



Ain Shams University
Egypt

The Formal-Informal linkages in urban economy activities

Geo-Spatial value chain analysis of garment markets in Historic Cairo

A Thesis submitted in the Partial Fulfillment for the Requirement of the
Degree of Master of Science in Integrated Urbanism and Sustainable Design

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August 2022

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Sara Sameh

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Acknowledgements

First, I would like to deeply thank my supervisors, Prof. Mohab El-Refaie, Dr Abdulmoneim Alfiky, and Dr Sigrid Busch, that supported me along the research, in addition to their continuous and valuable feedback and guidance. This research would have not ended successfully, without your immense knowledge.

Additionally, I want to express my appreciation to the IUSD staff and professors, at both Ain Shams University, and University of Stuttgart for giving me the opportunity for this fruitful academic and personal two-year experience. On the top, I would like to express my sincere gratitude to Prof. Mohamed Salheen for his continuous aid; and being always a mental, and academic supporter along the journey.

I would like also to give a special appreciation for the love and support, I received from my family during this fruitful experience. My father, my mother, and my sister, your endless support has always been my reason to do my best. A special thanks for the huge love, I received from my nephew, it had been my haven during my hardest days.

Moreover, I want to express my gratitude for my friends; George, Sama, Diana, Kirollos, and Mark. Your presence has been my key for doing better; and your love and support are clear reasons, for being the person I am now. Furthermore, my IUSD friends, knowing you was one of the best things that happened during the master's experience. Your existence along the journey, made it just fruitful, enjoyable, and warm. I would love to thank specifically Yasmina, Yasmine, Nadine, Nour, Nourhane, Sherry, and Sandy. You have been just supporting and loving companions.

Abstract

Recent research has examined the informal economy as an integrated system with formal economy networks. These networks encompass complex flows of labour, finance, inputs, and outputs. The spatial dynamics of these networks might offer business opportunities or impede economic interactions where they have direct interrelationships with their urban spatial processes. Some urban economy theories show that studying the spatial distribution of economic activities can help detect inefficiencies in location and upgrading decisions, and better understand the dynamics of urban economy networks within the urban context, encouraging more comprehensive economic and spatial development decisions. In Egypt, within the current development trend, many attempts are made by the state to upgrade deteriorated areas and their prevailing informal economy activities and markets. However, rare data exists about these informality linkages and the existing dynamics of activities' value chains or how they are interlinked in space, which leads to incomplete upgrading decisions.

Accordingly, this research attempts to investigate and map the existing urban economy activity networks in one of Egypt's largest markets in Historic Cairo, which is undergoing upgrading plans. The study aims to map the value chain of a selected sector of activities (garment activity) using a geo-spatial value chain analysis to understand formal and informal linkages within the value chain and how they are spatially distributed in space on a macro scale, as well as micro-scale concentration patterns of informal activities in space and their impacts on the surrounding urban context. This is to form a comprehensive image of existing activities and their functional and spatial networks at macro and micro dimensions, which can assist in formulating integrated upgrading decisions. This is achieved by adopting a multi-method approach that combines qualitative and quantitative methods and uses various tools, including open data sources for field mapping, observations, interviews, online and field surveys, and desktop research.

The research begins with an introduction explaining the research gap, objectives, and methods. In chapter two, the research examines the informal urban economy, its implications, forms, and links to formal economy networks, as well as these

networks' geographical dynamics in the urban context. Then, chapter three focuses on informality in Egypt and classifies informal activities in different sectors, including the garment industry. Accordingly, Chapter four examines general garment value chain dynamics, to then study in Chapter five the case study's main methods and tools, followed by representing the main findings and discussion in Chapter six. The research then ends by representing the conclusions and recommendations in chapter seven.

Keywords:

Informal economy, Formal-Informal linkages, Urban economy networks, Geo-Spatial value chain analysis, Spatial and Functional patterns

