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**The impacts of income generating and socio-
cultural self-organized activities on the physical
environment in the historical center of Tripoli**

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Summary

This research is a case study of the impacts of income generating and socio-cultural self-organized activities on the physical environment in the historical center of Tripoli, the capital of North Lebanon district and the second largest city in Lebanon. The field of the study was chosen not only because of the significant value of the heritage in the city, but also because of the strong self-organization of income generating actors and the important emergence of socio-cultural initiatives that aim to protect and improve its buildings and public space.

The objective of this research is to show the power of initially independent activities from the government in shaping the physical environments and the behaviour of different involved actors in old Tripoli.

The main research question is: *What are the impacts of income generating and socio-cultural self-organized activities on the physical environment in the historical center of Tripoli?*

The specific research questions are: What are the income generating activities and socio-cultural initiatives of self-organized groups that take place in historical buildings and public spaces of the historical center? Is there any collaboration between self-organized actors and the local government that aims to renovate the buildings and public space in the historical center? If yes, what kind of collaboration? What are the characteristics of dynamics created in the old center by the self-organized activities? How is the appropriation of the physical environment of the historical city happening by self-organized groups? How do those activities impact on the spatial configuration? And what are the generated social relations and behaviour created in the space of the historical city of Tripoli by the self-organized activities?

The formulation of the conceptual framework was based on literatures on spatial complexity, self-organization and complex adaptive systems. Scholars focused on continuous interactions between self-organized activities and the physical environment within context of complex adaptive systems and they emphasized the role of space as an active urban agent and not only as the action container. The research investigated the impacts of these complex urban interactions taking place in the ancient heart of Tripoli.

In order to measure them, this exploratory single holistic case study is based on the collection and analysis of quantitative and qualitative data. The field work took place from 15 June to 11 July 2014 and the data was collected from primary sources including personal and participatory observations, surveys with residents, income generating actors and visitors, and semi-structured interviews with key-informants. The secondary data included documents provided by municipality and key-informants, policy documents, magazines, websites and social media. Triangulation was used to ensure the validity of the research.

The results of the research showed that income-generating activities have positive impacts on the buildings and public space, but also negative impacts resulting from the adaptation of the actors to the absence of the local government and the lack of implementation of the laws. In

the same time, they engender communication and social relations among the income generating actors, the income generating actors and the residents, and the income generating actors and the visitors. Moreover, these activities remain the main generator of physical dynamics in the historical center. On the other hand, the socio-cultural initiatives were able to improve the buildings and public spaces while creating new social behavior among the participants. However, the security situation and local conflicts affected the continuity of the self-organized activities and increased the complexity of the urban context.

In conclusion, the appropriation of the space by self-organized activities renders non-linear and unpredictable changes in the physical environment along with a specific social behavior. The old center of Tripoli is an adaptive and complex system where self-organization generates continuous changes in the social and physical structure of the urban space.

Keywords

Income generating, social initiatives, independent activities, self-organization, physical environment, complex systems, dynamics, interaction, Tripoli historical center

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I want to say thank you to my friends in Lebanon who were always there for me and supported me in my hardest time.

Last but not least I am grateful for the unforgettable year I spent in the amazing Netherlands. No words can express my love and respect for the country and its people.

Foreword

When I was a small kid, I used to spend almost every Saturday with my mother in Tripoli. We used to walk everywhere. I enjoyed the fancy shopping streets in the modern part of the city, the nice promenade on Al-Mina seaside and the tasty sandwiches of *Shawarma* and *Falafel* in Al-Tall area, but I was mostly fascinated by the old souqs in the historical centre.

I always admired their irresistible charm and mystery. I was extremely excited by watching vendors promoting their products, old ladies negotiating the price of cucumbers, colourful scarfs proudly shining on wooden stands. I loved as well the tasty *Kaak* with cheese, the small traditional *Hommoss* restaurant in souq Al-Sagha and the fresh sweetcorn sold by that old *Hajj*.

Moreover, having no clue about my future career as an architect, I continuously felt this connection with the ancient buildings and their magnificent architectural forms and details, and I was always curious about the stories behind narrow alleys and corridors. I could stare literally for hours at every element. Actually, that was my favourite part of the visit.

I grew up and went to live in the nice vibrant capital Beirut to study. However, I constantly had this feeling of missing my days in Tripoli, especially its ancient heart. I knew then I am deeply in love with the city.

Unfortunately, in the last few years, Tripoli, always shadowed by Beirut, gained a sudden reputation of being dangerous because of the continuous armed conflicts that happened. Nobody knew the beautiful city I know; everyone was describing it as a zone of war. The magical souqs were ignored, the nice people were compared to murderers, and the real value of its architecture was forgotten.

Therefore, now it is my turn to pay back for the city I love, for the sake of the beautiful days of my childhood and teenage years. This research is my gratitude gift for you my dear Tripoli.

Abbreviations

CAS	Complex adaptive systems
CCIAT	Chamber of Commerce, Industry and Agriculture in Tripoli and the North
CDR	Council for Development and Reconstruction
CTC	Complexity Theories of Cities
IHS	Institute for Housing and Urban Development
N	Number
NGO	Non- Governmental Organization
MoSA	Ministry of Social Affairs, Lebanon
SO	Self-Organized/ Self-organization
TMA	The Tripoli Merchants Association
UNEP	United Nations Environment Programme
USD	United States Dollars
USUDS	Mediterranean network for the promotion of Urban Sustainable Development Strategies

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Chapter 1: Introduction

This chapter includes the overall theme of the research, the city profile with more specific focus on the historical center and the souqs, the problem statement, the research objectives, the research question, the significance, scope and limitation of the study and the structure of this thesis.

1.1 Overall theme

Historical centers provide a unique testimony of urban cultural heritage that demands protection. The architectural value of the ancient built environment is usually the most important element considered when preparing development planning for these centers. However, numerous factors have direct and indirect impacts on the physical environment of old cities and they should be managed as well. Nowadays, several historical centers are inhabited by low income residents who appropriate the space for their daily economic activities. Also, many independent actors from the state organize socio-cultural activities that aim to protect and develop old centers. In fact, it is not uncommon to see activists from the civil society trying to initiate volunteering actions among locals to help protecting the historical value of urban spaces. These income generating and social self-organized activities are generators of complex urban dynamics and have consequently direct spatial and social impacts on the physical environment where they occur.

1.2 General Background

Since this thesis studies the self-organization concept in the context of spatial complexity in the historical center of Tripoli, it is necessary to have a general knowledge on the city background.

1.2.1 The city profile



Map 1: Tripoli Location Map. Source: <http://www.weather-forecast.com/locations/Tripoli>

Tripoli is a Lebanese coastal city and the capital of *North Lebanon* district with an area of 873 ha¹ (MoSA, 2011). Being the second largest city after *Beirut*, around 253000 inhabitants live nowadays in Tripoli (USUDS, 2014). The city is a part of *Al Fayhaa* union of municipalities which consists in three municipalities: Tripoli, Al-Mina and al-Badawi. The city has an old center and a modern part. A principal feature of Tripoli which is *Abou Ali River* divides the old center in two parts. This river and its surrounding lands suffer from severe environmental problems, for instance: lack of green areas and, air, water, land, visual and noise pollution.

The residents in the old city are poorer and less educated than those living in the new parts. In several neighbourhoods in old Tripoli, where 55% of the total city population live, “the household income based on work at the minimum wage remains below the upper poverty line, which is estimated at around USD 4.00 per capita per day” (Dewailly and Le Thomas, 2009; MoSA, 2011:61). Many facts can explain this reality. Firstly, in Lebanon, the capital Beirut is considered the premium city where all of the investments and development projects are concentrated. It stole from Tripoli the golden status that it had before the declaration of the state of Greater Lebanon in 1920 by the French mandate². In addition, because of the centralization of the political powers in the metropolitan of Beirut, Tripoli has been always marginalized since the independence of Lebanon from France in 1934 (Rajab, 2006). Also, in 1955, and what made the economic situation in the old city even worse, Abou Ali River flooded and destroyed hundreds of historical houses on its borders, leaving for the residents no choice but moving to the ancient center and overpopulating it. Currently, the historical city in Tripoli is considered to have the highest density of population in the country. In some specific streets like Soueiqua et Haddadin, the density has a peak between 1000 and 1400 inhabitants par ha³ (Dewailly and Le Thomas, 2009). Moreover, “the civil war and its aftermath affected the Tripoli region dramatically, disrupted its role as a regional attraction pole and broke down its organic interaction with the surrounding regions” (USUDS, 2014).

Even with its reputation as a “poor” city, Tripoli is known as well for its important cultural heritage. Many civilizations occupied its territories: Phoenician, Assyrian, Persian, Roman, Byzantine, Caliphate, Seljuk, Crusader, Mamluk, Ottoman and French. “Archeologists and historians consider it today as the second best preserved Mamluk city after Cairo” (CDR, 2001:65) and it even used to be called “little Cairo” (Al Bayan, 2013). In addition, Tripoli is rich with historical architectural monuments like the citadel, theological schools, churches and cathedrals, caravansaries, Turkish baths, shopping bazaars, towers and palaces. Regarding modern architecture, the Tripoli Fair designed by *Oscar Neimeyer* presents one of the most interesting projects in Lebanon.

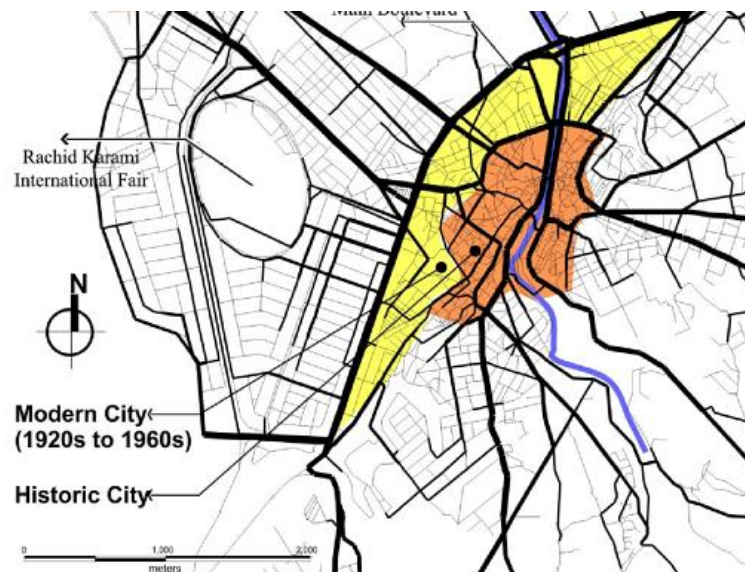
¹ 873 ha= 8.73 km²

² Before 1920, Tripoli was a part of Syria and it was the flourishing capital of one of the three major Ottoman administrative districts.

³ 1 ha=0.01km²

Tripoli benefits from a strategic location on the Mediterranean coast which made its port an important factor of the local economy. It has major industrial powers until the 70's when the major factories in *Bahsas* area began to close. The bombing of the petroleum refinery in 1983 and the end of the train rails activity in the civil war⁴ were additional factors that totally terminated the industrial capacity of the city (Fadel, 2011). Nowadays, the principal economic sectors in the city are manufacturing (furniture, artisanal production, gold, clothes, etc...), construction, services (banks, higher educational facilities and restaurants) and trade. Yet, many small factories and artisanal shops are threatened to vanish by new technologies like the production of olive oil based soap, perfumed soap, copper, silver and sculpted wood. Regarding agriculture, the city was famous for its wide gardens of citrus and oranges which gave it the nomination Al Fayhaa, meaning beautiful smell. In fact, the flowers of the orange trees used to spread their smell all over the city⁵. However, with the urban expansion, the majority of these trees were cut. To add to this, in the Basatine area for example, the horizontal growth city is happening at the expense of agricultural fields (UN-Habitat, 2011). Moreover, the construction of the International Fair of Tripoli in 1962 on an area of 10,000 hectares⁶ terminated an important percentage of the remaining green areas.

1.2.2 The historical center



Map 2: The limits of the historic and modern city in Tripoli. Source: Mohareb, 2013

The morphology of the historical center of Tripoli reflects the typical case of an Islamic city where the monuments existing currently were mostly built in the Mamluk era. “The city remains one of the best examples of Mamluk planning and architecture outside

⁴ The Lebanese civil war started in 1975 and ended in 1990

⁵ In his website www.tripoli-city.org, Dr. Ghazi Omar Tadmori described the meaning of the names of Tripoli through history. He mentioned about the nomination “Al Fayhaa” the following: “derived from the Arabic verb Faha which is used to indicate the spread of a certain smell. Tripoli was best known with its vast orange orchards. During the season of blooming, the pollen of orange flowers gets carried by the air spreading a splendid odor that can be felt anywhere in the city and its suburbs, hence the name Al Fayhaa”.

⁶ 10000 ha=100km²

Egypt”(Petersen, 1996:286). However, it went through many changes because of the urban expansion and the creation of the modern city. Actually, “the city has an old historic quarter with irregular narrow streets, and modern districts, where streets are wide appropriate for motor traffic. In between these two extremes there are the transitional districts.” (UNEP, 2009: XV). The old studied center was mostly built by the Mamluks and the Ottoman. However, its Mamluk architecture conception was different from the other Mamluks city, revealing a genius defensive city planning at that time (Tadmori, 2013). In his interview with Aliwaa newspaper in 2013, Tadmori explained that the ancient center is far away from the sea for protection purposes from marine attacks. The morphology of old Tripoli consists of the big mosque is in the center and it is surrounded by the markets (souqs) and residences. Each neighbourhood is separated from the other by a big gate. The buildings are so compact and directly sealed to each other, not only to create reinforcement against earthquakes, but also to assure that the city is well defended. This type of architecture permitted the locals to move from the roof of one house to the other in order to attack the enemies from upper levels. Moreover, many houses are suspended above narrow alleys which allowed the inhabitants to continuously supervise their neighbourhoods. These paths only fit for one pedestrian which made the invasion of the city by armed group impossible. In fact, old Tripoli was known as the city of corridors and alleys. The houses in the old center have a double function of defense and housing. The ground floor was not made for living but has an open garden, a small fountain and a service area, while the first floor has the housing rooms because it is close to the roof which allows people to defend their houses and ran away using the roofs in emergency cases.

A principal component of the city’s identity is the historical center. It suffers from many problems. A random mixture of old and new was triggered mostly by an excessive and unplanned urbanization since 1955 after the intensive flood of Abou-Ali river forced residents to move to the nearby historical district and use the shops and khans as housing. Moreover, the Lebanese civil war brought political refugees to “Old Tripoli”. Municipal statistics showed that 4000 residents in the old center are displaced population (CDR, 2001). The intense increase of population had massive unpleasant effects on the land that was not prepared for this kind of use. “The average population density in the old city center is 260 persons/ha”, (MoSA, 2011:69). However, this number can be even higher because of the Syrians refugees who started since 2011 inhabiting the old city. As a result, urban poverty, lack of services, solid wastes and wastewater problems, deficiency of green areas, congestion, bad infrastructure quality, and visual and acoustic pollution became serious and evident problems.

Despite the rich historical heritage, culinary specialties and local artisanal production, the tourism sector in particular in the old district is weak and stagnant. In reality, “environmental degradation means that the assets upon which these economic sectors depend are questioned, and thus threatens the sustainability of these industries” (UNEP, 2009:70). Also, the negligence of the ancient center by the national government led to regional disparities and increased the level of poverty comparing to the other cities. In fact, the local government is facing several administrative and financial challenges consisting of: “ineffective management

of resources, improper planning and zoning, lack of knowledge and awareness, lack of financial resources, weak tax collection performance, lack of integrated city development plans and lack of specialized human resources”(Najjar, 2008: 1.2). In conclusion, old Tripoli and its residents are left behind their own misery, environmental concerns and political conflicts.

1.2.3 The souqs

The souq is the nomination used to design the historical commercial area and markets in Arab cities where “goods are sold under seemingly chaotic circumstances” and where negotiations and encounters happen between the customers and the sellers (Geertz, 1979:140). The souq was defined as : “an urban covered market that includes an array of boutiques and workshops and a rural weekly street market where all kinds of goods, including livestock, vegetables, fruit, spices, clothing, and cookware, can be bought or sold” (Benzakour, Gaadi, and Queffélec, 2000:305). In some Arab countries, the covered souqs are called Bazar.

In the Islamic city, the souq surrounds the mosque where it is not only a commercial space but also a “focal point for social interaction and communal life” (Awad, 1989) where locals meet and talk, friends visit it to shop together, and people discuss social and political issues after praying in the mosque. In the old center of Tripoli, the following permanent souqs can be found: Al Bazerkan, Al Haddadin, Haraj, Al Kameh, Al Kendarjiyeh, al Nahhasin, al Samak and Al Sagha. Each of these souqs has its specific identity, history and morphology. In addition, a weekly rural market called Souq Al Ahad is organized every Sunday but does not make part of the scope of this research because it is a once a week event and it does not participate in creating every day dynamics. Everything is available in Tripoli souqs: vegetables and fruits, restaurants, clothes and shoes, furniture, home and electrical appliances, artisanal ateliers, etc. In this study the word souq will be used to refer to the historical permanent markets and commercial area.

1.3 Problem statement

The historical heart of “Tripoli” is a melting pot of history, architecture, religions, nationalities, generations, traditions, believes and perspectives, but also poverty where individuals and groups self-organize their income generating activities in an atmosphere of quasi-absence or total absence of the government. It is also the environment where various individuals and groups initiate socio-cultural activities to valorise and protect their heritage. These complex self-organized actions appropriate the space for their own use and have consequently direct and indirect, positive and negative, and spatial and social impacts on the historical physical environment. The concept of self-organization is practically new and the research about this subject in Tripoli is limited. Therefore, it is necessary to understand the physical dynamics and their related social reflexions in the light of the self-organization concept in the historical center.

1.4 Research objectives

This research has both internal and external objectives:

The internal objective is to understand how income generating and socio-cultural self-organization is continuously affecting the spatial structure and quality, the identity of the physical environment and the resulting behaviour observed in the space in a complex system like the historical center of Tripoli. The exterior objective is to prove that self-organization is interlinked with the spatial structure and quality, identity of the place and the social behaviour in the historical city of Tripoli. The research wants to show also that self-organization should be considered as an essential factor in any development and management policy.

1.5 Research question

The main research question is: *What are the impacts of income generating and socio-cultural self-organized activities on the physical environment of the historical center of "Tripoli"?*

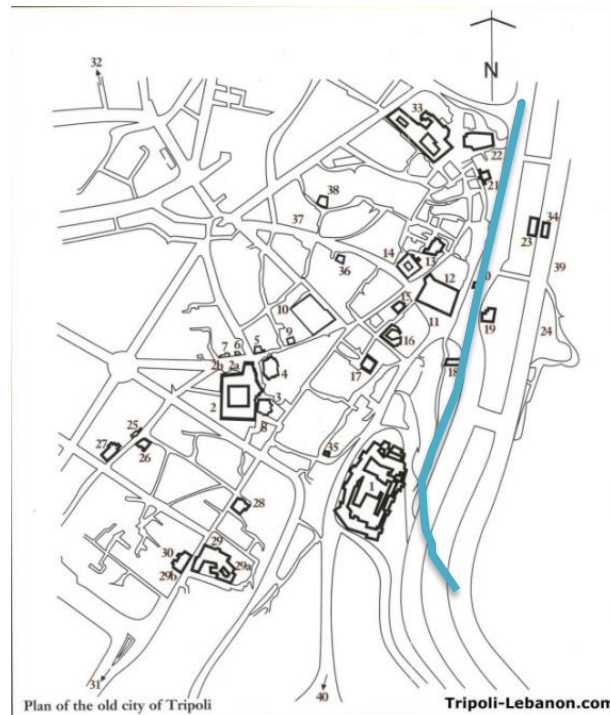
1.6 Significance of the study

As seen previously, Tripoli has lost its agricultural and industrial strengths. The city has not yet heeled from the trauma of war. It remains disconnected from its environment and presents a social and urban disaster (Nahas, 2007). The only remaining potential asset to save Tripoli and its economy is a good management and development of its historical center. Moreover, nowadays, the old city inhabited mostly by low income residents appears to be a pure chaos of poverty and pollution, so an adequate intervention is a must. It is important to explore how self-organization is creating physical dynamics in the context of the spatial complexity theory in old Tripoli. Understanding how every day's self-organized activities are appropriating the physical environment helps to get reliable knowledge in order to establish effective policies to manage the old city by taking into consideration the needs and the current situation of people and space. An appropriate planning for the old center will contribute to protect the architectural value of the ancient buildings which is degrading continuously. It will also help dealing with the damage that has been caused in the urban space. In addition, understanding the dynamics created by self-organized activities allows finding ways to facilitate and develop them in order to improve the economic and social life. These physical and social improvements together can help to resuscitate the economic life in the heart of the city and bring again the feeling of belonging to the city for its inhabitants.

