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## **PEOPLE'S AGES AND THE EFFECTIVENESS OF USING ACTIVITIES IN THE BUILT ENVIRONMENT OF COMMERCIAL STREETS**

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### **Abstract**

Streets are the most public of all city spaces and are utilised by all users. Therefore, activities are vital in persuading people to use the streets and in presenting the image of the city. The relation between people's ages and the used activities of the commercial streets has declined due to the poor physical environments in the local context. Streets have become progressively unpleasant, unsuitable in terms of functions, and have also become a disagreeable environment. This represents the problem statement of this research. The objective of this paper is to examine the relationship between activities on commercial streets and the different age groups of the users. This study focuses on the local context of Mawlawi Street, which is one of the major shopping streets in Sulaymaniyah city centre, Iraq. This paper used a quantitative methodology via a survey of users (n = 330). The data were analysed using frequency, mean value, percentage, and chi-square statistics. The results show that cultural activities were the most important for its users, while social activities were the least important, with businesses in the middle. The majority of the users were in the young-adults age category. The research gives a good overview of the types of activities which encourage high street usage, and which activities need to be improved or added.

**Keywords:** Age, Activities, Street, Commercial, & Environment

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## **INTRODUCTION**

Understanding the activities that occur on the streets is a vibrant design factor that creates and proposes novel ideas for the sustainable development of commercial streets. This statement is supported by several researchers, who stressed the importance of street activities to exploit future designs of a pleasant street environments (Abdul Rahman & Md Sakip, 2015; Rahman et al., 2015; Rahman, Sakip, et al. 2018; Rahman, Shamsuddin, et al. 2018). According to Rahman et al., (2018), a mixture of activities and use can generate great streets, public spaces, and successful communities. Therefore, streets should be designed to suit the various activities of users including social, economic, commercial exchanges, and ceremonial activities (Al-Obeidy & Shamsuddin 2015; Musaab et al., 2018; Musaab Sami Al-Obeidy 2017).

## **RESEARCH BACKGROUND**

People's activities on streets depend on their reasons for using streets as well as on the qualities and characteristics of the public environment. People use streets for their social, cultural, and leisure activities, and for travel, shopping, playing, and meeting other people (Ja'afar & Harun 2018; Musaab Sami Al-Obeidy 2017). Indeed, streets are the fundamental public space for diversified activities in every city and the lifeblood of social, environmental quality, commercial and economic exchange (Al-Obeidy & Shamsuddin 2015; Handoyo & Wijayanti 2021; Musaab Sami Al-Obeidy 2017). One of the most significant physical spatial elements of a city characterised by a vibrant environment is the variety of activities that take place on its streets (Chua & Ahmad 2021; Khalaf & Ja'afar 2020; Rahman et al. 2015). These diverse activities of different groups within a community that are carried out in the street are vital attributes to the functional characteristics of urban places (Al-Obeidy & Shamsuddin 2015).

Al-Obeidy et al., (2015) asserted that people use streets for social and commercial exchange and encounters, for communication, movement, and business, for politics and open public activities, and for ceremonial and symbolic functions. Renaningtyas (2018) and Jacobs (2013) described robust streets as multi-modal spaces that accommodate a wide range of users with different modes (cyclist, pedestrians, owned-cars, and public transports) to provide choice, create activities along the street and to make streets safe and friendly for users. Rahman et al., (2018) found that besides social activities, commercial activities and the presence of various distinctive products such as cafes, restaurants, public Wi-Fi networks, contribute to increase the interest of people to stay longer in streets.

According to Sammas (2008), streets are the main cultural-based space with traditions, unwritten rules, habits, customs, and the prevailing activities that take place therein. Cultural variables are critical for all activities in the streets as they control people's behaviour by explaining the non-uses of streets and other public spaces. Therefore, the physical environment does not determine the

behaviour; rather, it is the cultural-based variables that determine the people's behaviour during their diversified activities including sitting, walking, standing, lying down, cooking, eating, sleeping, shaving hair, laundry, fixing tires, sewing, playing, shopping, manufacturing things, chanting, bargaining, arguing, praying, festivities, theatre, music, and setting for funerals (Al-Obeidy, 2015; Amin 2008; Middleton 2003; Phenton 2013).

Frick (2007) argued that there is a relationship between the activities and behaviour in public places and that the physical character and behaviour of people are critical factors that define the social space. Ja'afar and Usman (2009) Shamsuddin et al., (2004) asserted that traditional and cultural streets provide several activities such as hawkers and stalls, traditional trades, and religious places. Such activities create a vibrant and liveable environment, promote users' sense of place and identity, and reflect the character of a good city (Al-Obeidy 2015; Ali et al. 2019, 2020) (Sipan et al. 2021). Sulaiman et al., (2017) found that many visible activities take place along the streets, giving users a welcoming and vibrant feeling to enjoy and stay longer in streets (Mehta & Bosson 2018; Ping-Li Chen 2014; Sulaiman et al. 2017; Zhu et al. 2013).