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Chapter 1

1 Introduction

1. Framing the research problem

Urban economy activities, existing in both developed and developing countries, and in the daily lives of both rural and urban inhabitants, are now undergoing a massive prevalence of informal economy activities. These informal economy activities usually operate in a thriving socio-economic environment characterized by a coherent social structure and strong support networks (UN-HABITAT, 2018). These informal networks, in addition to the formal networks, are no longer treated as two distinct territories, but rather are involved in the same space production, affecting all aspects of this space (Toso & Ravazzoli, 2013). The production processes of these informal activities are related to the wider formal economic sector, where most raw materials or goods flow to formal firms through direct or intermediate firms that often operate informally. This production process also depends on the exact spatial locations where these formal-informal networks exist, where any dislocation can disrupt this economic balance (Tunas, 2008; Meagher, 2013). In recent literature, these linkages' structures have been studied as intermediaries' complex chains or new labour relations pressing on the need to map them. According to Bhowmik, there is a clear lack of knowledge about the linkages between formal and informal urban economy networks and the flows between them (Bhowmik et al., 2011). And according to WIEGO, there is a need to map the structures of these formal-informal linkages with a focus on production systems and a pressing need as well to understand their distributive effects (Meagher, 2013).

Mapping and studying the distribution of these economic networks in space, the directions of value chain resources flow in space, and how these formal and informal networks interact and concentrate within the micro urban context, for a variety of reasons, can simply affect our understanding of the existing formal and informal business opportunities, the relationship to urban spatial processes, and interactions with the existing spatial dynamics on both macro and micro scales. Accordingly, there has been a need to map the spatial dimension that is often excluded from the

economic value chain studies and has been studied solely from an economic point of view.

In Egypt, the informal economy stretches to every aspect of life, and the typology of the thriving informal activities can differ a lot, from general services and facilities like garment vending, to primary goods and food supply, including different economic sectors, and usually operating in thriving networks, especially in deteriorated areas (Toso & Ravazzoli, 2013). Nevertheless, the economy's formal-informal linkages and their dynamics in space are little captured in the economic networks in the Egyptian context. On the contrary, there is a gap between the official maps and the actual situation of existing properties on ground (Elyachar, 2003). And the informal situation is usually studied in terms of upgrading plans for informal settlements or relocations for informal economy activities in more developed markets, depending on insufficient data collection for the activities (including only names and being registered or not, for example). This is without a comprehensive understanding of the setting of these activities, their spatial patterns of concentration, or their value chain relations within their urban contexts, can lead to misguided upgrading decisions that may fail to achieve their intended goals.

