



URBAN STREET CONCEPT BASED ON QURAN PERSPECTIVE: THE MOST COMPREHENSIVE SOLUTION TO STREET PROBLEMS

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ABSTRACT

Streets are fundamental in the urban realm and always have specific problems. Many street concepts are believed to be able to solve the issues only partially. Therefore, they should work together to solve them comprehensively. Based on this case, to ensure their comprehensiveness, this research aims to offer Quran as an undebatable inspiration in finding new ideas for urban street concepts and filling the holes to solve those complicated problems. By using the content analysis method, this research analyzes eight street concepts: Those are livable, sustainable, walkable, biophilic, complete, democratic, user-friendly, and Quranic street, which is based on Quran to identify the indicators for each of them. The result showed that new inspirations of urban street concepts were found. They could be considered as new indicators of urban street concepts, which can provide a more comprehensive solution to the complicated street problems.

KEYWORDS:

Quran perspective, street concept, street problems, comprehensive

INTRODUCTION

Streets have a significant role in an urban area. Streets are the main elements determining a city's appearance. A city looks dull or exciting depending on the quality of its streets [1]. Furthermore, streets in an urban area or urban streets have two fundamental roles: as a link and a place [2]. As a link, the urban streets provide a more comprehensive network for people to move from one path to another; for example, going through the paths by bus, car, motorcycle, bike, or even foot. As a place, an urban street is not a place for only passing through without any particular meaning. It is where people, especially pedestrians, can do various activities and spend time on the streets. They can go shopping, talk to each other, read a book, drink coffee, etc. Streets do not prioritize vehicle users anymore [3]. All the street users should have equal space on the street.

Many street concepts, such as livable, sustainable, walkable, biophilic, complete, democratic, and user-friendly streets, are formulated to solve street problems. They have one vision to improve street quality by using their principles to solve all the street problems. Such concepts usually concern air pollution, the natural environment, vehicle domination, street physical condition, and pedestrian volume as the main problems. The question is about whether they solve those street problems holistically or not. Some studies found out that walkable streets

mainly focus on the ability to accommodate pedestrians' needs [4]. Biophilic streets have a big concern for natural aspects of street design [5]. In addition, complete street gives more attention to the street users' safety and policy [6]. Therefore, they should work together to solve all the street problems comprehensively. However, it creates another question: can they solve all the street problems comprehensively without any deficiency? Another resource is needed to prove it as the undebatable inspiration to fill the holes. Quran is chosen since it is the guidance of life in Islam, without a doubt (Al-Baqarah: 2). Quran contains absolute truth from God, which is permanently preserved by God (Al-Isra': 105 and Al-Hijr: 9). It explains and rules all parts of human life without exception because it is the most intact knowledge resource compared to the others [7]. Quran does not say everything specifically, but eternal ideas and concepts are suggested to develop an ideal built environment [8]. Based on those statements, Quran can supposedly be used as a guide to solve all street problems. Many substantial values in the Quran can be used as the principles to solve all street problems holistically, not partially. This research aims to find new inspirations that other urban street concepts never thought of. Therefore, they could be considered as new indicators of urban street concepts, which can provide a more comprehensive solution to those complicated street problems.

METHODS

This research applies a content analysis approach to describe and examine the content and indicators in each street concept precisely, systematically, and quantitatively without ignoring the context of the study. This research analyzes eight street concepts from many kinds of literature: livable, sustainable, walkable, biophilic, complete, democratic, and user-friendly streets, as well as a street concept based on the Quran to identify all the indicators they have. In this research, there are four research stages (Figure 1). The first one is implementing a literature study to

identify the indicators or criteria in each street concept based on several research articles and literatures. The second stage is about classifying all indicators to make the analysis equitable and objective because many indicators are particular and have similar meanings that can be merged into more general groups. The third one is about giving each indicator a code to make the analysis process more systematic and manageable. The fourth stage is analyzing all street concepts to find new ideas for the urban street concepts from the Quran by doing relationship mapping between street concepts. The newer the indicators appear, the broader the concept of solving all the street problems is.



Figure 1. The Research Stages

RESULT AND DISCUSSION

The content analysis of eight street concepts produces a list of indicators from each street concept. Many indicators are particular and have similarities, so they are merged into the more general group to avoid repetition, as shown in table 1-8. All indicators are given a code with two letters as the abbreviation of street concept names followed by a number that indicates the indicators' quantity and meaning. The Quran-based street is called Quranic street and coded with QS, biophilic street; BS, walkable street; WS, livable street; LS, sustainable street; SS, democratic street; DS, complete street; CS, and user-friendly street; US. These codes will be beneficial in the relationship mapping and calculation process.