Street activities can be divided into three categories, namely necessary activities, optional activities, and social activities (Knapskog et al. 2019; Sutikno et al. 2013; Turel et al. (2007). Rapoport (1987) indicated that pedestrian activities are divided into dynamic and static activities. Both activities are important criteria of user-friendly streets and their behaviour have two main elements which are cultural aspects and perceptual (Rapoport, A., 1986). Activities and functions in the streets are greatly influenced by the quality and character of outdoor urban spaces (Gehl 2010; Saja Jamil Alamoush et al., 2018). In this paper, Activities are categorised into social, business, and cultural types (Chladek 2019; Pugalis 2009; Saleh 2001; Xia et al. 2020; Zakariya & Harun 2013) as shown in Table 1 below.

**Table 1:** Activities of commercial street

Type	Activities of Commercial Street
<b>Social</b>	<ul style="list-style-type: none"> <li>- Reasons for using the street</li> <li>- as a meeting place</li> <li>- times have been visiting the street</li> <li>- visit with friends.</li> <li>- regularly visit.</li> <li>- Transaction (refers to good interaction between people and place)</li> </ul>
<b>Businesses</b>	<ul style="list-style-type: none"> <li>- types of businesses along street (stalls and hawkers, religious places, and traditional trades)</li> <li>- market place.</li> <li>- (Opening hours of shops can develop economic activity in street)</li> </ul>

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	- Commercial place (selling and buying activities, food stall area)
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<b>Culture</b>	- Culture-based Street activities refer to parades, street events, art performances, street musicians, traditional foods, - Culture-based goods such as crafts that form the life of a street-The street provides distinct experience
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*Source: Researchers, 2020*

## **METHODOLOGY**

This paper used quantitative methodology. A sample survey questionnaire (n = 330) was distributed randomly to different daily and occasional users (street visitors of all ages, shop owners, and residents) using a time interval method. The size of the sample was generated according to the calculation by De Vaus (2005). It is based on a (5.5%) sampling error at a (95%) confidence level and the smallest sub-group should have at least 50-100 cases. All the data were analysed using the SPSS (2017) version (25.0) software. The highest mean values among the three categories of activities and between each one of them were recorded. All the structures of this study were calculated using a five-Likert scale anchored in a value of 1 strongly-disagree "minimum value" with 5 strongly-agree "the maximum value". This study used three categories: low when values are less than 2.33 [4/3+ lowest (1)], high when the values are higher than 3.67 [highest value (5) - 4/3], and moderate when the scores are between low and high, in order to interpret the 5-Likert scale (Johns, R., 2005; Ali O. H. et al., 2019&2020). The frequencies of all variables and the Chi-square (X<sup>2</sup>) test were used to assess the validity and significance of the variable's relationships in a contingency table. The relationship is only assumed to be statistically significant if the probability level is (0.05) or less. A significant relationship only shows the degree of association and not what the association is, whereas the results of the chi-square test (X<sup>2</sup>) show the degree of association between two variables.

### **Case Study**

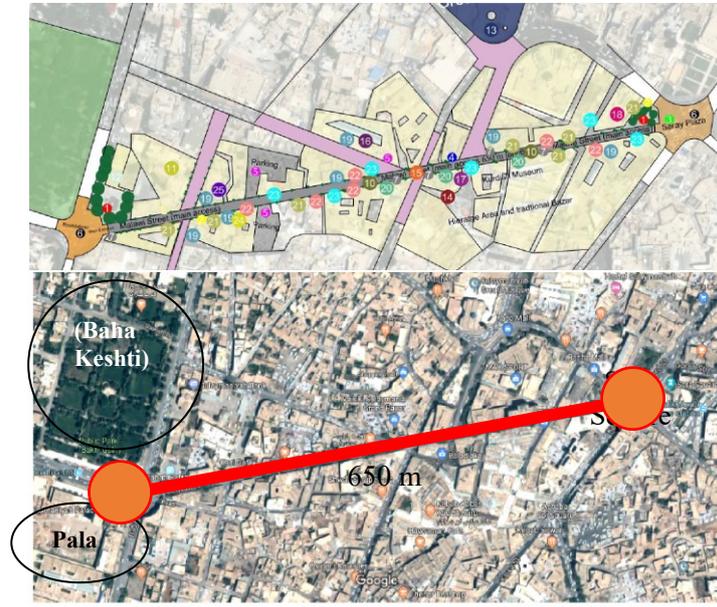
The data were collected from Sulaymaniyah city centre users. This city is the centre of Kurdish culture with historical values (M. S. Y. Al-Obeidy, 2015). This research concentrates on one of the most important vibrant streets in the city as an area of investigation known as Mawlawi Commercial Street that is located in the centre of Sulaymaniyah (Figure 1). Mawlawi Street was selected due to its physical, functional, socio-cultural, and historical characteristics which represent the character of Sulaymaniyah city centre. It is one of the most important and main streets in the city where bustling activities such as window shopping,

walking, eating, gathering, socialising, and carrying out ceremonial activities among others occur in the street (Figure 2).