1.7 Scope and limitation

The scope of this research is exploring the impacts of income generating self-organized activities and social initiatives on the context of the physical environment only. Other self-organized activities in the old center like housing and self-security measures are not considered in this thesis. Regarding the physical area covered by the study, it is the old city which borders were defined in the general zoning laws and land use of Tripoli in 2001 and it includes the regions of Haddadin, Al Nouri, Al Tarbiaa and Soueika (Dewailly and Le Thomas, 2009). The main limitations of this research are the time, the security situation and Ramadan month.

To begin with the time factor, the field work period consisted only in 4 weeks which is considered relatively short to gather all of the required data. Therefore, regarding particularly the investigations about the social initiatives, only some of the existing actors, groups and organizations who are working to protect and rehabilitate the historical center were available for interviews. Moving to the bad security situation and the army conflicts that were going on in the eastern part of the old city⁷, the surveys and observation took place only in the western part which contains the majority of income generating activities but include less housing areas than the eastern part⁸. However, the studied social initiatives considered both the eastern and the western part of the old city.



Map 3: The western part of the historical Tripoli. Source: www.Tripoli-Lebanon.com

To end with, because of Ramadan month which is the holy month for Muslims, many actors were unreachable for interviews and surveys. Moreover, the personal observations had to take place only in the first two weeks of the field work, just before the beginning of the month. Actually in this period, the city becomes more active at night and less dynamic during the day time, and many actions and activities observed in the space happen exclusively in Ramadan.

1. 8 Thesis Structure

This thesis consists of 5 chapters: Introduction, Literature Review, Research Design and Methods, Research Findings and, Conclusions and Recommendations. The first chapter is a general introduction of the background of the study and includes the problem statement, the research objective and questions, the significance, scope and limitations of the study and the

⁷ The conflicts have been going between the Sunni neighbourhood of Bab al- Tabbaneh and the Alawite neighbourhood of Jabal Mohsen since the beginning of the Lebanese civil war in 1975.

⁸ Abou-ali River divides the historical center of Tripoli to an eastern and western part

thesis structure. The second chapter or *Literature Review* defines the concepts and establishes their relation in the lights of academic literatures. The third chapter or Research Design and Methods contains the revised main question and sub-questions, the research approach, the data collection and analysis methods, the sample size and selection, the validity and reliability of the research, the time schedule and the limitations and challenges. The fourth chapter or *Research Findings* is a narrative presentation and analyses of the specific findings that answer the research questions. Finally, the final chapter, or *Conclusions and Recommendations*, is an interpretation of the results of chapter 4 and a presentation of final conclusions and possible recommendation for the problem statement in chapter 1.

Chapter 2: Literature review

2.1 Introduction

After presenting in chapter 1 the general background, the problem statement, the research objective and questions, the significance, scope and limitations of the study and the thesis structure, in the following chapter, each theory is defined, described and discussed in the light of the arguments and statements presented in literatures. Also, the chapter clarifies and establishes the relation between these theories in order to create a conceptual framework related to the research question. The major focus of this thesis is studying the impact of income generating and socio-cultural self-organized activities on the physical environment of the historical center of Tripoli. This can illustrate as a first glimpse a simple relation of cause and effect between the self-organized activities and the physical environment. However, the relation is way more complicated than it seems like. These impacts are the result of complex relationships of different urban concepts and it will be illustrated in the theoretical framework. The research is based on three main theories and their interrelations: the spatial complexity as a part of the complexity theories of cities (CTC), the self-organization concept and the complex adaptive system theory (CAS).

2.2 The theories and concepts of the study

The first theory to study is the spatial complexity as a part of the CTC. First of all, the CTC will be explained as a manifestation of the complexity theory of the world. Then, the spatial complexity will be understood in the light of CTC. And finally, the physical environment which is a feature of the urban space will be presented as the main agent of the spatial complexity.

2.2.1 The complexity theories of cities

The Complexity Theory has for origin the natural sciences and biology, and it aimed at the beginning to help understanding how complex adaptive systems function (Gerrits and Frank, 2004). After providing this successful framework for scientific studies, the complexity theory became one of the major theories studied in social sciences fields since linear systems appeared unable to provide satisfactory explanations for urban dynamics.

However, as its name indicates, “complexity” is a complicated concept to be fully understood. Actually, if we try to give a specific definition for “complexity”, we will have to face the problem of not being able to choose a starting and ending point for the phenomenon, a unique domain of definition and a limitation to a specific scale. In fact, the whole world itself is a gigantic complex platform where “local interactions between elements always render new and different outcomes”(Gerrits, 2012:16). Therefore, every physical, biological, environmental, social and economic existing system on the globe is an open system generating continuous unlimited outcomes every second. For instance, the complexity theory in physical sciences and climatology emphasises on the fact that it is not practically possible to imagine all the variables and the way they are interrelated (De Roo and Geoff, 2007).

Healey (2012) approved on this point by stating that “in highly open, complex systems, it is never possible to imagine all the relevant variables and how they interrelate” (p: 31).

These variables cannot be counted, isolated or limited because they include all the tangible and intangible components of the natural and physical environment, time, space, etc..., and their mutual relations and impacts. Moreover, some scholars even considered that each component is a system of its own. In fact, Portugali defined the city as a complex system where “each of its elementary parts – the urban agents- is a complex system too”(Portugali, 2012:125-126). Actually, each agent of the city is in a direct and/or indirect relation with another agent. So, cities as elements of this world are in a continuous phase of transformation where new characteristics and relations emerge every second and where the new circumstances trigger new actions which uninterruptedly increase even more the level of complexity (Gerrits, 2012).

Thus, understanding cities becomes more and more related to the understanding of the urban system as a whole and to the prediction of the result of its elements interaction. Actually, the cities of nowadays are the foundations of the cities of tomorrow and Casakin and Portugali (2006) confirmed this by stating that cities are open, complex and self-organized systems where their interrelations outline the urban future identity. However, this future is not totally predictable neither controllable, because of the continuous dynamism and mutations inside of these networks and where uncertainty and unpredictability characterize an organic and non-linear world (Marion and Uhl-Bien, 2001). Therefore, complexity in each city represents a smaller version of the world complexity.

2.2.2 The spatial complexity as part of CTC

When it comes to the urban space, it forms one highly active feature of the complexity theory of the city. Boelens and Boonstra (2011) revealed the fact that space is an active agent in the city complexity. They stated that “certain spaces and places are always engaged with other places and spaces elsewhere. At the same time it means that space is not only a platform for social events or actions (...) but that it is in fact integral to those actions themselves” (P:108).

According to Pulselli et al. (2006), the analysis of the collective behaviour of people using urban spaces and the interactions between men and the built environment prove signs of complexity in urban ecosystems. Moreover, Cetin described the urban context as a container of people where there is mutual and continuous interaction and where “social logic is reflected on spatial configuration” (Cetin, 2010:31). Actually, many literatures tried to understand the relation between the space and its contents. For instance, De Roo said that urban conflicts are “so interrelated with their spatial surroundings” (De Roo, 2000: 160) while Moulaert believed that addressing spatial quality issues is a real challenge that requires a qualification of the relations between space(s) and users (Moulaert et al., 2011).

These mutual human-space relations in one urban context are affected by another human-space relation in the same context. However, the space is not only shaped by current

interactions, relations and activities but also by the past and historical complex relations and actions that left their traces in the space. In fact, the dynamism characterizing the mutual interrelationship of public space and public life resulted in new forms and uses of urban space (Casakin and Portugali, 2006).

In addition to this, every new configuration generates a new one and creates a new human-space relation affecting the public life of localities and therefore can lead on a bigger scale to change the shape of the whole city. Therefore, cities continuously change patterns and forms, and the urban spatial quality remains in a state of evolution. So, it can be concluded that the interaction of people in urban spaces generate physical and social complex results which cannot be detached from the complexity of the urban system as a whole.

2.2.3 The Physical environment and the social processes

The physical environment forms the main feature of the urban space. It refers to the man-made space which contains the infrastructure (roads, alleys, paths, and stairs), the historical monuments (shops, houses, mosques, Hammams, etc...), the green elements (Trees, plants and gardens), the street furniture and every other object or structure created by humans and present in the space. It includes also the physical characteristics of the space like the colours, the width, the lighting, the transparency and the enclosure. People appropriate the space for their specific needs. For instance, they use the space in the streets for different purposes: to access to buildings and shops, to meet and see people, and for circulation. Therefore, these functions cannot be independent or isolated from the space and they are directly interconnected with the physical environment (Votolini, 2006).

The physical environment is directly interlinked with the social dynamics and behaviour, where both form what is known by the urban space. In reality, the “Urban space itself integrates various sources of knowledge about social processes on the one hand and physical environment on the other” (Goodchild and Janelle, 2004 :89). Yet, the physical environment is a historical record of actions and interactions. It is not a natural environment. It reflects the decisions made by society which makes them tightly interdependent. Actually,

the physical forms of urban areas are one of the most obvious visual records of the societies whose environments they provide. Many of the activities of these societies evidence themselves in the urban landscape, most obviously in streets, buildings and other private and public spaces (Paddison, 2000:69).

Moreover, the relation between the society and the physical environment is reciprocal. In fact, Berger (1978) stated that the social organization and structure have an impact on the physical environment, but at the same time, urban social structure, organization and behaviour are affected by the physical environment. Therefore, the impacts human activities on the elements and characteristics of the physical environment cannot be studied without

considering the resulting social impacts like social changes, social behaviour and social relations.

2.2.4 Self-organization concepts

The second concept that will be discussed is self-organization. Self-organization and self-managed activities appears to be nowadays one of the most important emerging concepts in the society due to the potential improvements they are supposed to bring to social and economic conditions especially when it comes to low income communities and informal societies. Self-organization is frequently mistaken with participation while it can be defined as continuous movements and interaction between the multiple components of a complex society: people, places and institutions (Boelens and Boonstra, 2011). In fact, “we have self-organization wherever we have a system composed of a collection of parts each following the beat of its own dynamical drum that somehow arranges itself into in ordered whole under random external pressure”(Ismael, 2011: 333). It was defined as well as:

a basic property of open and complex systems that suddenly achieve their order, and are characterized by situations of non-linearity, non-causality, unsteadiness, confusion, and chaos. Since these systems exchange information with the environment they are considered open systems (Casakin and Portugali, 2006:3).

Self-organization in the urban context is a human product that spatially, physically and socially shapes the cities. In reality, “one of the reasons a city cannot be designed a priori is that it is a large and complex artifact”(Casakin and Portugali, 2006:2) .Actually, cities were defined as “the collective outcome of a synergetic and self-organizing process under which thousands of participants act locally in a relatively independent manner” (Casakin and Portugali, 2006). Also, the results of self-organization were described as spontaneous and unpredictable initiatives that are not controlled by one central actor and independent of government procedures (Boelens and Boonstra, 2011). Therefore, self-organization is not only the interaction between people, places and institutions, it represents as well the continuous cycle of interrelations between the existing different self-organized groups since normally people living in same conditions have similar goals and objectives.

Many literatures emphasized on the benefits of self-organization. They focused on the fact that this process can achieve “purposeful and coordinated activity”(Ismael, 2011: 341) and allow communities to “self-manage in equitable and inclusive manners”(Moulaert et al., 2010: 221). For instance, Morales (2010) argued the self-organization of the space by merchants is an urban dynamic that achieve city planning without the interference of planners. Relationships on the street level are created and solidified. “People mature, take responsibility for each other, and realize other interpersonal benefits while developing human capital skills related to business and improving their economic status. (Morales, 2010:11)

2.2.5 Self organization and the government

The definitions of self-organization focused on the independent character of actions and initiatives from the government and considered them as means to fulfill the people needs that are not answered by the existing governmental systems. It is the system ability to “achieve governance without external guidance and control”(Gerrits and Frank, 2004:3). However, the literatures described self-organized activities as open systems because they are not isolated but they are in continuous interaction with the society components including the governmental institutions. In fact, Boelens and Boonstra (2011), argued that in urban development contexts, the concept of self-organization refers to “situations in which citizens and/or other stakeholders contribute to urban developments out of their own motivation and interests in specific actor-networks, if necessary to be facilitated (and not directed) by planners and governments” (p: 108). Also, they stated that self-organization stands for processes, initiatives and activities that were at least independent from the government when initiated but once incorporated in governmental development plans, their original state of autonomy is not disturbed.

2.2.6 The complex adaptive systems theory

Complex adaptive systems are defined in literatures as: “non-linear, self-organizing systems that have the ability to adapt to changing conditions through changing the rules that organize the random autonomous interactions between agents in the environment. This adaptation takes place through gradual gained experience that is reflected in the agent’s behaviour” (Borham et al., 2012: 211).

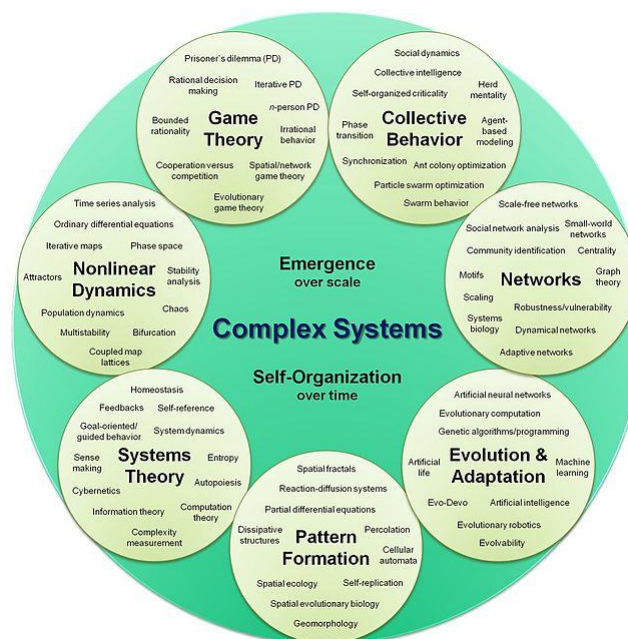


Figure 1: Collective Dynamics of Complex Systems (CoCo) Research Group at Binghamton University.
Source: Hiroki Sayama

Complex urban systems are in a continuous phase of transition where agents of the systems have to adapt with the different types of on-going changes happening in the city. Therefore, they manage to modify their inner and outer relationships to make their goals reachable in the context of the new circumstances. This creates what we call urban complex adaptive systems. For instance, self-employment and informal work allow households to invest their human capitals as a part of their livelihood strategies in order to diversify their income resources and create independence, power in face of social injustice (Biles, 2009). The main objective of individuals and groups in urban complex adaptive systems is to respond to the changes in order to survive but also to build an urban resilience. Complex urban adaptive systems share the same objectives and believes, and respond to external and internal pressures by interacting together and generating learnings, capabilities, innovation and adaptability (Lichtenstein et al., 2006). In fact, actors in urban complex systems have to face continuously with economic, social, spatial, environmental and demographic changes in their society structure. This requires new types of self-organization to deal with crisis, and allows them to gain experience especially in social communication skills, dealing with institutional bodies and the speed of response.

Thus, the adaptive capacity of an urban system allows it to accommodate different types of activities of different groups of people while being flexible and ready to accommodate change. Therefore, designing a city shifted from directly predicting the future of the city to design more flexible environments that can accept the change. In fact, complex adaptive system are “poised for potential change and adaptation either through alteration of its rules, connections, and responses or through modification of the external environment”(Eidelson, 1997: 2). To add to that, Pulselli (2006) affirmed that in a city or social system, the configuration of interactions between parts, such as individuals, and between the parts and the whole, is an expression of the system’s organization, achieved by processes of adaptation and selection.

Though the complex adaptive systems concept is relevant for the particular studied urban system, its complete application in this research remains limited.

2.3 The relations between spatial complexity, self-organization, and adaptive complex systems

Self-organization, adaptive complex systems and spatial complexity, are in mutual relations. They are interlinked characteristics of the urban system. Actually, every urban system is a complex spatial entity where self-organized activities occur in order to guarantee that individuals and group adapt to growth and changes. According to Lynch, (1960a), the city is “the product of many builders who are constantly modifying the structures for reasons of their own”. Adams and Charlesworth (2013) affirmed as well that the city as a complex adaptive socio-ecological system can be considered a socio-spatial-temporal evolving process resulting from self-organization and adaptation and creating new patterns and unpredictable

events. According to Manson (2001), the interactions and relationships of agents in a complex system, the mutual influence between the environment and this system, and the resulting emergence, changes and learning, lead to self-organization for adaptation purposes.

In reality, the behaviour of the complex system, consisting of many interactions between single elements, form a network of relations that can change with respect to a series of local perturbations: it reacts and self-organizes in order to adapt to those external effects (Pulselli et al., 2006). For example, the livelihoods of poor households are characterized by their complexity where people develop their assets to manage them by taken into account the socio-economic and physical context (Rakodi and Lloyd-Jones, 2002). So, they adapt to the current situation of their society by using their assets. Therefore, the success of the Complex adaptive systems depends on “its capacity to effectively modify goal-oriented behaviour in response to a changing environment”. (Eidelson, 1997: 56-57)

Portugali assumed that self-organized planning systems generate complex and dynamics that cannot be totally controlled by anyone (Portugali, 2012). This implies that urban actors have to cope with those dynamics since they cannot fully manage them or stop them. One of the main properties of self-organizing processes is that their principle features are individuals, where each of them is seen as a self-organizing system. Therefore, agents in these processes are responsible for both their own self-organization, and the collective self-organization practice of the city (Design and Casakin, 2008). Thus, it is evident that self-organized groups contribute to the complexity of the city and in the same time, other groups have to act to respond to this complexity. And being a component of the urban complex systems as shown earlier, the space becomes also a part of the self-organization activities and complexity cycle.



Figure 2: SO and Spatial complexity as active component of CAS. Source: the author

To illustrate the relationship between self-organization and space, Boelens and Bonstra (2011) stated that the outcomes of self-organized activities are visible as unique urban forms and patterns and contribute to physical growth; while Casakin and Portugali (2006) argued that despite vast energy being spent in the planning and design of cities, the general spatial structure emerges spontaneously, that is through self-organization(2006). In fact this can be shown in the example of networks of streets in cities that are characterized by a complex

topology. In fact they do not result from a planning process but emerge from the decisions of locals (Buhl et al., 2006). Also, according to Ferwati, 2013, the urban and architectural forms always take new additions and modifications when the spatial behaviour of people changes.

Actually, “an individual may work on self-adaptation to fit a certain spatial pattern or may attempt to do some modification to the physical environment to meet his needs and desires”(Ferwati, 2013). This can be shown in the way hawker vendors in medieval cities choose the corners they want to sell their goods or the way vendors in their shops use the public space for the same purpose as well. Usually, hawker vendors work in the same spot every day, and shops vendors as well shows their merchandise in the same space and in the same way. Therefore, these income generating self-organized actors appropriating the same urban space, creates on the long term specific spatial patterns. However, in winter time for instance, hawker vendors move to another place and shop vendors take their goods inside in order to adapt to the weather. These adaptive self-organized responds create new spatial patterns.

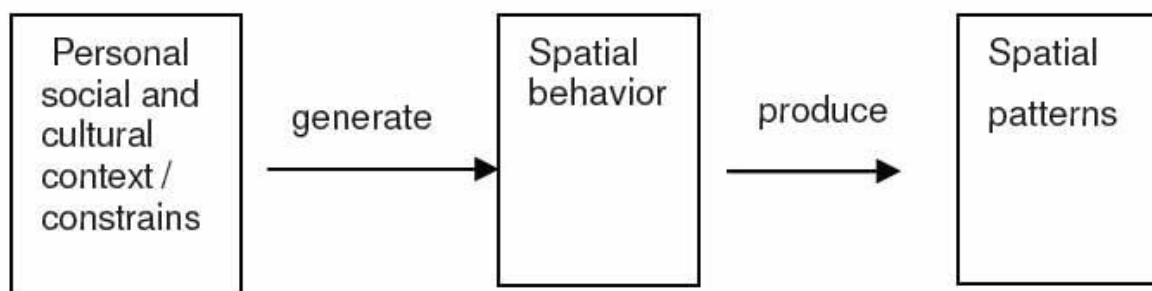


Figure 3: A part of “Bjorklund’s model illustrating the Behaviour as a Spatial Search”. Source: Spatial Behavioural Aspects of the Arab Built Environment. By Fertawi , 2013.

The adaptive behaviour is translated not only as spatial behaviour but also as new forms of social behaviour. These responses are all parts of the urban system and follow the theory of complexity. In fact, Marion and Uhl-Bien (2001) said that according to complexity theory, because of the nature of uncertainty, unpredictability and non-linearity, structures and behaviours emerge out of interactive networks of ensembles. Also, as per Al-maimani et al., 2014, “both spatial aspects and socio-cultural aspects are interrelated relating space and people together in a reciprocal manner”.Choudhary (2012) focused on the same point by arguing that:

The socio cultural aspects in terms of the user preferences are responsible for the evolution of spatial configuration in a built environment, over a period of time. Thus, the built environment and the social environment are two sides of the same coin and that is the “system of spaces”. They are very much related and one affects the other. It’s a cyclic process and changing quality of the spatial configurations is responsible for the changing social life and vice versa (p: 8028:3).

