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Rethinking Design and Community in Bahrain Through the Capabilities Approach

Case Study: Bahrain World Trade Center

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Abstract

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The Bahrain World Trade Center (BWTC) is one of the most technologically sustainable buildings in the GCC, which features the incorporation of wind turbines, representing the development of Bahrain. It is essential to understand how this high-performance project can contribute to user well-being, although this building has already achieved notable engineering success. Minimal research has investigated the cultural, social, and capability outcomes; this study aims to fill these gaps by evaluating the building, utilizing the theory of capability approach and design agency to determine how the project enhances or restricts human freedom, participation, and accessibility. Using qualitative methodology to synthesize findings collected during the design autopsy – this study demonstrates that BWTC is a successful project used to fulfill innovative needs but is socially isolated. The paper will suggest an improvement in the design capability intervention to restore the vibrant life of the people and increase inclusion.

Keywords: Design Agency; Capabilities Approach; Bahrain World Trade Center; Social Inclusion; Urban Resilience.

1. Introduction

The Bahrain World Trade Center (BWTC) which was built in 2008 in Manama, Bahrain (Figure 1) is one of the most recognizable landmarks of Bahrain and the first skyscraper project of its type worldwide to incorporate a commercial level project as well as wind turbines. Atkins is a project designer; the shape utilized is the aerodynamics twin towers form, with a reference to the maritime tradition of Bahrain – the nation values the high value highly and makes the country an innovator in terms of the high-rise sustainable design (Atkins, 2008; CTBUH, 2020). Literature of human-centered design asserts the actual possibilities to engage in the built environment to be taken into account as well as enabling users to be involved and experience well-being (Sen, 1999; Nussbaum, 2011); the capability approach and design ethics by Boylston (2019) indicate that effective design must promote social, public, and communal life – rather than the technical effectiveness (Sen, 1999; Nussbaum, 2011; Boylston, 2019).

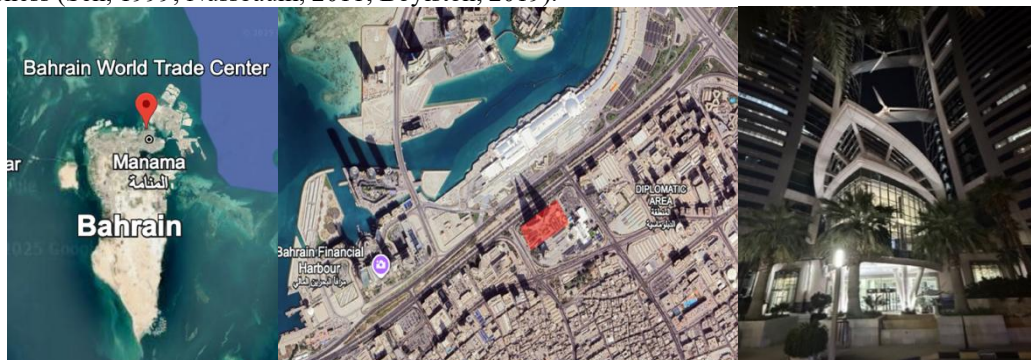


Figure 1. (Bahrain World Trade Center Location in Manama – Bahrain) (Source: Google Earth & Author).

However, giant projects in Bahrain tend to adhere to the Big D corporate design model, in which the usual decision-makers are consultants and developers rather than being guided by community requirements. This established top-down mode usually ignores cultural aspects, community concerns, and social integration, which are becoming prevalent in GCC urbanism (DiSalvo, 2012). The paper reassesses BWTC and Moda Mall using the Capability Approach Design Agency theory, with an assistive survey representing the communal vision for business-based design, and will suggest measures to create stronger, inclusive, and community-focused settings in the Kingdom of Bahrain.

1.1 Problem Statement and Research Gap

The issue of the Bahrain World Trade Center (BWTC) is not its architectural recognition but the limited evaluation of its social contribution to the city. BWTC is one of Bahrain's most iconic architectural landmarks and an important example of technological sustainability in the Gulf region. Its wind turbines, aerodynamic twin-tower form, and symbolic reference to Bahrain's maritime identity have positioned it as a major project in discussions of sustainable high-rise architecture (Atkins, 2008; CTBUH, 2020). However, its reputation remains largely connected to engineering achievement, visual symbolism, and environmental image, while its role in supporting public life is less critically examined.