QURAN-BASED STREET

The initial study about streets in the Quran is very limited because the street is a particular term that Quran does not mention directly. However, Quran is universal and always relevant in any era and human life, so it has many appropriate values that can be implemented in the streets. El Manzlawi studied the ethic of urbanism from the perspective of Quran. He identified and discussed the core concepts from the Quran that make the ethic of urbanism more responsible to the surrounding environment [8]. His study comprehensively examined urban ethics indicators based on Quran and categorized them into five Quranic responsibilities related to the urban structures; environmental, physical, social, economic, and political aspects. Many indicators, from those indicators, are suitable to be implemented on the street.

Furthermore, Yulianto found many specific values in architecture and urban design notions from the Fiqh perspective [9]. Compared to Yulianto, Muhamad had a wider explanation of the city based on the Quran's view. He mentioned many terms of the city in the Quran and what it says about city elements that are very beneficial to the urban development [10].

Table 1 shows Quran-based street indicators adopted from their study with a total of 38 indicators.

It depicts that Quran has a significant consideration to the whole urban layers, including urban streets. It is proven by how Quran gives so many crucial values to make the streets to be not only a space but also a place. As Quran said, Islam is *rahmatil lil alamiin*, meaning God indeed guarantees that Islam always gives grace, blessing, and peace to the whole universe, including the earth and everything on it, and so is the street. Quran also focuses on the surrounding environment of the streets in addition to everything else related to human interests. It takes water preservation, biodiversity enrichment, a healthy environment, and even the streets' political (street policy; decision-making involvement) and economic aspect (employment; business opportunities) into consideration. Quran wants everything surrounding and related to the streets get its right and appropriate treatment, not only prioritizing the human interests.

BIOPHILIC STREET

The notion of biophilic was adopted and developed within the architectural domain in the early 21st century. It draws the interaction between nature and the building environment [11]. When it goes to the street design, biophilic ideas try to bring natural elements more purposefully on it [5]. The natural elements are the main feature of solving the street problems.

From the literature study, 18 indicators of the biophilic street are identified (Table 2). Most of them use greeneries to express the connection between the street and nature. For instance, the existence of greeneries on the street aims to increase the water quality and thermal comfort [5]. It also provides a complete street integrated with green areas consisting of various greeneries [5] [12]. The biophilic street has the highest numbers of indicator in the environmental aspect because the natural connection has a strong relationship with the environmental domain. On the other hand, the biophilic street has no indicator in the political issue to show that there is no solution in the political realm by using the biophilic approach.

Table 1. Quran-Based Street (QS.) Indicators [8] [10] [9]

