

# CREATING INCLUSIVE COMMERCIAL SPACES FOR WOMEN IN BAHRAIN

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## ABSTRACT

The built environment should ideally respond to the needs of users from different demographic factors and backgrounds, which is why the design approach of inclusive design is increasingly relevant. One of the different demographic factors includes gender, and creating gender inclusive designs is crucial as historically spaces have been centered around the needs of men. This research investigates inclusivity in commercial spaces for women in Bahrain. A rating system is created based on the theoretical background and the needs of women in Bahrain, considering four main parameters. The rating system is then used to evaluate the inclusivity of commercial spaces in Bahrain, through applying it on Segafredo Café located in Riffa, Bahrain as a local case study. The case study received a rating of 73.3% indicating good performance in its inclusivity for women. While the café was suitable overall in terms of spatial layout, circulation, and furniture, the main criteria that were lacking were in the provision of facilities that cater towards specific groups, such as women with infants, pregnant women, etc.

*Keywords: inclusive design, rating system, commercial spaces, Bahrain.*

## 1 INTRODUCTION

The provision of a built environment that responds to the needs of people from all backgrounds is becoming an essential aspect of architecture and interior design. The built environment must be able to be utilized by people from a wide variety of demographic groups [1]. This results in the approaches of inclusive design and universal design becoming increasingly relevant, which are design approaches focusing on designing built environments that accommodate and include people from all backgrounds [1].

One of the ways in which built environments can be more inclusive is by being inclusive for women. Historically, most of the built environment has been built and dominated by men, and centered around the requirements of a male breadwinner [2]. This resulted in a lack of inclusive spaces for women, and not realizing and meeting the basic and essential needs of women, thus resulting in women being excluded from a lot of spaces in the built environment [3]. It is crucial to include women in decision making processes and to involve them in the process of design (by hiring and collaborating with female architects and interior designers), as well as to encourage the participation of local women in the different stages of the design of the spaces in the built environment [4], [5]. This research investigates inclusivity in commercial spaces for women in Bahrain.

## 2 THEORETICAL BACKGROUND

### 2.1 Importance of inclusive design

The built environment should be designed to be accommodating to the needs of people from all backgrounds at the most fundamental level [6], [7]. Architects and interior designers are recognizing the damage done by excluding and alienating the users of the built environment, making the design approaches of universal design and inclusive design increasingly relevant [8].



Inclusive design approaches ensure that various demographic factors such as age, gender, cultural beliefs, and religion are taken into consideration [8]. Swain et al. [9] explain that through this approach, architects and interior designers can implement features and spatial components that ensure that the built environment responds to the needs of the users and makes them feel comfortable and welcome. These design approaches are not just limited to the fields relating to the design of the built environment (such as architecture and interior design), but they can also be implemented in numerous other design fields such as communication design, product design, and so on [10].

One of the issues with the existing built environment that the approach of inclusive design highlights is the lack of inclusivity for women in the built environment. Spain [2] explains that this issue is a result of the fact that throughout history, most of the built environment was dominated by men, and so the design of spaces was centered around their needs and requirements. Moreover, Spain [3] adds that using the needs of the male breadwinner as a basis for the design of the built environment resulted in a lack of inclusive spaces for women, and women being excluded.

## 2.2 Factors affecting women's use of space

Women experience and navigate the built environment differently from men; this is a result of gender inequalities that influence movement patterns, use of public services, participation in public spaces, modes of transport, and the lack of security and safety [2]–[4], [8], [11]. The result of this is the creation of spaces that do not consider the needs of women, making them feel excluded, alienated, and unwelcome. These factors are explained in the following sections.

### 2.2.1 Lack of security and safety

Women are generally much more likely to fear being a victim of assault than men, causing them to feel unsafe in “vulnerable” spaces [8]. Spaces that are not easily accessible, poorly lit, and lacking activity and natural surveillance can create an environment that does not make women feel welcome [8], [11].