Therefore, in order to adapt to new circumstances and as being part of the urban complex adaptive systems, self-organized activities interact with the space and appropriate it for their own used. This results in specific spatial configuration and social behaviour. These complex relations between the main three theories form the conceptual framework of the research and can be illustrated in the following model:

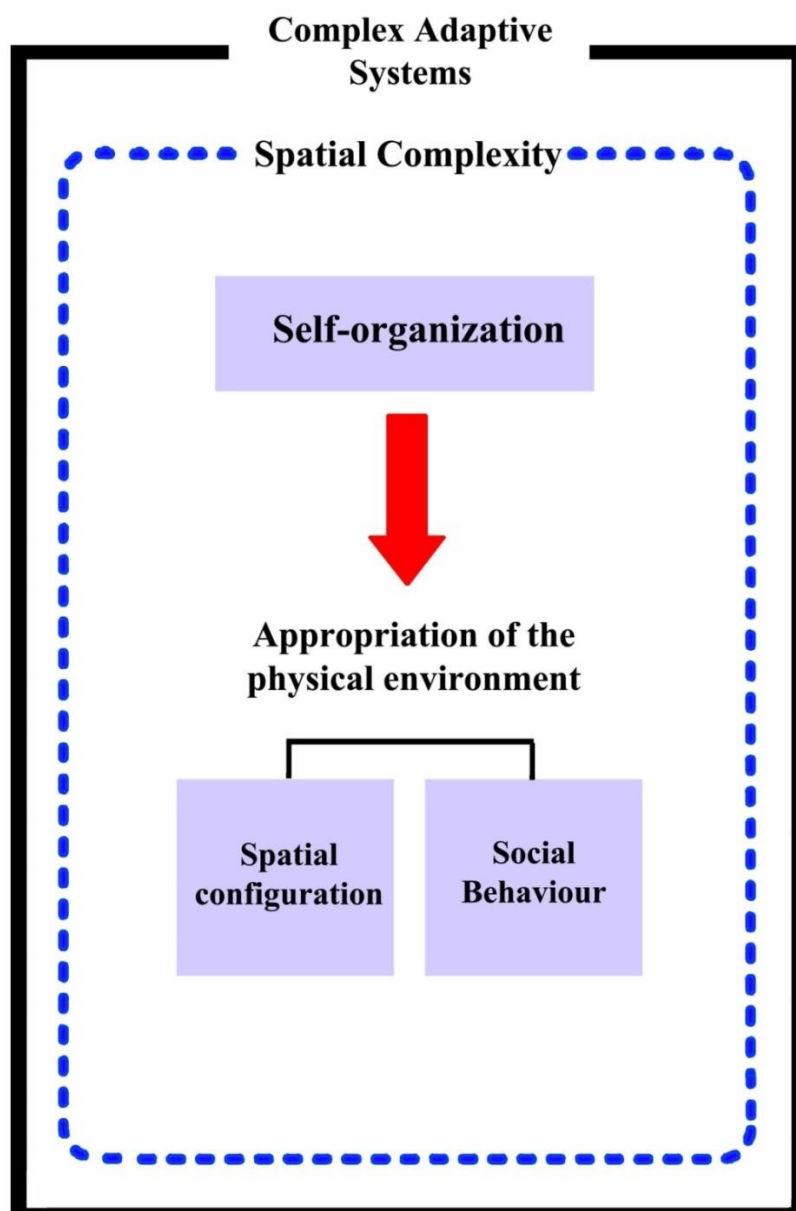


Figure 4: The conceptual framework. Source: The author

2.4 Conclusions

Cities are complex and the theories that analyse, describe and take in consideration this urban complexity are numerous and come from various disciplines. The relations of these concepts produce even more complexity and create new theories. In fact, Jane Jacobs stated that “cities should be identified, understood, and treated neither like simple mechanical systems nor like disorganized complex systems, but as organized complexity”(Jacobs, 1961: 434). This organized complexity was clearly shown in our theoretical framework because it tried to illustrate the relations between the three different urban theories, self-organization, spatial complexity and complex adaptive systems, which led to a specific outcome: the impact on the physical environment of a certain urban space. Self-organization is a part of complex adaptive systems characterized by their spatial complexity, that generate continuous, independent and adaptive interactions resulting in a specific appropriation of the physical environment. This outcome itself can be considered as a new catalyst in the broader frame of the city complexity. Therefore, studying this impact should manage to consider all the underlying factors that shape the city and that affect the described relations between the different concepts.

Chapter 3: Research Design and Methods

3.1 Introduction

In the previous chapter, the theories and concepts were defined taking in account different literatures. Also, the conceptual framework was formed based on the relation of these concepts. This chapter aims to explain the research design and the different methods used to collect the required data. It highlights the sub-questions and the way they will be treated, the research strategy and its limitation, the operationalization of the concepts into variables and measurable indicators, the instruments of measurements and the sample size and selection. This chapter will discuss as well the reliability and validity of the collected data, the time plan and the challenges of the data collection methods.

3.1.1 Revised Research question and sub-questions

The old center of Tripoli is characterized by its unique historical value as the second most well conserved Mamluk city where the majority of the current existing buildings were constructed in the 14th century. This district is densely occupied nowadays by a low income population and generally neglected by the government. However, various types of income generating self-organized activities occur daily in its numerous souqs. In the same time, social initiatives that aim to protect and develop the historical city also take place in the same space. These two types of self-organized activities deal directly with the physical urban environment. This thesis studies the impacts of the self-organized activities on the physical environment of historical Tripoli specifically, in the light of the current local governmental policies. The overall research question is:

What are the impacts of income generating and socio-cultural self-organized activities on the physical environment of the historical center of Tripoli?

In this question, the dependent variable is the physical environment and the independent variable is the self-organized activities. After presenting in the chapter 2 how the concepts of self-organization, spatial complexity and complex adaptive systems are defined in literatures and analysing the relationship between them, the following 5 sub-questions can be specified:

- 1- *What are the income generating activities and socio-cultural initiatives of self-organized groups that take place in historical buildings and public spaces of the historical center?*
- 2- *Is there any collaboration between self-organized actors and the local government that aims to renovate the buildings and public space in the historical center? If yes, what kind of collaboration?*
- 3- *What are the characteristics of dynamics created in the old center by the self-organized activities?*

4- *How is the appropriation of the physical environment of the historical city happening by self-organized groups? How do those activities impact on the spatial configuration?*

5- *What are the generated social relations and behaviour created in the space of the historical city of Tripoli by the self-organized activities?*

3.2 Research Approach and Technique

In the next part, the research strategy will be revealed. The risks, limitations and challenges resulting from this choice will be discussed along with the measures that were taken to deal with them.

3.2.1 The Research Strategy: A single holistic deviant case study

Many facts related to the nature of this research justify the case study choice. On one hand, in order to study the relationship between the dependent variable (physical environment) and the independent variable (Self-organization), the focus is on a contemporary research where the general context cannot be isolated due to the complexity that tightly interlinks the spatial framework and the self-management of people in a specific and continuous cycle. Therefore, the mechanism setting of the current interrelations leads to understand the operational link between a set of conditions and their effects.

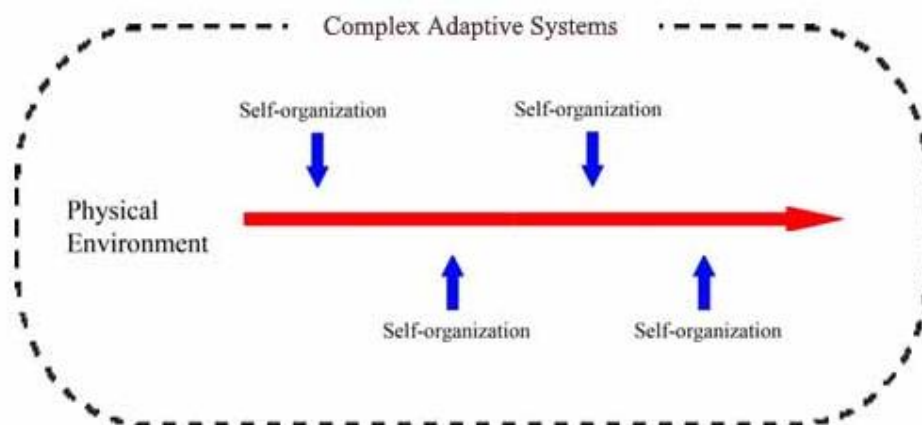


Figure 5: The relation of independent and dependent variables. Source: by author

On the other hand, the physical environment is an integral component of the urban context and it cannot be detached from it. In fact, to study the reaction of the independent action (self-organization) in the specific context of old Tripoli center, there is no wish in the first place to control the spatial context situation because it is where the interrelation with the other variables happens and it is the main subject of observation.

Also, as mentioned earlier, the uniqueness of the context which includes the important historical value of the old heart of the city, the high density, the extreme poverty, the security

situation and the status of ignorance by the government, present an exclusive framework that cannot be found in any other comparable case. Therefore, the case *study* as a *research strategy emerges as an obvious option to tackle the questions addressed in this thesis*.

Moreover, the research considers all the context of the historical center of Tripoli as a whole. Therefore, the case will be dealt with in its totality as a single holistic case study. And since it analyses aspects in the context that lead to an outcome other than expected or than typical, it can be considered as a deviant case. In fact, the self-organization impacts on the historical physical environment are not foreseen because of their permanent mutation and interrelations.

3.2.2 Risks, Challenges and Limitations

The case study strategy presents many risks, challenges and limitations. When it comes to studying the spatial complexity, one of the main challenges was choosing the right baseline for the original status of the physical environment. In fact, due to the high complexity level of the case many factors are constantly acting together and impacting the physical environment since the creation of the city. This makes choosing the period where the buildings are considered original and intact very complicated. In addition, another risk of this strategy was to misinterpret the relation of self-organization and the transformation of the space, because the space can be affected by many other factors as well. Also, the degree of sharpness and the subjectivity of the researcher observations could limit the reliability of the results.

To deal with this, deciding the baseline for the original status of buildings was based on the secondary data and the data collected from the semi-structured interviews with the experts who helped in understanding the chronological transformations that happened. Also, a decisive choice was realized after few preliminary observations and interviews with locals who provided relevant criteria since they probably know the history of their old centre better than the researcher. Regarding the risk of bias, the researcher always tried to be objective, sharp and scientific in order to get a valid result. The triangulation of information was crucial in order to achieve this goal.

3.3 Operationalization: Variables, Indicators

In order to operationalize the adapted theoretical framework, variables and indicators deriving from the literature review are selected. The main concepts in the theoretical framework are: the self-organization, the spatial complexity as part of the complexity theory and the complex adaptive systems theory. Defining the concepts figuring in the theoretical framework is personal but it was based on the previous definitions and statements given by authors in different literatures and presented in chapter 2.

Since the main objective of this research is to understand how self-organized activities are continuously affecting the spatial configuration and the social behaviour in the physical environment of the historical center of Tripoli, the personal self-organization definition will be established within the theory of spatial complexity framework. Supported by the definitions

and statements of Boelens and Boonstra in 2011, Ismael in 2011, and Casakin and Portugali in 2006, self-organization can be defined as “*the continuous interaction of people, institutions and spaces that generates initiatives initially independent from the government in order to achieve purposeful activities*”. So, the main variables related to self-organization and relevant for this study are: purposeful activities, continuous interaction, independent initiatives

Regarding the concept of the spatial complexity as part of the complexity theory, the statements of Pulselli in 2006, Cetin in 2010, Boelens and Boonstra in 2011, and Casakin and Portugali in 2006, led to the following definition: “*A characteristic of the city complexity where the space continuously interacts with people actions. This dynamism is reflected on the spatial configurations and social behaviour. The main variables related to this concept are: continuous interaction, spatial configuration and social behaviour.*”

Finally, defining “complex adaptive systems” relied on the literature review of Borham et al. in 2012, and Lichtenstein et al. in 2006. Therefore, the concluded personal definition of complex adaptive systems is: “*Complex systems where urban agents self-organize mutually interact and change their behaviour in order to adapt to changing circumstances*”. The relevant variable is: *adaptive interaction*.

It can be noticed that the “continuous interaction” variable is used to measure both concepts of self-organization and spatial complexity. In fact, both of them consist in continuous interactions with other agents within the urban complexity theory framework. Overall, the definition of the concepts of the theoretical framework can lead to following set of variables:

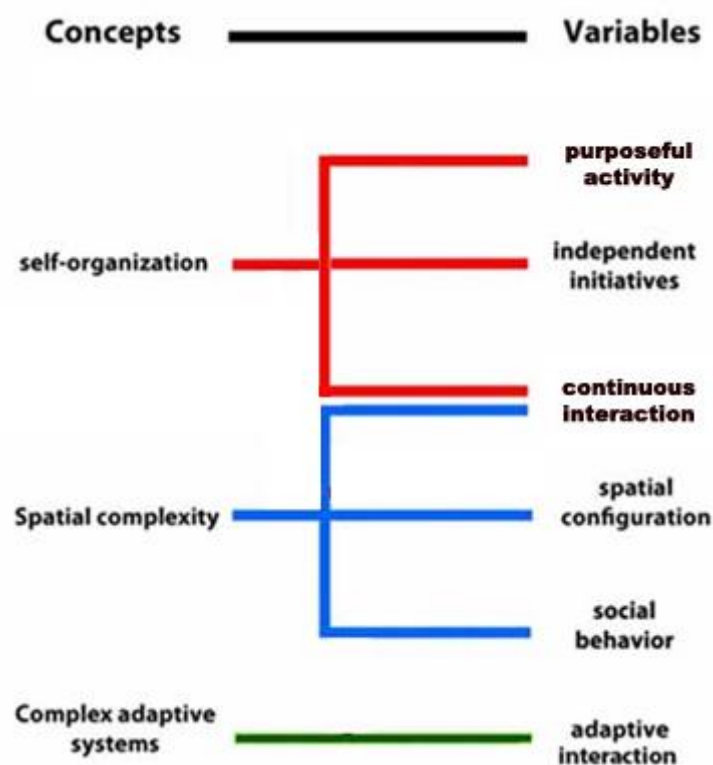


Figure 6: The concept and variables. Source: by author

In the following table we can observe the indicators used to operationalize the variables and how they are measured. Each set of indicators are related to one sub-question.

Table 1: List of variables, indicators and measurements

Research Questions	variables	indicators	Measurements
<i>1-What are the income generating activities and socio-cultural initiatives of self-organized groups that take place in historical buildings and public spaces of the historical center?</i>	Purposeful activity	Type of the activity	- Income generating activity/ socio-cultural activity - type of generating activity -type of socio cultural activity
		Location of the activity	-In a historical building/ public
		Type of actors	- Individual/family members/ employees/NGO/civil society
<i>2- Is there any collaboration between self-organized actors and the local government that aim to protect or renovate the buildings and public space in the historical center? If yes, what kind of collaboration?</i>	Independent Initiatives	Degree of independence from the government	- Availability of cases where the governments collaborated with individuals and groups to realise their initiatives or where government include S.O groups in its projects

<p><i>3-How is the appropriation of the physical environment of the historical city happening by self-organized groups? How do these activities impact on the spatial configuration?</i></p>	<p>Spatial configuration</p>	<p>New patterns and uses</p>	<ul style="list-style-type: none"> - How is current use of buildings and space by S.O groups different from its original use purpose? -Identity of the space -New spatial patterns
		<p>Quality of open space</p>	<ul style="list-style-type: none"> -Visual pollution by solid waste -Green public spaces -Ease of circulation -The penetration of sun
		<p>Quality of the buildings</p>	<ul style="list-style-type: none"> - Status of maintenance - Non-vernacular physical elements added to the buildings - Visibility of the buildings
<p><i>4-What are the characteristics of dynamics created in the old center by the self-organized activities?</i></p>	<p>Continuous and adaptive interaction</p>	<p>Attraction of visitors</p>	<ul style="list-style-type: none"> - Are the S.O activities attracting visitors to the historical center?
		<p>frequency</p>	<ul style="list-style-type: none"> -What time of the day does the S.O activity appropriate the space? - How often does the S.O activity happen during the year?
		<p>Constancy</p>	<ul style="list-style-type: none"> -Since when was the activity going on? -Has the activity been stopped or modified because of changing circumstances?
		<p>Satisfaction</p>	<ul style="list-style-type: none"> - satisfaction of S.O actors and related people to the activity -willingness to continue the activity in the future

<i>5-What are the generated social relations and new behaviour created in the space of the historical city of Tripoli by the self-organized activities?</i>	Social Behaviour	-New perception of the space	-How S.O activities generate new behaviour while dealing with the space
		- Interaction between locals and S.O actors	-Type of social interactions

3.4 Data Collection Methods

The collected data in this research consists in both types of primary and secondary data.

3.4.1 Primary Data

The primary data is a combination of quantitative and qualitative data and focuses on four groups of target populations: the key informants, the residents, the groups that use the historical center for income generating and socio-cultural activities and the visitors of the historical center.

3.4.1.1 The data collection methods

The closed-questionnaire survey intends to collect quantitative data and also allows getting qualitative information. The survey is considered the most suitable way to gather quantified data about the following indicators: the continuity level of dynamics created by the self-organized activities in the space, the opinions and feelings of different actors about these activities, the generated social relations and the value of the heritage for the users of the space. Actually, nothing can tell more about feelings, opinion and perception of different actors (inhabitants, visitors, vendors and social actors) than these actors themselves.

The semi-structured interview is the most adequate to gather information from key-informants because already some knowledge is known about the general context of the old center from the secondary data. The semi-structured interview allows asking in-depth questions and facilitates interaction with people that are keen on the subject which can open new perspectives and give different insights about neglected sides of the research subject and also include reconstructive questions. The key informant's semi-structured interviews are conducted with municipality members, professionals, NGO's, social groups that present an expert group characterized by its knowledge and understanding of the local situation of the historical center.

Finally, personal and participatory observations allow the researcher to evaluate the current situation of the built environment and to gather reliable data to compare it with the secondary data found in reports, websites and other documents. Personal pictures of the buildings and public space were taken. Since this is a case study, the spatial context presents one of the main characteristics of the conceptual framework. Therefore, it is very important to get relevant, valid and up to date data by directly observing the space.

Also, social behaviour of people in public spaces can be detected by participatory observations where the researcher participates in the ongoing activities which provide him with a closer view to people actions. In fact, an event was organized by self-organized social groups in collaboration with the municipality and the chamber of commerce, industry and agriculture, and consisted of a trip for people living outside of the historical center or the city to get to know its historical treasures. This event was attended the first week of the field work which helped to discover the city as seen by its social organized groups and to create connections with these groups.

3.4.2 Secondary Data

The second type of collected data is secondary data which is useful for triangulating data and for providing qualitative data about earlier status of the built environment. Several secondary data sources are selected, for instance: literatures about the research topic to understand the theories and trends about the context, policy documents, articles, reports, websites, and social media especially Facebook.

3.5 Sample Size and Selection

The data will be collected using purposive sampling in the case of closed questionnaires and semi-structured interviews as well, where chosen people have certain wanted characteristics. The closed questionnaires respondents were chosen from three specific groups of people: the residents living in the old center, the people who use this location for their income generating and socio-cultural activities and the visitors of the historical center. The size of each selection depends on the category. In fact, the structured questions survey for vendors that use the historical center for their activities go on parallel with the researcher observation of the quality of the historical buildings. A sample of 34 vendors is chosen. Regarding the groups of local residents, 30 persons are considered. 32 respondents from the visitors group are questioned and finally 30 volunteers from different social groups were chosen (one question related to the most worthwhile aspect of their participation was an open-question). In addition, some of the respondents on the closed-surveys had some comments and reflexions on the subject that were also registered by the researcher.

