



# The perceived impact of pedestrianization on local businesses in Al-Muizz Egypt: A case study

Heba Assem ElFouly \*, Aly Abdel-Gawad Ghaly

*Department of Urban Design, Faculty of Urban and Regional Planning, Cairo University Giza, Egypt*

## Abstract

Local businesses in historic centers are not only a simple service, for tourists and local communities, but also a significant element of local identity and a part of the cultural heritage of the place. Whereas pedestrianization has been widely adopted as a means to revitalizing historic centers and as a key factor in promoting tourism, evidence has revealed that the buy-in of local businesses (as one of the main beneficiaries) is vital to ensure the success of pedestrianization schemes and to get support for future ones. This study aims to explore the perceived impact of pedestrianization from the local businesses perspective within the Egyptian context. Adopting a case-study approach, Al-Muizz street: the main commercial lifeline for the Historic Fatimid Cairo, which has been lately pedestrianized, is evaluated. Using field observation and questionnaire methods, data is collected and analyzed. Results show that despite the positive impact perceived due to pedestrianization, different types of businesses have not been similarly benefited from such a scheme.

**Keywords:** Pedestrianization; Economic Impact; Historic Areas; City Center; Local Business

Published by ISDS LLC, Japan | Copyright © 2017 by the Author(s) | This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.



**Cite this article as:** ElFouly, H.A. and Ghaly, A.A.G. (2015), "The perceived impact of pedestrianization on local businesses in Al-Muizz Egypt: A case study", *International Journal of Development and Sustainability*, Vol. 6 No. 7, pp. 399-411.

---

\* Corresponding author. E-mail address: [author@email.com](mailto:author@email.com)

## 1. Introduction

For almost 80 years, pedestrianization<sup>1</sup> has been widely adopted as a means to revitalizing historic centers (Moosajee, 2009; Jureviciene, 2011; Hass-Klau, 1993). Suffering from congestion, pollution, and deterioration, the main idea was to ban private vehicles from entering the historic core (Gehl, 2010), and create a friendly walkable environment (Iranmanesh, 2008). Due to differences in historical, cultural and political settings, pedestrianization schemes have been produced in different forms. However, most have had the added benefits of improving urban quality, supporting social interaction and enhancing economic activities (Embarq Turkiye, 2013; Gurcel, 2003; Jou, 2011). Consequently, pedestrianization has helped in regaining the vitality of the historic centers (Kumar & Ross, 2006; Wooller et al., 2012) and, hence, reintroducing them as a place for people (Iranmanesh, 2008; Jou, 2011).

Pedestrianization has also been a key factor in promoting tourism (Ibraeva, 2014); as pedestrianized precincts attract more tourists to enjoy the historic cultural heritage (Passaro et al., 2016). In this perspective, local businesses (commercial and manufacturing activities) are not only a simple service to tourists and the local community, but also a significant element of local identity and, hence, a part of the cultural heritage of the place (Cetin et al., 2004). Accordingly, the local businesses- in their places, traditions, and products – contribute to shaping the soul of the historic center (Yosry & Mekawy, 1998).

As one of the main beneficiaries, it has been noted that the buy-in of local businesses is vital to ensure the success of pedestrianization schemes: views, suggestions, and concerns of local businesses have been perceived as a valuable feedback for authorities to improve current conditions and to get support for the future ones (Embarq Turkiye, 2013).

Accordingly, a lot of research has been conducted regarding the perceived impact of pedestrianization on local businesses. However, there is *surprisingly* a lack of evidence regarding this issue within the Egyptian context, where pedestrianization of historic areas is a rising trend (GOPP, 2012). For that, this study aims to assess the perceived effects of pedestrianization on local businesses and, therefore, enhances the limited body of evidence within the Egyptian context.

This study, therefore, is divided into five main parts: the first part discusses the theoretical background of the impact of pedestrianization on local businesses. The second part identifies the main local business structure of Al-Muizz street: its places, traditions, and products. As the third part describes the research methods, the fourth part discusses the field findings, while the fifth and final part formulates the conclusion.

## 2. Background: The Impact of pedestrianization on local businesses

Pedestrianization schemes, worldwide, have revealed that altering car-oriented streets into pedestrianized ones has numerous potential benefits, and that such schemes usually promote economic benefits [table 1], and enhances the sustainable continuity of the local culture in the historic center (Hass-Klau, 1993; Melia &

---

<sup>1</sup> Pedestrianization is defined in this paper as the controlled access of traffic in existing city streets, in which specific categories of vehicles (public transport, emergency services, and delivery vans) are allowed.

