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Approach Based on Traditional Architecture Indicators to Strengthen Urban Identity in Diverse Cities

Hatem Ibrahim

Abstract

This chapter presents an analytical study and a review of the contemporary architecture in Doha- The capital city of the State of Qatar. It demonstrates where “Traditional Criteria” are available in three recently developed cases study. The selected cases study has different values of traditional value that response to contemporary architecture trend. The assessment of traditional value is based on an analytical survey approach. This aim of the analysis is to develop a matrix for unifying local architecture with contemporary architecture in Doha city. The developed matrix will enable local authorities, investors, and architects to assess the value of local architecture language in contemporary architecture for diverse cities in general and for Doha city in particular. The study is valuable to be considered as one of the most attempts investigated work against an ever-increasing loss of local building trend that caused by an industrialized and standardized world. The significant of the study is the demonstration of what is learned and what is gained in understanding contemporary architecture in Doha city. The outcomes include an implementation of a scoring system of different local architecture variable. Future study is suggested to address the design typologies of buildings, and traditional elements to response to the local environment and the socioeconomic of the city.

Keywords: contemporary architecture, diverse cities, traditional criteria, Qatari architecture language, sustainable development

1. Introduction

This chapter contributes a novel approach to strengthen identity in diverse cities. Cities hold unique cultural, social characteristics and represent ideal places for the development of an urban related identity. In addition, a better understanding of urban identity formation and identification processes is essential to comprehend citizens’ support or disapproval of current challenging local initiatives [1]. Cities respond differently to migration and their changing place identities. Some cities have been considered as super-diverse cities by defining migration and diversity as one of the drivers that support the economy and the global image [2–4]. Gulf cities show a culturally diverse demography, where international migration contributes to the diversification of urban and this has led to fundamental changes in identity.

Diversity can be considered as urban identity that provides strongly a shared sense of belonging. The diversity is likely to come together with multiculturalist or interculturalist policies towards the verities of culture background [2].

The argument between traditional and global ideas has been quite sharp in some countries and recently the resulting resentment gave rise to fundamentalist movements [5]. In globalization era, diverse cities are encountering great challenges. The term globalization was known during the second half of the 20th century and was not a popular until the second half of the 1980s [6]. The globalization has attracted a significant attention, yet the term is used in many different contexts, many different people and for many different purposes. Globalization as the intensification of worldwide social relations that link distant localities in such a way that local happenings are shaped by events occurring many miles away and vice versa [7]. In that sequence, globalization is considered a discourse of knowledge that elevates awareness of the links between various scales of lifestyle that reflects the diverse of population and cultural background. The Encyclopedia Britannica defines globalization as the process by which the experience of everyday life is becoming standardized around the world [8]. It is a contested discourse showing many variants, some of which are clearly more influential than others and a major force in altering the world's cultural landscapes [9].

The relation between the two trends "local and global architecture" has long existed, with two directions. The first direction seeks to protect and reinforce the traditional building elements in the urban, which aim at the continuity of the history and culture diversity to address identity. The second direction encourages the use of new building elements with the support of technology and developing new materials to meet the functional needs [10]. This chapter endorses Oliver theory [11] through the integration of traditional architecture that support the context of the local environment in Doha city. The theory discusses broad concepts, which is addressing vernacular architecture in diverse cities, such as symbolism, decoration, building materials...etc.

The integration of traditional elements into the contemporary architecture is a popular topic that addressed in many researches. This chapter is continuation of a previous published study by [12]. The study is focused on the theoretical part of the topic by studying the three variables of traditional architecture (Building components, landscape components and function/activities). The findings of this study can be used by the authorities, urban planning decision making and private sectors as a purpose of making the city urban more reflected to the tradition and to embrace modern urban elements in many forms including new construction, renovations and site planning.

2. Methodological approach

The study presents the approach of strengthening the diverse city identity based on native function and activities for Doha city. It answers the following questions:

- What is the definition of contemporary architecture?
- What are the considered factors for addressing traditional in contemporary architecture? and,
- How can the traditional architecture be addressed in different trends of contemporary architecture in diverse cities?

In this study, the following research tools is implemented:

- A content analysis of reference data to establish the different contemporary architecture trends in Doha city. The indicators that support traditional architecture in the contemporary urban also will be identified.
- Empirical analysis by investigating a survey study, which is targeting stakeholders such as experts, residences and tourists.

