The Riyadh City Center: Lessons to Be Learned

Khalid Bin-Skait Alskait

Assistant Professor, College of Architecture and Planning
King Saud University, P.O.Box 57448, Riyadh 11574, Saudi Arabia

Abstract. The Riyadh City Center (RCC) has witnessed massive redevelopment and investments in the last two decades yet it is not considered a strong city center. High quality urban development that emphasizes institutional buildings cannot alone enhance the attraction of city centers. The lack of providing for a holistic approach that includes all relevant factors with particular emphasis on public transport accessibility might be responsible for the weakness of the RCC. However, the general satisfaction of the RCC visitors toward its development suggests that there is a good chance to make the RCC a stronger city center*.

Background: Riyadh and Its Massive Growth

Riyadh, the capital of Saudi Arabia, has grown exponentially in the last few decades. The population of the city has increased dramatically since the 1970s. The oil boom of the 1970s has no doubt played a major role in such growth. Most of this growth was due to migration from within and outside the Kingdom. As the capital of the Kingdom, Riyadh has had a comparative advantage over other Saudi cities. Major government institutions are located in Riyadh and therefore government jobs (which attract most Saudis) were relatively abundant there. The population of Riyadh continued to increase, based on the records of the last 10 years, at a rate of 8.8% per year. As of 1997 the population reached 3.3 million.

^{*} There will be no citation of sources for diagrams and tables in this paper, because all of them were developed by the author. With respect to maps, they were developed by the author based on earlier Riyadh maps which were originated by different sources.

Based on a lower 5.5% growth rate, it is expected that by the year 2010 the population will grow to 6.6 million (Fig. 1a). ¹

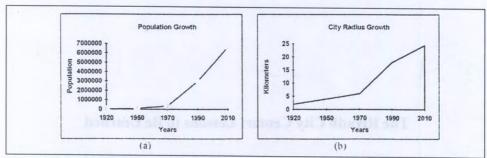


Fig. 1. (a) and (b). Population and area growth of Riyadh.

Riyadh population growth was accompanied by massive suburbanization. The city expanded in all directions especially towards the plains of the north and east sections. As in the case with the population, the 1970s witnessed the sparks of such a growth. Government policies, particularly those related to land granting and interest free loans (both provided by the government to its citizens), were the major factors behind this massive urban development. The city radius grew exponentially in the 1970s through the 1980s and 1990s but it is expected to slow down by the turn of the century (Fig. 1b). As of today, the developed part of the city amounts to 66,000 hectares and the number of dwelling units reached about 455,000. By 1997, the city covered over 1800 square km. More than 60% of this area is vacant and it can accommodate three to four million additional people by the end of the next decade. Given the above, Riyadh can be considered as a medium to low density city with a gross and net residential dwelling unit density of 12-16 and 7 units per hectare, respectively.

Riyadh City Center (RCC)

The Riyadh city center is not well defined in terms of boundaries but major investments in the central area in the last two decades have helped in providing a reasonable picture of where the center should be. Major developments, which lasted several years, have been completed in Qasr al-Hokm District (QHD)², an area located at the footprint of the old occupying about 0.5 sq.km. The QHD was the commercial center of Riyadh for many years and continues to have some trade activities. The QHD development consists of three Phases; Phase I and II have been completed (1983-1992) and they are characterized by major public investment. Phase III is in progress and the private sector is assumed to take the leading role in this stage. The QHD is located in the heart of Riyadh. Figure 2 shows the QHD and other relevant elements in the city of Riyadh.

The 5.5 % population growth rate covers the period: 1996 through 2020. It was developed by the author based on his experience as the director of the Riyadh Strategic Plan (A.H. 1416 through 1418).

Qasr al-Hokm means the Palace of Governance.

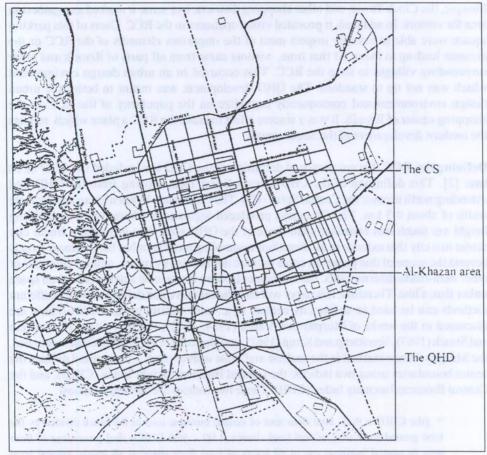


Fig. 2. Riyadh and relevant elements.