Shergold, 2016; Kumar & Ross, 2006; Embarq Turkiye, 2013; Moosajee, 2009; Wooller, 2010; Demir et al., 2016; Passaro et al., 2016, Iranmanesh, 2008).

**Table 1.** The economic impact of pedestrianization

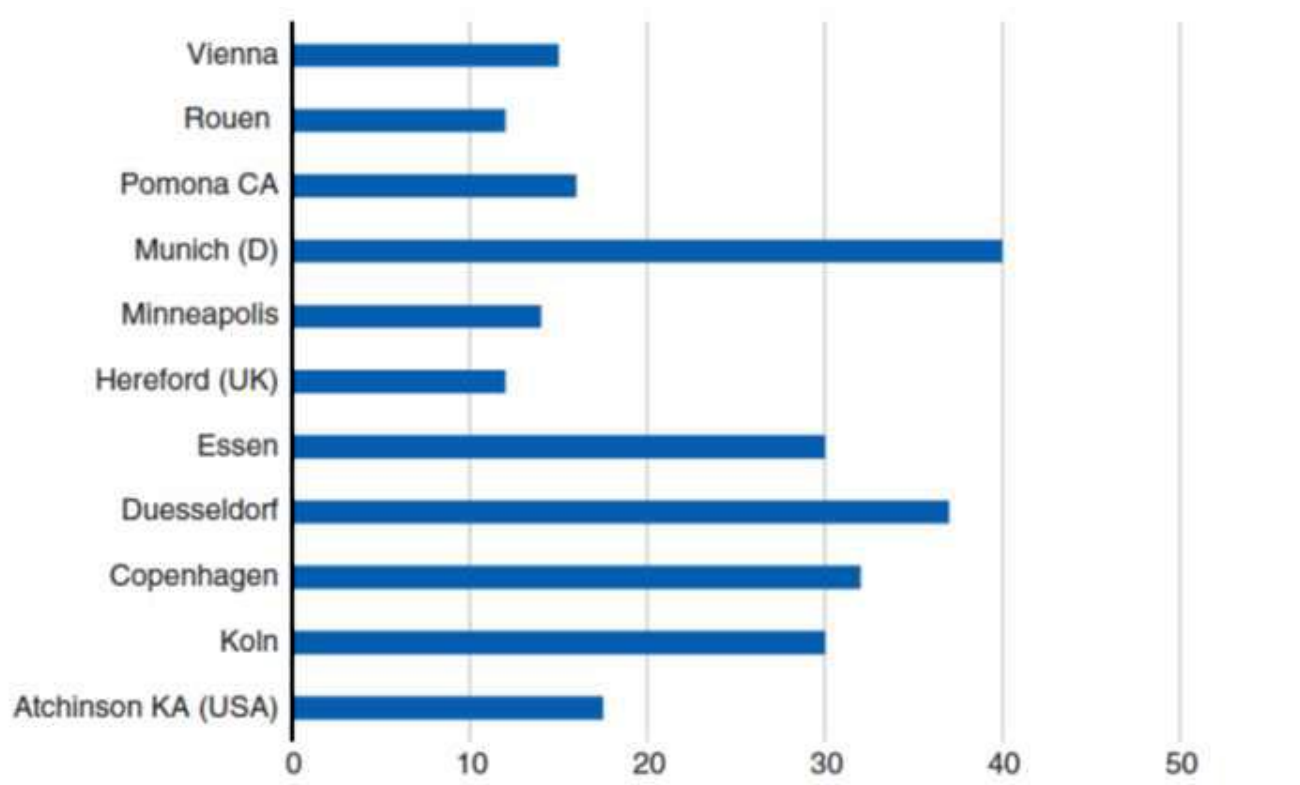
	Description	Criteria	Measuring Techniques
Accessibility	Proximity to services and activities for pedestrians.	The extent of non-motorized transits providing mobility.	Travel modeling, travel options analysis.
Savings	Transportation costs savings, and the reduction of negative impacts of vehicle travel.	The extent of reduction of vehicle travel.	Consumer expenditure surveys.
Health	Providing physical mobility and its net impact on public health	The extent of physical exercise provided to inactive people	Travel and health surveys.
Efficient Land use	The reduction of land allocated to parking facilities, and the provision of more clustered land use.	The extent of car-oriented infrastructure.	Identifying the multi-dimensional benefits of pedestrian-oriented land-use
Economic Development	Economic impact on business activities	Changes in revenues.	Business surveys and property values.
Livability	Improving the quality of the environment.	The physical improvements of the pedestrianized areas.	Preference assessment surveys