The objective of the analysis is to evaluate the three established traditional architecture indicators in Doha city: Building elements, landscape components and function/activities.

3. Literature review and background

Alsultani [13] addressed the difficulty in recognizing the contemporary architecture as a clear trend in either international or regional level. Contemporary architecture was a solid and clear trend during the beginning of the 20th century by emphasizing the function of different urban elements. Antarikananda et al. [14] argued that the internationalism has been reflected in contemporary architecture by scratching the local tradition that has no identity. During this, the traditional elements has ignored despite of its value that basically response to the local environment.

The rapid development of the economic and social drivers throughout the Middle East are more radical now than ever. The region is passing by a transition from the traditional economics and society to the new era in the field of urban planning. This can be noticed during the rapid urban growth that connected with slum area and urban sprawl [15, 16]. Historically, the camps, residences, palaces, and citadels of the ruling class used to set apart from the commoners. This would mean that the larger and more ornate structures used to be as landmark structures and isolated on the edges of major cities away from the urban center. The buildings associated with the working classes, the local crafts workshop and other city services were weaved together in the urban fabric.

The city includes buildings; landscape and the other important related activities that can draw the local identity. Madanipour [17] stated that public elements such as streets, landmarks and open spaces in the city have been considered as a part of the buildings. This is emphasized in Middle East cities, where buildings are connected with the urban fabric and where city neighborhoods are organized their functions and services in traditional trend.

The architecture in Qatar was concerned in protecting building from the hot environment and this trend was negotiated in old architecture [12]. The buildings at this time are to build for last without harming the nature. An example is shown in **Figure 1**, Um Salal Mohammed fort, which is located in Qatar and was built using limestone as a local material.

Since Qatar becomes an open country to the world; it had been affected by the developing different architecture trends. The huge development in Qatar few years ago increased the flow of people with different cultures and life styles. This variety of cultures in addition to the open market and globalization affect the architecture in the country.

Qatar begun to change as a global center for education, media, finance, and culture through several initiatives and large investments such as the Doha Economic Zone, Al Jazeera Channel and Education City. Urban development boom is erected



Figure 1.
Um Salal Mohammed fort in Qatar.



Figure 2.
Contemporary architecture in Doha city.

sport facilities, skyscrapers, iconic museums and gated communities. Now, Qatar is a country where the contemporary architecture can be defined as a mix of European, Asian, Islamic, Arabian and local trends. Accordingly, it is difficult to recognize a clear architectural trend for Qatar in general and for Doha city in particular, **Figure 2**.

4. Three cases study of contemporary architecture in Doha City

The aim of this study is to assess the three indicators that support traditional architecture. This is as an approach for integrating the Qatari architecture language in the urban contemporary environment with the support of city image. Ibrahim [12], identified the three traditional architecture indicators in Doha city “Building components, landscape components and function/activities”. This study identifies the value of traditional Qatari architecture in three urban districts in Doha city.

A survey study is developed, taking into account the concluded three indicators that affect the traditional value. The survey study examined the stakeholders’ opinion for the previously mentioned three indicators in each district: AL-Dafna, Souq Waqif and Pearl Qatar. The three urban districts have been investigated according to the developed questionnaire. This process is carried out in Ref. to many site visits. **Figure 3** shows the related different questions to each indicator.

The questionnaire targeted different stakeholders: locals, expatriates, tourists in addition to the experts in the field of urban planning and architecture. In the beginning, the three cases study are traditionally ranked by the experts. a) Al- Dafna area is ranked as low traditional value with strong global trend, b) Souk Waqif ranked as strong traditional value and low global trend and c) Pearl Qatar is a mix between traditional and global architecture.

The questionnaire is analyzed for each case study as an approach for implementing the matrix for unifying Qatari architecture language with contemporary architecture. The questions were designed to be close-ended questions and in an easy format for the respondents to answer in short time. It consists of twenty questions that are covered the different three considered traditional indicators. The analysis is based on a comparison of the three cases study.

4.1 The case of AL-Dafna area

Al- Dafna area is a new development district in the waterfront area. It is currently considered as the contemporary financial hub of the State of Qatar. In the late of 1990s many tall buildings have developed in the area, with over fifty proposed buildings to be constructed in future. Al-Dafna was literally planned in 1985 to include a massive land reclamation project along Doha’s coastline and started to be developed in the mid-1990s. High-rise office buildings and hotels are shaped the financial district of Al- Dafna along beautifully landscape of Doha Bay in Al- Corniche of Doha. The trend of the urban and landscape components in the area is shown in **Figure 4**.