Although it did not include high-rises, the QHD development helped in defining the heart of Riyadh. The real purpose for this development is to revitalize this central district and prepare it to be the focal point of the city [1]. The major elements of the QHD are the Imarah Building (Governor's Court), the Mayoralty (the municipality), the Police Head-quarters, and the Grand Mosque. These buildings were eloquently designed and constructed. For example, the Grand Mosque (a major element of the QHD) won the Aga Khan architectural prize.

The development of the QHD occurred at the time when the RCC was at its peak as a shopping area. It was truly the focal point of Riyadh. It was a simple place with tens of small shops selling almost everything. Physically, the area has a large open chunk of asphalted land used mainly as open car parking. This parking square provided access to the Grand

Mosque, the Clock Tower, and other shopping districts; in a sense it worked as a gathering area for visitors. In addition, it provided visual openness in the RCC. Users of this parking square were able to visually inspect most of the important elements of the RCC or the avenues leading to them. At that time, visitors came from all parts of Riyadh and other surrounding villages to shop the RCC. This occurred in an urban design environment which was not up to standard. The QHD development was meant to better the urban design environment and consequently capitalize on the popularity of the RCC as the shopping center of Riyadh. It was a sincere effort to make the RCC a place which reflects the modern development of the Saudi capital.

Defining the RCC. Recent proposed definition of the CBD has included the QHD as its base [2]. This definition of the CBD takes a linear form starting from the QHD and extending north to cover the Central Spine (CS). The CS extends 15 km with an approximate width of about 0.3 km. The CS enjoys privileged regulations where limits on building height are much less restricted than those of the QHD area. The merits of a linear city center in a city that extends in all directions resembling a circle rather than a linear strip is beyond the scope of this paper. In cities that are not flanked by linear, natural elements or other man-made determinants, the city center is more likely to be a dot in the urban space rather than a line. Therefore, this paper will take the initiative and define the RCC. Different methods can be used to define city centers (e.g., core district or the CBD). These are discussed in the works of Murphy and Vance (1954, 1972), Davies (1960), Hartenstein and Staack (1967), Venekamp and Kruijt (1967), and Boweden (1971) [3]. Of those mentioned, the Murphy-Vance method is the earliest and most widely cited. This method defines the center boundaries using two indices: the Central Business Height Index (CBHI), and the Central Business Intensity Index (CBII). These two indices are defined as follow:

"...[the CBHI is the]...total floor area of central business uses in the block divided by the total ground floor area; critical level chosen, 1:00.... [the CBII is the] percentage of floor area in central business use at all levels of total floor space at all levels; critical level chosen. 50 percent"[3].

The Murphy-Vance method, and generally all other similar techniques, may only be utilized properly if a minimum amount of data (i.e., floor space data by use) is a available. Unfortunately, this is not so in the case of Riyadh. It was not possible to assemble floor space data for different uses in the study area. Therefore, assumptions and propositions are a necessity in coming up with, at the least, a crude estimate of the boundaries of the core area.

Four criteria can be used to substitute for the needed data: location, history, diversity, and government policies. In light of these criteria, few areas in Riyadh may qualify and become the candidate city center. Indeed, it is possible to narrow down the choices to one area: the QHD. It is centrally located, it has a very rich history, and if joined by surrounding areas, the QHD may have adequate population size. Al-Khazan area, located north of the

QHD, is reasonably populated and is quite suitable for this purpose. In addition, it includes some of the major old shopping areas in the city, it has a relatively large concentration of commercial uses, and it is located along the direction of commercial growth in the city (i.e., the Central Spine). However, one weakness of this area is that the present regulations are not conducive for higher density developments. For example, height regulation is much more stringent in the QHD when compared with the CS.

In any case it is essential to spatially define the study area (i.e., RCC) so that relevant data can be collected. As suggested above, the QHD and Al-Khazan area is defined here to be the RCC. This area is flanked by four major roads: King Fahad from the west, Batha from the east, Faisal Bin-Turky (Khazan) from the north, and Tarig Bin-Ziyad from the south. Based on the above discussions, this area was selected to distribute questionnaires and consequently collect the relevant data. Using this definition the RCC covers an area of about 1.7 square kilometers.³

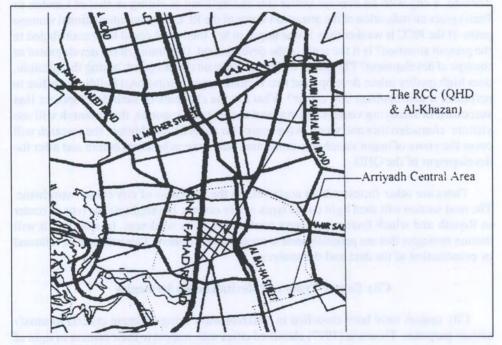


Fig. 3. The RCC and the Arriyadh central area.