The question of public experience is more visible in Moda Mall, the main public-facing part of the development. While BWTC offers a strong image of innovation and sustainability, Moda Mall appears socially limited in everyday use. It is often considered inactive, exclusive, and disconnected from wider community life. This reveals a gap between the project's architectural image and its actual ability to support public interaction, social inclusion, and urban vitality. The research gap is that BWTC has not been sufficiently evaluated beyond its symbolic success. Existing discussions mainly focus on its environmental features, iconic form, and engineering value, rather than on how the project affects people's ability to participate in, access, enjoy, and connect to the space. This study addresses the gap by analyzing BWTC through the agency and the capability approach (Sen, 1999; Nussbaum, 2011; DiSalvo, 2012; Boylston, 2019).

1.2 Objectives and Hypothesis

This paper seeks to assess the Bahrain World Trade Center and Moda Mall by exploring the relationship of technological sustainability, architectural symbolism, and social performance. The study does not focus solely on BWTC as an iconic landmark but rather examines how users experience the place and whether it supports public life.

The objectives are to investigate BWTC as a Big D design approach shaped mainly by institutional and commercial stakeholders; to assess how Moda Mall supports or limits user access, interaction, leisure, and belonging; to identify the gap between the building's sustainable image and everyday social use; and to propose design strategies for a more inclusive and community-oriented place.

1.3 Significance and Structure of the Paper

The significance of the study lies in its focus on a subject rarely addressed in Bahrain: the relationship between iconic sustainable architecture and its real contribution to people's social life. Landmark projects in the Gulf region often discuss technology, image, and their relationship to national identity and people's accessibility; however, this study turns the attention to how these buildings serve people in their daily use. The research applies the design agency and capability approach to highlight the need to evaluate. Architecture in terms of access, participation, social connection, and well-being, rather than only focusing on building environmental performance. This paper has five sections. After the introduction, the materials and methods explain the case study approach, participants, tools, procedures, and data analysis. The results section presents the main findings from the survey, observation, and analysis of the case study. The discussion compares these findings to the design agency approach, with a concentration on Bahrain's architectural and social context. The conclusion summarizes the main findings and reflects on implications, limitations, and future directions of research.

2. Materials and Methods

2.1 Study Design and Setting

This study follows a qualitative case study approach, with survey results and on-site observation. BWTC and Moda Mall are selected as representative cases of iconic sustainable architecture in Bahrain, with a specific focus on the interrelationships between architectural image, public experience and social inclusion. The research focuses largely on Moda Mall, the public-facing component of BWTC, where the building's social performance can be observed and assessed through its everyday public use. The analysis is framed through design agency and the capability approach in order to assess decision-making, participation, access, and sense of belonging (Sen, 1999; Nussbaum, 2011; Manzini and Coad, 2015; Boylston, 2019).

2.2 Participants

The study was conducted with public respondents who gave their perceptions of BWTC and Moda Mall through a survey. These responses helped identify how users are currently experiencing the space, especially in terms of atmosphere, frequency of visits, social activity, and desired improvements. The participants were approached as everyday users rather than technical experts. This was important because the survey is concerned with the building's lived social performance, not only its engineering value. The answers showed how the public sees Moda Mall as a place that offers comfort, leisure, and interaction. The survey findings were supported by informal site observations, including the levels of activity, movement, and social engagement within the mall.

2.3 Materials and Equipment

The data were collected and interpreted using several materials and tools, including theoretical sources on design agency and the capability approach, social sustainability, and community-centered design. The research also used case study documentation on BWTC, including information related to the architectural concept, sustainability features, and public image. The case study analysis was supported by visual materials, including photographs and figures. Conceptual design was also developed to propose possible interventions to transform Moda Mall into a more active, inclusive, community-oriented environment.

2.4 Procedures and Protocols

A literature review was conducted to situate the study within the capability approach, enabling the analysis to focus on decision-making and social capabilities. The survey collected public opinions on visit frequency, atmosphere, and suggested improvements for Moda Mall. Based on this analysis, design recommendations were proposed to enhance Moda Mall's social performance.

2.5 Data Analysis

The thematic analysis was applied to the survey responses, site observation, and theoretical findings. After analyzing the collected data, the answers and observations were categorized into main themes related to Moda Mall's social performance. These themes were characterized by low public engagement, exclusivity, limited accessibility, and limited opportunities for community activation. The analysis showed the extent to which the mall's major image as a luxury venue, coupled with its inactive environment, could limit the ability to attract a wider public audience. The results were then interpreted through the capability approach to explore how the space helps or restricts user freedom (Sen, 1999; Nussbaum, 2011). The design agency was also used to understand whether BWTC displays a top-down design model or provides opportunities for community engagement (DiSalvo, 2012; Manzini and Coad, 2015).