INDICATORS	CLASSIFICATION	CODE
Controlling emissions and pollutants (Sad (38): 36, Al-Jasiyah (45): 5)	Improving air quality	QS1
Atmosphere purification in general (Saba' (34): 12)		
Insufficient odor impact reduction (Al-Baqarah (2): 205)		
Access to a continuous and high-quality supply of water (Ibrahim (14): 32)	Increasing water quality, availability, and preservation	QS2
Appreciating water's value (Al-Waqiah (56): 68-70), (Al-Mulk (67): 30)		
Protecting and conserving water to preserve different forms of life on the earth (Az-Zukhruf (43): 13)		
Increasing outdoor thermal comfort (Al-Baqarah (2): 57)		QS3
Ensuring survival and enriching biodiversity (Ar-Rahman (55): 7-9)		QS4
Decreasing the primary energy and materials demand (Ar-Rum (30): 46)		QS5
Limiting the noise transmission (Luqman (31): 19)		QS6
Effective and efficient use of land (Ar-Rum (30): 41)		QS7
Controlling the glare (Al-Furqan (25): 45)		QS8
Ease of arrival to green area (An-Nahl (16): 11)		QS9
Respect for the surrounding environment (Al-Hijr (15): 22)		QS10
Utilizing sustainable and local materials (Al-Baqarah (2): 22)		QS11
Preventing, minimizing, rehabilitating and offsetting the impact on land and its resources (Al-A'raf (7): 56)		QS12
Enhancing inclusive and sustainable urbanization (Saba' (34): 18)		QS13
Having a high green vicinity percentage (Al-An'am (6): 141)		QS14
Providing a parking area (An-Nahl (16): 80)	Providing a complete street	QS15
Availability of infrastructure (Al-Isra' (17): 26-27)		
Clean and attractive facilities are available (An-Naml (7): 60, Al-Anfal (8): 11)		
Giving beautiful outdoor scenery (Al-Kahf (18): 7)		
Complete streets (Al-Mulk (67): 15)		
Sidewalk quality (Al-Furqan (25): 20)		
Cyclable network and facilities (Yasin (36): 71-72)	Providing high connectivity and easy access for all street users to various facilities	QS16
Connecting to facilities and infrastructure (Az-Zukhruf (43): 33-35)		
Pedestrian catchment area for facilities (Al-Furqan (25): 20, Al-Mulk (67): 15)		
A continuous walkable network links the dwellings to diverse uses (Al-Furqan (25): 20, Al-Mulk (67): 15)		
Providing proper evacuation routes (Al-Mulk (67): 15)		
Sidewalk Network Coverage (Al-Furqan (25): 20, Al-Mulk (67): 15)		
Use of public transport (Yasin (36): 71-72)	Providing a widely-used public transport that is comfortable, safe, affordable, efficient, and sustainable	QS17
Convenience/safety of public transport (Yasin (36): 71-72)		
Affordability of public transport (Yasin (36): 71-72)		
Ease of access to public transport facilities (Yasin (36): 71-72)		
The availability of a sustainable transport system (Muhammad (47): 10)		
Promoting transport efficiency (An-Nahl (16): 80)		
Promoting street efficiency, walkability, and livability (An-Nahl (16): 80)		QS18
Reducing traffic volume and vehicle speeds (Ar-Rum (30): 41, Muhammad (47): 10)		QS19
The development responds to local character, heritage preservation, and historical site features to reinforce its own identity (An-Nahl: (16): 6, Asy-Syu'ara' (26): 128-129)		QS20
Improving the visual comfort (Fussilat (41): 9-10)		QS21
Safe from any criminal activities (Al-Furqan (25): 72)	Providing safe and comfortable streets	QS22
Safe pedestrian crossing (Al-An'an (6): 82)		
Reducing dangerous traffic impact (Al-Imran (3): 200)		
Providing a safe waiting area (Taha (20): 116-119)		
Providing comfortable conditions within urban areas (Saba' (34): 15-17)		
Supporting a variety of human activities (Al-Qasas (28): 77)	Accommodating various social activities	QS23
Encouraging pedestrian activity without excluding cars altogether (Ar-Rum (30): 38)		
Community participation in planning, maintenance, and management (Al-Maidah (5): 103-104)		
Preservation of public health (Al-Maidah (5): 6)	Increasing healing rates and positive emotions	QS25
Promoting a peaceful society (Al-Hujurat (49): 10)		
Increasing public awareness and ownership (Al-Imran (3): 190)		
Preventing social inequalities (An-Nahl (16): 90)	Providing streets for all (all users and genders)	QS27
Giving equal access to all users (men, women, children, handicapped) (Sad (38): 26)		

INDICATORS	CLASSIFICATION	CODE
Fostering a socially inclusive community (Al-Baqarah (2): 36, Al-Hujurat (49): 13)		QS28
Realizing the importance of time (Yunus (10): 5)		QS29
Supporting small enterprises (An-Nisa' (4): 29)	Supporting and accommodating various economic activities	QS30
Promoting a local business (Al-Hasyr (59): 7)		QS30
Supporting employment productivity (Az-Zumar (39): 39) (Al-Qasas (28): 26)		QS31
Reducing the cost of service and facilities (Yusuf (12): 47)		QS32
Providing equal opportunities for men and women in economic life (Ar-Rahman (55): 10-12)		QS33
Strengthening livelihood resilience (Al-Qasas (28): 23-27)		QS34
Employment and business opportunities (Al-A'raf (7): 10)		QS35
Ensuring inclusive and participatory decision making (Al-Ma'idah (5): 2)	Inclusive community involvement in decision-making	QS36
Community involvement in decision making (Al-Imran (3): 159)		QS36
Developing clear street national policies (Al-Baqarah (2): 256)		QS37
Promoting inclusive institution and the rule of law and guaranteeing equal access to justice (Al-Ma'idah (5): 8)		QS38
Total		38