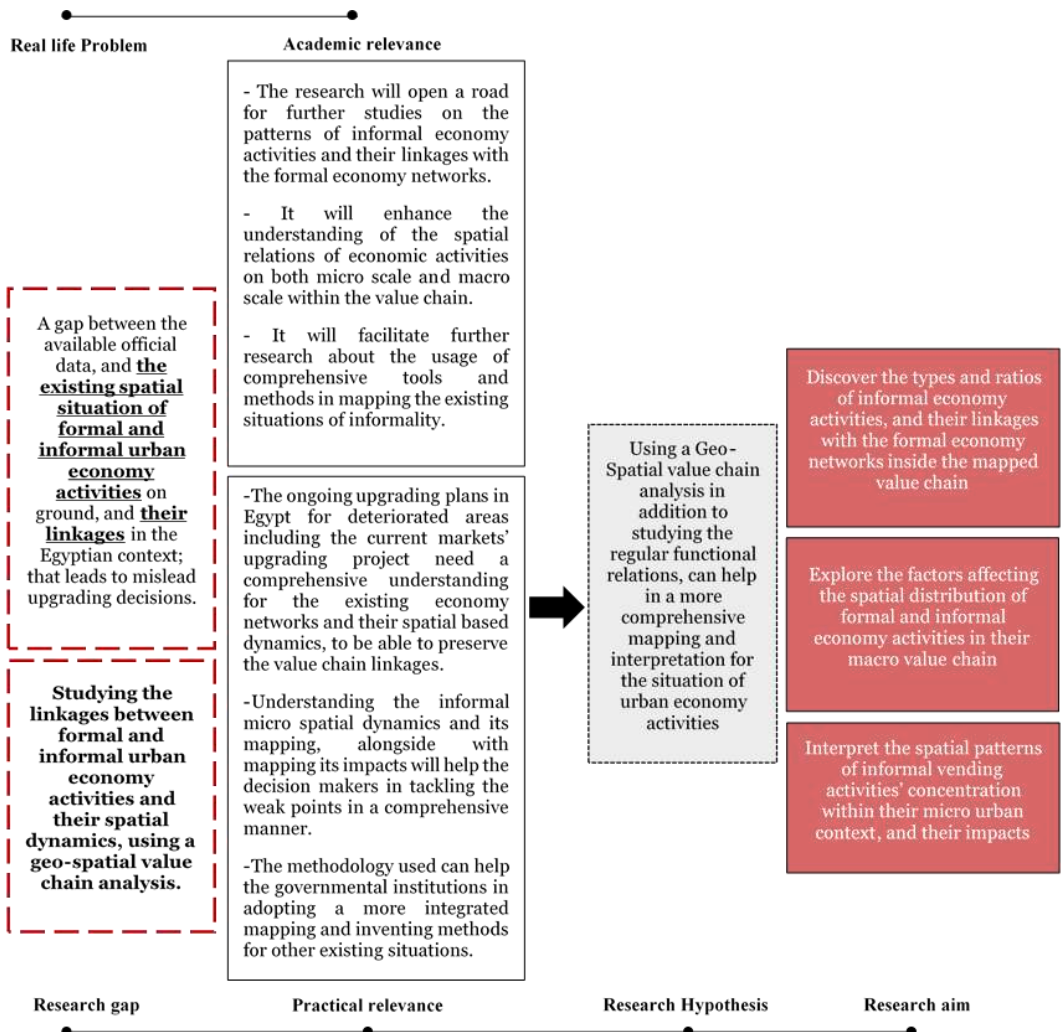


Figure 1: Research gap and aims

Source: Author

2. Research Hypothesis

Using a geo-Spatial value chain analysis, in addition to studying the regular functional relations, can help in a more comprehensive mapping and interpretation of the situation of formal and informal urban economy activities, their spatial dynamics, and their linkages.

3. Research Objectives

The research aims mainly to **discover the types and ratios of informal economy activities, and their linkages with the formal economy networks** in both the studied value chain and the micro-spatial context where these activities interact. Moreover, the research mainly aims to **explore the factors affecting formal and informal economy activities' spatial distribution in their macro value chain**, their geographical choices, and how they are spatially inter-related within the value chain in their surrounding context. This is achieved through mapping the value chain's functional and spatial relations, with understanding the flow directions within the value chain. In addition to understanding the macro-scale value chain relations, it aims to **interpret the spatial patterns of informal vending activities' concentration within their micro-urban context and their impacts** through mapping the micro-spatial arrangements of informal economy activities.

4. Research Questions

1- How do the informal and formal economy networks intersect within the value chain? (Functional patterns)

- What are the types of informality and formal-informal linkages existing within the value chain?
- What are the types and ratios of informal economy activities within their micro spatial context?

2- How are the formal and informal urban economy networks integrated in urban spaces? (Spatial patterns)

- What are the factors affecting the formal and informal economy activities' spatial distribution within their value chain?

- What are the patterns of informal economy activities concentration in their micro spatial context?
- What is the impact of informal urban economy networks on their surrounding urban context?

5. Research Methodology

Research study design

The research approaches its objective by reviewing the literature to extract the required secondary data, including connotations of informal economy activities and their types, and the types of formal-informal linkages, to identify the types of informal economy activities and their linkages in the mapped value chain later. Additionally, different variables affecting structuring the geography of urban economy activities are extracted to study the situation within the case study. Informal economy activities and their types in the Egyptian situation are studied as well to select the specific activity that will be mapped later with studying its basics and its value chain general dynamics.

After extracting these secondary data to make decisions related to the case study typology and exact location selection, the primary data are then collected. A **Multi-Method approach** combining both qualitative and quantitative methods is used to collect data, including three main tools: direct observations and geo-spatial field mapping, then creating a GIS database for mapping the spatial networks of these formal and informal value chain relations; semi-structured Interviews for mapping the functional networks and understanding the power relations and flow directions within this value chain; and a survey to have collective feedback about the impacts of informality on the area. Along with gathering this primary data, some secondary data for the site, the history of its economic activities, and the current upgrading plans are gathered through desktop research.

After collecting the primary data using this multi-method approach, the data is then analyzed to extract the results as shown in the figure. These results can be then used in giving recommendations and the probabilities for further research fields.