3. Results

The findings illustrate that BWTC is a site of tension between iconic architecture and everyday public life. As a landmark, the building successfully achieves innovation, national identity, and technological advancement. However, when Moda Mall is examined as the public-facing part of the project, the building's social performance appears weaker. This evidence confirms technological sustainability. On its own, it does not guarantee social sustainability. From the design agency perspective, BWTC is indicative of a Big D design approach, in which choices are largely driven by developers, institutions, and commercial interests. This approach can yield a strong architectural identity and technical achievements, but it can overlook the public's daily needs (DiSalvo, 2012; Magee et al., 2013). In terms of Moda Mall, this is reflected through a lack of social activity, poor public attraction, and limited community-oriented activities (Figure 2).

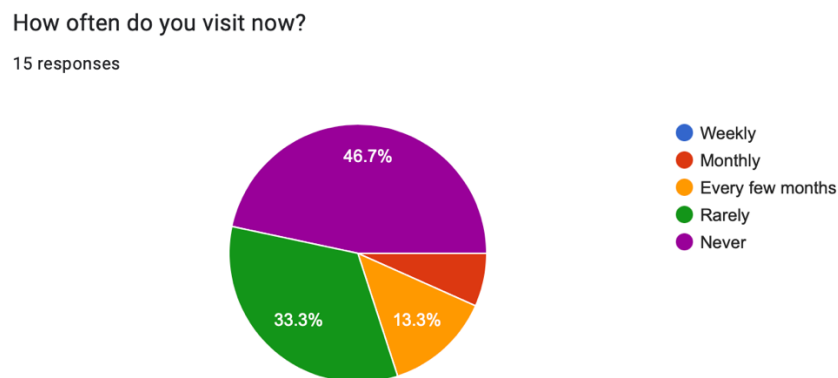


Figure 2. (showing how often people visit Moda Mall nowadays) (Source: author).

According to survey results, 46.7% of respondents no longer visit Moda Mall; thus, the importance of Moda Mall as a public space for regular visits has decreased. This result suggests that the mall has lost part of its attraction to the wider community. Although it is located within one of Bahrain's most recognizable buildings, the space does not appear to invite frequent public use or create a strong reason for people to return (Figure 3).

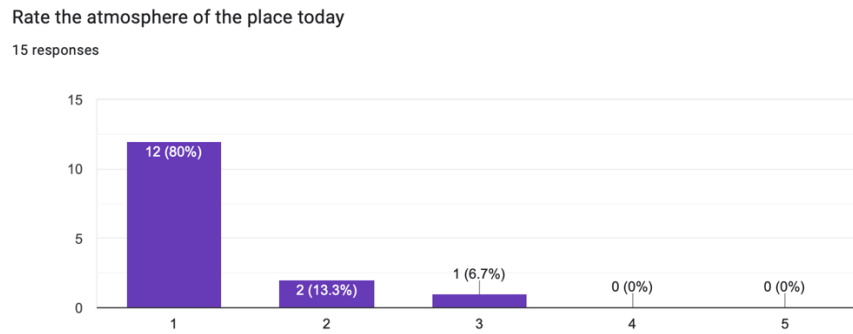


Figure 3. (Moda Mall atmosphere rating by the public) (Source: author).

The atmosphere rating supports this finding. The atmosphere was rated 1 out of 5 by about 80% of the respondents, suggesting that the mall is perceived as inactive and lacking social energy. Even if a mall is architecturally advanced and visually impressive, it loses part of its social value when users experience it as empty, inactive, or even disconnected from their everyday public life. The findings also suggest that Moda Mall's luxury retail character may make it less appealing to a broader public. The mall appears to be aimed at a specific commercial demographic and does little to address the community's needs. This results in a feeling of exclusivity where the space is physically open but socially limited. The survey and observation findings also reveal that users are not rejecting the space itself. Instead, they are asking for a different type of experience. Respondents suggested more public and community-oriented functions, including cafes, family dining, exhibitions, pop-up markets, workshops, co-working spaces, and indoor greenery. These suggestions indicate that Moda Mall could be more active if its focus shifts from a luxury-oriented retail mall to a more inclusive mixed-use destination.

4. Discussion

The results suggest that BWTC contains a tension between iconic architecture and everyday public life. As a landmark, the building successfully presents innovation and Bahrain's technological progress. However, the social performance seems unattainable when Moda Mall is considered the project's public face. This supports the argument that technology alone is not sufficient to ensure social sustainability. From a design agency's perspective, BWTC exemplifies a Big D design approach, where decisions are primarily driven by institutions and consultants. This approach can generate a strong architectural identity but may neglect the everyday needs of the public (DiSalvo, 2012; Magee et al., 2013). In Moda Mall, this is reflected in limited social activity, weak public attraction, and a lack of inclusive community engagement.