Table 2. Biophilic Street (BS) Indicators

INDICATORS	CLASSIFICATION	CODE
Creating an air purificator by installing city trees [5]	Improving air quality by providing greeneries	BS1
Providing full greenery streets to increase air quality [5]		BS1
Reducing air pollution and optimizing air quality [13]		BS1
Sequestering carbon by using greenery as the carbon reducer/controller [5]		BS1
Optimizing stormwater management by using greenery for water retention and purification [5]	Increasing water quality, availability, and preservation by using greenery	BS2
Improving water management (stormwater management, water recycling, and water runoff quality) [14]		BS2
Reducing water pollution [15] [16]		BS2
Establishing good energy management by making the greeneries the canopies for pedestrians and thermal control [5]	Increasing thermal comfort by providing greeneries	BS3
Optimizing thermal comfort [17]		BS3
Making street thermal cooler for walking by planting greeneries as the canopies [5]		BS3
Reducing the urban heat (island effect) and energy consumption by making the thermal controller greenery [5]		BS3
Enhancing biodiversity management by providing parks and gardens with various greeneries [12]	Improving biodiversity and providing habitat for animals by offering parks/gardens with various greeneries	BS4
Improving biodiversity (species diversity preservation and regeneration) [18] [19]		BS4
Providing habitats for animals in urban areas [17]		BS4
Decreasing energy consumption [20] [21] [22]	Reducing energy consumption using greenery	BS5
Reducing energy consumption through vegetative climatic effects [21] [23]		BS5
Enervating noise [15]		BS6
Sensitive to local topography [24]		BS7
Greening major transport corridor [12]	Having a green area with a certain percentage	BS8
Greening utility corridor [12]		BS8
Providing pedestrian zones, bike paths, and sidewalk gardens [12]		BS9
Buffers between roads: for cyclist and pedestrian paths using suitable greeneries [5]	Providing complete streets with integrated gardens consisting of various greeneries	BS9
Integrating street furniture with green features [5]		BS9
Integrated gardens on the street [5]		BS9
Green street [5]		BS9
Vegetated swales and skinny streets [12]		BS9

INDICATORS	CLASSIFICATION	CODE
Protection against traffic accidents, crime, violence, and unpleasant sensory by providing spaces with biophilic design interventions [5] [25]	Providing safe streets through the application of biophilic design	BS10
Decreasing violence and crime rates [26]		BS10
Providing activity and educational points on the street integrated with green features [5]	Accommodating various social activities through the application of biophilic design	BS11
Opportunity to do many kinds of activities with biophilic design interventions as the main elements [5] [25]		BS11
The presence of collaboration in the design [27]	Enhancing community participation and collaboration	BS12
Allow professional institutions and organizations to work together [28]		BS12
Providing psychological rejuvenation [29] [30] [31] [32]	Increasing healing rates and positive emotions	BS13
Reducing stress and tension [33]		BS13
Increasing healing rates [34]		BS13
Enhancing positive emotions [35]	Increasing environmental awareness [36] [37]	BS14
Increasing environmental awareness [36] [37]		BS14
Considering gender aspect in the design [38] [39]	Increasing retail potential [40]	BS15
Increasing retail potential [40]		BS16
Creating high-quality workers when the work desks are angled to natural street view [41]	Increasing worker quality with biophilic design interventions as the main elements	BS17
Increasing worker productivity [13] [42] [39]		BS17
Reducing energy and construction material costs [43]		BS18
TOTAL		18

WALKABLE STREET

Walking is the basis of sustainable urban mobility to decrease motorization [44]. Walkable street emerges as a response to promote walking as the best solution mainly to air pollution caused by vehicles, global climate change, and energy exploitation. Therefore, the walkable street gives many features to increase the walkability. Those features are shown in table 3 as the walkable street indicators. It has 13

indicators to make pedestrians love to walk in their city, such as providing a lively walking environment [45], creating social interaction [46], and the presence of public transport [47]. Most of the indicators are put on the physical and social aspects because they directly impact the pedestrians. As the biophilic street, the walkable street also does not pay attention to the political issue; it wants to meet the pedestrian needs [4].

Table 3. Walkable Streets (WS) Indicators

INDICATORS	CLASSIFICATION	CODE
Comfortable microclimatic conditions [48]	Providing a complete street	WS1
Creating a sustainable space [46]		WS2
Providing parking areas [47]		
Cultural elements (high presence of cultural elements or convivial points) [47]		
The presence of aesthetical elements [47]		
Environments have full pedestrian facilities [45]		
Providing many aesthetically pleasing elements [45]		
Street improvements led to an increase in pedestrian volume and influenced walking experiences [46]		
Improving pedestrian facilities resulted in improved neighbourhood quality [46]		
Creating broad green areas with shaded pathways, underground parking, and bicycle lanes [46]		
A new complete street renovation can attract people's interest [46]		
Enhancement of current infrastructure for pedestrians [46]		
The street environment needs to be anthropometrically and ergonomically sensitive [49]		
Satisfying the individual's basic day-to-day needs by providing many facilities [4]		
Attractive, lively, and friendly environments [45]		
Built environment factors influenced decisions to walk for short trips [46]		
Providing an exercise-inducing environment with many supported features [45]		
Providing a sensory experience of the street that derives pleasure [50]		