Source: Litman, 2004

However, it has generally been difficult to get initial buy-in from local businesses for pedestrianization proposals (Embarq Turkiye, 2013; Melia & Shergold, 2016; Moosajee, 2009); to the extent that Hass-klau (1993) noted that the resistance of local businesses could be considered as "*a law of nature*" (Hass-klau, 1993, p.30). Believing that motorized mobility is crucial for business economic sustainability; local businesses perceive pedestrianization as a threat; which might jeopardize their business by removing them from the direct traffic flow (Kumar & Ross, 2006; Wooller et al., 2012; Tira, 2016).

However, this negative perception has been proven wrong. Various studies have shown that pedestrianization has commonly a positive impact on businesses located in the area of implementation (Hass-Klau, 1993; Kumar & Ross, 2006; Melia & Shergold, 2016). This impact is usually in the form of the increase in turnover [Figure 1]. According to a thorough study conducted by the Organization for Economic Co-operation and Development (OECD) in 1978, with a survey of more than 100 pedestrianized cities worldwide, 49% of the pedestrianized city centers have shown an increase in turnover, while only 18% have shown a reduction in turnover and 25% have stayed stable (Kumar & Ross, 2006). Moreover, a study conducted by Hass-Klau (1993), on UK and German practices, has shown the increase in pedestrian flows (ranging from 18% to 92%), and the increase in turnover of 83% of local businesses within the pedestrian

areas, compared to the increase in turnover of only 20% of local businesses outside the pedestrian areas. Similarly, equivalent results have occurred from successive studies conducted in Thailand (Kumar & Ross, 2006), South Africa (Moosajee, 2009), Turkey (Demir et al., 2016; Embarq Turkiye, 2013), proving that pedestrianization has a value-added to local businesses.



**Figure 1.** The percentage of increase in turnover after pedestrianization (Course: Caracciolo, 2005 quoted in Tira, 2016)

On the other hand, studies have noted a frequent slight drop in turnover directly following the implementation of pedestrianization schemes, which could last for a year or two (Melia & Shergold, 2016). Moreover, the increase in turnover, observed after that, could be mitigated by the general increase in costs. This could be in the form of higher rental values, due to the area being more attractive, which normally benefits the landlords rather than business owners (Passaro et al., 2016). Correspondingly, one UK study showed that rents on pedestrianized streets were 80% higher than on vehicular streets (Melia & Shergold, 2016). Additionally, sometimes the increase in costs could be in the form of assessment fees, required from the business owners, as their share of the costs of designing and implementing such a scheme (Hass-Klau, 1993; Pojani, 2008).

Consequently, due to the increase in costs, types of business activities could be limited, in a pedestrian area, to high and international chains rather than local ones (Moosajee, 2009); causing the small businesses with marginal profits to close and make way for higher chains. Moreover, it has been noted that local businesses related to leisure and entertainment (such as restaurants and cafes) could experience a higher increase in turnover than the traditional retailing ones (Moosajee, 2009). Besides, businesses based on heavy materials or goods (such as furniture, carpet ...etc) could suffer from pedestrianization due to delivery issues (Ibraeva, 2014). For that, it is conceived that the most successful pedestrianization schemes are those where at least some traffic is allowed and where diversity of businesses are obtained (Moosajee, 2009).