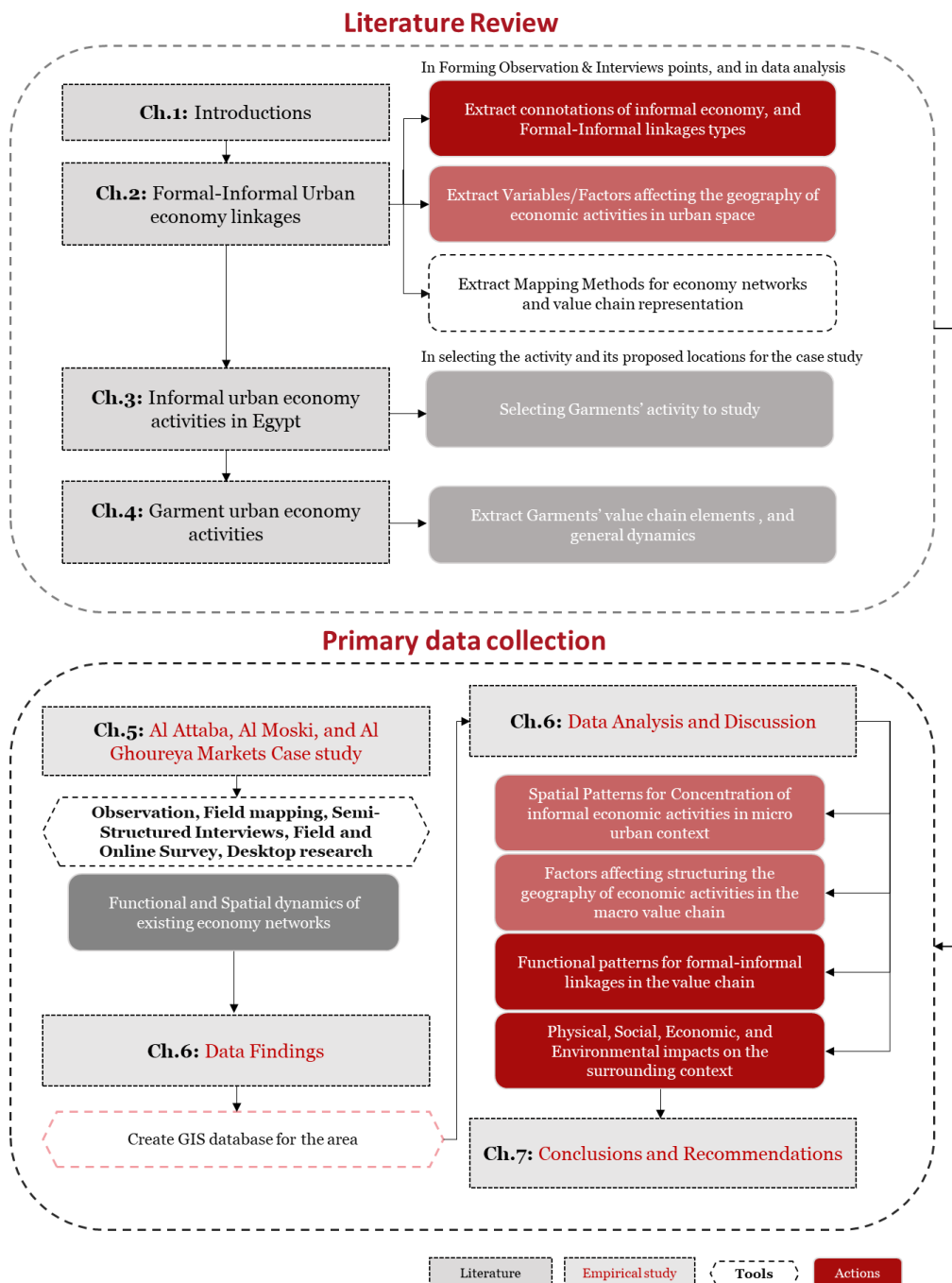


Figure 2: Overall research methodology

Source: Author

6. Research Limitations

The research faced some limitations, like the inaccuracy of data reported about the existing informal activities and the existing networks and the scarcity of official data about upgrading plans in the area. However, the research tried to overcome this by conducting several interviews with different involved stakeholders, including vendors, shoppers, residents, passerby, and government officials. Additionally, there was a lack of community tendency to engage in the study and cooperate with the researcher due to data sensitivity, which may have affected their transparency and credibility in sharing the information. Furthermore, some difficulties were faced during site visits and field mapping and accessing a suitable sample size due to the very hard and congested nature of the site, which may have affected the accuracy of the data mapped by the researcher. Accordingly, different tools and methods were used in the research to be able to collect data from different resources and, in turn, validate this collected data. The research did not focus on studying the effect of the formal-informal networks on the historic and cultural aspects of Historic Cairo as well, as it was out of the study scope. And finally, the limited time available forced the researcher to study specific aspects in a more detailed manner rather than studying many aspects.