INDICATORS	CLASSIFICATION	CODE
Ease of access to the destination [47]	Providing high connectivity and easy access to streets	WS4
Street connectivity (high number of connections to other links) [47]		
High continuity pathways [47]		
High directness path [47]		
Increasing path performance [47]		
Access to the destination with proper space to walk [4]		
Allowing people to get from one place to another without significant impediments [45]		
Providing short distances to destinations for those who are walking for utility [45]	Providing sustainable public transport options	WS5
Well-connected street [46]		
Providing sustainable transportation options [45]		
Presence of public transport [47]		WS6
Street vitality (the liveliness of a street) [47]		WS7
Street traffic (lower vehicular traffic) [47]	Providing safe and comfortable streets	WS8
Increasing personal security [47]		
Safety from crime and traffic injuries on the street [4]		
Ensuring people's safety [46]		
Safe from any harm [45]		
Street design elements could reduce pedestrian collisions [46]		WS9
Creating social interaction [46]		WS10
Built environment attributes can highly increase community health [46]		WS11
Places that shape community attitudes and establish a sense of belonging [51] [52]		WS12
The provision of access for all pedestrian types to encourage walking [46]		WS13
Enhancing the socio-economic community [46]		
TOTAL		13

LIVABLE STREET

Today, the streets are dangerous, polluted, and noisy. Pedestrians only have little things to do: walking without comfort. They are controlled and managed only by the government or agencies. The residents are unable to create a clean, pleasant, and sociable environment in their territory [53]. These phenomena cause the notion of the livable street to occur. It demands not only the streets that make pedestrians

can do many things, for example, walking, talking, drinking a cup of tea, and reading a book. However, these also give them a chance to participate in making the street better and more livable. Overall, the livable street has 17 indicators in all aspects shown in table 4. It also has a big concern for the social or human-related aspects with seven indicators because it has a strong relationship with the livability of the streets.

Table 4. Livable Street (LS) Indicators

INDICATORS	CLASSIFICATION	CODE
Reducing air pollution [54] [53]		LS1
Street tree acts as an environmental quality enhancer [55]		LS2
Cutting noise level [48] [53]		LS3
Street acts as a green and pleasant land [53]		LS4
There could be more pathways that are well-designed and efficient for cyclists, pedestrians, and more public transit services built among the long-distance destinations [55]	Providing a complete street	LS5
Increasing density and completing street infrastructure [56]		
Street acts as a sanctuary [53]		
Increasing pedestrians volume, which is still meeting up the comfortable rate of pedestrian traffic [54]		LS6
Providing various transportation options [57]	The street has a cultural value and uniqueness	LS7
The street has a cultural value and uniqueness [57]		
Street viewed as unique history [53]		
Reducing traffic injury and fatality rate [54]	Providing safe and comfortable streets	LS8
Pedestrians can walk comfortably [58]		
Children can play safely [58]		
Motorized vehicles use the street with restricted speed and less domination of the street [58]		
Street should be safe and comfortable by controlling the travelers' behavior [57]		
The street shall be a comfortable setting where people of different ages, knowledge, and other groups can learn and perceive the nature and social connections in the neighborhood [59]		

INDICATORS	CLASSIFICATION	CODE
People can enjoy spending time on the streets in a variety of activities [54]	Accommodating various social activities	LS9
Enhancing the social interaction on the streets [54]		
Providing space for various activities besides traffic [58]		
Street acts as a place to play and learn [53]		
Increasing human activities and interactions [55]	Enhancing community participation and collaboration	LS10
Needs all different stakeholders' cooperation and involvement [55]		
Establishing community participation in creating a livable street [57]		
Giving residents the freedom to change the functions of the space and reforming the space with different needs and creativity [60]	Increasing healing rates and positive emotions	LS11
The street has a healthy environment [57]		
Decreasing the risk of obesity [54]	Increasing public awareness and ownership	LS12
Raising the feeling of ownership to the streets [54]		
Increasing the society's awareness of the environment [57]		
Encouraging residents to use the public space on the street [60]	Providing streets for all (all users and genders)	LS13
Streets that attract a diverse cross-section of the population (women, children, elderly, disabilities) [54]		LS13
Disabled people are also able to use facilities and move around freely [58]	Street acts as community space	LS14
Street acts as a community space [57]		
Street acts as a community [53]		
Street acts as neighborhood territory [53]		
Supporting a strong local economy [54]		LS15
Improving economic competitiveness [57]		LS16
Coordinating and improving policies and investments [57]		LS17
TOTAL		17