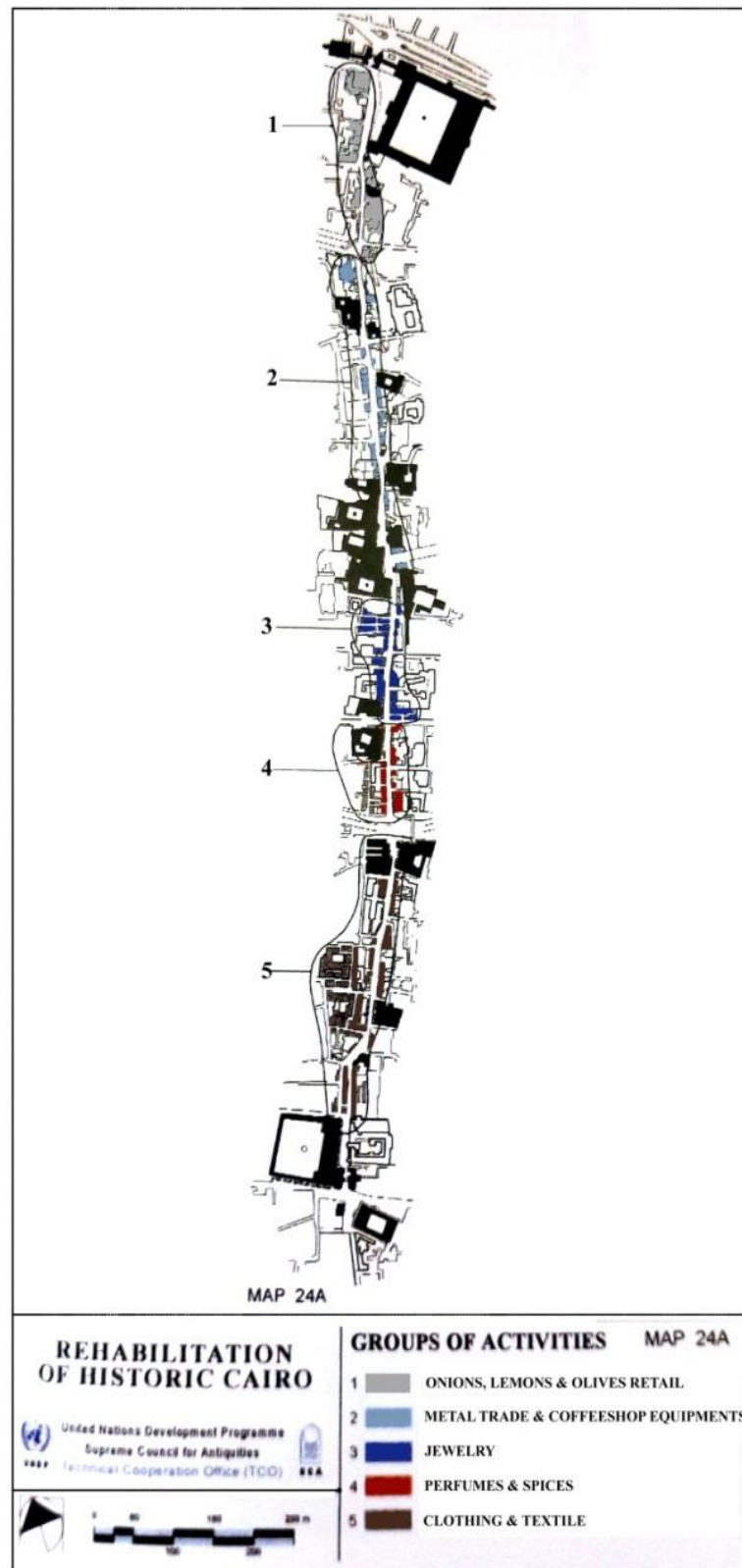
To conclude, there are definitive trends that can be observed from pedestrianization practices. However, not all pedestrianization schemes are effective and produce positive impacts. For pedestrianization to contribute to local business regeneration, numerous factors should be compatible aligned: national and local economic trends (Hass-Klau, 1993), overall city strategy, competitive position of the pedestrian precinct (Kumar & Ross, 2006), population density within a walking distance of the pedestrian precinct, degree of accessibility by different means of transportation (Kumar & Ross, 2006), appropriate mix of land use within the pedestrian precinct (Moosajee, 2009), and accompanying streetscape improvements (Dokmeci et al., 2007; Litman, 2004).

### 3. Study area

Traditionally known as "Al-Qasaba" (the spine), over one thousand years old and one kilometre long, Al-Muizz street has always been the main axis and the center of the Historic Cairo (Al-Murri & Abbas, 2008). From its establishment, it has continuously functioned as the main activity backbone, with the highest density of specialized markets and local trades in all Cairo; particularly from Bab al-Futuh to the Khayameya street (the Tent Makers) (Attia et al., 2003). As shown in [Figure 2], each business activity has been located in a specific section of the street as follows: onion and olives, metal trade and coffee-shop equipments, jewelry, spices and perfumes, textile and clothes (UNDP, 1997). These business activities have been persisted for hundreds of years; some were manufactured and sold in the same place (such as metal and jewelry markets), while the rest were originally for selling products (Yosry & Mekawy, 1998).

Concurrently, the Egyptian Ministry of Culture has recently launched an initiative for revitalizing Al-Muizz Street to be a world-class open museum (GOPP, 2012). Through an integrated approach, this initiative is considered as the first step towards the conservation of the cultural heritage of Historic Cairo (GOPP, 2012) and, hence, is regarded as a pilot prototype for the upcoming interventions (Al-Murri & Abbas, 2008).

