Urban Spaces

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Abstract. Today, the revitalization of city centers is an essential matter for the roads of an urban foundation for different cities especially in this moment of profound early innovation trend, city centers areas are the most vulnerable, especially urban spaces, which regarded as important and prominent core in improving the quality of citizen life. From another perspective, the Inventive public activities expose the potential of urban space and optimize spatial elements that provide a long-term effect on urban cities. Urban revitalization considers, as one of the most proper solutions for improving problematic urban areas, besides that there is an extended agreement that the innovation processes have noticeable importance in the case of urban spaces that needed for improvement. The research problem handles the absence of an integrated theoretical framework of urban revitalization within global innovation trends, critical difficulty about the link between them, and finally, the implementation of the urban space revitalize. The research attempts to investigate the problem by identifying a fundamental goal represented by revealing the importance of urban inventive process included under scope of essential dominions of urban revitalization, and specifically the application on urban space; the paper presents the historical urban space and public paths of the Bab Al -Wastany in historical Baghdad city as a case study.

Keywords: Innovation process, Inventive public activities, Revitalization, Urban space.

1. Introduction
Innovation and urban spaces on the course of this present day’s consider as meeting platform of an urban and architectural dimension, of social and cultural, economic and ecological levels. The potential of urban space looks to be too complex to understand. Generally; urban spaces have "physical and functional conditions which influence social interaction, comfort, and security which attract people to the settings. The physical and functional qualities of public space are related to physical amenities, the activities, accessibility conditions, and the surrounding land-use that support the activities there"[1]

Undoubtedly, integration shape of urban spaces and the added quality of modern movement innovation is essential in every aspect of our lives. "The main idea behind innovative urban revitalization strategies is ‘integration’: integration of dimensions of intervention, integration of urban functions and integration of partners and resources"[2]. Therefore, revitalizing the urban space nowadays is gaining importance. side by side with applying innovative methodology leads to the improve advantage value added to the city and citizens besides the revitalized urban space too.

2. Urban spaces
Urban space, seen as a system of spaces, to assist all common actions in the urban environment and many intercommunications (social, economic, environmental ...) is based on the assumption that urban aspect depends on relations of performers and representatives, with rising intensity, variety,
and complexity. By composing spatial service advantages, their inherent synthesis becomes understandable within systems structure. "The receiver of an urban space affects a user’s evaluation. A city and its urban spaces’ visitors enter the dialog with its creators by processes of feeling the environment and by the steps of perception. This feedback is irreplaceable today"[3]. Urban space is formed by two terms ‘urban’ and ‘space’. A basic need for cities is to provide a public urban space that has the three important values for establishing quality in such spaces: Social value; Economic value, and Environment value [4]

According to the previously mentioned, Public space is used to refer to all accessible spaces within urban fabrics, “its multifarious space that extends from the street to park and square ... etc., making it a multifunctional space used as secondary socialization space, third space, expressional space and representational space for groups or community”[5] see Figure 1.

Generally, many other functions of urban spaces depend on hierarchies exist, producing more preferable means for classifying, for example, that derived by the UK’s Urban Green Spaces Taskforce [6] “where public space is crudely divided between types of green spaces and types of (hard) civic spaces”[7]. From a social-cultural aspect, “Walzer1 (1986) has suggested two kinds of public space according to its use and users, namely single-minded public space and open-minded public space”.[5]

In the fact, Operations of urban revitalization, requalification, renovation, and redevelopment usually deal with unused terrains and buildings[8]. As Jane Jacob argued that, the variety of a city maintains its vitality and its expected improvements in the centres of urban city. "Cities have the capability of providing something for everybody, only because, and only when they are created by everybody." [9]

3. Revitalization process

Revitalization intends to improve the older parts of the cities by implementing new functions and activities with miniature interventions such as the innovative activities with conservation essence to revitalize the essential value of the urban space. "The approaches of revitalization have similarities

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1 Michael Laban Walzer is a prominent American political theorist and public intellectual. A professor emeritus at the Institute for Advanced Study in Princeton, New Jersey
with the urban conservation methods, as the main concern is to protect the existing urban structure while providing development" [10]