Chapter 2

2 Formal-Informal Urban economy linkages

1. Formal and Informal urban economy activities (Functional Perspective)

1.1 Urban Economy Definition

Each city's economic activities significantly influence and forecast its growth and increase its competitiveness on a local and international scale (Manika et al., 2022). As a result, studying economic activity dynamics solely from an economic standpoint has proven to be an inefficient approach to understanding existing dynamics and promoting further development. Accordingly, the urban economy discipline has become of significant importance.

Many researchers debated the Urban Economy discipline, and many attempts were made to define it and use it to gain a better understanding of economic activity networks and their relationships to urban dynamics. One of the significant definitions for this research is O'Sullivan's definition, explaining that the intersection of geography and economics is what defines the field of urban economics. Where economics examines individuals' decisions to maximize their profits and their value when resources are scarce. While geography examines the locations where these human activities take place. Urban economics integrates both disciplines to detect inefficiencies in location decisions and looks at various public policies to encourage more efficient decisions (O'sullivan, 2012). This is sometimes known as "economic geography" as well.

Accordingly, the discipline has main interests, including how households, firms, and capitals are spread out in cities, as well as the externalities that come from the closeness of households and land uses, and the public policy issues that come up when these economic forces interact (Quigley, 2006).

Types and value chain of urban economy activities

As explained by Central Connecticut State University, there are four types of urban economy activities (Central Connecticut State University (CCSU), n.d.):

1. **Primary Economic Activities:** These activities are connected directly with getting resources from the earth at the beginning of the production cycle. Agriculture, hunting, pastoral farming, crop cultivation, forestry, mining, logging, and fishing are all examples of primary economic activities that provide raw materials for industry.
2. **Secondary Economic Activities:** These economic activities add value to the extracted raw materials from the previous activities by combining them into useful and more valuable goods, for example, steel and textile manufacturing. This part of the production process includes the manufacturing and processing industries.
3. **Tertiary economic activities:** These are businesses and types of work that simply provide various kinds of services for the community, like lawyers, teachers, and professors, for example.
4. **Quaternary Economic Activities:** This includes white-collar specialists providing services in management, and information processing and dissemination.

These urban economy activities usually exist in coherent networks through which goods, transactions, and services flow, in what is known as “Value chain”. As defined by McCormick and Schmitz, the value chain of a specific activity is the series of processes that happen between having the idea for a product, a raw material extraction, and finally reaching its final consumption (McCormick & Schmitz, 2001). And as defined by Kaplinsky and Morris, it refers to the whole set of actions needed to take a good or service from conception through all stages of production until reaching its eventual disposal after usage (Kaplinsky & Morris, 2001).

After providing a brief definition of urban economy and the types of activities included in the simple value chain, it is important to note that these types are made up of both formal and informal activities that are interconnected in one integral economic system. The following part discusses the informal activities within the urban economy activities, how they are linked, and how they interact in space.

1.2 Informal urban economy

1.2.1 Informal economy in the urban economy activities

Informal economy estimates

Within urban economy activities, the informal economy has a wide prevalence. Recent International Labour Organization (ILO) statistics show that more than 61% of the world's employed population are in informal employment, and Figure 3 shows these informal employment various share ratios. As ILO statistics state, the emerging market and developing economies (EMDEs) have a higher informal economy share in GDP with 36-37% and 39% of employment, while in developed economies the informal economy accounts for 19% of GDP and 16% of employment (Ohnsorge & Yu, 2022). This prevalence has led to different discussions and studies on the informal economy's nature and development over the years.

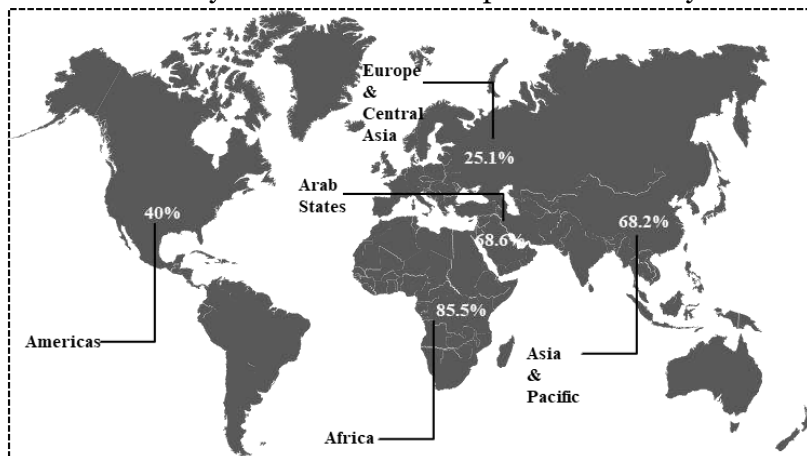


Figure 3: Informal employment share

Source: Author based on ILO estimates (ILO, 2018)