Part of Al-Muizz Street, subject to this study, (from Bab-el-Fotouh to the north, to al-Azhar street to the south) was the focus of the Egyptian Ministry initiative. It has been transformed from a car-oriented into a pedestrian street, where traffic has been restricted to bicycles, motorcycles and official vehicles (police cars, ambulances, and fire engines). Correspondingly, limited car access has been allowed, after working hours, between 9 pm and 9 am; through which deliveries are permitted (Al-Murri & Abbas, 2008). However, the effect of these interventions on the business activities is still unanswered.



**Figure 2.** Local Businesses within Al-Muizz street before Pedestrianization (Source: UNDP, 1997)

#### 4. Research method

Adopting a case-study approach, the field study was planned and designed to investigate the perceived economic impact of pedestrianization from the perspective of local businesses located in Al-Muizz street. Since it is very challenging to conduct a complete economic impact analysis, due to high accurate data requirements as well as cultural and legislative limitations; this study focuses on exploring the perception of the business owners with regards to the observed changes in their business situation and, hence, addresses their level of satisfaction.

Data was gathered using two main methods: direct observation as well as on-site business questionnaire via stratified sampling (Neuman, 2014). According to pre-survey results, it was found that there were about 300 business entities in Al-Muizz street, categorized into: metal and coffee-shop equipment shops, jewelry shops, spices and perfume shops, textile and clothes shops and finally food and souvenir shops. Based on Neuman (2014), the required sample size should be 30% of a population under 1000. Accordingly, the sample size taken in this study was 100, distributed among the different types of business activities as shown in [Table 2]. Focusing on the perceived economic impact of pedestrianization, the questionnaire was designed to tackle changes in five main issues: business activities, customer base, business revenue, property/rental values, and finally the general satisfaction.

**Table 2.** Population and Sample Size of the Study

Type of business	Population	Sample Size
Metal & coffee-shop equipments	95	32
Jewelry	82	27
Spices and perfumes	30	10
Textiles and clothes	35	12
Food & leisure shops	58	19
Total	300	100

Successively, using a convenience cross-sectional sampling, a rapid pedestrian survey of total 100 respondents was conducted in order to complement the results evolved from the business survey. For that, the pedestrian questionnaire was mainly designed to distinguish the type of visitors, and their purpose and pattern of visits.

Finally, data was analyzed in an integrative process using qualitative and quantitative tools to fulfill the aim of the research.

#### 5. Results of the Study

According to the questionnaire, results were directed under five main issues: changes in business activities, changes in customer base, changes in revenue, changes in property/rental values and the general satisfaction.



### 5.1. Changes in business activities

Current business activities have been surveyed in order to detect the changes in business types after pedestrianization. As shown in [Figure 3], 20% of business activities have been changed, mainly, due to the eviction of onion and olives market (as a part of converting Al-Muizz into a tourist-oriented street). As a result, textile and clothes shops, as well as food and souvenir shops, have been newly located as a replacement for the evicted market.



**Figure 3.** Current Business Activities in Al-Muizz Street



Moreover, it has been found that converting the street for pedestrians has affected neither deliveries nor the relationship between different business activities in the street. Neglecting the proposed regulations, most of the respondents noted that deliveries are done anytime of the day using trucks and delivery carts [Figure 4].