Beneath a postmodernist perspective, cities try to create spaces for revitalized areas to attract more citizens and users. The recreational space department is highly providing urban space. Today, these areas include larger urban spaces that can be mentioned as "Eating spaces; Stadiums and sport spaces, Game spaces, Cultural spaces, and Different recreational spaces" [11]

The revitalization procedure in a zone or an area of the city incorporates enhancing the physical and commercial-economic parts of city structures and urban spaces. Physical revitalization is a temporary methodology expected to empower long-term economic development. [12]. Revitalization process of the urban cities consist of different levels:

Physical Intervention – it is the start step of the physical actions of revitalization, adding the advancement and improvement of the quality and physical state of green open space, structures, and linking the urban systems.

Economic improvement - environmental development of urban places including the part that are a temporary economic improvement for value-added assistance of the city. "In the vitality context of revitalization, it needs to be developed into multi-functional activities that include physical, economic, and social activities..." [12]

Revitalization of social establishments - The result of revitalizing a place will estimated if the components used to make attractive circumstances is real to make an attractive scene. "These activities should have a positive impact that helps to improve the dynamics and social life of the community" [12]

Globally, few types of research have carried out in relation to urban revitalization. revitalization of Urban as a process that includes a lot of urban predominance's strategies to advance social, economic, ecological, social and historical (re)development of disrupted, denied and deserted urban region

3.1 Relationship between urban space and revitalization:
The importance of urban space in revitalizing the city is to create a sense of palace, as well as a sense of social connection, Enhancing new activities and unique events that are an integral part of urban heritage is the main goal. from another perspective, "the details of urban revitalization policies designed to improve the quality of life and to enhance the urban image have varied from nation to nation and city to city, they have one thing in common, that is they involved the use of urban public space in urban planning" [13].

3.2 Holistic steps for revitalizing urban spaces

3.2.1 Stage one - revitalizing central areas Revitalizing "City" is determined by three levels, manly "re-vitalization – re-structuralization - re-novation" as argued by [14], exactly in this order the most important level for the research is revitalization, which is performed in three parts Re-performance of Buildings; Re-creation of Public Spaces, and Re-arranging Creative Events as displayed in the table below.
Table 1. Parts of urban revitalization [author adopted from[14]]

| Level sequence                  | Characteristic                                                                 | Operational by                                      |
|---------------------------------|-------------------------------------------------------------------------------|-----------------------------------------------------|
| 1st Re-performance of Buildings  | Changing the inhabited spaces on the ground floor into coffeehouses, café for the youthful. | The operation is done with private funds.           |
| 2nd Re-creation of Public Spaces| Gradually forbidding vehicles from open public spaces alongside transforming the urban infrastructure. | The operation is done with public funds.            |
| 3rd Re-arranging Creative Events| The collaboration of the neighborhood organization and the private businesses, for the public space festival shows, should organized. | Operation is done with a public-private partnership.|

3.2.2. Stage two – making a system of open spaces. The following step to reveal the connection and defining the concepts of center, network of urban centers. An urban public square, paths, and parks in line with the aspect of the spatial unit can create a center. The figures 3 and 4 show the urban public networks of Timisoara, Romania city, which seemed not improved in comparison with the city’s urban expansion.

Figure 2. Timisoara’s urban public spaces in 1890 Adopted from[14]

Figure 3. Timisoara’s public spaces in 2005 Adopted from[14]

In fact, an examination of Timisoara’s center (Urban public Spaces) shows that their number has gradually expanded from 1890 until 2005 despite the fact that the inhabitants expanded. Therefore, in order to create a network of support centers for unused and not revitalized urban spaces, “Politehnica” University of Timisoara, proposed a "numbers of pedestrian pathways were proposed which contain each community’s promenade converging onto the urban space but also interconnect"[14]. This is the main way the urban space can turn into walking path open space, an inside that proper for the dimension of the urban city. [See figure.4 and 5].