4.2 The case of AL-Souq waqif

Souq Waqif is a significant touristic area in Doha city. It is renovated for selling traditional products such as spices, garments, souvenirs and handicrafts. Many restaurants also are serving cuisines from all over the world in the area. Despite Souk Waqif is developed for hundred years ago, it has been recently restored back to its original glory. People from different regions are visiting the Souk Waqif to buy traditional goods such as wool, traditional THOBES, jewelry and perfumes. Recently, the Souk is a hotspot for different workshops, hosting several art galleries

Building components: Evaluate the following building components in terms of Qatari traditional trend.	Landscape Components: Evaluate the following landscape components in terms of Qatari traditional trend.	Function/ Activities: Evaluate the following function/activities in terms of Qatari traditional trend.
<p><i>* Rate using the following scale:</i></p> <p><i>Traditional 1 2 3 Not traditional</i></p> <p>1. The Wall</p> <p>2. The Roof.</p> <p>3. The Openings.</p> <p>4. The Structure.</p> <p>5. The Building Materials.</p> <p>6. The Ornamentation of Buildings.</p> <p>7. The Form.</p> <p>8. The Colour.</p>	<p><i>* Rate using the following scale:</i></p> <p><i>Traditional 1 2 3 Not traditional</i></p> <p>9. Landscape Structure: Landscape composition and configuration in overall.</p> <p>10. Traffic road Materials.</p> <p>11. Lighting.</p> <p>12. Signage.</p> <p>13. Furnishings.</p> <p>14. Pedestrian and Pathway.</p>	<p><i>* Rate using the following scale:</i></p> <p><i>Traditional, medium and not traditional</i></p> <p>15. Festivals events.</p> <p>16. Crafts and <u>souvenirs</u>.</p> <p>17. Food and drinks.</p> <p>18. Manufacturing/ industry/workshops.</p> <p>19. Tours/ transportation/ trips</p> <p>20. Others please state.</p>

Figure 3.
The questionnaire that been used for the three cases study- AL-Dafna, Souq waqif and the pearl Qatar.



Figure 4.
Urban and landscape trends in Al-Dafna area.



Figure 5.
Building components, landscape components and activities in Souq Waqif.

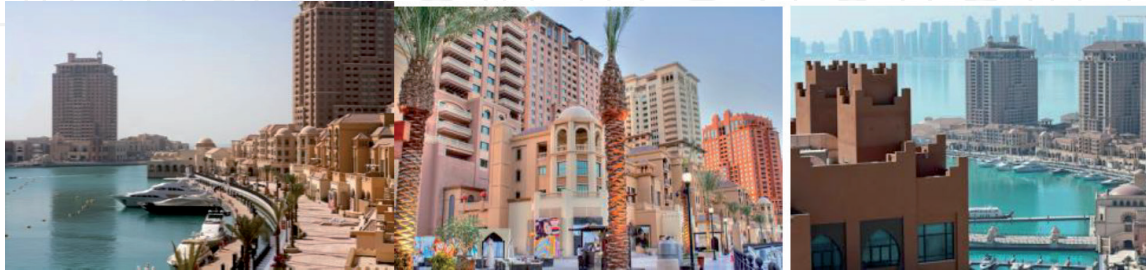


Figure 6.
Building components, landscape components and activities in pearl Qatar.

and traditional events. The renovation of the Souq Waqif was implemented by using historical photographs shot since the mid-forties and fifties, **Figure 5**.

4.3 The case of pearl Qatar

The Pearl Qatar is a man-made island with area of four million square meters. The Pearl has over 32 kilometers of new coastline. It is developed in a shape of two bays for mix-use “residential, retail and leisure”. The island includes 15,000 property units and 45,000 residents. It is developed based on a mix architecture trend of Middle-Eastern, Mediterranean and European culture- offers cosmopolitan charm, outstanding beauty and a contemporary architecture, **Figure 6**.

5. Indicators for unifying Qatari architecture language and contemporary architecture

An analytical study of the three selected contemporary areas is carried out to identify the traditional indicators include: Identifying the historical background of each area, the function involved, the physical elements, the building materials, and physical surroundings. These indicators are implemented along a matrix to support the authorities in defining the value of traditional architecture in the contemporary urban.