Informal economy background discussions and types

The discussion of the informal sector has broadened to consider the developments in the capitalist nations since the 1980s. As the transformation of production into smaller and more flexible units. Standard positions were being transformed into non-standard employment with hourly wages and few benefits, and the production of both services and products was outsourced to small-scale informal units and industrial outworkers (Portes, Castells and Benton, 1989). However, in earlier studies, the informal economy has been seen taking advantage of the city's services

for free. But on the other hand, as Bhowmik argues, they are sharing significantly in the city's economy (through home-based businesses and small manufacturing sectors), construction, mobility (through rickshaws and even taxi drivers), and service sector (Bhowmik et al., 2011).

Accordingly, the informal economy has various types and forms in urban economy activities, ranging from an agricultural day labourer to an employer in an unregistered firm with few employees (Ohnsorge & Yu, 2022). According to Martha Chen, the most visible form of the informal economy consists of those who work in the streets. However, there are many other forms of street-based workers, like those who work in small shops to repair bicycles and make furniture, those who work in leather processing, and those who sell clothes. Another form, which is the least visible, consists of home-based workers who convert their house space to a space for production. Restaurant workers and blue-collar workers in services, construction, manufacturing, and urban agriculture are other examples of informal economy workers in both developed and developing countries (Chen, 2012).

For this reason, the informal economy has become a wide field of study from different aspects, including economics, urban planning, anthropology, sociology, and political science (Chen, 2012). And many attempts have been made in literature to understand the connotations of the informal economy and the dynamics of its phenomena. Some of these literature theories are discussed in the following part.

1.2.2 Informal economy Connotations

First: Definitions

As described by De Soto, the widespread use of the term “informal economy” did not help in reaching an agreement on how to describe or quantify it. It is a heterogenous word that encompasses a variety of scenarios (De Soto, 1989). However, researchers have made many attempts to define the phenomena, some of which are discussed below.

Dating back to the 1950s, the discussion about informality started in the “traditional sector” economic theory. It was believed by many economists, like Arthur Lewis, that this sector would be gradually absorbed into the modern industrial sector, in

addition to being a marginal and unlinked sector to the formal economy or modern capitalism, that includes the developing countries' excess labour (Hovary, 2013).

Then, in 1972, the ILO used the term "informal sector" to analyze economic activities in Kenya, noting that it includes both survivalist work and successful profitable businesses. Accordingly, the term "informal sector" gained wide acceptance (Hovary, 2013).

In the following decades, four schools of thought have discussed the composition and nature of the informal economy. Martha Chen described them as follows; **First**, the Dualist school, which explains the informal sector as a safety net in crisis times and marginal operations that offer the poor an income. **Second**, the legalist school (by Hernando de Soto and others in 1989, 2000), described the informal sector as being a group of microentrepreneurs that try to avoid the costs, efforts, and time of the formal registration process, and hence, operate informally. **Third**, the structuralist school (includes Alejandro Portes and Castells in 1989) argued differently, by describing the informal sector as micro-enterprises that cut input, labour, and costs, and boost major capitalist corporations' competitiveness. Fourth, The Voluntarist school, similarly focuses on the informal enterprises that tend to avoid taxes and regulations, but as their choice, without blaming the registration process (Chen, 2012).

Then the "informal sector" term, which was adopted by the ILO in the 1970s and is still often used, was seen later to be restricting the processes of the informal economy to only one sector or industry and hiding their diversity and complexity. Additionally, this definition, as Ascoly argues, implies a separation between "formal" and "informal", which hides the concept of the relations and linkages between formal and informal (Ascoly, 2004). Based on this, the International Labour Conference in 2002 widened the concept of informality from a sectoral to an economy-wide phenomenon and opened the road for reconceptualizing and rethinking its dynamics and dimensions (Hovary, 2013).