In the sense of the above, the people activity and especially the creative and innovative action of them consider as city driver and affect the way that revitalize the urban space, and that what we will discuss below. Side by side with innovative people action, the most steps for cities’ urban processes must value the following principles, "Each city and community is unique; Implementation of ideas and strategies in a community is an art, City development must be rooted in authenticity. Balance is key, Durable innovation depends on thick community involvement, and Small projects can make a difference and lead to significant innovation"[15].
4. Innovative public activities:
Inventive public actions could be determined in the word of social innovation, as they introduced in new configurations of meanings, associated with urban public places and in this sense, they re-invent urban public spaces. In fact, innovation is related to its context. Researchers notes, that “innovation is relative to its context; what is usual practice in one community may be an entirely new idea in another. Thus, in situ, innovative action is doing something out of the norm, something new to that situation or context”[15]
Consequently, innovation activities in urban space look like a form of a dynamic effect of spatial urban structures and precepts, which create everyday physical and emotional, exterminate of a city; they expose the linkage between spatial elements and everyday life, which differs from routine behaviour. Like the example that argued, "Alternative models of behaviour, which are performed by creative practitioners, use the potential of public spaces, but what is more important, they become a form of communication between passers-by, turning non-places into a space of shared experience"[16].

4.1 Innovation process:
In arguing for the much recent interest in creativity and innovation, the same of researchers define innovation as "a process of turning opportunity into new ideas and of putting these into widely used practice"[17]. Thus, the definition of innovation is broad-ranging it is the realization of some new ideas in original solid practice, regardless of whether industrially or in inclusive society and voluntary circle. Basically, what is innovative for one city might be normal knowledge to another, and somewhat, innovation is entirely subjective.

For describing the process of innovation, it consists of six steps. Besides, eight functions classified base on the importance of regards and finally a variety of actors divided into four actors groups based on different roles. Innovation in urban improvement needs an adequate variety of characters to participate. For example, the residents who have a vital job in advancing innovation and recognition for a change, and they comprise of "four groups of actors are public organizations, knowledge organizations, industry, and citizens"[18]. On the other side, innovations need several functions to be in interaction. In the interest of urban improvement, eight appropriate functions are perceived and modified. Represented by the table below.
Table 2. Four groups of actors’ and the eight functions descriptions, in addition to the actors’ key groups [adapted[18], and modified by the author]

| Groups and subgroups of actors | Characteristic | Function | Key Groups |
|--------------------------------|---------------|----------|------------|
| Citizens                       |               | F1: Inducing creativity and experimentation | Industry and citizens |
| Individual citizens            | Includes individuals from diverse parts of society. | F2: Creating and diffusing knowledge | Knowledge organizations and citizens |
| Interest groups                | Includes groups of citizens that are not yet, or will never be, organized in a formal organization. | F3: Understanding the roles | All actors |
| Non-profit organizations       | This includes co-operatives and citizens that do not generate and distribute profits but uses surpluses to achieve other goals. | F4: Building trust | Public organizations |
| Public organization            |               | F5: Creating motivation | Public organizations |
| Authorities, regions, and municipalities | The main part of this sub-group consists of decision-making organizations such as municipalities and governmental agencies. | F6: Identifying and formulating the need | Industry and citizens |
| Supportive teams               | Focus groups with the aim of controlling and observing the improvement of a city. | F7: Mobilising resources | Public organizations and industry |
| Knowledge organizations        |               | F8: Creating acceptance of change | Citizens |
| Research institutes            | This sub-group can be represented as professional research institutes |               |            |
| Academia                       | Includes university and colleges |               |            |
| Other educational organizations| This involves schools that possess a special focus of importance for urban improvement issues |               |            |
| Industry                       |               |               |            |
| Private companies              | This subgroup includes a diverse set of private companies |               |            |
| Municipal companies            | This group involves of establishments that are municipally possessed. |               |            |
| Supportive organizations       | This subgroup includes companies that have a supportive function in the form of expertise. |               |            |

Accordingly, the functions are drafted with regard to several steps of the innovation process that related to whether the function important for a special step to display. Hence, it is necessary that these actors are concerned at the right place in the innovation process, for example, "individual citizens and interest groups) that usually tend to be creative and initiate grassroots innovations"[18]. The innovation processes for urban development depended on two main elements; "the functions and actors are in relation to six steps in the innovation process: Formulate a problem area, Create vision, Idea generation, Experimentation, Implementation, and Evaluation & diffusion"[18].