On the other hand, the respondents of the semi-structured interviews are selected based on their knowledge and as the most relevant expertise in the research context. However, the snowball sampling technique was used to identify potential respondents. It means that the experts nominated other persons that they considered eligible to provide useful information. This formed a chain of respondents and helped to get more useful data. Also, selected actors

in social organizations were interviewed with semi-structured questionnaire. The interviewed key-informants are presented in the following table:

Table 2: List of key-informants

Name of respondent	Position/organization	Data collected
Elias Khlat	Independent social, cultural and environmental activist	Formality/informality, regulations and laws, respect of heritage, status of public spaces, original use of the buildings, role of civil groups
Dr. Khaled Tadmori	Member of Tripoli municipality council, Architect, Initiator of the civil campaign to protect the historical monuments in Tripoli	Formality/informality, regulations and laws, respect of heritage, status of public spaces, original use of the buildings, municipal policies, architectural information, status of green spaces, role of civil groups, status of maintenance of the physical environment
Samira Baghdadi	Member of Tripoli municipality council, Social development consultant in Al Safadi organization	Municipal policies, respect of the heritage, status of public spaces, activities by Safadi foundation, impact on physical and social structure
Nathalie Chahine	Architect, specialist in one of the urban development projects in Tripoli	Original use of the buildings, respect of the heritage, status of green space, status of maintenance of the physical environment
Taha Naji	Founder of We Love Tripoli community organization	Main activities, timeline, participants, relation with government
Anonymos	Administrative assistant of Utopia (NGO)	Main activities, timeline, participants, relation with government

Baker Al Seddik	Founder of Nadi Al Asar social group	Main activities, timeline, participants, relation with government
Mira Minkara	Independent activist	Main activity, social behaviour of visitors/locals, satisfaction, willingness to continue
Anonymos	Volunteer in Nadi Al Asar	Social relations created, satisfaction, willingness to continue
Anonymos	Volunteer in Nadi Al Asar	Social relations created, satisfaction, willingness to continue
Anonymos	Volunteer in Utopia	Social relations created, satisfaction, willingness to continue
Anonymos	Volunteer in Utopia	Social relations created, satisfaction, willingness to continue

3.6 Validity and Reliability

Validity is the degree to which the research studies what it was meant to study. In this case study, the validity is internal since the questioned subject is directly related to the context and the relationship between specific actors in specific circumstances is taking in account. Therefore, the external validity is limited because the resulting findings will not be the same in a different case study. Reliability means that the way indicators are measured is consistent. It is the extent to which another researcher gets the same results when using the same instruments to measure the same indicators under the same condition (McGoey et al., 2010). To assure that the data is valid, the triangulation method allows to cross-checking data from the multiple sources: observations, surveys, interviews and secondary data. This helps to prove the accuracy and consistency of the collected data since the variables were processed in the same way by different actors. Also, the closed and semi-structured questionnaires will be pre-tested to confirm that their effective.

3.7 Data Analysis methods

The quantitative and qualitative analysis approaches are both adopted to analyse the collected primary and secondary data. Quantitative data was analysed using the SPSS statistical

software that allows representing the data in numeric values and tables. Qualitative data was analysed and coded manually since the interviews have different questions dependent on the position of each key informant. Personal observations of the researcher were combined to the obtained secondary data and data from the semi-structured interviews in the analysis.

The coding process of the data collected from key-informants followed the next steps:

- Writing personal memos to record reflecting notes of the researcher during the interview.
- Data entry and storage which consisted in transcribing interviews by typing the text from interviews, observations and memos.
- Creating analytical units: codes and sub-codes
- Assigning the codes to the segments of data from the primary (interviews, observations and memo, photos) and secondary data (literatures, policies, websites and social media texts, articles, etc.)

The type of coding in this research is a priori coding, which means that the codes were pre-set before examining the collected data. These codes were chosen directly to help measuring the indicators in chapter 2. However, some inductive codes (emergent) that were found relevant were added to the list after checking the obtained data and the whole list of codes and sub-codes was refined several times.

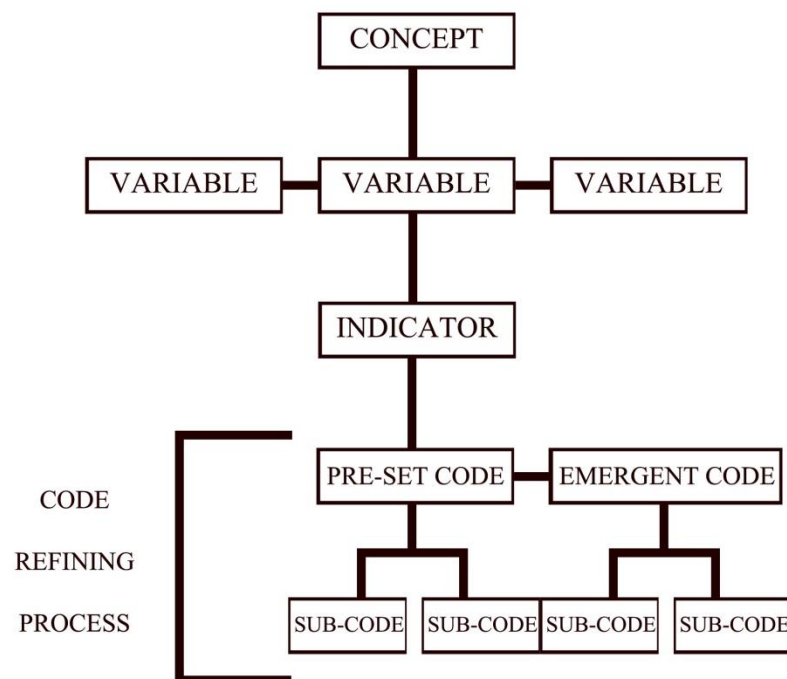


Chart 1: The coding process. Source: The author

Regarding the open question asked for 30 interviewed actors in social groups about the most worthwhile aspect of their participation, the codes were emergent since it was difficult for the researcher to predict the answers earlier.

3.8 Research Time Schedule

	9-15 June week0	16-22 June week1	23-29 June week2	30-6 July week3	7-13 July week4
Secondary data collection					
Scheduling interviews					
Prepare research outline for key-inf					
Site observation					
Semi-struct interviews					Flexible
Survey					Flexible
Interviews coding					
Organizing collected data					

Table 3: The timetable of field work

P.S: The observation method will only take place in the first two weeks of the field work because of the beginning of “Ramadan month” in the third week where different dynamics occur than the rest of the year (as mentioned in the first chapter). A part of the fourth week will be left as a safety net to collect any needed data or to complete missing surveys and interviews.

3.9 Limitations and Challenges of data collection methods

Many challenges can be detected regarding the data collection process. To begin with, the short time available to conduct this research presents one of the most important challenges. In fact, the context of the historical center of Tripoli is relatively big, very complex and the self-organized activities are various and interrelated. Therefore, the duration of four weeks did not seem enough to gather all the necessary data to study the impact of the self-organized activities on the physical environment. To deal with this, the researcher should have a good time management. Appointments for interviews, survey questionnaires and interviews plans were prepared and organized before flying back to Lebanon for the field work. Also, collection of secondary data available online were started before the field work.

Another potential challenge was the language. In fact, when it comes to translating the questions and data from English to Arabic and vice-versa, there is a risk to unintentionally modify or incorrectly present some information. Therefore, as mentioned before, questions were well prepared and designed in advance and they were as clear and simple as possible. To avoid any misunderstanding, the researcher conducted personally the survey. Regarding the process of finding an understandable terminology for self-organization by respondents, the questioned group should be able to relate the questions to their situation and make a link

between their daily life and the answers they have to give. When it comes to key-persons who are keen on the spatial complexity and the social activities in the historical center of Tripoli, self-organization was explained on a higher level. This allowed this category of interviewed individuals to use their background to give appropriate and relevant answers to the research subject.

Moreover, the availability of information presented a serious limitation to this research. First of all, it was very easy to communicate with locals and make them willing to participate in the survey. In fact, it required building a trust relationship between the researcher and the people which can be in many cases hard to establish. To communicate with people and gain their trust, the researcher should have good psychological skills, a friendly attitude and should let the locals know how valuable their collaboration is. In order to facilitate the survey process, a previous connection was established with social groups and NGOs that are familiar with the context and close to the locals. These groups helped to introduce the researchers to the questioned population which created a mutual relation of trust and openness between them, and facilitated obtaining true and sincere answers.

Finally, it was hard to find secondary data related to socio-cultural self-organized activities in the old center of Tripoli since this concept is practically new in the context of the city. Therefore, social media groups like Facebook were useful to connect with all the actors initiating these activities.

Chapter 4: Research Findings

The chapters 1, 2 and 3 gave information about the background and significance of the study, the research question and objectives, the related theories, the conceptual framework, the research design and methods and the limitations of the research. The following chapter shows, analyses and discusses the quantitative and qualitative findings. Its goal is to answer the main research question: “*what are the impacts of economic and socio-cultural self-organized activities on the physical environment in the historical center of Tripoli?*”, and the five sub-questions. The results are divided into 5 sections. The first section deals with general information about the self-organized activities by looking at the types, the locations and the actors. The second section deals with the relation of self-organized actors and groups with the local government and the reflection of their collaboration in specific projects on the physical environment. The third section studies the characteristics of continuity and adaptation of the self-organized activities. The fourth section presents the impacts of the self-organized activities on the spatial configuration and the fifth section studies the social behavioural impacts taken place in the physical environment of the historical center of Tripoli.

4.1 Activities: Type, location and actors

The self-organized activities are an important phenomenon of dynamics in the city of Tripoli where they represent an integrated part of everyday life where it can be seen in various sectors like: economy, socio-culture, housing and even security. However, this research is limited to study the impacts of economic and socio-cultural self-organized activities on the physical environment. The first part of chapter 4 intends to understand the general situation of these activities by identifying their types, locations and actors, and provide enough knowledge to answer the following sub-question: *What are the income generating activities and socio-cultural independent initiatives of self-organized groups that take place in historical buildings and public spaces of the historical center?* The collected data was based on personal observations, semi-structured interviews with key-informants, closed surveys with residents and income generating actors, comments and reflexions by visitors and secondary data. The surveys were about number of income generating actors/activity, residents shopping from the old souqs, participation of residents in social initiatives and they were analysed in SPSS. The coding of the qualitative data is showed in the following table:

Table 4: Coding of qualitative data regarding the general situation of self-organized activities

Code	Sub-code	Source	N
Income generating activities	Type of the activity	Observations	4
	Importance of the variety of types	Reflexion and comment of one respondent	1
Public space	Type of activity in public space	Observations	5
		photo	1

Formal/ informal	Official numbers	CCIAT	1
	Relation with municipality	Semi-structured interview with Khaled Tadmori and Elias Khlat.	2
		Secondary Data	1
	Self-organization	Semi-structured interview with Khaled Tadmori and Elias Khlat.	6
		Secondary data	2
Social Initiatives	Participants	Semi-structured interviews with Mira Minkara, Taha Naji, Anonymos from Utopia, Baker Al Seddik, Samira Baghdadi	5
		Secondary data	7
	Type of initiatives	Semi-structured interviews with Mira Minkara, Taha Naji, Anonymos from Utopia, Baker Al Seddik, Samira Baghdadi	6
		Secondary data	10
	Level of participation	Semi-structured interview with Taha Naji	1
	How people are informed in order to participate	Semi-structured interviews with Taha Naji, Anonymos from Utopia and Mira Minkara	3

4.1.1 Income generating activities: formal, informal and self-organized

The different souqs of old Tripoli are the main location where the income generating self-organized activities happen. Mostly, vendors selling clothes, shoes, artisanal and handmade products, house appliances, kitchen tools, grocery, vegetables and fruits, etc. are located inside of historical buildings. The public space is occupied by hawker vendors while in front of the shops the sellers use the pedestrian space to display their goods and merchandises. Also, we can find merchants with a daily fixed location in the public space. They carry out their business in permanent built structures for this purpose or they use boxes and tables that they install every morning.

It is essential to point that the status of the shops in the old souqs is a mixture of formal and informal where 1800 shops are registered in the Chamber of Commerce, Industry and Agriculture in Tripoli and the North (CCIAT) and 2000 are not registered (CCIAT, 2014). The status of hawker vendors is not formal; however the municipality allow them to run their business for a small fee of money every year, while the built fixed structures in public spaces

were legalized by the municipality for specific political powers reasons. Rabo, 2005, stated that some would consider the individual enterprises as well as informal sector of economy because of the fact that they “have retained their relative organization simplicity” (p: 10) where they manage their work without elaborate book-keeping. However, the informal/formal statuses of the activities do not affect the self-organized identity of the old souq. In reality, the market in Tripoli is still working according to the same commercial life conventions since the Mamlouks period, where “labour arrangements, utilization of space in the market, import-export, the selling of products and the production process itself, crisscross the formal/informal dichotomy, blurring the lines between the two” (Rabo, 2005:10).

The income generating activities can be characterized as self-organized groups because of many facts. To begin with, they organize themselves in syndicates and association of vendors like The Tripoli Merchants Association (TMA) where they take decisions together to improve their situation or face common problems. Self-organization can be translated in negotiations with the customers, and the way vendors agree among them on how to divide the space in order to show the merchandises together. Also, they organize their tables and stands in different corners they choose, where for instance, similar juice vendors can be found in distant spots so they don’t steal each other customers. In addition, the table 5 shows that half of the questioned actors work individually while 26.5% of the activities are managed and done by the family members. Only one shop among the sample of 34 has more than 5 employees. This shows that 76.5% of income generating activities is self-organized which means that vendors choose when to go to work and when not, they choose how to use the space for their own needs and how to share it with their neighbouring vendors, and they negotiate the price with the customers and decide their own sales season. The activity in the souqs acts as a complex agent in the city. In fact, according to Weiss et al. (1998) “bazaars are not only a marketplace but a city within the city with its own economy and way of life and a spiritual background” (p:7).

Table 5: Type of actors working in self-organized income generating activities

	Frequency	Percentage (%)
Individuals	17	50
Family members	9	26.5
Boss and less than 5 employees	7	20.6
Boss and more than 5 employees	1	2.9
Total	34	100

P.S: This study was conducted in the following old souqs: souq al Sagha, souq Al Attarine, souq al Kindarjiyeh and souq Al Bazerken. It included 30 vendors in shops and 4 hawker vendors each chosen randomly from one street.

Regarding the type of income generating activities occurring in the old souqs, the survey showed the following:

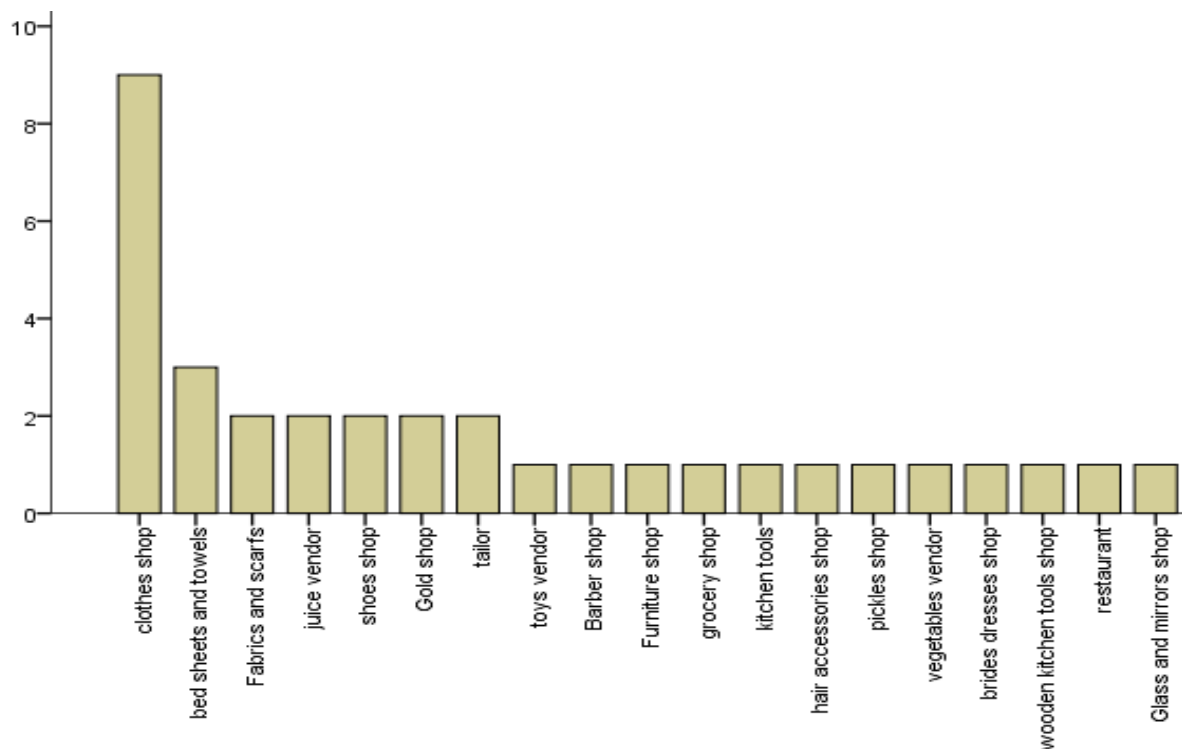


Chart 2: Detailed types of income generating activities

The chart 2 shows how diversified are the self-organized economic activities in the old souqs of Tripoli. In the total of 34 surveyed activities we have 20 different types where the most common type is the clothes shops. The variety of self-organized activities in one urban context clearly reflects the complex identity of cities. Actually, Boelens and Boonstra (2011) stated that cities are outcome of thousands of self-organized participants who act synergically but in a relatively independent matter. The big diversification of activities illustrates the idea of Boelens and Boonstra, where each actor has different specific target (selling kitchen tools, making clothes, running a restaurant, etc.) but each of them participates in the global activity of the souq. Moreover, the multiplicity of products and type of services offered in the souqs form one important factor in attracting buyers and creating dynamics in the old city. When asking one respondent on the survey that comes from Akkar⁹ about her satisfaction level with the souq she said: *“I come here every week, usually on Mondays, even that I live a bit far. It is very efficient to be able to find all what you need in one place. I usually do all my shopping in one hour, grab a sandwich then go home”*.

In the public space, the observed activities of hawker vendors were limited to food vendors (street food, vegetables, fruits, and juice), toys vendors and carts selling miscellaneous gadgets. However, since shops use the public space to show their goods, numerous stands of clothes, shoes, kitchen tools, etc. can be observed as well in the public space. Also, some artisans use the public space as their atelier to actually produce the objects they sell (figure 7 and 8) which makes the space an integral component of the complex urban system. In fact, this illustrates how the income generating actors are appropriating the space for their activity

⁹ Akkar is a region in North Lebanon that can be reached in around 40 min to 60 min from Tripoli

to respond to their specific needs, and how the space becomes an agent in the self-organization process. De Landa (2006) discussed this reality and mentioned that:

Following complexity theory, it can be argued that the interaction of bodies in public space is simultaneously a process of ordering and disruption. Settled rhythms are constantly broken or radically altered by combinations that generate novelty. While some of this novelty is the result of purposeful action, such as new uses and new rules of public space, emergence properly understood is largely unpredictable in timing, shape and duration, since it is the result of elements combining together in unanticipated ways to yield unexpected novelties.(De Landa, 1997)



Figure 7: An artisan filling manually a mattress with wool and cotton in a public square. Source: the author



Figure 8: An artisan making pillows on the side walk. Source: www.Beirutnightlife.com

4.1.1.1 Do local residents shop in the old souqs?

Table 6: Frequency of local residents shopping in the old souqs

	Frequency	Percentage (%)
Always	20	67
Sometimes	10	33
Never	0	0
Total	30	100

Residents in the historical city were asked if they buy the products they need from the old souqs. The results in table 6 show that 67% always buy their products from the old souqs. None of the respondents answered that they never buy their goods from the local market. Therefore, it can be concluded that the interaction between the residents and the income generating actors is an additional actor in the complexity context of old Tripoli and that the locals support the permanency of the activities by shopping in the historical center.

4.1.2 Socio-cultural activities

Various independent socio-cultural activities take place in the historical center. On one hand, some are the results of personal or social group initiatives. On the other hand, NGOs and organizations encourage initiatives and volunteering, and collaborate with locals and social groups in order to create socio-cultural activities that improve and protect the physical environment. In the following part, five types of social initiatives in old Tripoli will be presented.

4.1.2.1 Personal or socio-cultural group initiatives

Because of the shortage of time, the activities of only 5 socio-cultural self-organized groups will be studied in detail. Yet, other social initiatives will be mentioned from secondary data sources. These groups aim to protect, improve and develop the historical center, promote tourism, create awareness of the important of the ancient heritage and create a network between the locals and the residents of the new city and the locals and people coming from outside of Tripoli. For the purpose of this research, the focus will be on the activities that appropriate the space in the old center and how is this affecting the physical environment. The studied activities are initiated by the following actors: Mira Minkara, Utopia for Social Justice, We love Tripoli, Safadi Foundation Nadi Al Asar and Mira Minkara .





Figure 9: 1- Utopia for Social Justice, 2-We love Tripoli, 3- Safadi foundation, 4- نادي آثار طرابلس, 5- Mira's guided tours in Tripoli. Source: The author

To begin with, *Mira's guided tours in Tripoli* is a personal initiative where a young lady called Mira and studied tourism decided to plan touristic visits to the historical center of Tripoli. These visits goals are to reveal the beauty of the ancient city especially after being forgotten due to the local continuous conflicts where the attention of the media focused only on showing the negative image of the historical city. The targeted groups are international tourists, Lebanese who live outside of Tripoli and especially visitors who prejudice that the city is not worth to be visited.