³ Having defined the RCC, it is worthy to note that this definition is but an attempt in the absence of an acceptable definition of the RCC. In addition, this definition did not cover part of vibrant AL-Batha area (e.g., Al-Gurabi) because the activities there revolve around automobile parts and other hardware products.

The RCC (The QHD and Al-Khazan area) is located within Arriyadh Central Area (ACA) and south of the CS. Figure 3 shows the location of RCC, the CS, and ACA. The figure shows that the CS is more accessible than the RCC. The CS can be accessed easily from almost any direction, while the access to the RCC is very dependent on a few roads, namely King Fahad Road and Al-Batha Road.

The Problem

Despite massive investments in the RCC, the center is still weak and attracts much less visitors than expected. In a recent survey of the residents of Riyadh, about 40% of the sampled population did not visit the RCC in the last year[4]. In addition, only 2% of the total daily trips in the city terminate in the center. 4 This figure is quite low and can not sustain a vital center. For example, Toronto city center (defined by Planning District 1 according to transportation districts classifications of 1986 and 1991) attracts about 17% of the daily trips that occur within the metropolitan area [5]. Comparing Riyadh with Toronto, a city with an average center (for example not as strong as that of London or Paris) gives an indication of the attraction status of the RCC from an international vantage point. If the RCC is weaker than it was hoped to be, then what could have contributed to the present situation? Is it the scale of the development, the timing of the development or the type of development? This paper will concentrate on the last point; asking the question; does high quality urban development that include major institutional buildings suffice to revitalize a metropolitan city center? What are the elements of such development that succeeded in satisfying visitors? To respond to these two inquires, this research will use visitors' characteristics and views as the means for analysis. In addition, the research will cover the views of major merchants in the area who were in business before and after the development of the QHD.

There are other factors which contribute to the weakness of city center worldwide. The next section will shed light on the types of city centers, highlighting the type of center in Riyadh and which factors may have contributed to its weakness. In addition, it will discuss strategies that are generally used to revitalize city centers. This will then be followed by presentation of the data and the analysis.

City Center Types and Revitalization Strategies

City centers have been classified in different ways using different criteria to satisfy certain purposes. Thomson (1977) classified cities with respect to their centers in light of their transport system into five archi-types (strategies): the fully-motorized city; the weak-center city; the strong-center city; the low-cost strategy; the traffic-limitation strategy [6].

Based on the City Transportation Model utilizing the latest Household & Land Use survey of 1996.

Other recent studies have classified city centers using different approaches. The Urban and Economic Development Group (URBED) *et al.* have classified city centers based on their role and functions [7]. The URBED study classifies town centers into market towns, industrial towns, suburban centers, metropolitan cities, and resort and historic towns. Another approach is that of the Center for Urban and Regional Development Studies (CURDS). The CURDS 19 classifications were based on catchment areas, an approach which is instrumental in highlighting the difference between different towns [8].

Using Thomson archetypes, Riyadh can easily be classified as a fully motorized city with no center in the full sense of the term; about 90% of the vehicle trips in the city are made by private automobile [9]. Using the URBED classifications Riyadh is a metropolis and should have a metropolitan city center (this is clearly reflected by the major investment in the QHD).⁵

The development of the QHD relied heavily on the development of institutional buildings. Other international cities, which are automobile dependent, particularly those of America, have used several strategies. According to Robertson, these strategies include pedestrianization, indoor shopping centers, historic preservation, waterfront development, office development, special activities generators, and transportation enhancement [10]. Using Robertson's work, the following will highlight each strategy in light of the RCC experiment.

Pedestrianization is considered an essential strategy by most town planners, but the American experience suggest that a pedestrian mall will not enliven an already dying city center that has little pedestrian movement. The successful pedestrian malls are either those integrated with transit malls in larger cities or those of traditional streets in university towns. In the QHD, Al-Thumairy street, one of the most popular shopping streets in Riyadh, was converted to a pedestrian mall; this experiment turned out to be very unsuccessful and the street was reopened for vehicular traffic. With regard to indoor shopping centers, the American experience was generally successful; however, these indoor centers exerted negative effects on the surrounding area. In the QHD Al-muagiliah, a large indoor shopping center, was developed. This development was also not financially successful as the unofficial rate of return on such an investment has not exceeded the 2% markup. Historic preservation has proven to be a successful approach and several American cities benefited from it (e.g., Union Station in St. Louis). Similarly, the waterfront development approach was quite conducive to the revitalization process, and several American cities have used it successfully (i.e., Baltimore). The redevelopment of Al-Masmuk, an old gate located at the heart of the QHD, was a successful historic preservation attempt but could not alone enliven the RCC.

One should be careful not to confuse the type of a city center with its present status. For example, a metropolis may have all the physical infrastructure it needed to have a vibrant and an active metropolitan center, but in reality its center is not doing well.