SUSTAINABLE STREET

Urban street design is not only about providing an attractive visual image of the city or people can have a walking trip comfortably. When the street implements the sustainable value, it comes to a broader range: the community development in terms of environmental, social, and economic aspects [61]. The quality of physical and visual elements of the street would be better if the sustainable principle could be implemented in the environmental, social, and economic aspects very well. In other words, the quality of the physical and visual elements of the street depends on the quality of the environmental, social, and economic elements. Table 5, containing the

indicators of the sustainable street that are founded on the study literature, shows that they do have a fundamental role in realizing community development. It has been proven that there are ten indicators in the environmental aspect, five indicators in the social aspect, and two indicators in the economic aspect. In total, it has 22 indicators. Furthermore, the physical aspect also has a crucial role in community development because five indicators are considered to support it. In summary, all the elements: environmental, physical, social, and economic elements, cannot be separated to embody the sustainability of the street.

Table 5. Sustainable Street (SS) Indicators

INDICATORS	CLASSIFICATION	CODE
Improving air quality [61]	Improving air quality	SS1
Reducing carbon [61]		
Optimizing stormwater management [62]	Increasing water quality, availability, and preservation	SS2
Using native plant materials to reduce water usage [61]		
Reducing urban heat in islands [63]		
Reducing energy usage [61]	Reducing energy consumption	SS4
Increasing tree canopy to provide savings concerning energy [61]		
Reducing consumption of material resources [64]		SS5
Reducing noise level [61]		SS6
Reducing light pollution [61]		SS7
Integrating streets with natural systems at all scales [65]		SS8
Respecting the existing natural and built environment [65]		SS9
Using sustainable materials [64] [61]		SS10
Reducing impacts on environmental resources [66]		

INDICATORS	CLASSIFICATION	CODE
Developing complete streets [61]	Providing a complete street	SS11
Using cohesive design elements [61]		
Major streets are designed and appropriately spaced [65]		
Improving accessibility [61]	Providing high connectivity streets that improve mobility	SS12
Connecting all types of streets [65]		
Coordinating multiple networks connections and creating a quality environment where they overlap [65]		
Well-connected streets that improve mobility [65]	Providing various transportation options that create harmony with other transportation networks	SS13
Maintaining the walking distance of the residents to alternative transportation [61]		
Maximizing transportation choice [65]		
Creating harmony with other transportation networks [65]	The street has a cultural value and unique identity	SS14
Accommodating many different travel modes [65]		
Protecting and enhancing historic character [67]		
Encouraging arts to serve as a way to create street identity [61]		SS15
All streetscape elements should be aesthetically pleasing to improve the visual image of any city [64]	Providing safe and comfortable streets	SS16
The street is easily understood by residents and visitors that allows them to move about in the city with ease [64]		
All streets are safe and walkable [65]		
Promoting security and safety [67]	Accommodating various social activities	SS17
The street has to be designed and furnished for the comfort and safety of all [64]		
Designing the street as a place that promotes community interaction [61]		
Emphasizing walking as the fundamental unit on the streets [65]	Increasing healing rates and positive emotions	SS19
The street must be designed as a livable space where people can see other people and be seen, where they can meet and interact [64]		
The street must be designed as a livable space where people can see other people and be seen, where they can meet and interact [64]		
Employing local artists to participate and contribute to the design [61]		SS18
Improving the health of society [61]	Supporting and accommodating various economic activities	SS21
Supporting healthy urban communities [64]		
Streets that support communities and places [65]		
Providing connective tissue to create a more coherent district and strengthen the brand [61]	Employment and business opportunities	SS22
Streets that attract and sustain economic activities [65]		
Providing jobs for inhabitants and business opportunities [68]		
Encouraging new jobs in the community [61]		
TOTAL		22

DEMOCRATIC STREET

The democratic street is a good street that has meaning for people, is accessible for all, promotes participation and awareness, and is well maintained by the users [60]. Table 6 shows that democratic street has nine indicators. Most indicators are in the social and environmental aspects. Although it prioritizes

human matters, it believes that the ecological quality also directly affects users. When the street environment is good, it will increase the social value on the street related to humans. The democratic street also has no notes associated with the political problem.