Another example is a community organization named *We Love Tripoli* which started as a personal initiative. In fact, in May 2007, the young man Taha Naji decided to create a Facebook group that connects people from Tripoli living outside the city with their roots and to “*change Tripoli's image as an extremist-driven and violent city*”(We love Tripoli Facebook group, 2014). Many persons joined this group where members organized every weekend an activity called *Shoot As You Walk*. This event consists of a walk in the city while taking pictures of the daily life in order to make it public on Facebook. Many of those events where organized in the historical center and revealed the hidden secret of the unknown heritage to the foreigners. In 2009, this group became a registered legal organization that promotes cultural, social and environmental activities. Until 1/9/2014, the Facebook group had 48115 members. With time, the activities of this group evolved to include cleaning, greening and renovation of the monuments and public space.

When it comes to *Utopia*, this NGO registered in 2013 at the Ministry of Interior and Municipalities started as well as an independent initiative when a group of young activists wanted to create a social campaign to raise the citizens' awareness of their civil rights. This group organized activities in the poor areas of Tripoli and mostly in the old city. *Utopia* focuses as well on improve the condition of the physical environment like rehabilitation of the ancient buildings, Infrastructure work, lighting projects, greening the public space and artistic drawings on the walls. After becoming an NGO, *Utopia* keeps collaborating with volunteers especially students and also tries to hire low income Lebanese locals and Syrian refugees to accomplish its projects.

The fourth interview was done with the founder of *Nadi Al Asar* (Heritage Club) which activities focus exclusively on the historical center. This club was founded in 2004 when the main activity consisted of an event called *Tripoli day* every 26 of April. In this day, the club organizes a trip for high school and university students to introduce the heritage of the old city. However, *Nadi Al Asar* realized that the value of the heritage was not respected and historical buildings were being dangerously abused where parts of the architectural elements

were being disassembled and sold. In December 2012, this club launched the campaign of *Tripoli heritage protectors* where around 80 volunteers, mostly students in the Lebanese University, got in charge of weekly visiting the different parts of the old city and report any abuse and present it to the ministry of culture. Also, the volunteers have to create a list with all the historical buildings that exist out of the official historical city borders. This list should be presented to the municipality in order to assure protection of many heritage treasures that are not classified. Moreover, the campaign aims to create awareness, organize visits for foreigners and Lebanese to his historical center and do rehabilitation projects in collaboration with the locals.

In addition to personal and groups initiatives, many NGO s are interested in activities in the historical center that deal with the physical environment and cooperate with locals while trying to promote independent initiatives. For instance, the *Safadi Foundation* created a group of volunteer children called the *Eco-police* and organized an environmental day where those children helped in greening and decorating the historical stairs in their neighbourhood that were rehabilitated by the foundation in an earlier stage. Actually, the foundation achieved three rehabilitation projects related to three different historical stairs: stairs of solidarity, stairs of change and stairs of Integration. The goal of these projects was to decorate, renovate and preserve the historical value of the stairs in order to give locals a public space for leisure activities. Also, it intended to well connect the historical center with its surroundings. These projects were supported by volunteers from the neighbourhoods while other workers were hired from the locals as well.

4.1.2.2 Participation of the residents

Since the studied initiatives aim to improve the historical centre, it is interesting to know if residents participate as well. In an interview with the founder of *We love Tripoli*, he stated that currently up to 10% of the active members are residents from the old city. Actually, this percentage appears to be low and it shows that the locals do not participate enough in social initiatives that aim to develop their neighbourhoods. Therefore, a survey was carried out with the residents in order to understand this fact. At first, they were asked to what extend they know about the independent activities from the government that protect or/and renovate the ancient buildings and public space in the old city. 6.6% answered that they knew mostly about all of the activities that happened, 46.7% said that they knew about some of the activities and 46.7% as well replied that they never heard about any activity. Only 4 residents among the 16 that mostly or partly knew about the activities said that they never participated. It can be assumed that people are interested in participating in activities that help developing their neighbourhoods but they are not well informed about them. To test this hypothesis, the *chi-square* test was run. The knowledge variable about the actors and group that initiate the activities was divided in: *I know* and *I don't know*. The participation variable was also divided in: *I participate* and *I don't participate*. The following results were obtained

Table 7: The relation between participation in the activity and knowledge about the activity

		Participation		
		I participate	I don't participate	Total
Knowledge	I know	12	4	16
	I don't know	0	14	14
Total		12	18	30

The results of the test show that there was a statistical significance that people who knows about the activities participate; $X^2(1, N = 30) = 17.5, p = .000$. When asked about how they communicate with people to inform them about their activities, “We love Tripoli”, “Mira’s guided tours in Tripoli” and “Utopia” said that nowadays they depend a lot on Facebook to connect with other interested members while many inhabitants in the old city do not have access to the internet or they are illiterate. This is a prove confirming that the lack of knowledge about the activity is one reason behind the weak participation of people.

4.2 Independent initiatives: Degree of independence from the local government

This part describes to which extends income generating activities and social activities resulting from personal and group initiatives are independent from the local government and its policies. It focuses also on the connection of the governmental institutions with these activities and the impacts on the physical environment, and aim to answer the following question: *Was there any collaboration between self-organized actors and the local government that aim to protect or renovate the buildings and public space in the historical center? If yes, what are they?* The data was collected from Observations, semi-structured interviews, surveys with income generating actors, comments and reflections of vendors. The surveys were about the reason of lack of maintenance by the owners/managers of shops and were analyzed in SPSS while coding process is presented in the following table:

Table 8: Coding regarding the collaboration of the local government with SO activities.

Code	Sub-code	Source	N
Collaboration of municipality and income generating S.O groups	Example of a collaboration	Semi- Structured interview with Nathalie Chahine	1
		Secondary data	2
	Being neglected by the local government	Comments and reflections by income generating actors	12

Collaboration of municipality and social S.O groups	Example of a collaboration	Semi- Structured interview with Samira Baghdadi	6
		Secondary data	3
	Current situation of The relation	Notes of the researcher about the participatory observation in one event	1
		Semi-structured interviews with Khaled Tadmori, Elias Khlat and Baker Al Seddik	3

4.2.1 Collaboration of the local government and vendors

As seen in chapter 2, self-organization was defined by Boelens and Boonstra (2011) as continuous interaction between people, places and institutions, and by Casakin and Portugali (2006) as open systems that exchange information with their environment. Therefore, self-organized groups are open to work together with the government to achieve their goals. Regarding the case of collaboration between the income generating groups and the government, the only example found by the researcher was in 2003 when the municipality of Tripoli in collaboration with the association of Jewellers renovated the whole Souq Al-Sagha supported by French funding. In that occasion, the head of the municipality council affirmed that any cooperation between the vendors and the local government that aims to conserve the heritage of the city is always welcome (Al Mostakbal, 2003). It is always possible to have other collaborations that were not detected by the researcher. However, the collaboration between the shops owners/managers and the local government in development projects remains limited. Actually, in its report about Lebanon Urban Profile, UN-Habitat (2011) stated that “the historic souqs of Tripoli, [are] maintained mostly by individual and private initiatives from shop owners” (P:32). To investigate this, the status of maintenance of 30 shops was checked. The following results were obtained:

Table 9: Status of maintenance of the historical building

	Frequency	Percentage (%)
Well maintained	9	30
Fairly maintained	12	40
In bad shape	9	30
Total	30	100

Only 30% of the shops were well maintained. In fact, they had an exterior and interior renovation that respected their original character and architecture. Only 2 shops out of this

sample got financial help while the other owners paid themselves the expenses of the work. In fact, these 2 shops were in souq Al-Sagha (Jewellery market) where the collaboration mentioned earlier occurred. When asked about the reason behind the lack of maintenance of the shops, all of the respondents answered that they do not have enough financial means particularly within the bad economic situation in the souq. Moreover, 10 said that the municipality do not pay care about all the souqs and that the development projects should consider the whole area of the old city, not only specific streets. 2 Vendors stated that the municipality promised to help them renovating the facades of their shops and to pave the streets but they are still waiting for concrete actions. One vendor who took the initiatives to renovate his shop and the space in front of it said: *“We could not wait forever for the government to pay attention for us. The buildings were collapsing and we almost lost all of our customers”*.

4.2.2 Collaboration of the local government and civil society

When it comes to social initiatives, some are independent from the local government while others collaborate with the municipality. For example, in the Stairs project, the municipality of Tripoli, volunteer students from the Fine-arts institute in the Lebanese university, the sustainable development department in Safadi Foundation, volunteers from the residents, anthropologists and a festival animation association all collaborated together. In this project, the municipality was responsible of infrastructure rehabilitation works and future maintenance. Another example was illustrated as a cultural trip to the historical center which it was a part of the participatory observation of the researcher. This trip was called *Tripoli: History and Culture*, and was organized on the 5th of July 2014 by organizations from the civil society in collaboration with the chamber of commerce, industry and agriculture and the municipality. In this trip 350 visitors from all of Lebanon got the chance to spend the whole day and discover the old center accompanied by tourists guide. The planners of this event aimed to promote the tourism in the city, raise the awareness about the importance of the heritage and show that Tripoli is a safe place to be, oppositely to what the media is showing. The interviewed key informants Tadmori and khlat argued that the most important role of the actors and groups initiating these initiatives nowadays is to compel the government to do more development projects in the historical centre. On the other hand, Baker Al Seddik founder of *Nadi al Asar* claimed more support by the local government in order to help the club organize more efficient activities.

4.3 The continuous and adaptive interaction

This part answers the following sub-question: *What are the characteristics of dynamics created in the old center by the self-organized activities?* It focuses on studying the continuous and adaptive aspects of the self-organized income generating activities and social initiatives in the historical center. The continuity and adaptation are fundamental aspects of the interaction of self-organization and spatial complexity in the context of urban adaptive complex systems. In fact, cities are systems characterized by their continuous dynamism and mutation (Marion and Uhl-Bien, 2001) and the interactions between parts, is an expression of

the system's organization, achieved by processes of adaptation and selection (Pulselli et al., 2006). In what follows we have two sections where the first will study the continuity and adaptation characteristics of self-organized income generating activities, while the second section will consider the social initiatives case. The data was collected using surveys with visitors, income generating actors and volunteers in socio-cultural activities, comments and reflections of visitors, observations and secondary data. The surveys result were analysed in SPSS while the coding process is presented in the following table:

Table 10: Coding of continuous and adaptive interaction

Code	Sub-code	Source	N
Attraction of visitors to the old center	Reasons of attraction	Comments and reflections of one visitor	1
	Difference in the space between day and night	Secondary data	1
	Reason of dissatisfaction	Comments and reflections of visitors	2
(Negative) adaptation of SO income generating actors	Disrespect of the built environment	Secondary data (laws)	4
		Personal observations	10
	Negligence of the municipality	Comments and reflexions of one respondent	1
	Moving to the modern part of the city	Secondary data	2
(Positive) adaptation of SO income generating actors	Improvement of buildings condition	Comments and reflexions of respondents	2
		Secondary data	3
Constancy of socio-cultural activity	Timeline (of each activity)	Semi-structured interviews with Mira Minkara, Taha Naji, Anonymos from Utopia, Baker Al Seddik, Samira Baghdadi	5
		Secondary data	10
	Frequency (of each activity)	Semi-structured interviews with Mira Minkara, Taha Naji, Anonymos from Utopia, Baker Al Seddik, Samira Baghdadi	5
		Secondary data	3
	Examples of adaptations of socio-cultural actors	Semi-structured interviews with Taha Naji, Anonymos from Utopia and Baker Al Seddik	8
	Security situation	Semi-structured interviews with Mira Minkara, Taha Naji, Anonymos from Utopia, Baker Al Seddik, Samira Baghdadi	15

4.3.1 The income generating activities case

In order to study the characteristics of income generating self-organized activities, it is necessary to know what kind of interactions they create in the historical center of Tripoli. Therefore, 32 visitors chosen randomly were questioned about the purpose of their visit. The survey was accomplished in 3 days in different locations of the old souqs. Also, the survey took place in the morning, in the noon and in the afternoon, to assure that the sample genuinely represent the visitors. 5 persons surveyed mentioned to have more than one reason to visit the center; therefore their first answer was the one considered in chart 3.

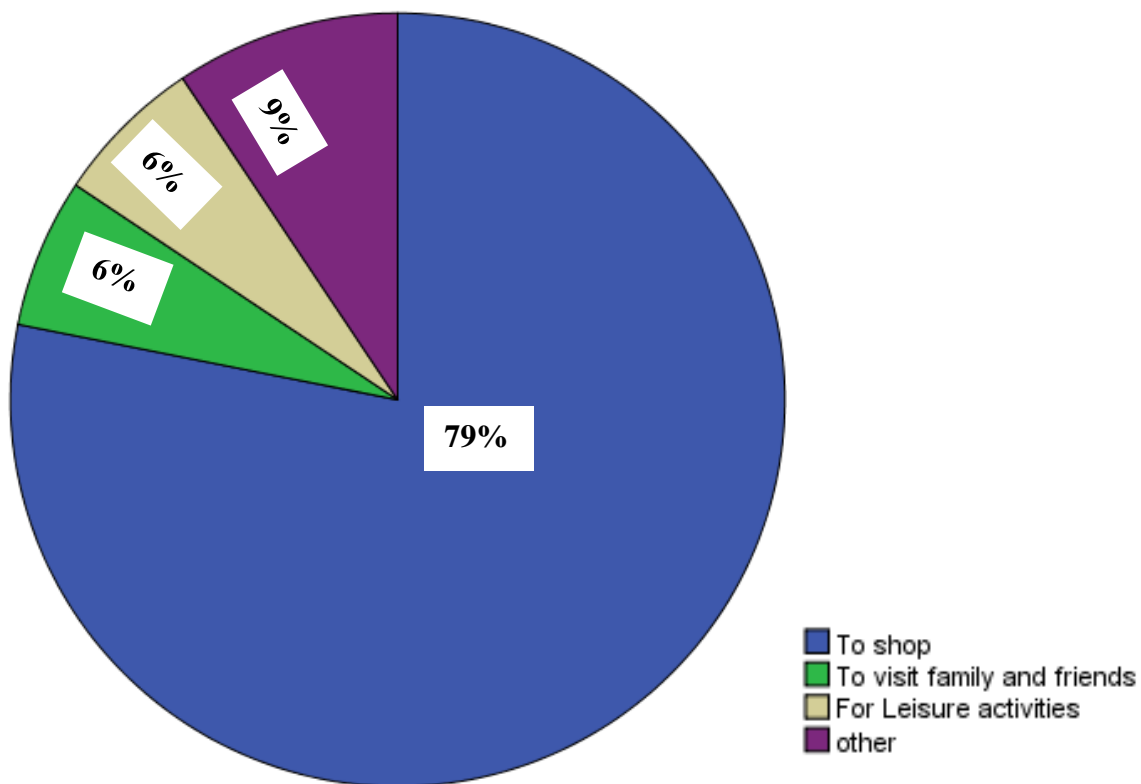


Chart 3: Reasons of visitors to come to the old city. Source: The author

The survey showed that the main reason that attracts visitors is shopping. In fact, 25 respondents mentioned this when asked. Among them, 2 added the reason of visiting family while 3 added the reason of leisure activities. In total 4 persons came to visit family and friends and another 4 for leisure activities like walking, sightseeing, tourism and photography. 2 persons in the sample said they have to cross the old city in order to get to their school while 1 person was a social worker heading to visit a family.

The visitors who gave shopping as answer were asked how frequent they come to the old center for this purpose and where they come from. The results are shown in the following table:

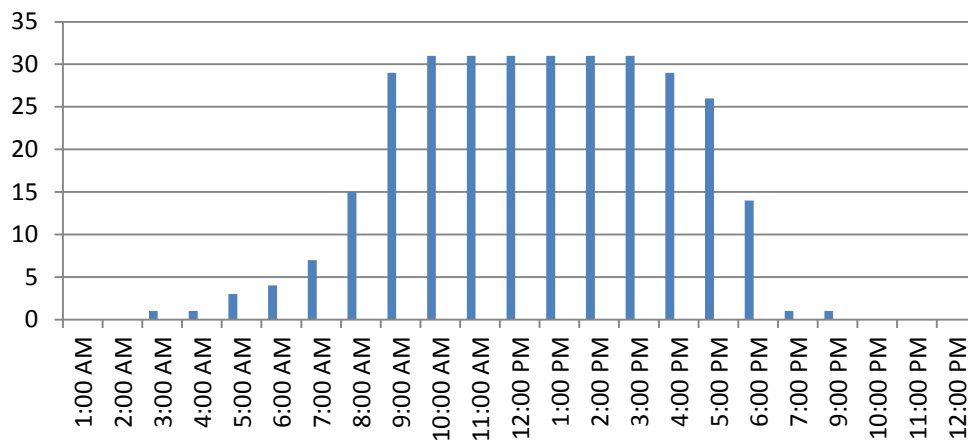
Table 11: Frequency of visit/Region where people come from

		Frequency				Total
		Daily	weekly	occasionally	first time	
From	Rest of Tripoli	5	3	1	0	9
	Al-koura, Akkar and Bcharre	1	6	6	1	14
	Other	0	0	2	0	2
Total		6	9	9	1	25

It can be concluded from the table that the self-organized economic activities attract not only shoppers from the rest of Tripoli (36%), but also visitors come from surrounding regions like Al-koura, Akkar and Bcharreh to buy their needs (56%) and half of them comes every week. These activities are the most important factor that create the dynamics in the old centre and allow Tripoli to be an attraction point for the whole North Lebanon district. One of the respondents from the category of *Al-koura, Akkar and Bcharreh* coming To Lebanon from Ghana to spend her summer vacation stated: *"I do not feel I visited Lebanon if I do not shop in Tripoli old souqs."* This highlights as well the value of the souqs for people living outside of Tripoli.

4.3.1.1 Frequency of the activity

After finding that the income generating activities are the main reason behind the dynamics in the city, we asked the respondents how many days in the week they work, 75 % of the respondents answered that they work 7 days a week while 25% stay at home on Sundays. 40% of the surveyed sample said that they close their shop for around 2 hours on Fridays to go to the prayer¹⁰. The respondents were asked as well about the time they start their activity and the time they finish. The answers were as follow:

**Chart 4: Time when self-organized income generating activities are happening**

¹⁰ The Friday prayer is very important in the Muslim religion

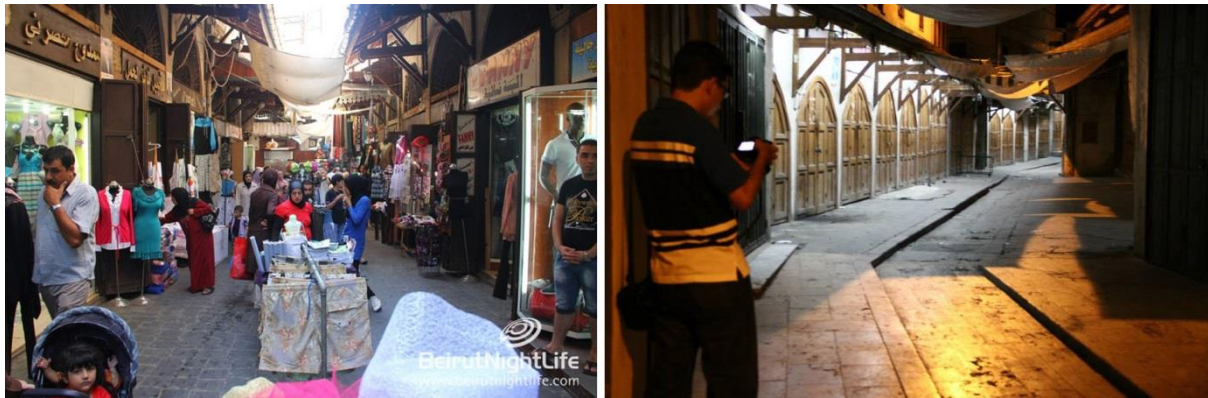


Figure 10: photo 1: The souq during the day. Source: www.Beirutnightlife.com; photo 2: The souq during the night. Source: We Love Tripoli Facebook group

It can be concluded from chart 4 that the period of the day when the old souqs area is the most active is between 9 in the morning and 5 in the afternoon. By comparing the two pictures in figure 10, it is visible that there are no dynamics or interactions happening in the night when the shops are closed. The appropriation of the space by the self-organized income generating activities is responsible of the dynamics happening in the souqs. A principal actor in this interaction is the floating population where people come to this specific part of the city in a specific time and for a specific reason (shopping).

4.3.1.2 Constancy of the activity

The income generating actors were asked about the year where their activity started to happen. Around 50% said that they inherited it from their parents and even grandparents. The following chart illustrates the answers of the survey. 24 activities (70%) have started in the interval of 25 to 75 years ago and still going on until now, while 25% of the activities started in the past 25 years. One owner of a restaurant said that his great grandparents open the business around 180 years ago. The average of years since that activity started for this sample was 43.5 years.