### 2.2.2 Participation in male dominated spaces

It is common for commercial public spaces to be dominated by male users, considering that the design of spaces is typically centered around their needs [3], [11]. This can result in women avoiding the spaces as they feel unwelcome, and the spaces do not respond to their needs. One of the ways in which this issue can be tackled is by creating gradients of separation of genders, such as women friendly spaces, and women only spaces [8].

### 2.2.3 Movement patterns

Men and women have been historically believed to have different movement patterns. For example, in a lot of cultures, women are only expected to go out for significant reasons such as work or education, which leads to the design of a city only accounting for the movement patterns and circulation of women to these spaces [4]. Another example is the width of circulation routes: when circulation routes are narrower, they tend to be dominated by men and having men less likely to move or make room for women [11].

### 2.2.4 Use of public services

Although, men and women use public services differently, the spaces containing these services are usually designed centered around the needs of men only [2]. This leads to women being disadvantaged by design. For example, women typically take up more time in

washrooms, and when this is not considered, it can lead to frequent queues in the washrooms [11].

### 2.3 Research question

There is generally a lack of literature, information, and guidelines about gender inclusivity in spaces, which affects both theory and practice [8]. This is especially more prominent in the Middle East. As a result, this research investigates inclusivity in commercial spaces for women in Bahrain, by creating a rating system to evaluate the inclusivity of commercial spaces in Bahrain, and then using the rating system on a local case study. The research will contribute to the body of literature regarding gender inclusivity in Bahraini spaces.

## 3 RESEARCH METHODOLOGY

The nature of this research is exploratory as it investigates how to create guidelines for creating inclusive commercial interior spaces for women in Bahrain. The main research methodology applied was qualitative research. Firstly, a rating system to evaluate the inclusivity of spaces was created based on the theoretical background. Secondly, a local case study was chosen where the rating system can be used to evaluate the inclusivity of the case study for women.

The rating system was created by assessing the theoretical background and the needs of women in Bahrain, especially regarding the causes of exclusion (lack of safety and security, male dominated spaces, differing movement patterns, and difficulty in the use of public services). From this, four main parameters were defined:

1. Spatial layout: This parameter relates to providing women with different levels of privacy as needed, such as women friendly and women only zones. It considers aspects such as visual connection and transparency, lighting, and how vulnerable the spaces are.
2. Circulation: This parameter relates to providing women different access routes. It considers aspects such as if the space provides adequate circulation to allow all genders, and if the spaces intended for women only are able to be accessed privately.
3. Provision of amenities: This parameter relates to the provision of suitable amenities for women. It considers aspects such as the provision of washrooms, break rooms, and changing rooms.
4. Furniture and finishings: This parameter relates to how suitable the furniture and finishings are for women. It considers how accessible they are for women from different demographic groups.

A rating system was created based on these four parameters (Table 1). The rating system contains 14 statements relating to the four parameters that are used to evaluate the inclusivity of the space. Each statement can be awarded points from 1–5, 1 being the lowest (very poor application) and 5 being the highest (very good application). Some of the statements might not apply to that specific space (such as ramps not needed as the space uses only one level), in that case it will be given 0 weight, and the total will be adjusted. The applicable statements will be awarded points and the total out of 70 (in the case that all statements are applicable) will be calculated, and converted to a percentage. The percentage indicates how well the space performed: below 50% is poor, 50%–70% is satisfactory, 70%–90% is good, above 90% is very good.

The case study that is chosen is Segafredo Café located in Enma Mall in Riffa, Bahrain. The case study data is collected through direct observations during two visits in May 2022



Table 1: The rating system.