**Figure 4.** Delivery Services in Al-Muizz Street

## 5.2. Changes in customer base

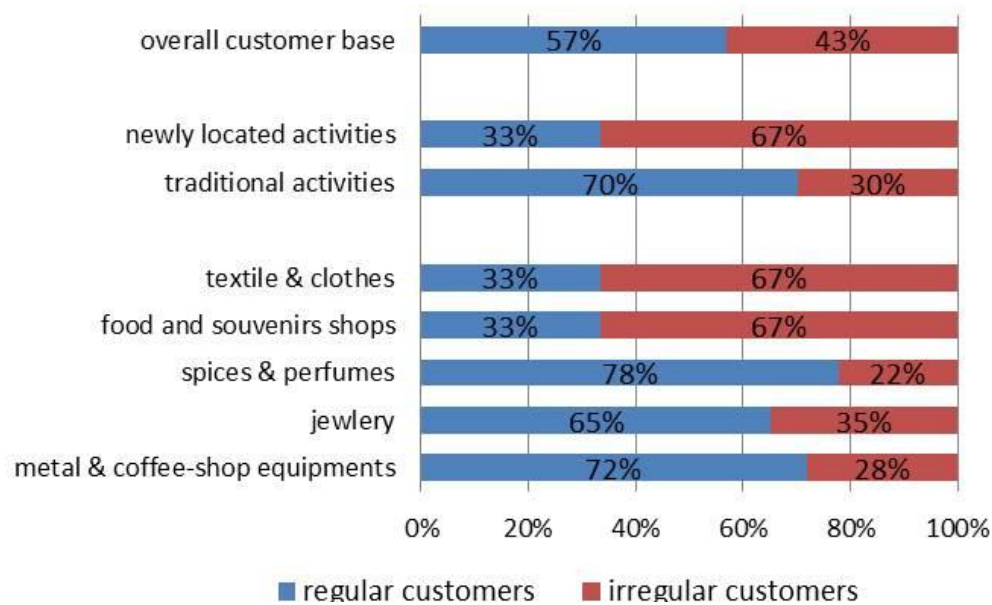
According to business survey, respondents have not perceived any change in their customer base after pedestrianization; as most respondents noted that they had the same customer type and volume as they used to before pedestrianization. Moreover, as shown in [Figure 5], respondents representing traditional activities mentioned that their business has been mainly depending on regular customers (70%) from outside the district, unlike respondents representing the newly located activities (food and souvenir shops, textile and clothes shops) who noted only 30% of their costumers as regular ones. This could be interpreted by the difference between the specialized markets and the leisure activities in seizing different types of customers.

## 5.3. Changes in revenue

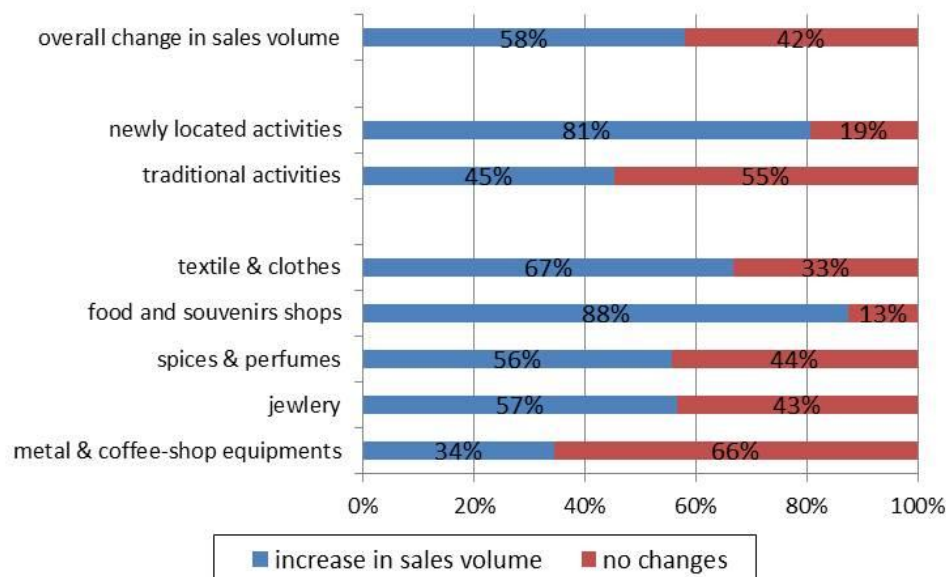
When asked about the status of their revenue, as shown in [Figure 6], 58% of the respondents replied that their revenue has increased, while 42% said that it has not changed.

Correspondingly, it has been found that the food and souvenir shops have been the most benefited business from pedestrianization (88% of them noted an increase in revenue); while the metal and coffee-shop equipment shops have been the least benefited (only 34% of them noted an increase in revenue). This could be interpreted by the change in the type of visits and the type of visitors caused by the tourism-oriented initiative: most visitors were youth (75 % of respondents of the pedestrian survey) and mainly visited Al-Muizz for amusement (15% of respondents were visiting the street for shopping, compared to 85% who were just walking around).

However, the overall changes in revenue mentioned earlier clearly stated that there has been a positive change after pedestrianization: the revenue has not decreased greatly but has either remained constant or has increased.



**Figure 5.** Changes in Customer Base



**Figure 6.** Changes in Revenue in Al-Muizz Street

#### 5.4. Changes in the property/ rental values

When asked about the changes in the property/rental value of the business premises, most of the respondents (90%) didn't perceive any change due to pedestrianization. This could be interpreted by the street regulations controlling the types of business activities allocated along the street; especially the traditional markets which are not allowed to convert into any other activity business.