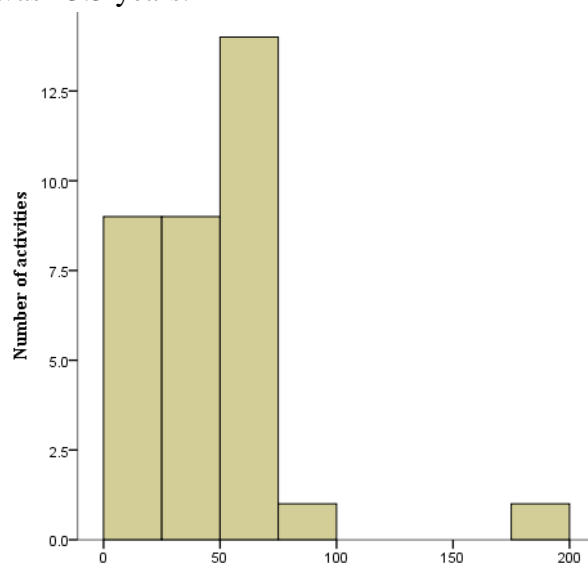


Chart 5: Number of years since the economic activity started

The survey showed also that 8 out of the 9 respondents whose business is a family business, (the member of the family work together and they transfer it to the coming generation) started the activity since more than 20 years. This shows the permanency of the work and the good self-organization of the members. According to Rabo, 2005, a “family-shop” is an instrument for gaining independence and a symbol of market settlement. When asked if they had to stop their work unwillingly, 82% of the respondents affirmed positively while 18% said that this never was the case. All of the 28 vendors that answered by yes stated that the continuous armed conflicts were the main reason that forced them to stop their business many times.

Also, 4 respondents from the same group added that the civil Lebanese war between 1975 and 1990 as an additional reason. The results show that the dynamics created by the self-organized income generating activities are continuous and constant where the activities has been going in a non-stop rhythm for the past 43 years in average which collaborated in giving the specific identity for each souq and the reputation of an attractive trade centre in North Lebanon. However, external emergent factors like the civil war and the armed conflicts intervened as new actors in the city complexity and impact on this dynamism. Gerrits (2012) illustrated this reality by saying that urban systems are in a continuous status of transformation where new circumstances trigger new reactions that increase the level of complexity.

4.3.1.3 Level of satisfaction

The continuity of the activity depends as well on the level of satisfaction of the involved actors. If the actors are happy with the results of their action, they will carry on with it. Therefore, the income generating actors and the visitors were questioned about their satisfaction.

The income generating actors were asked about their satisfaction regarding working in the historical center. 30% answered that they are really satisfied, 44 % answered that they are partially satisfied and 26% said that they are not satisfied at all. 21 % of the actors that said that they are not satisfied at all or partially satisfied are looking to move their activity from the historical center to another place. The main reasons behind the dissatisfaction are: The insecure situation due to continuous conflicts and the negligence of the government towards the needs of the physical environment which is affecting the number of clients. The results showed that the highest percentage of income generating actors is more or less satisfied. One more time the emergent security situation appears to be an important factor affecting the dynamics created by economic activities in the souqs. In addition, these self-organized groups show their openness to the government interference.

The respondents who said that they are visiting the old souqs to shop were asked about their satisfaction with the shopping experience in general. 60% said that they are totally satisfied, 35% said that they are partially satisfied and 5% said that they are not satisfied at all. The main reasons behind the dissatisfactions were the insecurity and the absence of facilities like parkings, urban furniture and public bathrooms. However, all of the respondents stated that they are willing to come back again. The residents as well were questioned about the level of

satisfaction concerning the services offered by the vendors. The results are presented in the following table:

Table 12: Shopping/Satisfaction of residents

		Do you shop in the old center?		
		always	sometimes	never
Are you satisfied with the services provided by the vendors?	mostly	17	3	0
	partially	3	7	0
	not at all	0	0	0

Moreover, all of the residents express that they are willing to continue buying their products from the old souqs. Even with the feeling of insecurity sometimes and the need of improving the physical environment (stated by the shops owners/managers and the visitors), the highest percentage of visitors are totally satisfied while only 5 % are not satisfied at all. This proves again the important role of shops to attract people to the old center but also it can lead to assume that the income generating activities will continue happening in the future since the majority of actors involved are satisfied.

4.3.1.4 Adaptation of income generating actors to changing circumstances

As seen in chapter 2, self-organization occurs in the context of complex adaptive systems. Many examples illustrate the adaptation of the self-organized income generating actors to the current urban context. On one hand, these actors adapted to the ineffective management and negligence of the historical center by the local government, by dealing with the monuments and the public space in a manner to serve the satisfaction of their needs. Many violation of zoning and building law had occurred, creating chaos in the public space and abuse of the heritage. For instance, occupying the public space and pedestrians sidewalks, covering the facades of the ancient buildings with products, adding non-vernacular elements to the monuments that do not respect its historical character, opening shops which activities do not respect the identity of each specialized souq, etc. The key informants said that owners and managers of shops know that they will not be penalized by the local government; therefore they organize the space in the most convenient way for their business. One female vendor who is using the pedestrian sidewalk to show her products said: *“So far nobody said anything. My shop is very small so I had my boxes and tables there for the past year. Before he died, my husband used to do the same. If the policemen say anything I will remove them”*. Likewise, because of the absence of laws implementation, the identity of several souks was not respected by new activities which led to a decrease in the number of visitors (further explained in 4.4.1). Vendors adapted to this fact and closed their shops or moved to other streets. Also, since no penalties are paid by the shops for piling their wastes in the streets, some alleys in the old souqs suffer from extreme visual and environmental pollution by wastes.

On the other hand, some vendors adapted to the absence of local government by taking the initiatives to renovate their shop and the space in front of it. In this case, the initiatives of the

vendors are behind the maintenance of the historical monuments, after being neglected by the government. This can be an example of situations in which citizens and/or other stakeholders contributed to urban developments out of their own motivation and interests, as Boelens and Boonstra (2011) stated. In this case, the improvement of the space did not follow the linear systems of urban policies but was the result of personal initiatives interventions.

The adaptation of the income generating self-organized actors to the negligence by the local government rendered different impacts, both negative and positive on the physical environment. Gerrits (2012) agreed on these results when he argued that in complexity contexts, the local interaction of elements generate new and different outcomes.

4.3.2 The case of social actors and groups initiatives

To understand the characteristics of dynamics created by social initiatives in the physical environment of the historical centre of Tripoli, the timeline of the studied activities was investigated since social self-organization working to improve the buildings and public space is a relative new concept in the context of old Tripoli. Also, the frequency of the activity was researched while the adaptation was illustrated by examples.

4.3.2.1 The frequency and constancy of the activity

Table 13: Timeline and Frequency of the social initiative

Name of the actor/group	Timeline and frequency
Nadi Al Asar	The activity of the club started 10 years ago as one cultural day a week, since 2010 a weekly visit to the old city to make reports about the heritage physical status. Occasional physical and spatial intervention activities and events.
We love Tripoli	The activity started 7 years ago as daily interaction on Facebook then it grew to be a weekly photoshooting activity in combination with cleaning and physical interventions. Occasionally events are also organized
Utopia for Social Justice	The activity started in 2012, continuous daily work to organize and implement activities
Mira's guided tours in Tripoli	The activity started in 2012, got popular on Facebook in 2014, the guided tours to the historical souqs happen occasionally
Safadi Foundation	The organization activity started in 1990 then became an NGO in 2001, continuous daily work to organize and implement activities

The timeline of Nadi Al Asar shows that their activity became more frequent with time. We love Tripoli has been constancy organizing its weekly events since 2009. Mira’s tours are occasionally happening in the old city since she also organizes tours in other parts of the city. The activities of Utopia for Social justice and Safadi foundation remains the most frequent since the first is a big organization and the second is an NGO. The results show that every activity has a different schedule and frequency which is a characteristic of self-organization. In fact, according to Ismael (2011), self-organized systems consist in various elements “each following the beat of its own dynamical drum” (P: 333). However, we can notice in general an increase in the rhythm and frequency of socio-cultural initiatives that aim to protect and improve the physical environment in the old centre. This shows also that self-organization is an evolving process in time. On the other hand, Nadi Al Asar, We love Tripoli and Mira stated that the security situation has an impact on the frequency of their activities. We love Tripoli founder said that in many occasions their program was interrupted or shifted because of the political conflicts. This shows that not only income generating activities are being interrupted by the conflicts but also the socio-cultural initiatives. Yet, all of the 30 questioned respondents from different activities affirmed that they will continue volunteering in the future which promises the continuity of these initiatives.

4.3.2.2 Adaptation of social initiatives to changing circumstances



Figure 11: Scouts helping in al Sayeh library renovation. Source: www.scout.org

One characteristic of complex adaptive systems is the ability of actors to modify their activities in order to respond to changes in society. The social groups and organizations in Tripoli are characterized by their flexibility to serve the society of the historical center in every possible way even when the activity does not match their original goals. For instance, after the big fire that destroyed an important part of “Al-Sayeh” historical library in the ancient center, the scouts of the environment volunteered to help to clean and rehabilitate the building. The timelines of socio-cultural actors and organizations in table 13 shows how some new activities emerged to adapt to the society needs. For instance, regarding “We love Tripoli” organization, the main activity started as taking pictures of the daily life of people in

the streets of Tripoli, and especially the old center. Because of the armed conflicts that destroyed and harmed many historical buildings, the volunteers decided this time to show the world on their Facebook group how the conflicts are not only killing people but also killing the built cultural heritage of the city. In addition, after establishing its credibility in the society and winning the support of “we love Tripoli” decided to move to more physical volunteering activities to rehabilitate and protect the historical center. Moreover, Utopia considers that working with the society particularly in fragile areas like the old city of Tripoli demands being very flexible because of the continuous upcoming changes in the space. Utopia focused in the beginning on community development and social justice. However, the organization added to its agenda environmental projects and also adapted its goals to the security situation by introducing reconstruction and cleaning works after each conflict that harmed the buildings and public space in the old city. In addition, Nadi Al Asar started its new activity that consists in weekly visits to the centre to check the status of the historical built after noticing the abuse and damage of the heritage. These examples reflect what Borham et al. argued about adaption: “[It]akes place through gradual gained experience that is reflected in the agent’s behaviour” (P:211).

4.4 The Spatial configuration

The target of this part of chapter 4 is to answer the following question: *How is the appropriation of the physical environment of the historical city happening by self-organized groups? How are those activities reflected on the spatial configuration?* The indicators that will be studied are the new patterns and uses of the space, the quality of the open space, the quality of the buildings and the ease of pedestrians and cars circulations. The data was mostly collected from personal observation and also from secondary data, semi-structured interviews and comments and reflections of the vendors. The coding of qualitative data can be explained as follow:

Table 14: Coding of spatial configuration

Code	Sub-code	Source	N
New use of the space	Stairs projects by Safadi foundation	Semi-structured interview with Samira Baghdadi	6
		Secondary data	3
	Identity of the souqs (negative change)	Semi-structured interview with Khaled Tadmori and Nathalie Chahine	3
		Secondary data	9
		Observation of the researcher	4
		Comments and reflection of vendors	2
	Use of alleys and pedestrian paths	Observation	3
		Secondary data	2
	New patterns and forms	Observation of the researcher	16

		Secondary data	6
New use of the built elements	New uses of buildings	Semi-structured interview with Khaled Tadmori and Nathalie Chahine	2
	New use of architectural elements	Observation of the researcher	1
		Secondary data	1
Quality of open space	Solid wastes	Observation of the researcher	2
		Semi-structured interview with Samira Baghdadi	2
		Comment and reflexion of respondent (vendor)	1
		Secondary data	1
	Green spaces	Semi-structured interview with Samira Baghdadi	6
		Secondary data	4
		Observation of the researcher	1
	Ease of circulation	participatory observation of the researcher	2
		Semi-structured interview with Elias Khat and Samira Baghdadi	2
		Secondary data	2
	Penetration of the sun	Observation of the researcher	1
		Semi-structured interview with Khaled Tadmori	1
		Secondary data	1
Quality of monuments and built elements	Renovation of buildings	Semi-structured interviews with Nathalie Chahine and Samira Baghdadi	4
		Secondary data	9

4.4.1 The new patterns and uses of the space

The social organizations appropriated the space for new uses by some of their activities. For instance, after finishing the renovation of *Al-Namle stairs*, Safadi Foundation created a story telling event on the stairs in collaboration with the cross arts association and the participation of the residents from many neighbourhoods in the old city. Therefore, the stairs were occupied by people using them for socio-cultural events purposes while their original use was as an infrastructural element that facilitates circulation of pedestrians. Moreover, after the renovation of the *Solidarity Stairs*, the foundation organized a Ramadan breakfast for the residents living in that neighbourhood. Organized socio-cultural events have been continuously taking place on the stairs since their renovation. The stairs acquired a new identity of being a platform for different events and activities. This example illustrate what Adams and Charlesworth (2013) stated about the urban complex systems when they described it as a socio-spatial-temporal evolving process that results from self-organization

and creates new patterns and unpredictable events. In fact, the stairs as urban agents in the context of spatial complexity evolved socially (new use by the community), spatially (improvement of their condition and temporally (different use with the time).

Likewise, the income generating activities brought new uses of the space in the historical center. When it comes to the buildings, some ancient buildings like the shops are still used for their original purposes by the vendors. However, many historical buildings are used for new functions nowadays. Many houses with unique architectural character were transformed to shops. Also, many houses with central gardens behind the shops were destroyed in order to add additional space to the existing shops. On the other hand, due to the Syrian war, many refugees are renting historical shops and buildings to settle in which also bring interior but also exterior modifications to the buildings.

Regarding the identity of the souqs, each souq acquired its name according to the type of activities that were originally happening there. The legislations permitted activities that fit within the same category of historical economic activities in order to sustain the identity of the ancient center. However, many shops in the souqs are not used anymore for its original activity. For instance, Souq Al Attarine that was historically known for shops which only sell spices and natural perfumes is transformed now to a vegetable, chicken, meat and fish market. In 2012, 7 shops remain open in this souq (Aliwaa, 2012), 6 shops in 2013 (Albayan, 2013) and nowadays only 5 shops can be found (observations). In fact, the vendors complain that the bad smell of meat and chicken and the dirty discharge of the fish all over the street push the buyers and tourists away.

Therefore, many of them left the old souq and moved to the modern city. In the following composition of pictures the change of the space due to the change of the income generating activity of Al-Attarine souq can be detected. The following physical interventions can be observed: new presence of boxes, barrels and tables; new presence of green vegetables, decrease in the width of the street and important increase in pedestrian traffic. Also, non-vernacular elements were added by the vendors to the monuments like electric wires and cables, and textiles and eternit roofs cover parts of the souq which bring a decrease in the sun and air flow that penetrate the souq.



Figure 12: Photo 1: Souk Al-Attarine in 1940. Source: Tadmori, 2013

Photo 2: Souk Al-Attarine, unknown. Source: www.Jamalalshark.com

Photo 3: Souk Al-Attarine in 2014. Source: Aliwaa 2012

The alleys and corridors as well of the old city have gained new functions. Vendors with fixed locations mostly noticed in these public spaces, sell different kind of merchandise, particularly vegetables. The furniture they use consists in general in plastic boxes and wooden tables, and they use fabrics to protect their location from rain in winter and the hot sun in summer.



Figure 13: A vendor of vegetables located in an old alley.

Source: www.ottsworld.com



Figure 14: Vegetable vendor using the pedestrian passage to sell his products.
Source: The author



Figure 15: The same street before and after the shop opened. Source: Tripoli in black and White Facebook group

In addition, some historical architectural elements lost their value as they are being misused. For instance, the fountain of Al-Mallaha was an important symbol of the social life in Tripoli. In reality, it used to be filled with orange juice, lemon or Jallab (dates juice) during the Muslim festivities and people could get there drink for free for days or a week in a row. Currently, the fountain is empty even from water, it is occupied by garbage and the vendors use it as a stand for their products.



**Figure 16: 1- Al Mallaha fountain, date unknown. Source: Tripoli in black and white Facebook group
2- Al Mallaha fountain, 2014. Source: The author**

Moreover, the public space in front of the shops, which form the only possible pedestrian path due to the narrow street width, is now occupied by the vendors as exposition platforms for their products. The streets became narrower and new spatial patterns can be noticed during the day when the vendors are doing their activity. For instance, layers of colourful clothes and fabrics above the pedestrian heads (figure 17) and repetitive wooden tables in the middle of the pedestrian walking paths (figure 18). Other spatial patterns are stable and remain during the night like repetitive fabrics from different colours and textures used as protection from the rain and the sun and eternit entrance porches (figure 19 and 20; check figure 10 as well)



Figure 17: colourful patterns of clothes created by vendors. Source: The author

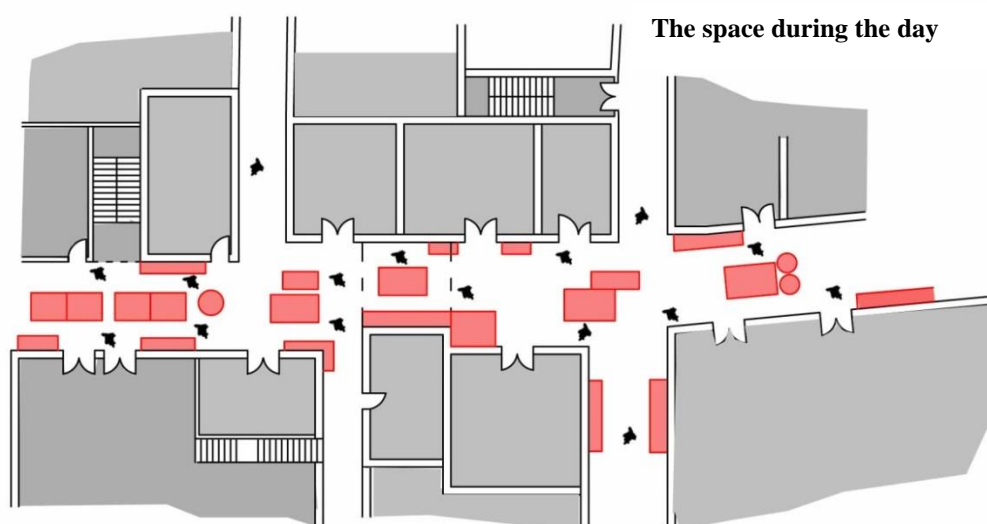
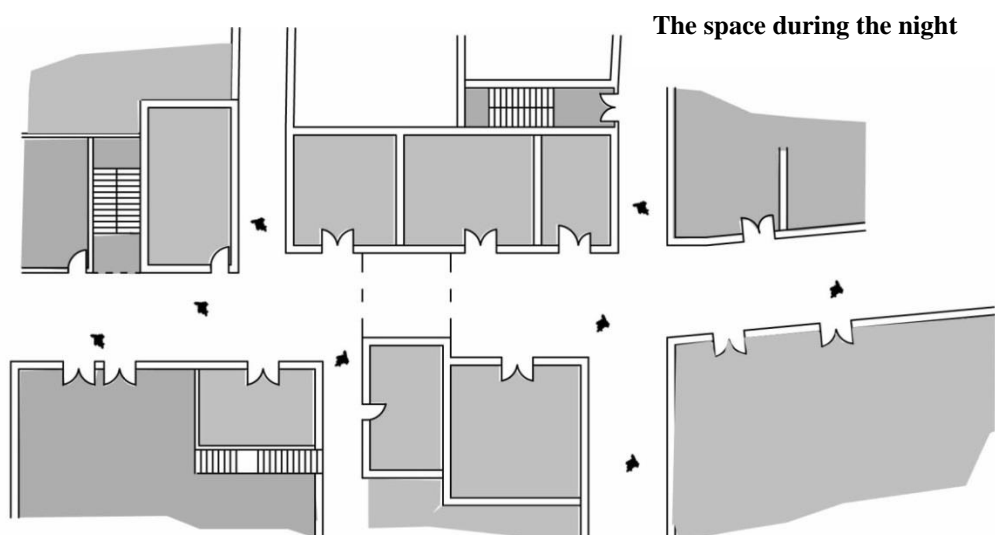


Figure 18: The pedestrian space between the day and the night. Source: The author



Figure 19: Permanent patterns of eternit porches. Source: The author

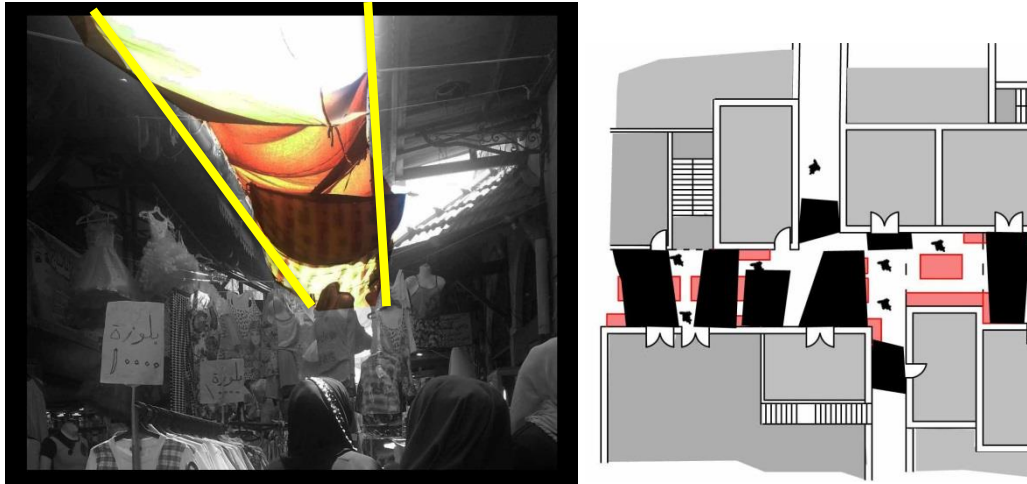


Figure 20: Permanent patterns of textures. Source: The author

Regarding, the initiatives by social actors and groups, decorative patterns were created on walls and stairs steps for instance, by Bauzar organization on the periphery of the old city (Al-Tell area)¹¹ and by volunteers from the Fine arts institute who taught kids how to design mozaïque on walls as a part of the “stairs projects” managed by Safadi Foundation in the historical center.