Office development in American city centers was a rewarding strategy in the 1960s and the 1970s; however, today several downtowns suffer from high vacancy rates in office space. In the case of Riyadh the RCC did not include larger investments in office space. Special activities generators such as convention centers, stadiums, etc., are used in American cities as a strategy to enliven city centers. While they attract large crowds, these activities often add to dead space in downtown when not in use. The RCC does not have any of these activities. Transportation enhancement is seen by most planners as one of the most critical strategies to revitalize a city center. The American experience suggests that people avoid downtowns (with regard to transportation) for two reasons: firstly the difficulty to reach these areas, and secondly the difficulty to move around within them; the RCC is no exception.

In addition to the above redevelopment strategies, there are additional activities which have been used in different cities around the world to enliven city centers; these include housing, entertainment, and cultural activities. Moreover, the British experience suggest that city center revitalization depends greatly on four strategies: attractions, accessibility, amenity, and action [7]. Attractions refer to diversification of city center activities so that they appeal to wide range of visitors. Accessibility refers to the ease of travel to and within city center. Amenity refers the quality of urban development within city center. The action refers to turning vision into action when the public and private agencies work together as one enterprise to sustain a vital city center. A quick evaluation of the RCC in light of these four strategies suggests that the third strategy (amenity) has been accomplished.

The Data

The data for this research was drawn from three sources: existing, secondary data, informal interviews with available RCC merchants, and a full scale survey of visitors with the aim of exploring their socioeconomic characteristics as well as soliciting their attitudes toward the RCC. This survey is the primary source of data for this paper and it will be used throughout; the other aforementioned sources will be used to fill in the gaps the survey did not cover.

The survey represents a primary data base that was developed for the purpose of this research. After defining the study area as the QHD and Al-Khazan area, over 420 questionnaires were distributed systematically to visitors at selected locations. About a 60% response rate was achieved, and 250 questionnaires were collected. The survey was conducted on a weekend during the Annual Festival Sale, a time at which large numbers of residents are attracted to the QHD to benefit from numerous sales. Interviewers surveyed visitors at major attractions such as major shopping centers, the Grand Mosque, major parking lots, heritage buildings, ... etc.

The quality of the data is reasonable. For example, the survey data shows that about 63% of the visitors are Saudi and 33% are non-Saudi, a figure which is similar to the published population split in the city (69% vs. 31%). In addition, the percentage of nuclear families among the visitors is 64% which is identical to the estimated figure in the city (64%) [11]. Tables 1 and 2 show the major characteristics of the sampled population.

Table 1. Socio-economic characteristics of visitors

Socio-economic factor	Attrib	ute
Nationality	Saudi	Non-Saudi
	64%	33%
Gender	Male	Female
	98%	2%
Marital Status	Married	Single
	48%	51%
Family	Nuclear	Extended
mever, this compept and not	64%	15%
Type of residence	Villa	Apartment
Study againment printing	48%	40%

Table 2. Income and car ownership

Attribute		Categories	1911	
Income (SR / month)	< 3000	3000 - 6000	> 6000	es est
	42%	33%	20%	
Car ownership (cars / hh)	1	2	3	+3
	35%	14%	13%	9%

It is important to note that the percentages in the above table, and in subsequent tables, do not necessarily add up to 100% because of missing data. In addition, the disproportionate representation of males in this sample is due in part to the sociocultural setting of the Saudi society. Male interviewers are expected to approach male visitors (not females) due to the social norms dominating the Saudi society in general.

The Analysis

Riyadh is a city with no clear center yet major government investments suggest that it should have a metropolitan center. The following summarizes factors which contributed to the weakness of the RCC. It will then be followed by detailed analysis of the primary data.

First, the physical analysis of the QHD shows that it is heavily dominated by institutional developments. The governor's court, the mayoralty, and the police headquarters represent major institutional buildings which house public sector employees. To the west

and east of these institutional buildings lie shopping areas. On the western section of the QHD a major shopping center (Al-Muagiliah Center) was developed by a real estate company. Al-Muagiliah Center (an indoor shopping center) has a long street frontage but was constructed at a level which is at least one meter higher than the sidewalk of Imam Turkey Bin-Abdullah Street. This resulted in uninviting show windows with little attraction to pedestrians. This shopping center is served by a multi-story, underground car park. Generally, covered parking is not always the preferred strategy. For example, older people and females (especially those coming alone with their drivers) do not find these dark areas very attractive to move within or park.