5.1 Building components

Responses to the questionnaire show that no significant building components in Al-Dafna area that reflect the traditional. Most of the answers conclude that the wall, roof, opening, structure, form and building color are not reflecting the Qatari architecture. However, more than 50% answers conclude that building materials and ornamental elements in Al-Dafna area has a medium Qatari architecture value.

In Pearl Qatar, the percentage of the responses are competitive regarding the structure, building materials and the building form, but the higher percentage concluded that these elements are reflecting the Qatari architecture in a low value. Most of the responses also concluded that the wall, roof and the opening are reflecting the traditional architecture in low value. However, the ornamental elements and the colors of the building are reflecting the local architecture in a medium value.

In the case of Souk Waqif, all variables of building components were given by the highest score in terms of being highly traditional value.

The comparison between the three cases study in terms of the building components is shown in **Figure 7**. The analysis concludes that Souq Waqif is the most significant area that reflects the Qatari architecture for all building components, followed by Pearl Qatar for most of related variables.

5.2 Landscape components

In Al- Dafna area, the landscape structure and lighting variables have a low traditional value. However, the traffic road materials, signage, furnishings, pedestrian and pathway reflect the Qatari architecture in a medium value. There are no landscape components in Al- Dafna area that is reflecting the local architecture of Qatar.

In Souq Waqif, the furnishings, signage and pedestrians and pathway are considered as high traditional value that emphasizing the Qatari architecture. However, traffic road materials, landscape structure, and lighting are considered as average value.

In Pearl Qatar, the higher percentage of the responses concluded that the landscape components is a medium traditional value.

The comparison of the Landscape components of the three areas is shown in **Figure 8**.

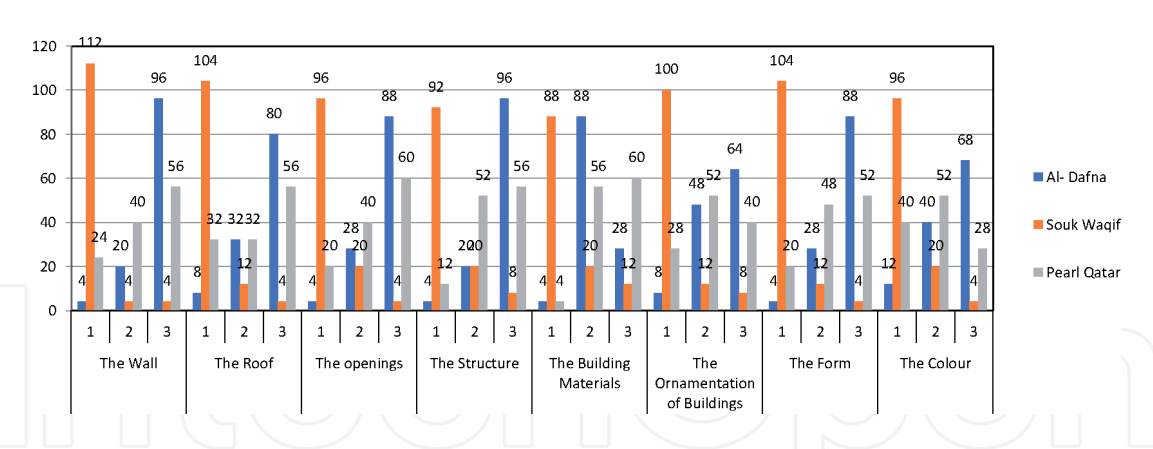


Figure 7.
A comparison between the three areas (Al-Dafna, souk wakif and pearl Qatar) - building components.

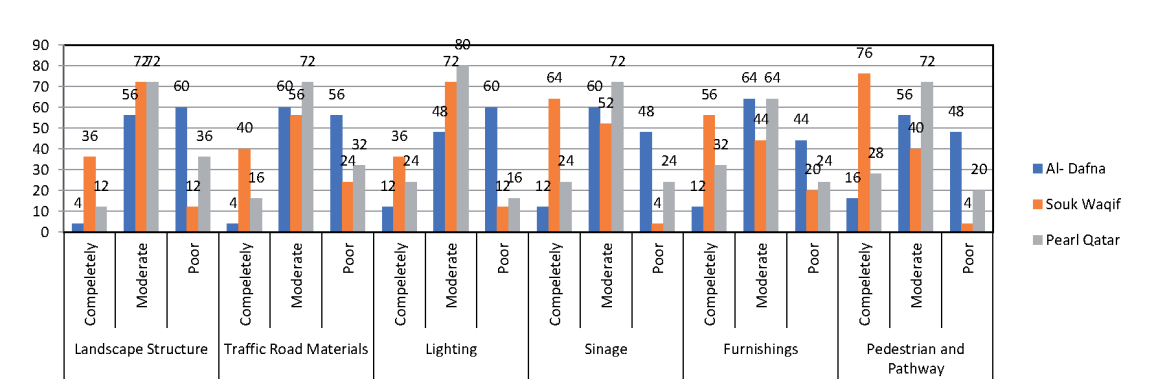


Figure 8.
A comparison between the three areas (Al- Dafna, souk wakif and pearl Qatar) - landscape components.