#### 5.5. General satisfaction

Assessing the opinion of the business respondents on pedestrianization, it has been found that, before implementation, the majority believed that pedestrianization could not improve the existing condition and most were indifferent to the project. It has been also found that 30% disagreed with the idea, as they believed that pedestrianization would bring negative effects to their business. Yet, 10% of respondents were optimistic and felt that the pedestrianization would have a positive impact on their business.

However, after pedestrianization, the majority of the respondents (85%) have agreed to the project. But it has been noticed that most of them related pedestrianization to its physical qualities not to its multifaceted economic benefits. Moreover, it has been found that the newly located activities have perceived pedestrianization as an added value more than the traditional activities. Contextually, representatives of traditional activities referred to the macroeconomic issues as their main concern regarding their business flourishing.

### 6. Discussion and conclusion

This study adds to the available evidence of the effect of pedestrianization on local businesses in Egypt. It provides some insights into the complexities of delivering such interventions in the context of a tourism-based local economy. Like literature, the study has shown an overall positive economic impact on local businesses, however, not all types of business activities have been similarly affected by such a scheme: leisure activities have benefited from pedestrianization more than the historical traditional activities; as the latter depend mainly on customers who evaluate the quality of products provided and do not generally react to the location settings. For that, their customer base has not changed even after the enhancement of the street physical environment caused by pedestrianization. Moreover, some traditional activities (such as metal and coffee-shop equipment shops) have not largely matched the new theme of the street as an open museum for the Islamic monuments. In this context, pedestrianization has been perceived as a threat to their business sustainability. Moreover, unlike literature, implications of pedestrianization on deliveries have not been detected; as proposed regulations have not been applied, which if firmly executed, levels of satisfaction might be negatively affected.

In spite of the general increase in revenue, which is considered a good indicator of improved business activity, local businesses have not perceived any additional increase in property/ rental values after pedestrianization. Being implemented as a tourism-oriented scheme, land-use regulations have been set to prohibit any changes in the historical traditional markets which have led to the general stability of the

property/ rental values. Moreover, despite the enhancement of the physical environment, local businesses perceived such benefits as being very marginal when compared with their core concerns regarding the general degraded economic and industrial settings.

To sum up, although pedestrianization has improved the livability of the precinct in terms of making it more attractive for visitors and, hence, pedestrian flows and revenue have increased, however, in order to achieve the optimum results regarding the business regeneration, different types of business activities should be recognized and closely studied so as to determine the most suitable measures that each business type needs.

## References

- Al-Murri, T., and Abbas, W. (2008), *Al-Muizz Lidin Illah Street: The Great Street*, Ministry of Culture, Egypt.
- Attia, A., El-Borombally, H., and Salheen, M. (2003), "Planning for Sustainable Transportation in Historic Cairo: The Case of Al-Muizz Street", paper presented at the 7<sup>th</sup> Engineering Conference, 7-10 April, Al Azhar University, Cairo, Egypt, available at: [https://www.academia.edu/23328056/Planning\\_for\\_sustainable\\_transportation\\_in\\_historic\\_Cairo](https://www.academia.edu/23328056/Planning_for_sustainable_transportation_in_historic_Cairo) (accessed 15 December 2016).
- Cetin, M., Birol, G., and Doyduk, S. (2004), "Conservation of Traditional Shopping Places as a Device for Regeneration of a Turkish Town in Recession", in *Proceedings of the 1<sup>st</sup> International Conference on Architectural Conservation between Theory and Practice in Dubai, March 14-16*, Dubai, pp. 444-463
- Demir, H., Cakiroglu, I., Alyuz, U., and Demir, G. (2016), "Evaluation Environmental and Social Impacts of Pedestrianization in Urban Historical Areas: Istanbul Historical Peninsula Case Study", *Journal of Traffic and Logistics Engineering*, Vol. 4 No. 1, pp. 83-87.
- Dokmeci, V., Altunbas, U., and Yazgi, B. (2007), "Revitalisation of the Main Street of a Distinguished Old Neighbourhood in Istanbul", *European Planning Studies*, Vol. 15 No. 1, pp. 153-166.
- Embarq Turkiye (2013), *The Pedestrianization of Istanbul's Historic Peninsula: Perspectives from Local Businesses*, Embarq Turkiye, Istanbul.
- Gehl, J. (2010), *Cities for People*, Island Press, Washington DC.
- General Organization for Physical Planning (GOPP) (2012), *Greater Cairo Urban Development Strategy: Part (1) Future Vision and Strategy Directions*, GOPP, Egypt.
- Gurcel, C. (2003), "Integration of Shopping Malls with Pedestrian Environment: An Analysis of Akkopru Micros & Karum Shopping Malls", M.Sc., Institute of Fine Arts, Bilkent University, Turkey, available at: [www.thesis.bilkent.edu.tr/0002277.pdf](http://www.thesis.bilkent.edu.tr/0002277.pdf) (accessed 5 January 2017).
- Hass-Klau, C. (1993), "Impact of Pedestrianization and Traffic Calming on Retailing: A Review of the Evidence from Germany and the UK", *Transport Policy*, Vol. 1 No. 1, pp. 21-31.
- Ibraeva, A. (2014), "Pedestrian Priority Zones in the Context of Urban Mobility and Valorization of Public Space", M.Sc., Collage of Human and Social Sciences, University of New Lisboa, Spain, available at: <https://run.unl.pt/bitstream/10362/14887/1/anna.pdf> (accessed 15 January 2017).