On the east side of the QHD lie other shopping areas. In essence the developed plan of the QHD consists of two wings of shopping areas and major institutional body in the middle (Fig. 4). According to Beeah Consultants, who participated in the development of the initial plan, the existing plan differs from their proposed plan in one major element. That is the discontinuity of the shopping areas. Beeah proposed that the shopping areas be continuous (by linking the west and east shopping). However, this concept did not materialize, and the plan was developed with the institutional buildings located in the middle, thereby discontinuing the interior plaza from linking the western and eastern shopping.

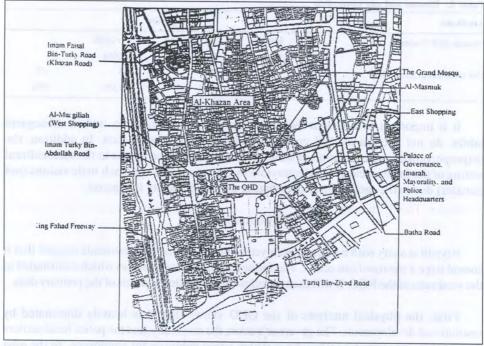


Fig. 4. The Riyadh city center (RCC).

While the QHD development, as a concept, was envisaged by the last master plan of Riyadh, this development did not seem to consider the integration of the surrounding areas. For example, if one comes to the QHD from the north via Al-Suwailem Street, a major shopping street, he will face an entry which is not very inviting. This entry is the gate of a pedestrian mall which is developed as an extension of Al-Suwailem Street into the QHD. It is flanked by two corners, the first being Al-Muagiliah shopping center with its show windows above the level of the adjacent side walk. The other corner is part of the QHD project and it is dominated by stone-like walls (Fig. 5). These two corners are the most valuable corners of this mall (where the street and the mall meet) and should have been developed to encourage attractive activities (e.g., cafes, restaurants, etc.). In summary, one may safely conclude that the QHD was developed as an architectural project rather than a planning project. While other cities have done the same, the need is greater than ever to consider the surrounding area [12].

In addition, the QHD development occurred in the absence of a well articulated, recently revised plan that considers the city center as a part of a major metropolitan area. One reason of the absence of such a plan might be attributed to the limitation of time. However,

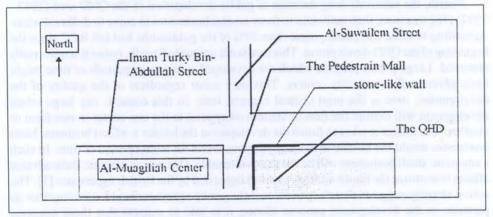


Fig. 5. The major pedestrian entry to the QHD.

the development of individual projects in the absence of a downtown plan has its drawbacks. This is the case because project success is different from planning success [13]. Project success is necessary (most of the time) but not sufficient for planning success. A well developed downtown plan is a pre-requisite for planning success in center cities.

Second, the RCC has been weakened by the general development pattern in the city and the massive suburbanization in the form of leapfrogging development [14]. Riyadh has outgrown all expectations: it more than doubled in population and geographical size in about 15 years (1980 - 1995). This was complicated by the absence of a well articulated plan to guide growth. Cities and their suburbs do not have to compete, rather they should complement each other. They should be managed, from a metropolitan vantage point, as

dependent on each other. Understanding the interdependence between cities and their suburbs is the key for success and survival of the metropolis [15]. Failing to consider this interdependence will result in several problems including the disparity of income between the city and its suburbs.

Third, the RCC and its surroundings have a high percentage of low income expatriates. These low skilled male laborers account for over one half of the population of the Arriyadh Central Area [1]. The presence of such a group reflect the disparity of income between the RCC and the suburbs. The average income of expatriate laborers is a little over SR1,000 (\$266) per laborer per month. This accounts for about 1/5 the average local household income. If one takes into account that most of these laborers, if not all of them, send most of what they earn back to their families abroad, then it is safe to say that their disposable income is quite low and consequently their purchasing power is quite limited. The absence of middle income families living in the vicinity of the RCC will make its recovery a little more difficult.

Fourth, the relatively long duration of public development in the QHD area (1983 -1992) [16] was more than sufficient to force several businesses to move to different areas. According to some merchants, more than 50% of the goldsmiths had left RCC since the beginning of the QHD development. This case is not unique to Riyadh, rather it is universally observed. Large public projects which are developed over longer periods of time might have adverse effects on city centers. This may occur regardless of the quality of the development; time is the most critical element here. In this context, any large urban development will disrupt the flow of visitors (shoppers) to the city center in one form or another. The longer it takes to finish the development the harder it affects business. Most businesses would not be able to incur continuous losses for a long period of time. In such a situation, small businesses will be the most vulrenable. One way to mitigate these adverse affects is to utilize the fourth strategy (action) suggested by the British experience [7]. The action strategy suggests that the private and the public agencies should work together as partners in the development process. Hence, it is safe to suggest that these agencies should develop a management framework which will run the city center as a corporation. If the city center is run and managed by one corporation with all relevant powers at its disposal, and if all financial gains, losses and liabilities are attributed directly to such a corporation, then the chances of sustaining a successful city center will be higher. Of course, all the above must be developed within the guidance of a downtown plan that considers the vision of the metropolis.