Criteria	Points (out of 5)
Spatial layout	
The spaces are not male dominated and intimidating	5
The spaces make women feel safe through transparency and visual connections	5
The spaces provide adequate lighting	5
The spaces provide natural surveillance	5
Circulation	
The circulation routes provide sufficient width to allow all genders to use them	5
There are separate circulation routes for women only spaces	5
Provision of amenities	
Washrooms for women are provided and of adequate size (no queues forming)	5
Breastfeeding rooms and changing rooms are provided	5
Praying areas for women are provided	5
Furniture and finishings	
The space uses non slippery flooring that is suitable for strollers, wheelchairs, etc.	5
The space provides infant chairs as an option	5
The furniture provided accommodates different body types and sizes	5
The space uses automated doors for more accessibility	5
The space provides ramps with the right slopes for strollers, wheelchairs, etc.	5
Total (out of 70)	70

(each visit lasted approximately 2 hours) and photographs in order to analyze the space and evaluate it using the rating system to determine how inclusive it is for women. Given the exploratory nature of the research, it is the most suitable method as qualitative methods are ideally used with exploratory researches.

#### 4 FINDINGS AND DISCUSSION

Segafredo Café was visited during May 2022 in order to take notes from direct observations, as well as taking photos for visual support of the research. The café was analyzed according to the four parameters of the rating system, taking the 14 statements into consideration while taking notes and observations.

##### 4.1 Analysis according to the four parameters

###### 4.1.1 Spatial layout

The café consists of open areas with minimal divisions. The main division is between the indoor and outdoor area. The indoor area uses an open plan with transparency and lots of visual connections (Fig. 1 (left)). This provides natural surveillance and makes women feel secure. However, considering the Bahraini culture, some women might want zones that are more private as some form of division between genders.





Figure 1: The indoor (left) and outdoor (center and right) spaces [12]–[14]. The spaces are open and have visual connection between indoors and outdoors, providing natural surveillance. The lighting is adequate and the space is well lit.

The indoor area is family friendly and is not male dominated; it does not feel intimidating for women and rather is comfortable and welcoming for everyone. The outdoor area is used primarily by smokers, so it is often male dominated, as smoking is generally not socially acceptable for women in Bahrain. This creates an intimidating atmosphere and does not feel welcoming. Moreover, the smell of the cigarettes is very strong and unpleasant. So overall, the outdoor space often excludes women from using it and enjoying the outdoor view. The café uses adequate lighting in both the indoor and outdoor areas, and is well maintained, contributing more to the feeling of safety and security.

#### 4.1.2 Circulation

The main circulation routes are of adequate width, and allow everyone to move freely. However, some of the café's furniture is tightly placed which can result in difficulty moving around (Fig. 2 (right)). This is especially important for women who have different body types that need the extra space such as pregnant women. The tight placement can also cause difficulty in movement for women who might not want to be in close proximity with men due to cultural reasons. Considering that the outdoors can be male dominated with women



Figure 2: Clear and direct main circulation route in the café with the entrance to the outdoor circled (left and center) [15], [16]. Tight placement between some of the furniture (right) [17].

using the indoor space more commonly, the circulation routes are accessible for women and direct since the main entrance is to the indoor space (rather than having to go through the outdoor first then indoor) (Fig. 2 (left and center)).

#### 4.1.3 Provision of amenities

Since the café is located within a mall, it is not directly connected to any washrooms or other amenities. So this parameter does not have weight in this case study. Regardless, there are washrooms for women in the mall provided close by (approximately 15 m away). Moreover, there is a prayer area for women located on the second floor of the mall, which is not in close proximity but still very accessible.

#### 4.1.4 Furniture and finishings

The café uses a variety of different seating options which is good for being useable by women of different body types. The furniture differs in height, width, and materials (Fig. 3). The majority of the furniture provides sufficient dimensions even for women who might need more space. The furniture uses enough padding to be comfortable to be used for longer periods, such as for studying, in addition to arm rests for added comfort. One of the furniture is a sofa that extends for several tables (as shown in Fig. 2 (right)) which more than one group of customers may share. The tables for each group are in proximity which may lead to some women avoiding them if there are men customers in the adjacent table, particularly women who prefer a certain degree of division between genders. Moreover, the café does not provide chairs for infants.