Table 6. Democratic Street (DS) Indicators

INDICATORS	CLASSIFICATION	CODE
Providing good air quality [69] [70]		DS1
Involving adequate shading from the hot summer sun and extreme temperatures, as well as solar access during cold days [60]		DS2
Limiting the noise [69] [70]		DS3
Providing a green street [69] [70]		DS4
Traffic Management: control of traffic speed contributes to one's attachment to or detachment from a residential street [58]		DS5

INDICATORS	CLASSIFICATION	CODE
Real and symbolic control: Streets have a democratic role when people feel a sense of control over them [71]	Providing safe and comfortable streets	DS6
Safety/security: streets must strike an appropriate balance between safety and qualities [60]		DS6
Comfort: A street needs to be comfortable to be democratic [60]		DS6
Accessibility: a space is "open" only when it is publicly accessible [72] [73]	Accommodating various social activities	DS7
Ground floor-street relationship: social connection links ground floor building uses to the adjacent street space [74]		DS7
Environmental learning and competence: The street should be a comfortable setting where children's, teens', and the elderly's learning activities can take place naturally [60]		DS7
Conflict: streets will unavoidably invite conflict because democratic streets require greater users' participation and negotiation [60]	Enhancing community participation and collaboration	DS8
Participation/modification: Direct participation of street users in the design and management processes will help people establish an ongoing attachment to the streets [60]		DS8
Love: Streets need to be loved. Although it is difficult to measure, meaning and memorability are hallmarks of a successful street [60]		DS9
Use and user diversity: Healthy streets are used by different people for a variety of activities [60]		DS10
Economic Health: A democratic street is one where businesses and land values prosperity and where abandonment, vacant lots, and disinvestment are discouraged [60]		DS11
TOTAL		11

COMPLETE STREET

A complete street is designed for all street users (drivers, bicyclists, transit vehicles and users, and pedestrians) of all ages and abilities. It also ensures that there is always community participation in street policy changing, so they consider routinely during the streets' planning, designing, building, and maintenance

[6]. Just like its name, the complete street is literally complete. Table 7 proves it. It has 12 indicators spread in all aspects. Most indicators are in physical and social elements. It believes that the design criteria should consider all street layers to create a good street because one and another have a strong relationship and impact on each other.

Table 7. Complete Street (CS) Indicators

INDICATORS	CLASSIFICATION	CODE
Reducing carbon dioxide emissions [75]		CS1
Constructing cool air towers in the selected street locations [76]	Increasing outdoor thermal comfort	CS2
Using water coolers (sprays) in some walkways [76]		
Using weather-friendly (heat reduction) street pavements and pedestrian furniture [76]		
Wide sidewalks with street trees for shade [56]	Providing a complete street	CS3
On-street parking to separate the pedestrian realm from vehicle traffic [56]		
On-street bike lanes [56]		
Providing shade by trees, buildings, and artificial covers [76]		
Improving bicycle and pedestrian LOS (level of service) significantly while minimally affecting automobile LOS [77]	Providing high connectivity streets	CS4
Having large numbers of bicycle lanes, sidewalks, and other walkability/bike-ability features [78]		
Enhancing neighborhood and street designs to reduce walking distances for residents' activities and public facilities [76]		
Reducing waiting times for traffic lights at pedestrian street crossings [76]		CS5
A variety of traffic-calming design elements, such as curb extensions (bulb-outs) at intersections, is used so that vehicles can turn slowly and to shorten the pedestrian crossing distance [56]		CS6
Safe for all street users (cyclists, pedestrians, drivers, transit vehicles, and users) [6]		CS7
The Partnership for Active Communities, a local organization, supports increased walking and bicycling [79]	Increasing healing rates and positive emotions	CS8
Improving the health of vulnerable and marginalized populations [80]		
Improving health through active modes of transportation [78]		
Extending the benefits of walking more equally to both genders [81]		CS9
Building a complete street does not need to be prohibitive [82]	Cost efficiency for construction and maintenance	CS10
The ability to allow municipalities to prioritize streets for infrastructure investments [83]		
The compatibility of policy innovation with a community's needs, social norms, values, and beliefs in increasing the likelihood of adoption and further diffusion of policies across communities [78]		CS11

INDICATORS	CLASSIFICATION	CODE
Promoting complete street policy and procedural changes at the federal, state, and local level [6]	Developing street policy and strategy	CS12
Developing strategies for policy development to reach the completeness of a street [83]		
TOTAL		12

USER-FRIENDLY STREET

User-Friendly street should be friendly for all users and caters to different functions [84]. It is a public space that has a livable and walkable environment for pedestrians, including women, men, children, elderly, and families. Table 8 shows that a user-friendly street has seven indicators related to environmental, physical, and social elements to create

a user-friendly environment. As a street that provides a comfortable and safe environment, it needs indicators related to environmental and physical aspects. The user-friendly street does not include the economic and political aspects as the element to create a user-friendly environment because it assumes that both aspects do not affect the street users.