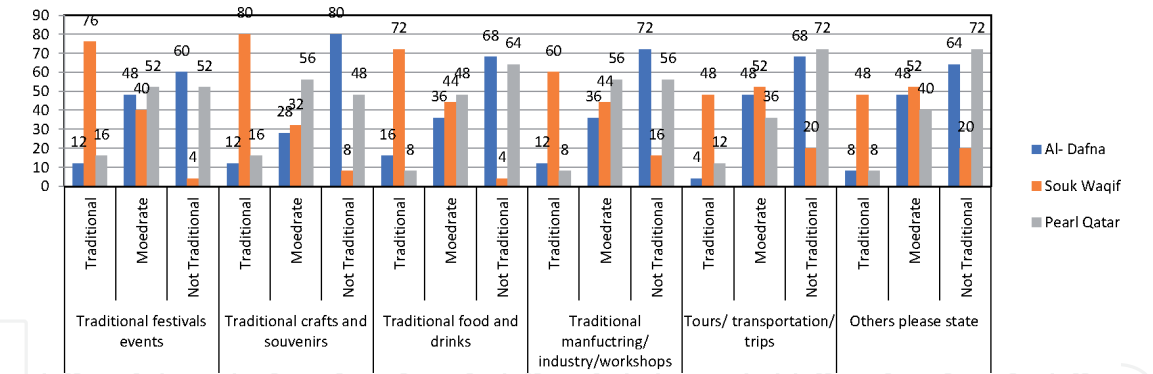


Figure 9.
A comparison between the three areas (Al- Dafna, souk wakif and pearl Qatar) - function/activities.

5.3 Function/activities

The function and activities in Al- Dafna are concluded as a low traditional value. The area has activities that reflect traditional elements such as: traditional tours and events in addition to some transportation trips.

Souq Waqif has many function and activities that emphasizing the traditional trend. The tours and transportation trips have concluded as a medium value.

The function and activities in the Pearl are not reflecting traditional value and this is reduced the traditional value in the area.

The comparison of the function and activities in the three cases study indicates that Souq waqif is the highest traditional value area for the different variables of the function and activities as shown in **Figure 9**.

6. Verification and developing traditional responsive contemporary architecture

In reference to the previous analysis, the findings can be presented in a matrix as shown in **Figure 10**. The different traditional variables for the three indicators are categorized into three values in emphasizing the traditional architecture - High, medium and low.