Fifth, present planning regulations which give privileges to competing areas at the expense of the QHD area. For example, the CS zoning regulations allow buildings to go as high as one wishes if certain requirements are met. Surprisingly, this is not allowed in the QHD area. Most downtowns around the world tend to have a skyline which peaks at the center. High density developments in city centers reflect the needs for the agglomeration

of economies which is instrumental for the prospering of downtown business.6

Sixth, the city of Riyadh is totally dependent on the automobile. About 90% of vehicle trips are undertaken by the automobile [9]. The QHD was developed with little consideration of this fact. In the absence of a good public transport system, which in turn is a reflection of the distribution and density of land uses, accessibility to the RCC was greatly weakened.

To better cover the whole picture of this research, informal interviews were conducted with available merchants in the RCC before and after the QHD development. The intention was to do a full scale survey of these merchants, but this was not possible. Many of these merchants have left the RCC after the development of the QHD, and it was difficult to track them down. In addition, several of the existing merchants are too old to interview. Moreover, only handful of those who were available were willing to participate. Therefore, such interviews are anecdotal in nature and do not necessarily represent the scientific view on this issue. Having said that, the views collected still represent a very valuable source of information for the purpose of the research.

The views of the merchants with regard to retail trade before and after the QHD development have varied in accordance with the type of business. Retail trade in traditional goods and Arabic traditional ware, such as head dresses and gowns, is still working albeit noticeable drops in sales. On the other hand, retail trade in most other goods has dropped sharply. With regard to the RCC share of sales as a percentage of the metropolitan total, the views of the merchants varied. While some business men believe that this share is less than 1%, others suggest that it could account for up to 20%. However, what they seem to agree on is the notion that the RCC share has dropped by about 70% to 90%. Again, in the absence of good sale data, the above shares should not be taken as finals and should always be interpreted within the context of this paper.

Primary Data Analysis

In light of the discussion above, this research will concentrate on exploring the characteristics and attitudes of the visitors of the QHD area. The next section will identify the study area, present the data and analyze it.

The strength of city centers can be measured via several factors: employment, sales and the percentage of trip-ends. The percentage of employment and sales taking place in

⁶ Downtown usually covers an area larger than that of the city center. In this paper the two terms are used interchangeably but assuming that the reader is aware of their differences.

According to A. Al-Sheikh who (along with his siblings) are known merchants in traditional Arabic clothing and having recently developed Al-Daffah company, a famous clothes manufacturer, their sales in the QHD area used to account for 40% of their total sales in Riyadh before the redevelopment of the city center. Today their sales hardly account for 5% of their total sales in Riyadh.

the center in comparison with the rest of the urban area are very good indicators of the center strength. The higher the percentages, the stronger the center. Likewise, the number of daily person trip-ends terminating in the center as a percentage of the total person-trips at the metropolitan level is also another good indicator; the higher the percentage the stronger the center is.

Since employment and sales data are not available, trip-ends will be treated as the best, quantifiable indicator to measure the strength of the RCC. Based on existing traffic data, only 2% of the daily trips in the city terminate in the RCC. This figure is quite low by all standards. For example, the Toronto City Center attracts about 17% of the daily person trips occurring within the metropolitan area. The smaller number of trips that terminate in the RCC is compounded by the fact that the majority of visitors come from the low income areas of the city. Analysis of the data shows that only 34% of the visitors come from the relatively better income areas of the North, Rabwah, and Rowdah. Figure 6 shows the areas of residence of visitors to the RCC. The majority of visitors come from the lower income areas located in the southern section of the city; Uraija alone accounts for 20% of the visitors of the RCC. This is also confirmed by data shown in Table 1 where about 42% of the visitors are of an an income level of less than 3,000 SR (\$860) per month. Furthermore, the data shows that 75% of the visitors drive to the center, 17% used bus transport, and 8% used other modes (e.g., walking). Table 3 shows the mode of travel of visitors by nationality (Saudis vs. Non-Saudis).