**Figure 1:** The old city of Sulaymaniyah with a view of Mawlawi Street  
*Source: Fieldisurvey, 2020*

Mawlawi Street is an important and active street that connects and intersects with a public park (Baha Keshti) and a building (Sulaymaniyah Palace) within the intersection of the Sara Square with a length of (650) m. It is located in one of the oldest neighbourhoods in the city of Sulaymaniyah (Melkandi Hill) in a region historically called Zamwa. Melkandi Hill is the modern-day site of the Daboka Bazaar (Khder et al., 2016). It was built by the Babanians with the other neighbourhoods that formed the city of Sulaymaniyah at the beginning of its creation, where the inhabitants of the village of Malakandi were engaged in raising animals and livestock as well as the building stone extraction industry, which is still known to them today (stone Malkindi). Malakandi is one of the largest shops in the old city of Sulaymaniyah. The height of the buildings is low, at an average of three floors (Yousif et al., 2019). The site is surrounded by main streets as it is located in the heart of the city, the streets including Peramerd, Goran, Bekas, and Shexan. It is also close to Qanat, Mawlawi, Sabunkaran, and Kawa Street, with most of them being heritage streets (Ismael et al., 2019).



**Figure 2:** Mawlawi Commercial Street  
Source: (Google earth), (Fieldisurvey, 2020)

## RESULTS AND DISCUSSION

Based on the survey, Table 2 provides a detailed explanation of the respondents' profiles. The results indicate that most of the respondents were in the age groups of 18-25 (30.9%) and 26-45 (27%). This is because most of the users in this urban area are people within that age group.

**Table 2:** Respondent profiles

Type	Detailing	Frequencies	Percentage
Age	under 18	80	24.2
	18-25	102	30.9
	26-45	89	27.0
	46-59	41	12.4
	Above 60	18	5.5

Source: (Fieldisurvey, 2020)

In Table 3, the activities cited by the respondents as reasons for using Mawlawi street showed that the highest mean value went to cultural activities (3.05; Std.D. 1.14), followed by business activities (2.74; Std.D. 1.17) and lastly social activities (2.73; Std.D. 0.82). This demonstrates that the respondents do not have the same level of anxiety regarding the activities that make them use the street. It is also noted that the importance of the various activities that take place

in the streets does not differ much for street users. This also shows that the streets indicate a significant function in supporting cultural activities. Meanwhile, the differences concerning how they used the street were affected by the types of activity and the reasons for using the street

**Table 3:** Mean, Std.D, of items of activities

<b>Factor</b>	<b>Item</b>	<b>Min.</b>	<b>Max.</b>	<b>Mean</b>	<b>Std. Deviation</b>
Social	Shopping	1.00	5.00	2.69	1.55
	Visiting (passing through)	1.00	5.00	2.83	1.22
	Meeting friends	1.00	5.00	2.75	1.31
	Relaxing	1.00	5.00	2.47	1.24
	Studying	1.00	5.00	2.44	1.39
	Entertaining	1.00	5.00	2.70	1.22
	Live there	1.00	5.00	2.56	1.24
	The street provides distinct experience	1.00	5.00	2.72	1.24
	Good interaction between people and place	1.00	5.00	2.96	1.34
	Visually pleasing place	1.00	5.00	2.96	1.25
	I visit with most of my friends in this street	1.00	5.00	3.09	1.38
	Overall, I am very attracted to this street	1.00	5.00	3.01	1.32
	<b>Total</b>				<b>2.73</b>
Businesses	Types of businesses along street (stalls and hawkers, religious places, and traditional trades)	1.00	5.00	2.60	1.53
	Commercial place (selling and buying activities, food stall area)	1.00	5.00	2.83	1.36
	Traditional market place.	1.00	5.00	2.69	1.58
	Opening hours of shops can develop economic activity in street	1.00	5.00	2.84	1.23
	<b>Total</b>				<b>2.74</b>
Cultural	Culture-based street activities refer to parades, street events, art performances, street musicians, and traditional foods	1.00	5.00	2.93	1.22
	Culture-based goods such as crafts that form the life of a street	1.00	5.00	3.08	1.28
	<b>Total</b>				<b>3.05</b>