Figure 3: A variety of furniture with different heights, widths, and materials [12], [18]. The different floor finishes can be seen as well such as wood parquet (left) and ceramic tiles (right).

The café uses plywood flooring and ceramic tiles which are fairly non slippery so it is mostly suitable for strollers, wheelchairs, etc. (Fig. 3). The café is of one flat level which prevents any difficulty of getting from one level to the other (for wheelchairs, etc.). The main entrance does not use any doors during the time the café is open, providing ease of accessibility (Fig. 2 (left)). The door to the outdoor space is manual (push/pull) which can limit accessibility, such as for women carrying their infant in a stroller (as shown in Fig. 1 (center)).

#### 4.2 Evaluating the case study using the rating system

Based on these observations the rating shown in Table 2 was provided.

Table 2: Rating for Segafredo Café.

Criteria	Points (out of 5)
Spatial layout	
The spaces are not male dominated and intimidating	3
The spaces make women feel safe through transparency and visual connections	4
The spaces provide adequate lighting	5
The spaces provide natural surveillance	5
Circulation	
The circulation routes provide sufficient width to allow all genders to use them	4
There are separate circulation routes for women only spaces	N/A
Provision of amenities	
Washrooms for women are provided and of adequate size (no queues forming)	N/A
Breastfeeding rooms and changing rooms are provided	N/A
Praying areas for women are provided	N/A
Furniture and finishings	
The space uses non slippery flooring that is suitable for strollers, wheelchairs, etc.	4
The space provides infant chairs as an option	1
The furniture provided accommodates different body types and sizes	4
The space uses automated doors for more accessibility	3
The space provides ramps with the right slopes for strollers, wheelchairs, etc.	N/A
Total (out of 45)	33

N/A = not applicable.

The rating given was 33 out of 45, which is 73.3%, indicating good performance. Segafredo Café performed adequately overall in terms of spatial layout, circulation, finishings, and furniture, with the main criteria that were lacking were in the provision of facilities that cater towards specific groups, such as provision of an infant chair for women with infants, and provision of automated doors for women carrying strollers and women using wheelchairs.

As the time allocated for this research was limited, there was not enough time to collect feedback from female participants about the rating system. As ideas for further development, the rating system could further be developed from workshops that can be carried out where participation is encouraged from the female users on how to improve the guidelines. The participants can give feedback and voice their needs regarding the four parameters of the rating system, allowing the constant revision and development of the rating system. The rating system could also be supported by a questionnaire with scalable answers to obtain the female visitors' feedback. The statements would be in the form of questions regarding the



female user's experience, such as: Do you feel safe in the space? Is the furniture comfortable? Can your child's needs be easily accommodated?

## 5 CONCLUSION

Designing spaces that are inclusive and welcome to everyone should be a priority for architects and interior designers, especially towards demographic groups that have historically been ignored in the design process. Therefore, it is important to make sure that spaces are gender inclusive and make women feel welcome, comfortable, and having their needs met. A rating system consisting of four main parameters – spatial layout, circulation, provision of amenities, and furniture and finishings – was created as a tool to evaluate the inclusivity of commercial spaces for women in Bahrain. The rating system was applied to a local case study, Segafredo Café located in Riffa, Bahrain, in which the café scored 73.3%, indicating a good performance. The café was suitable overall in terms of spatial layout, with the main criteria that were lacking were in the provision of facilities that cater towards specific minority groups.

The research contributes to the body of literature regarding inclusivity for women in Bahrain and the Middle East, which is currently lacking and insufficient. Moreover, the creation of the rating system can help keep design professionals more informed about how their decisions impact women's use of the space, as well as encouraging women to participate in the rating system's development to further accommodate their needs.

## ACKNOWLEDGEMENTS

Thanks to Dr Reem Sultan, assistant professor at the Department of Architecture and Interior Design, College of Engineering, University of Bahrain, for supervision of this research paper. This research did not receive any grants or funding.

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