4.2 The Matrix of the urban innovation process:
The research proposes a Matrix model formulated by the literature and then improved as a conclusion of this study, the matrix consist of two primary considerations when evaluating the innovation implementation in urban cities see table 3. The left side of the matrix presents the innovation groups of actors: Public organizations, knowledge organizations, industry, and citizens, While the top side
presents the urban innovative process six stages in the innovation process: Formulate a problem region, Create vision, Idea generation, Experimentation, Implementation, and Evaluation & diffusion. Opportunities to improve and increase their potential for new activities can also be assessed. This paper draws upon this model to present a new framework to improve innovation in urban cities.

The group of actors to implement the process steps of urban innovation in the right way may use the presented Innovation Matrix to analyse the function that should apply. In conclusion, the most participation between all the actors and process step is the third function that understands the role, "different actors hold different roles in the development of a city, and collaboration between these actors is essential. To facilitate collaboration, it is important to create a common understanding and recognize each other's roles and contributions, in order to assist in involving the right people at the right moment"[18].

Table 3. Urban innovation process matrix by author

| The group of actors | Formulate a problem area | Create a vision | Idea generation | Experimentation | Implementation | Evaluation & diffusion |
|---------------------|--------------------------|----------------|----------------|----------------|----------------|-----------------------|
| F1, F2             | F3                       | F3, F4         | F1, F2, F3     | F1, F2, F3     | F1, F6, F7, F8 | F2, F5                |
| F3, F4, F5         | F3                       | F3, F4         | F1, F2, F3     | F1, F2, F3     | F1, F6, F8     | F8                    |
| F6, F8             |  |                 |                |                |                |                       |
| citizens            | F1                       | F2             | F3             | F4             | F5             |                       |
| Public organizations | F3                       | F4             | F5             | F6             | F7             |                       |
| F7                  | F3                       | F4, F3         | F3             | F3             | F7             | F5                    |
| knowledge organizations | F2                      | F3             | F3             | F2, F3         | F2, F3         | F2                    |
| F3                  | F3                       | F3             | F2, F3         | F2, F3         | F1, F6, F7     |                       |
| industry            | F1                       | F3             | F3             | F1, F3         | F1, F3         |                       |
| F6                  | F3                       | F3             | F1, F3         | F1, F3         | F1, F6, F7     |                       |
| F7                  |  |                 |                |                |                |                       |

Key plan of relationships: ▲ Very strong. ▼ Strong. □ Wake. ▴ No relation. Each point indicates an association and demonstrates that is significant to examine the theoretical framework steps mentioned before.

5. Methodology:
The research has created an evaluation model “innovation matrix” to assess the situation of historic area revitalization by the innovation process and the doers' functions that creating, refreshing, keeping and extracting its primary indicators above. In this part, the research will apply the indicators of the matrix into the study territory (Bab al-Wastani) to estimate how the innovative revitalize beneficial its public space and build its individual identity.

So far, the following description applies an urban innovation process approach to revitalize of Bab Baghdad Alwastany as a case study. Consequently, this research proposes to revitalize the historical urban space and public paths of the Bab Baghdad Alwastanyit, all-inclusive between the innovation process as well as the revitalization process; In order to recreate physical and spatial elements that act to build up vitality and incorporated it with the environment of the area. From here, it connected to the improvement of the open space to start availabilities among physical and non-physical.
Considering also, this research employs the Descriptive examination strategy for gathering and understanding information, which usually alluded to as rational approaches. The best solution seen from the quality or worth that has the possibility to give a superior effect on the study. The stages summarized as pursues:

Essential and auxiliary information collection incorporates:
   a) Observations at the Bab Baghdad Alwastany by depicting, and capturing the current condition.
   b) The literature reviews the study considers, as important materials in the published materials are significant

The procedure begins an initiative dependent on a distinguished issue region. From that point, various partners are included to characterize the problem and compose a vision for a long time solution. This pursued by an idea generation and experimentation stage that will create, optimize and test new thoughts and solutions. Finally, the new solutions checked further with different activities. Idea generation and experimentation consider as iterative strides.