Figure 21: The painting by Bauzar organization, Source: The author

Figure 22: The stairs painting by Utopia. Source: Utopia for Social justice Facebook group

The previous examples explain what Hillier stated about the interaction of humans and the components of the urban system (2007): “urban forms occur at the interface between natural processes and human interventions. Human actions restrict and structure the natural growth processes, so that they cannot be understood without insight into both individually, and into the relations between the two” (P: 69). In fact, the studied spatial uses, patterns and forms result from the complex relations between the human activities, in this case self-organized activities, and the physical environment in old Tripoli, where the process of self-organization interfered with the urban dynamics and continuously led to new uses, forms and patterns. In the same context, Paddison (2000) believed that “the physical forms of urban areas are one of

¹¹ The key interviewed informants emphasized that this area should be included in the official borders of the historical city due to its very important heritage value.

the most obvious visual records of the societies whose environments they provide” (P:69) while Buhl et al. (2006) said that the complex topology of the streets emerge from the decisions and use of locals and not from a linear planning system. Therefore, it can be concluded that the complex interactions of self-organized activities and the space are shaping the physical environment in the historical centre by rendering new spatial uses, forms and patterns. These outcomes as well form new active agents added to the complex urban system.

4.4.2 The quality of the historical monuments and built elements

The following part will investigate how income generating and socio-cultural self-organized activities had impacts on the quality of monuments and built elements in the old center

4.4.2.1 The status of maintenance of the monuments and built elements



Figure 23: Utopia members renovating the street. Source: Utopia for Social Justice Facebook group

Figure 24: Safadi Foundation project for stairs rehabilitation. Source: Safadi Foundation Facebook group

Several initiatives focused on rehabilitating elements of the physical environment in the old city. To begin, the *stairs project* managed by Safadi Foundation allowed the rehabilitation, greening and decoration by paint and mozaïque of three major stairs in the historical city with collaboration of volunteer residents and other actors of civil society. Another example can be observed in the activities that Bauzar organization to paint and decorate old walls surrounding the stairs in the periphery of the old city (Al-Tell area). Moreover, Utopia mostly focuses on physical maintenance projects including lightening, infrastructure works, and painting especially in the poor residential neighbourhoods of the historical center. Nadi Al Asar as well main activities are renovating historical buildings. Also, while interviewing the founder of “We love Tripoli”, he announced that their future project is to consider 50 alleys and stairs in the old city in environmental and rehabilitation aspects. Regarding the income generating activities, as mentioned before, many vendors took the initiative of renovating their shops. For instance, a personal initiative by Bader Hassoun, the owner of famous

handmade soap shops, was behind the rehabilitation of the historical caravanserai of Khan Al Saboun.

4.4.2.2 The non-vernacular physical elements added to the historical buildings

Non-vernacular elements added directly to the historical buildings by the vendors in the old souqs can be found in various shapes, materials, heights and colours and have various functions as well. This table is the result of the researcher observations in the 4 souqs where the survey was conducted.

Table 15: non-vernacular elements added to the historical buildings

Non-vernacular element	Material and colour	function
Entrance porch	Orange brick and black aluminium	Protection from rain
Entrance porch	Different colours and texture of fabrics	Protection from the rain
porch	Eternit	Protection from the rain and the sun
Placards	Different colours of metal, paper, carton	Publicity, showing opening and closing time
Flags	Different colours of paper, carton	Religious and decorative; Lebanese flags
Water pipes	Grey and orange plastic	Sanitary infrastructure
Pictures of Political leaders	paper	Political and security
Poles	Black and rusty metal	Support porches and other added elements
wires	Different colours	Electricity infrastructure
bars	Black aluminium and natural wood	Supporting structures
Electrical transformers	Rusty metal and zinc	Electricity infrastructure
Speakers	Grey plastic	Spreading the prayers
Commercials	Paper and carton	publicity
Death notice	paper	Knowledge
curtains	Various colours and textures of textiles	Protection from sun
Air conditioning outdoor unit	White plastic	Indoor climate control

The conducted observation showed that 87% of the historical shops have non-vernacular elements directly attached to them while 13% do not. The results of observations show that the facades of the buildings have varied with time due to the impacts of human activities, who in order to adapt to the weather, their everyday needs (electricity, sanitary, marketing) and to emergent situations, added new elements to the existing monuments. In reality Hillier discussed this fact by saying that “the built environment is, apart from society itself, the largest and most complex artefact that human beings make. Its complexity and its scale emerge together, because, like society, a built environment is not so much a thing as a process of spatio-temporal aggregation subject to continual change and carried out by innumerable agencies over a long period of time” (Hillier, 2007:68).

4.4.2.3 The Visibility of the historical buildings

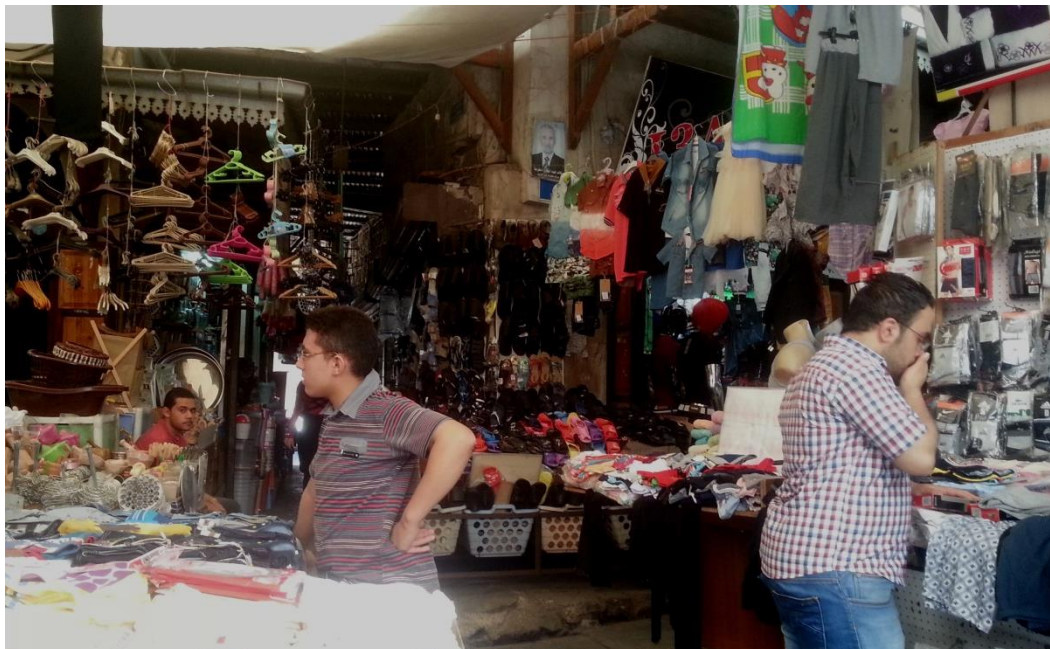


Figure 25: The limited visibility of the historical buildings. Source: the author

The non-vernacular elements added to the monuments combined with the exposition of the goods and products in front of the shops cover the facades of the monuments and can limit its visibility. Actually, the observation of the researcher showed the following results:

Table 16: The visibility status of the shops

	Frequency	Percentage (%)
Totally invisible	12	40
Partially visible	12	40
Totally visible	6	20
Total	30	100

The results show that 40% of the studied buildings are totally invisible and that 40% are partially visible because of vendors' interventions. This impact on the buildings is a manifestation of self-organization in the space and is responsible as well of changing the original historical character of the souqs. Also, the adaptation of vendors to the absence of laws implementation led to these results. Therefore, the new configuration of the built environment is interlinked with urban agents interaction where the adaptive behaviour generated a modification of the external environment (Eidelson, 1997).

4.4.3.The quality of open space

After exploring how self-organization is creating new uses, forms and patterns in the built environment, its impact of the open space will be studied by investigating the status of visual pollution by solid wastes, the green elements and areas, the ease of pedestrians and cars circulations and the sun penetration.

4.4.3.1 The visual pollution by solid wastes



Figure 26: The solid waste in the old souqs. Source: by the author



On one hand, many vendors generate solid waste that and dump them visible in the streets, especially vegetables, meat, fish and chicken vendors which create an unattractive image in the souqs but also produce a bad smell and attracts insects and rats. Also, empty cartoon boxes can be found pilling frequently on sidewalks and alleys. One factor behind this behaviour is the lack of respect and understood of the concept of common space as Dr. Baghdadi stated. In addition, as mentioned earlier, no penalties are paid by actors who violate the laws. The cleaning act is done by each vendor alone in front of his own shop. No collective initiatives were observed

Figure 27: The solid wastes produced by shops piling in the streets. Source: www.thevelvetrocket.com

On the other hands, social initiatives by Utopia, We love Tripoli, Safadi Foundation and Nadi Al Asar try to reduce the pollution caused by solid wastes by organizing cleaning campaign and spreading the awareness among people occupying the space in the old city about the importance of the protection of the environment.

4.4.3.2 The green spaces in the souqs

Tripoli is known by Al Fayhaa because of the beautiful smell of orange trees that used to cover its territories as explained in chapter 1. However, because of the chaotic urban expansion, the city has lost all of its orange fields and green spaces in general. Regarding the old city, the main green spaces consisted of trees and bushes around Abou Ali River but in 1955 a flood destroyed all the houses by the river and the green areas that were surrounding it. So, the inner gardens of the Arabic houses ground floor remained the green space for families. However, many shop owners used these gardens behind their shops to increase the area they can use for commerce which led to an important decrease in green spaces. The researcher noted as well the lack of green space during the observation. Though, several groups usually volunteer to clean the streets in the historical center like Nadi Al-Asar, Utopia for Social Justice and We love Tripoli. In addition, Safadi Foundation created a group of 90 volunteer kids called *Eco-Police* who is responsibility is to keep their neighbourhoods clean. Helped by the foundation, they did plantation and greenery activities in Al-Namleh area.



Figure 28: Eco-police group while doing volunteering work. Source: Photo x and photo x. Source: Safadi Foundation Facebook group

4.4.3.4 The ease of circulation of pedestrians and cars

In some streets, it is hard for the pedestrians to walk. In fact, the streets in the old souqs are very narrow ¹² and several shops vendors show their merchandises in boxes and on wooden tables in the middle of the street facing their shops (as showed earlier) which makes it possible for only one person to walk in each direction. Also, the vendors of clothes and fabrics hang their products above the street which makes it uncomfortable for the pedestrians

¹² Characteristic of the Arabic medieval city

to move as well. On the other hand, the hawker vendors in the old souqs, in the streets on entrance of the old city and in Al-Tall area¹³ hinder the circulation of the pedestrians while using the sidewalk for their carts. They also create the same issue when it comes to the circulation of cars, particularly on the one way roads.



Figure 29: The limited space for pedestrians. Source: The author

Contrary, the social initiatives have helped to improve the quality of pedestrian circulation, by renovating the roads infrastructure and many historical stairs that relate the old souqs to the close residential neighbourhoods as seen previously.

4.4.3.5 The penetration of sun

The morphology of the Arabic medieval city consisting in narrow streets and alleys aims to allow the sun to only penetrate moderately to protect the inhabitants from the heat. However, the excessive and chaotic use of dark fabrics and eternit structures above some streets has totally forbidden the penetration of the sun. In combination with the humidity, the smell of the fish discharge, and meat and chicken wastes, the lack of sun contributes to environmental problems.

4.4.3.6 Conclusion

After previously investigating how self-organized activities impact the built environment and finding out that income generating activities have both positive and negative effects on the quality of buildings while social initiatives aim to improve it, it can be concluded that this reality is not equally true when it comes to the quality of open space. Income generating self-organized activities impact mostly negatively the quality of open space (waste generation, bad smells, decrease in green areas, difficult circulation of cars and pedestrians, less penetration of sun and air) while the social initiatives goals are to improve it by cleaning,

¹³ The suggested area by the key informants to be added to the official borders of the old city

greening and spreading awareness among residents, vendors, visitors and participants. These interventions show that the spatial quality is tightly related to the income generating and social self-organized activities in the historical centre. Actually, as mentioned in chapter 2 and according to Moulaert et al., addressing spatial quality issues is a real challenge that requires a qualification of the relations between space(s) and users.

4.5 Social Behaviour

This part aims to answer the following question: *What are the generated social relations and behaviour created in the space of the historical city of Tripoli by the self-organized activities?* It studies the perception of the space in new ways and the social relations that grow between the different participants involved in the self-organized activities. The data was collected from semi-structured interviews, comments and reflections of respondents, surveys and secondary data.

4.5.1 New perception of the space

Table 17: coding of the new perception of space

Code	Sub-code	Source	N
Perception of the space	Psychological relation	Semi-structured interview with Baghdadi	1
	New perception	Semi-structured interview with Baghdadi, Minkara, Nagi	6
	example	Comments and reflections of participants	4
		Secondary data	2

The social initiatives mostly create a new perception of the space for the participants in the activities. In fact, Dr. Samira Baghdadi affirmed that the psychological relationship between the locals and their environment in the historical city is characterized by a weak conscience of the importance of the public common space. This relation is not taking in consideration in the education systems in school, not even by the social organization. The volunteers who participate in projects to improve the physical environment of their neighbourhoods get more attached to their city which creates a feeling of belonging and also a respect for the common public space. The Eco-police kids for instance became protective of the cleanness and green elements in their streets and encourage their friend as school to follow the same behaviour. One of the interviewed actors in social groups said: *“I did not know people or places in the old city before volunteering but now I feel it is my job to fight for it”*. Another volunteer in Nadi Al Asar argued that who does not have a past will not have a future and that is the job of every one to contribute in the historical monuments preservation.

Moreover, the social activities raise the awareness and conscience of participants to the value of their heritage. For instance, Mira Minkara stated that the visitors coming from outside of Tripoli were really surprised to see the important heritage in old Tripoli. The only idea they had about it was related to war and conflicts. This was also the same reaction of visitors who participated in the cultural trip to the historical center (when the researcher also joined the activity). Particularly, people initially from Tripoli, but living outside of the old center, felt emotional to get to take a close look at their heritage and the old souqs stated that they want to come more frequently to the old city and feel more involved in protecting this space. In addition, the Founder of We Love Tripoli Taha Nagi stated that the one of the main goals of his organization is to change the opinion of people about old Tripoli by using social media especially Facebook to share pictures about the physical environment and also experiences of the daily life interactions that happen there. The comments of members really show how much their opinion changed and how they appreciate more the value of their ancient city.

4.5.2 Social relations of different actors involved in the activity

Strong social linkages are created between the locals and the members of groups initiating activities in the historical center. After interviewing young people participating in these activities, they admitted that volunteering allowed them to meet and work with categories of the society that they never had a relation with before like Syrian refugees and inhabitants from extremely poor neighbourhoods. They stated that they did not help only but also they were also able to create friendly relation with them. When asked about the most worthwhile aspect of their participation, the answers were coded as following (more than one answer was given by respondent):

Table 18: Coding of most worthwhile aspect of participation

Code	Sub-code	Number
Participation	Participating in improving the physical living conditions in my society	6
	Participating in developing my society in Tripoli	6
Meeting new people	Getting to know people from poor neighbourhoods	6
	Making new friends that are volunteering in the same organization	3
Development of human values	Solidarity	9
	Respect of others	3
	Being humble	2
Personal satisfaction	Joy of volunteering	12
	Joy of seeing concrete physical and social changes after each project	4

On the other side, the examples of visits and trips to the historical center organized by Mira Minkara allowed people from outside this area to communicate with locals and vendors and create strong social bonds. Mira says that these visits make the city more active; the vendors were shouting to the tourists: “you are welcome! We missed you”, while the visitors were very curious to ask vendors questions about the history of the city. Mira added that this activity gives a chance for the vendors to make economic profits from the visitors as well. In addition, the founder of We love Tripoli added that the visits to the old center create a dynamism in the streets, alleys, corridors and keep the social connection between the historical center and the rest of the city alive.

Regarding the income generating activities, the studying the social aspect of self-organization is extremely important since, according to Geertz (1979), the souqs are “economic and social institutions” (p:140). The relation of the visitors and the vendors is satisfying as showed earlier which attracts the visitors to come again to old Tripoli and to share the good reputation of the shopping experience. In fact, during the field work visits, many vendors were standing in front of their shops smiling, wishing a good day for visitors and inviting them to come inside. Also, many vendors were interested in the subject of the research and tried to promote the historical center as much as possible. This confirms what Al-maimani et al., 2014, stated about the Arabic souqs: “they helped enhance civic communication and socialization” (P:50). Moreover, relations and connections grew between locals and income generating actors. In fact, 45% of the surveyed locals said that their relations with people that own shops in their neighbourhoods are not only casual, but it is a friendship and brotherhood relation. 35% said that they have casual relation with the vendors when 20% only said that they do not communicate at all. On the other side relations are created between the self-organized actors. In fact, 68% of the actors admitted that they know all of the people working in their streets, 23% know some of them and 9 % do not know any of them. And when asked about their relation, they answered as follow:

Table 19: The relationship of income generating actors

	Frequency	Percentage (%)
Friendship	19	56
Casual	11	32
We do not speak	3	9
Friendship with some and casual with the others	1	3
Total	30	100

This table shows that more than half of the vendors are in a close friendship relation and only 9% do not speak at all. This confirms what Morales (2010) said about how merchants “take responsibility for each other, and realize other interpersonal benefits while developing human capital skills related to business and improving their economic status” (P:11). Also, Rabo (2005) argued that the souqs are a concrete place for trade and social interaction as well.

4.6 Key Findings

This section summarizes the main findings in chapter 4 related to each sub-question.

4.6.1 Economic and social self-organization in old Tripoli

Regarding the findings about the types of self-organization activities, their locations and the involved actors, the research shows that the income generating activities are a mixture of formal and informal activities but share in common their self-organized status. The variety of economic activities (around 20 types in a sample of 34 shops) is an important reason behind attraction of visitors to the old center where the main type of economic activities is clothes and shoes shops, followed by food and drinks business, artisanal shops and housewares. The hawker vendors sell mostly food, drinks, small gadgets and toys in the public space and their carts can be found mostly on sidewalks. The shops vendor also use the public space reserved for pedestrians as exposition platforms. The old souqs area where these activities take place is inhabited by low income residents where the majority depend on these activities to get their needed products. On the other hands, many individuals, social groups and organizations supported by volunteers work for the improvements of the physical environment in old Tripoli, for instance: We Love Tripoli, Utopia for Social Justice, Safadi Foundation, Nadi Al Asar, Mira Minkara, etc. The majority of the participants are from the modern part of the city, while the participation of the locals in developing their neighbourhoods is still limited. The research showed that people are not well informed about these activities, which is the reason behind their weak participation.

4.6.2 Self-organization and the local government

When it comes to the relation of self-organized actors and groups and the local government, some self-organized actors and groups are totally independent from the government, while others collaborated with the local government in community development projects that aimed to protect, renovate and develop the buildings and public space in the historical center. These projects had direct impacts on the space and the maintenance status of the ancient monuments. Regarding the income generating actors, the municipality supported the Jewelers to renovate the facades of their shops and to pave the sidewalks in souq Al-Sagha. However, the other vendors in the old souqs maintain their streets and shops by their own initiatives and private funding. In the same time, the majority complains about the lack of money for this purpose. This explains the low amount of well-maintained buildings. The cooperation between the government and civil groups is more visible and frequent on the level of physical interventions when the municipality was a partner in many projects like the improvement and maintenance of 3 major stairs that relate residential neighbourhoods to the old souqs. The municipality also supported many events and trips to the historical center that aim to raise awareness about the heritage and to promote tourism as well. These activities bring visitors to the ancient heart and therefore create dynamic interactions between the visitors, the locals and the vendors. The civil society remains an important pressure force that pushes the local government to realize concrete physical interventions.