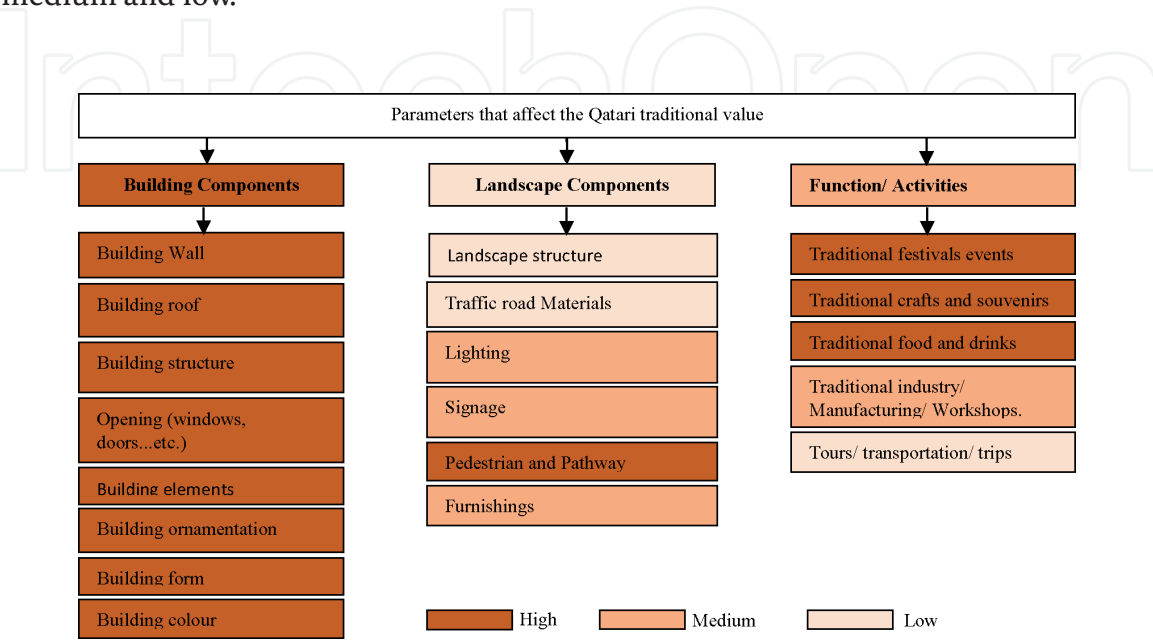


Figure 10.
The ranks of the traditional indicators in emphasizing the Qatari architecture language.

The building components are the highest ranked indicator that support the traditional trend in the area. This is including the wall, roof, structure, opening, building material, building ornamentation, building form and the building color. The integration of the previous mentioned variables can strongly emphasize the traditional architecture trend in the area.

The pedestrian and pathway as one of the variables of landscape components in Souq Waqif is emphasizing the traditional value. However, the landscape structure is traditionally having a low value for addressing the traditional architecture. The signage and furnishing are having a medium value in emphasizing the traditional architecture. The lighting as one of the landscape components has a medium value in the areas of Souk Waqif and Pearl Qatar.

Traditional festivals events, crafts and souvenirs in addition to traditional food and drinks are concluded as high traditional value variables as a part of the function/activities. Tours and transportation trips have a medium value in emphasizing the traditional architecture trend in Souk Waqif and Al-Dafna areas.

7. Conclusion

Urban planners and stakeholders are facing the phenomena of addressing the city identity. This is important to be considered to confront new globalization circumstances. It is required to combine the building technologies while addressing Arab architectural heritage, to absorb and assimilate foreign cultural influences without losing the city identity. This can be addressed by encouraging designers and policy makers to emphasize the dominant traditional value in the region in order to achieve a degree of consensus among Arab intellects.

This chapter focuses on the case of Doha city. It defines the importance of dealing with the diversity and traditional urbanism in contemporary architecture. It aims to establish a matrix for integrating the traditional architecture into contemporary architecture. In this context, the study firstly provides a conceptual understanding of Qatar traditional architecture; secondly, it provides a matrix of weighting contemporary approaches based on three cases study of contemporary urban areas in Doha city. The considered indicators of Qatar traditional language include building components, landscape components and function/activities. A survey study is developed by Ibrahim [12] and defined the different traditional variables under each indicator. The survey study is considered Qataris, expatriates in addition to the expert in the field of urban planning and architecture. An analytical study based on the findings of the survey has been conducted for each case study.

The building components is basically the elements of building envelope, include roof, walls, windows, skylights, etc. According to the study, the building components are the highest indicator that reflect the traditional value in contemporary architecture. Accordingly, the building envelope must be properly designed by using the traditional elements. It is argued that the traditional landscape components that reflect the culture of the country, can offer a good traditional value in the contemporary architecture. Traditional landscape variables such as: structure, road materials, signage, furniture, etc. has a good role in addressing the traditional value in the contemporary architecture. The traditional function and activities are emphasizing the urban space and has an important role in addressing the traditional value in the contemporary urbanism indirectly.

The findings of this study are based on verbal interviews, questionnaire and observations study that carried out in the selected cases study. The study developed a manifested potential for the integration of the traditional value into the contemporary architecture in Doha city. This is to provide a balance between traditional

and diversity in multi-cultural cities, reinforcing a distinct national identity while at the same time remaining open to diversity influences.

The study contributes in empowering the identity in diverse cities in general and in Doha city in particular. It is bridging the relevance gap between theory and practice in the urban planning. The findings also enable to support a future developed sustainable urban by the integration of the developed identity indicators into the planning processes.

Acknowledgements

This study was made possible by NPRP grant number [NPRP 07 - 960 - 5 - 135] from the Qatar National Research Fund (a member of Qatar Foundation). The findings achieved herein are solely the responsibility of the authors.


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