Table 1: (Shifting the Big D to be a participatory project).

BEFORE (Big D – Corporate)	AFTER (Shared Agency + Community + Institution)
Developers	Developers + community representatives
Government	Local artists and vendors (Art Gallery)
Global architects	Youth groups and families
Luxury brands	Pop-up markets and cultural partners

(Table 1) shows how the current stakeholder structure can be expanded. Developers can work with community representatives, governments can support local artists and vendors, global architects can engage youth and families, and luxury brands can be balanced with pop-up markers and cultural partners. This supports Manzini and Coad's (2015) argument that design becomes more socially meaningful when people are included as active participants rather than passive users. Through the Capability Approach, this issue becomes clearer. A successful public environment should expand people's ability to succeed, participate, and feel connected to the place (Sen, 1999; Nussbaum, 2011). In its current condition, Moda Mall does not fully support these capabilities. Its inactive atmosphere and exclusive image reduce its potential as a shared space. This does not mean that BWTC is an unsuccessful project, but it shows that its sustainability is more visible as an image rather than experienced as a daily social benefit.



Figure 4. (Imaginary indoor garden and landscape in Moda Mall Area) (Source: Created by author + modified by AI for more realistic results).

Visuals support the argument that human-centered design strategies can re-activate Moda Mall's space (Figure 4). The inclusion of indoor greenery, exhibitions, and social seating can help transition the space from a passive luxury mall into a more accessible public destination. These interventions are a direct response to the survey findings and support Boylston's (2019) argument that design should enhance human capabilities, well-being, and social inclusion. The discussion suggests that the main challenge is not the architectural value of BWTC but the limited social use of its public space. This project has strong symbolic value in Bahrain, yet Moda Mall needs a stronger connection to the daily life of Bahrain's community. Future landmark projects in Bahrain should therefore be evaluated not only by their visual identity and environmental technology, but also by their ability to support public life, participation, and social belonging.

5. Conclusion

5.1 Summary of Key Findings

In this study, the design agency and capability approach were used to study the Bahrain World Trade Center and Moda Mall. The findings indicated that BWTC is successful as a technological and symbolic landmark, but Moda Mall, as a public space, does not fully support social inclusion and community life. The survey findings show that 46.7% of respondents no longer visit Moda Mall, while 80% rated the atmosphere as 1 out of 5. These results suggest that the mall is perceived as inactive and socially weak. Although the building has strong architectural recognition, its public spaces do not offer sufficient opportunities for leisure, cultural expression, participation, and belonging. The main finding is a gap between BWTC's sustainability image and its social performance. The building is famous for its environmental and technological innovation, but that accomplishment isn't entirely translated into a meaningful daily user experience.

5.2 Implications of the Findings

The findings suggest that the assessment of sustainability in architecture should be more comprehensive, focusing not only on technological and environmental systems but also on access, public life, and social interaction. This research calls for a redefinition of the link between landmark projects and the community in Bahrain. Buildings such as BWTC should not be mere isolated icons but have the potential to become an active urban space through inclusive programs and community-oriented strategies. The research further demonstrates the value of implementing the Capability Approach to architectural assessment. It helps the researcher inquire into what the building enables people to do and experience.

5.3 Limitations of the Study

The current study is limited to a single case study and thus cannot be generalized to all landmark buildings in Bahrain or the GCC. While BWTC is a valuable case, the analysis remains specific to Moda Mall's public-facing component. The survey sample is similarly limited, as it mainly captures public perception rather than the perspectives of all users and stakeholders; a larger sample could provide more detailed insights across different groups. The study also relied on qualitative interpretation, without detailed economic data or long-term behavioral mapping. However, the results should be considered contextual and exploratory.

5.4 Recommendations for Future Research

Further studies can build on this research by comparing BWTC to other landmark projects in Bahrain to see whether similar gaps exist between iconic design, sustainability, and public experience. The research can also include larger surveys, interviews, and behavioral mapping to better understand the building experience of different user groups, such

as families, tourists, and individuals. The proposed design interventions could also be validated through the participatory workshops with community members, designers, and cultural organizations. The economic feasibility of converting under-utilized luxury retail space into a mixed-use community destination could also be investigated.

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Conflicts of Interest

The author declares no conflict of interest.

Data Availability Statement

The anonymous survey data can be accessed by the corresponding author upon reasonable request.

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