	Automobile	Bus ⁸	Other mode	Total
Saudis	61%	0.08%	2%	63%
Non-Saudis	14%	16%	6%	33%

The fact that the majority of the trips are conducted by private automobile and that a considerable portion of visitors come from the limited income area of Uraija confirms the inadequacy of public transport accessibility to the center. In this context public transport adequacy refers to the convenience of using public transportation to reach the city center. The existing pattern of urban development all over the city is not conducive for the efficient use of public transport. Urban density is relatively low and consequently the frequency of the service is low too in most residential areas receiving such a service. This made the locations of bus stops dispersed over the urban space with longer distances to walk in order to reach them. In addition, the absence of good sidewalks and the lack of any provision for shade along most streets made longer walking distances under the prevalent hot sun an effort by itself. Moreover, and based on 1994 data, about four pedestrians are hit by cars every day in the city. Therefore, walking, which is a very important portion of any public transportation trip, is not a safe exercise. It is safe to suggest that walking to and from bus

Bus refers to all public transport, buses as well as private coasters.

Recent trends suggest that the number of pedestrain hits by cars are dropping to about 2 persons per day.

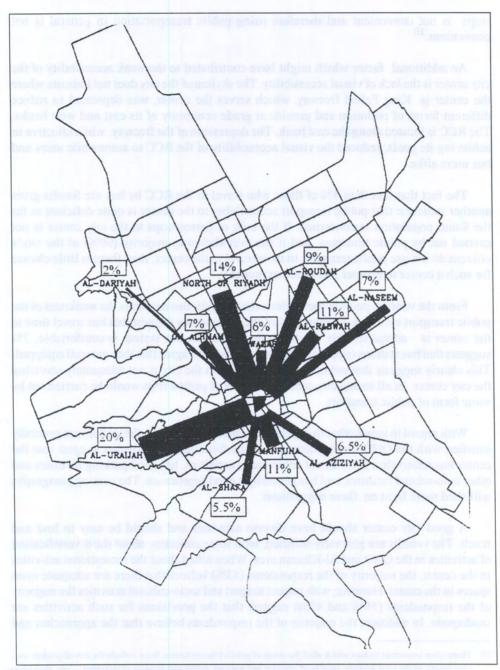


Fig. 6. Areas of residence of the RCC and percentage of visitors.

stops is not convenient and therefore using public transportation in general is not convenient. 10

An additional factor which might have contributed to the weak accessibility of the city center is the lack of visual accessibility. The skyline of the city does not indicate where the center is. King Fahad freeway, which serves the center, was depressed to reduce different forms of pollution and provide at grade continuity of its east and west banks. The RCC is located along the east bank. The depression of the freeway, while effective in achieving its goals, reduced the visual accessibility of the RCC to automobile users and bus users alike.

The fact that less than 1% of those who travel to the RCC by bus are Saudis gives another indicator that public transport accessibility to the center is quite deficient as far the Saudi population is concerned. If the bulk of person-trips to the city center is not carried out by public transport, and if the overwhelming majority (99%) of the city's citizens do not use public transport in their travel to the center, then there is little chance for such a center to prosper and function properly.

From the vantage point of the visitors, the analysis also confirms the weakness of the public transport system. Less than 10% of the respondents suggest that bus travel time to the center is adequate; only 2% think that using the bus system is comfortable; 7% suggests that bus stations (stops) are easy to find, and 4% agree that they are well equipped. This clearly suggests that public transport service in the city is not adequately servicing the city center. In all strong city centers, the bulk of person trips would be carried out by some form of public transport.

With regard to issues other than public transport accessibility, the visitors are generally satisfied with the QHD development and its performance. The visitors suggest that the center has relatively a good mix of commercial activities, has good parking facilities and other auto-related facilities, and has generally a good appearance. The coming paragraphs will shed more light on these suggestions.

A good city center should have diverse activities and should be easy to find and reach. The visitors are generally satisfied, with some concerns, about the diversification of activities in the QHD and Al-Khazan area. When asked about the recreational activities in the center, the majority of the respondents (53%) believe that there are adequate open spaces in the center. However, with respect to sport and socio-cultural activities the majority of the respondents (58% and 45%) suggest that the provisions for such activities are inadequate. In addition, the majority of the respondents believe that the approaches and

There other important factors which afect the usage of public transportation; these include the out-of-pocket cost, time length of the total journey, quality of vehicles and stations, safety and security of the users,... etc. However, the paper emphasized inconveince as a leading cause of not using public transportation.

the signage system leading to the center are adequate; although about one-half of the respondents agree that the roads leading to the center are congested.

With regard to travel time and automobile accessibility the visitors are satisfied. About 1/3 of the visitors travel less than 15 minutes to reach the center. Figure 7 shows the cumulative percentage of travel time to the center. It is clear from the figure that the majority of visitors (80%) travel less than 30 minutes; this might suggest that the center is relatively accessible to all non-captive city residents. In addition, about 80% of the visitors traveled directly from their homes to the center; in other words, the purpose of their trips was to visit the center.