- Iranmanesh, N. (2008), "Pedestrianization a Great Necessity in Urban Designing to Create a Sustainable City in Developing Countries", 44<sup>th</sup> ISOCARP Congress 2008, available at: [http://www.isocarp.net/Data/case\\_studies/1130.pdf](http://www.isocarp.net/Data/case_studies/1130.pdf) (accessed 15 December 2016).
- Jou, k. (2011), "Pedestrian Areas and Sustainable Development", *International Scholary and Scientific Research & Innovation*, Vol. 5 No. 5, pp. 228-235.
- Jureviciene, J. (2011), "Public Spaces in Historic Towns of Lithuania: Rehabilitation and Decline of Cultural Value", in *Sustainable Urban development 2011 proceedings of the 8<sup>th</sup> Environmental Engineering Conference in Vilnius, Lithuania, 19-20 May*, Vilnius, pp. 924-927.
- Kumar, S. and Ross, W. (2006), "Effects of Pedestrianization on the Commercial and Retail areas: Study in Kha San Road, Bangkok", *World Transport Policy & Practice*, Vol. 13 No. 1, pp. 38-50.
- Litman, T. (2004), "Economic Value of Walkability", *Transportation Policy & Practice*, Vol. 10 No. 1, pp. 3-11.
- Melia, S. and Shergold, I. (2016), "Pedestrianization and Politics: Evidence Gaps and a Case Study of Brighton's Old Town", available at: <http://eprints.uwe.ac.uk/27971> (accessed 30 December 2016).
- Moosajee, N. (2009), "A Move Towards Pedestrian Friendly Spaces and their Economic Effects in the City of Cape Town", available at: <http://hdl.handle.net/20.500.11892/50430> (accessed 30 December 2016)
- Neuman, W. (2014), *Social Research Methods: Qualitative and Quantitative Approaches Relevance of Social Research*, Pearson Education Limited, England.
- Passaro, P., Salomone, S. and Petruzzellis, L. (2016), "Retail Concentration: The Shopping Streets", *European Scientific Journal*, Vol. 12 No. 16, pp. 122-135.
- Pojani, D. (2008), "Santa Monica's Third Street Promenade: the Failure and Resurgence of a Downtown Pedestrian Mall", *Urban Design International*, Vol. 13 No. 3, pp. 141-155.
- Tira, M. (2016), "Pedestrian Accessibility of Historical Centres: A Key Determinant of Development", in Rotondo et al. (eds.), *Cultural Territorial Systems*, Springer International Publishing, Switzerland, pp. 351-361.
- United Nations Development Programme (UNDP) (1997), *Rehabilitation of Historic Cairo*, Cairo Projects Technical Cooperation Office, Egypt.
- Wooller, L. (2010), "What are the Economic and Travel Implications of Pedestrianising a Roadway in Talapuna's Shopping Precinct", M.Sc., Auckland University of Technology, available at: <http://aut.researchgateway.ac.nz/handle/10292/999> (accessed 21 January 2017).
- Wooller, L., Badland, H. and Schofield, G. (2012), "Pedestrianization: Are We Reading from the Same Page? Perspectives from Key Stakeholders in Takapuna, Auckland", *Graduate Journal of Sport, Exercise & Physical Education Research*, Vol. 2012 No. 1, pp. 16-30.
- Yousry, A. and Mekawy, H. (1998), "Transformations in Traditional Marketplaces in Fatimid Cairo", *Traditional Dwellings and Settlements Working Paper Series*, Vol. 1998 No. 116, pp. 35-52.