To sum up, there are currently 3 interrelated terms that are usually and alternatively used to describe the phenomenon of the informal economy (Chen, 2012):

- **The informal sector** which includes the employment in any unreported business activity.
- **The informal employment** which refers to any employment not socially protected or legally secured, either inside or outside the informal sector.
- **The informal economy** refers to all units, activities, and workers so defined and the output from them.

Second: Classifications

The context is an important factor affecting the definition and the classification of informality, where various types of informal activities by firms and workers exist and depend on the way being explored (Ohnsorge & Yu, 2022). Accordingly, some classifications according to different factors are discussed in this part.

The first lens through which the informal economy is being classified is the reason for being informal. Schneider classified the reasons into **monetary, regulatory, or institutional reasons**. Avoiding taxes and social security payments is what is defined by monetary reasons. While regulatory constraints and the bureaucracy of governmental processes are defined by regulatory reasons. Finally, the institutional reasons stand for the corruption due to poor political institutions and the weak rule of law (Ohnsorge & Yu, 2022). Another theory for understanding the reasons for informality is described by De Soto and Oswald in what is called “**Exit versus exclusion**”. The exclusion describes the cumbersome entrance requirements and lack of human capital that exclude certain employees and businesses from the governmental benefit schemes. This type of informality has been linked to lower productivity, lower wages, and lower skill levels. While Oswald describes how other informal employees willingly "leave" the formal sector and adopt an informal activity for its independence, flexibility, and reduced regulatory obligations. While Müller describes that reason, maybe sometimes a **subsistence informality**, where some workers have to adopt an informal economy activity to be able to have a subsistence level, mainly in lower-income countries, with low-skilled technology (Ohnsorge & Yu, 2022).

Other studies classify the informal workers according to their compliance with state regulations, into evaders, avoiders, and outsiders. Companies that are subject to regulations but don't follow them are called “evaders”, and companies that avoid regulations are called “avoiders”, while companies that aren't subject to regulations are called “outsiders” (Kanbur, 2009) (Kanbur & Keen, 2015).

And for informal worker types, the ILO classified them in 2002 into informal employment in either informal enterprises or formal enterprises. The first type includes employers, employees, own-account workers, and unpaid family workers. While the second type includes unregistered workers like industrial workers, part-time workers, casual and day laborers, and domestic workers (Angel-Urdinola et al., 2012).

Martha Chen, as well, classified informal employment with a similar classification into two categories: self-employment and wage employment. First, informal self-employment includes own-account workers in informal enterprises; family contributing members in informal or formal enterprises; workers in informal producers’ cooperatives; and employers in informal enterprises. While informal wage employment includes employees in informal enterprises, casual and day laborers, paid domestic workers, part-time workers, unregistered and home-based workers (Chen, 2012).

The Women in Informal Employment: Globalizing and Organizing (WIEGO) network developed a model to explain the hierarchy of poverty risk and earnings in the various types of informal employment mentioned above (Figure 4) (Chen, 2012).

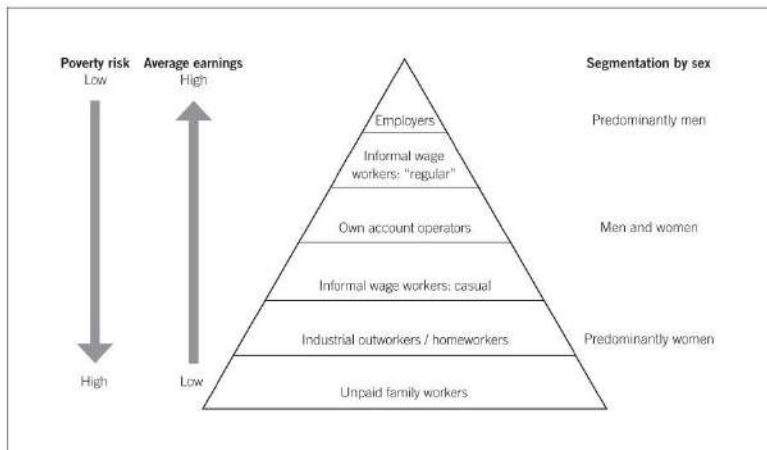


Figure 4: Informal Employment Hierarchy and Poverty Risk

Source: (Chen, 2012)

These attempts at defining and reconceptualizing the informal economy, as ILO described, opened a broader understanding and opportunities for further studying the causes and consequences of informality and its linkages with the formal economy networks (Hovary, 2013). In the following part, these linkages and their various forms are investigated.