Throughout the urban observation, some of the problems found in the area according to "the elements of urban design principle, which covering land use and buildings, public and social activities, street and pedestrian ways, as well as activity support"[12]. The integration of the research methodology with urban (innovation-revitalization) depends on the four factors of urban space, which are comfort and image; accessibility and linkage, practices, actions and sociability. The following table describes the urban innovation process steps applied to the study case area by the author:

![Figure 7. The innovation process of Bab Baghdad Alwastany revitalization by the author.](image)

Bab al-Wastani, also known as Bab Khorasan, is the only remaining gate of old Baghdad today. The gate is known for situated nearby the Mausoleum of Umar Suhrwardi. During the late 20th century, the site was restored which can be overlooked from the Mohammad al-Qassim Highway. At the same time, the surrounding graves and mosques that date back to the Abbasid era, known as Al-Wardiyya Cemetery, uprooted in order to build the infrastructure for tourism surrounding the gate. The diagram shows the location of Bab Baghdad Alwastany and its urban context [see figure 8]:

![Diagram showing the location of Bab Baghdad Alwastany and its urban context](image)
Commonly, the problem of the research is determined and clarified in the discoveries of the study can be outlined in three classifications, low activities and attractions in the open space; Inaccessibility to the region, and destroying of physical essence of the structures and open space.

The results that conclude from the corruption of the urban space picture are:

a. Buildings and Land use:
   - Most land uses of the region was industrial, commercial, cemetery ground, and transportation zoning which strongly identified the functions
   - The main mechanical workshops, which are the traditional market of Sheik Amar that takes place on the south, side of Bab al-Wastani.
   - The architectural enhancement isn't accurate and active in the area where the existing buildings around the study region in a bad condition with destroyed structures and old facades.

b. Social and Public amenities:
   - Although Bab al-Wastani considers as one of the public facilities that add to the city frame; nevertheless, its physical conditions are poor and falling apart by time.
Besides manufacturing markets, most of the social offices of this region ruled via vehicle fixtures, equipment trade, and the ancient cemetery of Al-Sahrawardy. Thus, the pattern of practices and activities in the area is not attractive to people.

c. Pedestrian Ways and Street:
- There is one kind of street pattern available as access to the Bab al-Wastani most important street is Mohammed AL-Qasim highway. Actually, by the road map of the area it clear that is no connection and coherence pedestrian walkways that prevent people from easy access to the area or arriving at their destination by walking.

6. Conclusion:
The results of the research demonstrate that the general comprehension of how the procedure of innovation in urban spaces revitalization comes to achievement by using the innovation matrix as a model of interconnection relationships adds to the innovation process. It additionally gives encourage to gatherings of different actors as leaders that needed to be included in order to generate a sustainable city through a well-functioning innovation synthesis.

Subsequently investigating the findings dependent on the theory and analysis, it concluded that the revitalization of unused urban space could be accomplished within some efforts, for example, improving the new functional-activities and useful elements that add vitality and cohesion with its framework as an attraction spot.

Finally, encouraging the improvement of vision and urban innovation process for a specific region, considering the area and future development plans by:
- Identifying difficulties and opportunities on a city-area scale.
- Managing methods to improve coordinated effort with organizers, creators, architects, and all experts included.
- Overseeing designs or arranging rivalries and taking advantage of the national and worldwide systems.
- Conducting definite partner commitment with government, different landowners, local gatherings, inhabitants, and neighbourhood specialists.
- Improving the general communication strategy.

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