4.6.3 The spatial complexity and self-organization

The impacts of self-organization on the spatial configuration resulted from the appropriation of the physical environment by the income generating and civil actors for their own activities. This brought direct visible effects on the identity and quality of the built and the public space. The space acquired a new identity like the stairs transferred to public platforms for events or lost its historical identity like the emergence of new shops that do not respect the specific identity of the souq and the relocation of vendors in the modern city. The buildings gained new uses where some houses were transformed to shops and vice-versa. Also, some historical architectural elements are misused and neglected. Many narrow alleys and corridors originally used for pedestrian circulations are occupied now by vendors who built temporary or permanent structures. The sidewalks and pedestrian paths are crowded by boxes, stands and tables, which makes it difficult for the pedestrians to move easily in some cases. The hawker vendors occupy a part of the sidewalks and roads at the main entrances of the old city which creates traffic jams. New spatial patterns and forms are created in the space by the income generating activities where some are permanents and some can be observed during the opening hours. Permanent patterns consist in repetitive fabrics from different colors and textures that cover the streets in the souqs, and eternit structures used as entrance porches. The visible patterns during the day are layers of clothes and fabrics above the width of the streets and that connect one shop to the other, and sequences of tables and boxes on the pedestrian paths throughout the streets. Painted walls and stairs steps by civil actors form as well new physical patterns. The quality of the space in the historical center is affected by the solid wastes created by the vendors while many residential gardens were transformed in extensions for shops. Also, various non-vernacular elements that do not respect the characteristic of the historical city were directly connected to the monuments and hiding its visibility. On the other side, improvements of the buildings and public space were made by vendors like rehabilitation of the facades of their shops and by civil actors like cleaning, greening, lightening, painting, and infrastructure and monuments renovation.

4.6.4 The continuity and adaptation

The self-organized activities can be described as generators of adaptive and continuous interactions in the physical environment of old Tripoli. In fact, the main interaction happening in the old souqs and attracting visitors from outside the old city is the commercial activity. Actually, locals and visitors coming from Tripoli and different areas from north Lebanon buy they needs from the vendors in the old souqs. Both of the groups indicated they satisfaction by the shopping experience. This emphasizes on the role that economic self-organized activities have in maintaining the dynamics in the historical center. Actually, according to her research about the relation of Tripoli historical center with its peripheries, Mohareb (2013) concluded that the old center “still maintains its role in providing the majority of shopping, retails, workshops, light industry facilities for medium and lower income inhabitants”. Most of the income generating activities has been continuously happening since 25 to 75 years and from 9am to 5 pm, but always affected by local conflicts and civil wars. These activities adapted to the government negligence by using the buildings and organizing the space in a way that do not obey the laws of zoning and land use.

Moving to the initiatives of civil actors and social groups, they started after the end of the civil war in 1990 and kept developing and growing until they got to their extreme active status in the last two years. These activities adapted to the emergent development needs of the physical environment where many groups shifted to new sort of activities and mostly to deal with the physical damages brought by local armed conflicts.

4.6.5 The social and the spatial

The self-organized activities generate social relations and a new behaviour that take place in the physical environment. This includes the creation of a new perception of the space by the participants and volunteers in social initiatives where their feeling of attachment and belonging to the place they worked in increase, bringing in parallel the increase of their respect to the physical elements and common space. Also, knowledge and awareness about the heritage is raised by these activities. In addition, friendly social bonds are created between the social actors and the locals, the visitors and the income generating actors and between the income generating actors among each other.

Chapter 5: Conclusions and recommendations

5.1 Conclusions

Being continuously inhabited since the 14th century, the existing historical centre of Tripoli has undergone several alterations where the spatial configuration of the buildings and open public spaces, and the social behaviour occurring in this environment, have evolved in parallel with urban development and planning policies which was implanted by each civilisation that governed the city. Yet, other factors had impacts on the physical environment. In fact, according to Paddison , “the physical form of the city reflects the interplay of a wide variety of factors – market forces, historical factors, the changing basis of state intervention including urban planning, cultural factors including lifestyle preferences for particular housing forms, as well as the role attached to delineation of the public spaces, to name a few” (Paddison, 2000:67).

This study showed that, in the context of the complex adaptive urban system of old Tripoli, income generating and socio-cultural self-organization had major impacts on the physical environment and that the urban development followed non-linear patterns that usually results from governmental policies. It is necessary to highlight that as it was shown in the conceptual framework supported by literatures in chapter 2, self-organization had impacts not only on the spatial configuration but also on the social behaviour of involved actors. The main conclusions that could be drawn from this research are:

1-Investigating the impacts of self-organization on the physical environment cannot cover all the aspects of the concept due to the high complexity of the urban system and the continuous interactions of its various agents. Actually, each indicator that was studied was in a direct mutual relation with another indicator measuring the same variable or even measuring another variable. Therefore, in agreement with Healey (2012), “in highly open, complex systems, it is never possible to imagine all the relevant variables and how they interrelate” (p: 31). Bloom (2000) added that the outcomes of complexity cannot be quantified “due to unpredictable jumps, discontinuous change and sudden transitions caused by explicit reorganization.

2- Complexity and self-organisation appear to be good concepts to understand physical development and transformation within the context of historical Tripoli since the findings show that the changes result from non-linear processes. In reality, various self-organized actors from the private sector and the civil society are involved in constant and continuous adaptive dynamics: vendors, employees, artisans and professionals, as well as groups and actor that initiate volunteering activities to renovate, protect and conserve the old city. This system is open to collaboration with the government which is still very limited. This complexity is illustrated in the following figure (30):

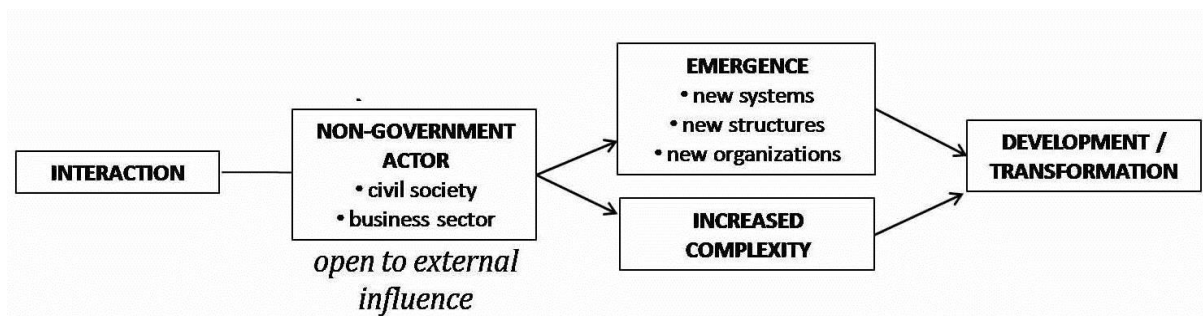


Figure 30: Adapted from Michelle U. Ardales thesis: The Faith. The Fight. The Force. The Flight. An Analysis of the Interactive Processes Involving the Self-Organized Community of Buklod Tao in Banaba, San Mateo, Rizal Province, Philippines. Source: UMD9, IHS

3- The appropriation of the physical environment by self-organized groups rendered new uses, forms and patterns. It had also impacts on the quality of the buildings and public spaces. The principal improvements in the physical environment can be considered as a direct manifestation of the adaptation process of income generating actors and the civil society, and not from planning policies linear systems since the government is quasi-absent or absent when it comes to the historical center. This can be different from one case study to the other depending on the degree of presence of the government and the implementation of laws.

4- Not every physical modification by income generating groups was positive. The shop owners/managers took advantage from the negligence of the government and the lack of implementation of laws to appropriate the space for their own profit without respecting in many cases its historical identity and value, the right to share common public spaces by all the citizens and the environmental quality.

5- The improvement of the built environment resulting from the collaboration of the civil society brought an improvement of the social life and created new social relations and interactions between the actors involved in the socio-cultural initiatives. In reality, Hillier (2007) argued that

Each aspect of this transformation, the physical and the spatial, already has, as we shall see, a social value, and provides opportunity for the further elaboration of this value, in that the physical form of the building may be given further cultural significance by the shaping and decoration of elements, and the spatial form may be made more complex, by conceptual or physical distinctions, to provide a spatial patterning of activities and relationships. (P:15)

6- The commercial activity in the old souqs is a complex urban system itself that has been constantly impacting the physical environment independently from the local government. In fact, according to Gershenson (2008), the interacting merchants in the market are an example that illustrates complex systems where the interaction of elements makes it difficult to

separate the behaviour of each individually. The souqs are the agents impacting the physical environment the most and the principal generator of physical dynamics attracting visitors, which keep the historical centre alive.

f- While coding the collected data, expressions related to security and conflicts appeared around 15 times. This shows that these factors are central active agents in the complexity of Tripoli and they have powerful impacts on the self-organized dynamics and consequently on the physical environment. This fact is not applicable in other contexts of historical cities where the security situation is not issue.

g- Self-organization has spatial and social impacts on the physical environment illustrated in the following figure:

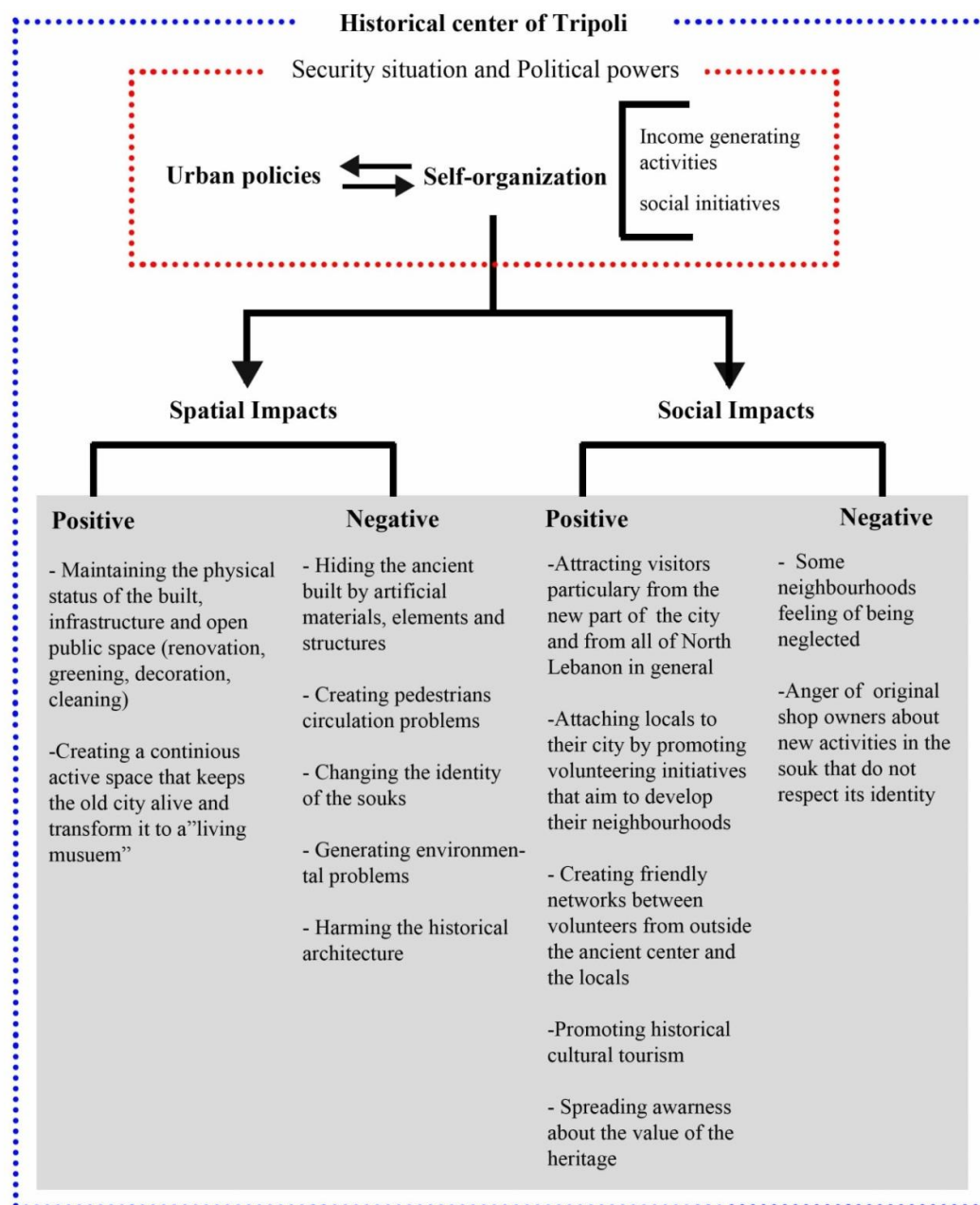


Figure 31: General framework for the impacts of self-organized activities. Source: The author

To end with, it can be concluded that the self-organized income generating activities, and personal and group social initiatives important factors in continuously creating physical and social dynamics, shaping the space, and impacting positively and negatively on the status and identity of the monuments and public spaces in the old city of Tripoli, in an independent complex adaptive way that cannot be fully understood or limited.

5.2 Personal Reflexions

Despite the fact that the main objective of this thesis was to study the impacts of income generating activities, and initiatives of individuals and social groups on the physical environment of the ancient center, it was noticed that these impacts cannot be studied separately from the other forces shaping the old heart of Tripoli. While collecting the data, the interviews, surveys and observations showed that the dynamics characterizing the physical environment in the historical center of Tripoli are not only manipulated by urban policies, economic self-organized activities and social initiatives but also by political powers. It seems like the decisions related to development projects in the historical center are left in the hands of specific powerful political groups that are not showing enough interest in the old souqs.

It can be noticed also a problem concerning the attraction to leisure activities in the old center where only 4 persons admitted to come for this purpose. Actually, during the 3 days when the survey took place, not even one foreigner tourist was noticed in the souqs by the researcher. This raises the question of the causes behind the lack of touristic facilities and projects in such a valuable historical city like Tripoli.

5.3 Recommendations

“Moving elements in a city, and in particular the people and their activities, are as important as the stationary physical parts. We are not simply observers of this spectacle, but are ourselves a part of it, on the stage with other participants”(Lynch, 1960:2). In this statement Lynch emphasizes on the importance of each human activity in impacting the general dynamics in the city.

As seen in this study, self-organization is very strong in the context of Tripoli and results in obvious physical modifications and specific social Behaviour. It cannot be ignored as a main feature of the current historical city identity. Policies and projects that do not take in consideration this fact may potentially fail. De Roo and Miller (De Roo and Miller, 1997) argued that the benefits of including public participation in planning policies are that it allows the identification of the unique character of the spatial-environmental context, the incorporation of local knowledge in the process and the inclusion of subjective judgment of concerned parties by the projects.

Therefore, the participation of income generating and social self-organized activities should be taking in consideration in future developing plans by the local government while facilitating and supporting the already on-going initiatives that aim to improve the situation of the physical environment in order to see more concrete results. In fact, these self-organized activities are what kept the ancient city alive so far.

According to Nederhand et al., (2014) the government can play an important role by facilitating the self-organized initiatives, fostering the self-organized process and providing initiating citizens with financial resources, contacts and knowledge. Yet, the quality of this interplay depends on the level of trust between the self-organized groups and the local government. This seems a difficult task in the context of old Tripoli since on one side the research showed that the level of trust characterizing the the relation of citizens and the municipality is very low and that the local government seems losing its credibility, and on the other side the security situation and the political powers are manipulating the old centre as well. Recommendation can be limited to resolve this issue since the political powers and security situation are external factors that cannot be controlled by urban management. However the researcher tried to offer new knowledge and data on the self-organization concept in the old city of Tripoli that hopefully can be useful in later stages.

Few general measures can be suggested regarding the findings:

- The civil society should focus on raising the awareness of citizens, especially the young generation, on staying away from conflicts and encourage volunteering into self-organized actions that improve their neighbourhood conditions.
- Self-organized groups should consider dealing more with tourism and taking advantage of the historical value of the city.
- Night activities that respect the spatial and social identity of the historical city (cafes, traditional restaurants, artisanal workshops, storytelling activities, open air cinema, etc.) should be considered in creating new employment, since no physical dynamics occur after the shop are closed.
- Social media should not be the only way to inform local residents about the activities. Flyers and direct contact with local residents can be helpful.

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Annex 1: Survey with self-organized groups

Type of income generating activity:

1-Who are the persons are included in doing this activity?

- ☐ Individual
- ☐ Family members
- ☐ Boss and less than 5 employees
- ☐ Boss and more than 5 employees

2-What time do u start working and what time do u stop?

3-How frequently does your activity happen?

- ☐daily ☐weekly ☐monthly ☐ seasonally:

4-How long have u been working?

5-Did you unwillingly have to stop your activity for a period of time?

- ☐yes ☐No, If yes specify why:

6-Do you know who else works in this street? ☐yes ☐No

7-How do you describe your relationship with them?

- ☐ Friendly relation ☐ casual relation ☐ we do not speak

8-Location of the activity

- ☐ Historical building ☐ Public space

9-The opinion of the user about the importance level of protecting the historical value of the used building

- ☐ Important ☐ not important

10-What is the status of maintenance of the historical building?

- ☐ well maintained ☐ fairly maintained ☐ in bad shape

11-What are the artificial elements that were added to the historical buildings?
(Categories):.....

12-Do those elements limit the visibility of the historical building?

- ☐totally ☐partially ☐not at all

13- Are you willing to continue working here?

- ☐yes ☐No

Annex 2: Survey with residents:

1-How well do you know the people working in your neighbourhood?

Mostly some of them not at all

2-How do you describe your relationship with the people working in your street?

Friendly casual we do not speak

3-How well do you know the groups that organize social activities in your neighbourhood?

Mostly some of them not at all

4-Do you participate in the social activities organized by these groups?

Mostly some of them not at all

5-Do you shop in the old center?

Always sometimes never

6-Are you satisfied with the services provided by the vendors?

Mostly partially not at all

7-Are you satisfied by the activities organized by the social groups?

Mostly partially not at all

Annex 3: Survey with Visitors:

1-How frequently do you come to the historical center?

☐ daily ☐ weekly ☐ occasionally ☐ first visit

2-What are the reasons?

☐ to shop ☐ to visit family and friends ☐ leisure

3-Are you happy with the general shopping experience?

☐totally ☐partially ☐not at all

4- Are you satisfied with the services offered by the shops?

☐totally ☐partially ☐not at all

5-Are you willing to continue shopping in the future in the old souqs? ☐ Yes ☐ No

Annex 4: Survey with participants in social initiatives

What is the most worthwhile aspect of participation in these initiatives?

Are you willing to continue participating? ☐ Yes ☐ No

Annex 5: Semi-Structured interview with Dr. Khaled Tadmori and Mr.Elias Khlat

- 1- Are the economic activities in the shops and the activity of hawker vendors formal?
- 2- Are there laws that regulate the type of economic activities in the historical city?
- 3- To what extend do the income generating actors respect the historical buildings?
- 4- How do the vendors deal with the public spaces?
- 5- Are the historical buildings used for their original purpose?
- 6- How did the green open space changed (decreased, increased) and why?
- 7- What is the role of civil groups in protecting the old city?

Annex 6: Semi-structured interview with Dr. Samira Baghdadi

- 1- Are there laws that regulate the type of economic activities in the historical city?
- 2- To what extent do the income generating actors respect the historical buildings?
- 3- How do the vendors deal with the public spaces?
- 4- Are the historical buildings used for their original purpose?
- 5- What are the main activities related to the improvement of the physical environment organized by Safadi Foundation?
- 6- Has been any collaboration with the government and/or other actors from the civil society?

Annex 7: Semi-structured interview with Mrs. Nathalie Chahine

- 1- Are the historical buildings still used for their original purpose?
- 2- Is the value of the historical buildings used for economic activities respected?
- 3- How did the green open space changed (decreased, increased) and why?

Annex 8: Semi-structured interview with socio-cultural self-organized groups (Utopia for Social justice, We love Tripoli, Mira Minkara's guided tours, Nadi Al Asar)

- 1- Why did you start this initiative?
- 2- Can you talk to me about the timeline of your group?
- 3- How many often do you organize activities?
- 4- Who are the participants in the activity? Do the locals in the old city participate?
- 5- What are the main activities that you organize?
- 6- Have you collaborated with the local government or the civil society in any activity?
- 7- Did you ever have to cancel or postpone an activity? If yes, what was the reason?