Source: (Fieldisurvey, 2020)

The cultural motivations for using Mawlawi Street ranked first in terms of reasons for using the street by the respondents. The values of the arithmetic mean and the standard deviation of each item of the cultural activities were located between these values: (2.93 and 3.08), and the standard-deviation values were between (1.22 and 1.28). This reflects a high interest in culture activities compared to other reasons measured by the street users. Based on the results, business reasons for using Mawlawi Street in Sulaymaniyah ranked second. The values of the arithmetic mean and the standard deviation of each item of the business activities were located between these values: (2.60 and 2.84), and the standard-deviation values were between (1.23 and 1.58). This reflects a moderate interest in business activities by street users due to the limitations of such activities on this commercial street.

Also from the survey, the social reasons for using the street ranked last as a reason for using the street by the respondents. This reflects that there is no significant disparity between street users in terms of social motives for street use. The values of the arithmetic mean and the standard deviation of each item of the social activities were located between these values: the mean-values were between (2.44 and 3.09); and the standard-deviations values were between (1.22 and 1.39).

The understanding of the activities that occur on the commercial street is important to generate new ideas and also for proposing new development that is friendly to their users. This is in line with Shamsuddin et al (2010), who stressed that designers are highly recommended to look into the activities in urban spaces to exploit them for future design. Therefore, these factors must be taken into account when designing streets by competent authorities.

It is clear that there are differences in the answers of the sample members about the activities as reasons for using Mawlawi Street based on age group, where the level of statistical significance for this dimension was less than (0.05).

**Table 4:** Chi-square results on independence and the correlation between activities' factors and people's age variables

	Variable	Test	Result
Social	Age	Chi-square	$X^2 = 425.57$ ; $df = 132$ ; $P = 0.000$
Business	Age	Chi-square	$X^2 = 317.89$ ; $df = 64$ ; $P = 0.000$
Culture	Age	Chi-square	$X^2 = 140.67$ ; $df = 32$ ; $P = 0.000$

*Source: (Fieldisurvey, 2020)*

For examining the independence of the factor of people's ages, the Chi-square test was used for each factor separately. It is evident from Table 4 that the factor of people's age's was not independent. The value of Chi-square for social activities and its relationship with people's age group were ( $X^2 = 425.57, 463.60, 417.26$ ) respectively, with ( $df = 132$  and  $P = 0.000$ ).

The value of Chi-square for business activities and its relationship with age group were ( $X^2 = 317.89, 244.21, 211.41$ ) respectively, with ( $df = 64$  and  $P = 0.000$ ). Additionally, the value of Chi-square for cultural activities and its relationship with age group were ( $X^2 = 140.67, 131.04, 97.18$ ) respectively, with ( $df = 32$  and  $P = 0.000$ ). Based on the survey, the age group (18-25 years old) answered between agree and strongly agree for the all activities (social, business, and culture) as reasons for using Mawlawi Street compared to other age groups.

## **CONCLUSION**

In summary, in the urban commercial street of Mawlawi Street in Sulaymaniyah City, Iraq, cultural activities are the most important for street users, followed by business activities, while social activities were the last in terms of attention of street users. This reflects the strong cultural and historical value of the city of Sulaymaniyah. With regard to cultural motivations, "culture-based goods such as crafts that form the life of a street" ranked first, while the "culture-based street activities referring to parades, street events, art performances, street musicians, and traditional foods" was in last place in terms of street users' interest, which reflects the importance of cultural values for Mawlawi Street users.

In terms of business activities, "The opening hours of shops can develop economic activity on the street", and "Commercial place (selling and buying activities, food stall area)" were ranked first as motivation for using the street. "Types of businesses along the street (stalls and hawkers, religious places, and traditional trades)" was in the last rank in terms of motivation for using the street. This is normal because Mawlawi Street is located in the middle of the city, and this street is the main commercial centre of Sulaymaniyah. Additionally, with regard to social activities for using the street, "visiting friends on Mawlawi Street" was ranked first, and "relaxing and studying" was in last place as a reason for using the street. This is because Mawlawi Street is the main street and gathering centre for society within the city of Sulaymaniyah. The liveliness of the street must be boosted by adding more social activities since this study found a strong lack of them. This study also highlights the age groups which had a lower participation range in the street's activities such as the elderly and children. Activities requiring calm and slow-paced uses for the elderly and other activities that are family-friendly would increase the street's potential of becoming a social and cultural hub for everyone. It is expected that the findings from this study will help designers, urban planners, and policymakers understand the needs and attitudes of users towards creating a full active commercial street environment in northern Iraq's cities

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