Table 8. User-Friendly Street (US.) Indicators

INDICATORS	CLASSIFICATION	CODE	
Reducing the pollution [84]	Improving air quality	US1	
Reducing the bad odor [84]			
Presence of covered ways/shade and other protection from sun and rain [85]	Increasing outdoor thermal comfort	US2	
Breezy and suitable temperature [84]			
Reducing noise transmission [84]	The street has proportional dimensions and safe crossing device for all purposes	US3	
Having proportion and dimension that realize the ease of movement, safety, sun, wind flow, and military access [86]		US4	
Safe crossing devices [84]		Providing high connectivity streets	US5
Easy access to reach by foot: related to a safe environment and is dependent on the conditions of the walkway, well connected to the path, services and facilities, wide, flat footways, and no clutter blocking pedestrians' movement [87]			
The proximity or commuting distance from the user's place of work and home [84]	Providing safe and comfortable streets	US6	
Having high accessibility and linkage [87]			
Having unity and quality of view [88]			
Respect for the attributes of comfort and convenience can attract more users to the street [84]	Providing safe and comfortable streets	US7	
The street must offer a 'sense of comfort' and be pleasing [86]			
Supporting safety and security [89]			
Having a valuable characteristic of transparency which is essential to give a sense of comfort and safety to the users on the street [86]			
TOTAL		7	

Table 9 illustrates the indicators mapping of the eight street concepts (Quranic, biophilic, walkable, livable, sustainable, democratic, complete, and user-friendly street) and identifies the relationship among indicators. Overall, to solve the street problems comprehensively, the implementation of Quranic street indicators is needed because it has the highest numbers of indicators covering all the street problems. Without the Quranic street, the other seven street concepts (biophilic, walkable, livable, sustainable, democratic, complete, and user-friendly street) are

required to work together to tackle all the street problems. From this analysis, Quran gives new inspirations for urban street concepts. The new indicators appeared that have not been thought of by other street concepts are realizing the importance of time (QS29), strengthening livelihood resilience (QS34), promoting inclusive institutions and the rule of law, and guaranteeing equal access to justice (QS38). It means they can minimize the indicators deficiency by filling the holes and providing a more comprehensive urban street concept to solve street problems.

Table 9. Street Concepts Relationship Mapping

Quranic Street	Biophilic Street	Walkable Street	Livable Street	Sustainable Street	Democratic Street	Complete Street	User-friendly Street
QS1	BS1		LS1	SS1	DS1	CS1	US1
QS2	BS2			SS2			
QS3	BS3	WS1		SS3	DS2	CS2	US2
QS4	BS4		LS2				
QS5	BS5			SS4			
QS6	BS6		LS3	SS5	DS3		US3
QS7	BS7						
QS8				SS6			
QS9				SS7			
QS10				SS8			
QS11				SS9			
QS12				SS10			
QS13		WS2					
QS14	BS8		LS4		DS4		
QS15	BS9	WS3	LS5	SS11		CS3	US4
QS16		WS4		SS12		CS4	US5
QS17		WS5	LS6	SS13			
QS18		WS6					
QS19		WS7			DS5	CS5	
QS20			LS7	SS14			
QS21				SS15			US6
QS22	BS10	WS8	LS8	SS16	DS6	CS6	US7
QS23	BS11	WS9	LS9	SS17	DS7		
QS24	BS12		LS10	SS18	DS8	CS7	
QS25	BS13	WS10	LS11	SS19		CS8	
QS26	BS14	WS11	LS12		DS9		
QS27	BS15	WS12	LS13		DS10	CS9	
QS28			LS14	SS20			
QS29							
QS30	BS16	WS13	LS15	SS21	DS11		
QS31	BS17						
QS32	BS18					CS10	
QS33			LS16				
QS34							
QS35				SS22			
QS36			LS17			CS11	
QS37						CS12	
QS38							

CONCLUSION

Quran is the guidance for human life. It consists of many noble values, so they are very flexible to be implemented in all aspects of life. Quran rules how to make a better environment, including how to make a better street that can solve all the street problems. This research disenchant us that Quran can be the source of inspiration for urban street concepts.

Based on the relationship mapping indicators (table 9), it can be identified that the seven street concepts (sustainable, biophilic, livable, walkable, complete, democratic, and user-friendly) should work together to solve all the street problems holistically. They must combine all the indicators and solve all the street problems if the Quranic street is not used as the

problem solver. At the same time, Quran presents three new indicators (QS29, QS34, QS38) to enrich the indicators of the urban street concept.

Based on this result, the existing urban street concepts can always be developed to provide more comprehensive solutions to tackle all street problems. Quran is supposed to be always studied to dig up many precious values that are precisely related to our life and knowledge. By doing this, we would remember the greatness of Allah and strengthen our faith.

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