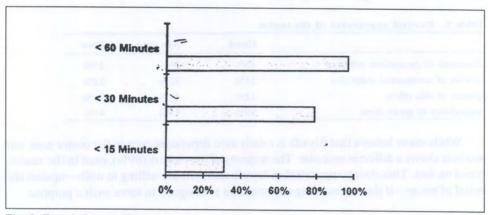


Fig. 7. Travel time to city center.

With respect to parking and the ease of moving around in the center, the majority of the visitors are satisfied. Table 4 shows the respondents' view regarding parking availability, security in parking lots, availability of pedestrian facilities, availability of good signs, and the quality of the sidewalks. It clearly shows that the quality of parking facilities and other related services are satisfactory in general. However, some have expressed reservations on the available covered parking in the QHD. For example, females do not want to be alone with a male driver in a dark covered parking lot. In addition, older people also hesitate to drive into covered parking because it is dim and confusing.

Table 4. Parking and other facilities

1310 531	Good	Average	Poor
Parking	36%	43%	21%
Security	45%	38%	16%
Pedestrianization	32%	45%	22%
Signs	26%	44%	28%
Sidewalk	38%	33%	27%

In addition, the majority of the respondents agree that accesses to the center has improved greatly in the last year when compared with the last 3 to 5 years. This of course relates to drivers and not to captive users, as 75% of respondents drive to the center.

When compared with other sub-centers in the city, the RCC has generally a good visual appearance. Table 5 shows how the respondents feel about the visual appearance of the center. In general, the study area is visually satisfactory: path ways are relatively clean (only 25% of the visitors disagree), and quality of the commercial sidewalks and side alleys are satisfactory in general. However, the study area is quite poor in public green areas (about 45% of the respondents agree).

Table 5. General appearance of the center

	Good	Adverage	Poor
Cleanness of pedestrians pathway	45%	29%	25%
Quality of commercial sidewalks	35%	35%	28%
Quality of side alleys	22%	41%	35%
Availability of green areas	19%	35%	45%

While many believe that Riyadh is totally auto dependent even in the center area, our analysis shows a different outcome. The majority of the visitors (69%), once in the center, travel on foot. This clearly suggests that Riyadh residents are willing to walk—against the belief of many—if the surrounding environment is designed to serve such a purpose.

Conclusion

This research has explored the present status of the Riyadh City Center (RCC). It showed that it, like other international cities, suffers from a weak center despite major public investment and commitment. The research shows that no one clear cause has resulted in the present situation. Several factors, including transport accessibility along with the scale, the nature, and the timing of the QHD development have contributed to its present status. The RCC is weak and attracts a small percentage of the city population. Transport accessibility seems to be a critical element in this context. Both the percentage of trips terminating in the center and the visitor views of public transport performance confirm this conclusion. The inadequate accessibility of public transport to the center was furthered by an urban environment characterized by massive suburbanization, high dependence on the automobile, and an unfavorable regulatory system in the city center area.

In addition, lack of green space accompanied by lack of some sport and sociocultural activities have also contributed to the weakness of the RCC. Moreover, the present types of activities, which appeal more to lower income groups, might also have contributed to the center weakness.

Despite all the weaknesses of RCC, the primary data used in this research clearly shows that the visitors are generally satisfied with the developments in the RCC. This suggests that the RCC has a good chance to prosper. People make places and if they are satisfied with RCC albeit its cons, then revitalization is possible. What the RCC is badly needing is a new plan that takes into account some of the points and findings suggested in this paper. More research on this topic is important before any attempt of revitalization.

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مركز مدينة الرياض: الدروس المستفادة

خالد بن سكيت السكيت أستاذ مساعد، كلية العمارة والتخطيط، جامعة الملك سعود، ص.ب ٥٧٤٤٨ الرياض ١١٥٧٤، المملكة العربية السعودية

ملخص البحث. لقد شهد مركز مدينة الرياض استثمارات ضخمة خلال العقدين الماضيين كانت في شكل إعادة تطوير لهذا المركز ولكن ما زال مركز المدينة غير قويا في جذب الزائرين بالمستوى المأمول. فالتطوير العمراني عالي المستوى مع التركيز على المباني المؤسسية لم يكن كافيا في جعل المركز أقوى جذب الممتسوقين والزائرين. إن غياب المعالجة الشمولية في التطوير وعلى الأخص فيما يتعلق بتطوير النقل العام لخدمة مركز المدينة يمكن أن يعزى إليه ضعف المركز. وعلى أي الأحوال فقد وجدت هذه الورقة أن غالبية المتسوقين والزائرين لمركز المدينة راضين عن مستوى التطوير الذي تم فيه مما يوفر فرصة جيدة لتقويته من خلال سياسات ومعالجات تخطيطية وعمرانية خاصة.