1.3 Formal-Informal urban economy linkages

Many former theories believed the informal sector to be unlinked to the formal sector and contemporary capitalist growth, as mentioned previously. However, the major prevalence for informal economy, created a strong recognition for its integral linkages with the formal economy, and its contribution to the overall economy. As Chen argues, that apart from some basic survival activities, only few informal enterprises function in absolute isolation from formal firms (Chen, 2012).

These linkages have an advantageous nature like supporting household incomes and covering the user demands in the economic disruptions, as argued by Loayza in 2011, because informal economy usually expands when the formal one contracts. However, the informal sector regardless creating a short-term safety net, can sometimes act as a poverty trap on the long run (Ohnsorge & Yu, 2022). The following part discusses briefly different forms of formal-informal economy linkages and how they interact both functionally and spatially.

1.3.1 Sharing Labor

Sharing labor in formal-informal economy linkages means hiring workers under informal employment relationships in formal firms. As Chen argues, this has many reasons, including the tendency of formal firms to reduce labor costs and be more competitive, flexible, and specialized. In most cases, it is the formal company that chooses to function informally and reaps the "benefits" of informality (Chen, 2012).

This linkage type takes various forms. As discussed by Lupi, there are three forms of informally hiring workers in the formal sector. The first is hiring subcontracted workers directly by large companies, the second is different intermediary businesses that hire them indirectly on behalf of large corporations. Whereas the third is hiring workers from their homes, outside the facilities of the corporations, in what is called outworking, this usually happens either in insecure premises, or in safe premises but in severe working conditions (Lupi, 2018).

1.3.2 Sharing resources

The flow of resources between formal and informal enterprises is the flow of either raw materials or finished goods to formal enterprises either directly or indirectly (typically through informal intermediary firms) (Chen, 2012). The opposite happens as well, when the flow moves from formal to informal enterprises, either directly or indirectly. This flow of resources and products may occur via three ways, as explained by Chen. The most common is a subsector network of commercial relationships, the second is individual transactions, while the third is a value chain of sub-contracted relationships (Chen, 2012). These ways are explained by Chen as follows:

- **Individual transactions:** In the case where independent units trade with one another, certain informal businesses or own account operators trade products and services with formal corporations.
- **Sub-sectors:** within the concept of sub-sectors, which are networks of autonomous units engaged in the production and distribution of a certain product, many informal businesses or own account operators create and trade products and services with formal companies.
- **Value chains:** By definition, all subcontracted employees who create items do so as part of a value chain, and so do certain informal firms and own account operators.

A clear example of this is what happens in the garment industry, where some enterprises manufacture and sell directly to private individuals or businesses in the particular clothing industry they work in, dealing directly with the open market. While others work as subcontractors to produce items for a supplier company linked to a local or international lead company (Chen, 2012).

1.3.3 Sharing finance

Sharing finance between formal and informal economy networks is usually more or less synonymous with “non-institutional” finance (FAO, 1965). This means that, in the context of urban economy networks, which includes both formal and informal activities, financial transactions and lending money depend on the establishment of personal relationships and social coherence more than on formal rules and procedures (Aliber, 2002).

1.3.4 Linkages with formal regulatory environment

Chen viewed another aspect linking the informal economy to the formal umbrella, which is the formal regulatory environment that affects both formal and informal networks. She summarized this relationship as being either over regulation, lack of regulation, or deregulation. She argues that over regulation means adding too many restrictions that both impose obstacles and expenses on doing business legally and increase the expenses of operating informally (Chen, 2012). While for deregulation, she contends that finding appropriate regulations is more important than deciding whether or not to regulate. Whereas the lack of regulations can have damaging effects exactly like excessive regulations, that appears in the two approaches taken with street trading, which are either immediate evictions or negligence for the phenomenon. Accordingly, having a coherent regulatory framework that considers both formal and informal economy is the optimal approach (Chen, 2012).

2. Spatial Patterns of formal and informal urban economy networks (Spatial Perspective)

The study of formal and informal urban economy activities has included discussions about the spatial distribution of economic activities, or what was previously defined as economic geography. As Manika discussed, the study of economic geography and how economic activities interact with space can significantly help in analyzing business locations and their relationships to urban spatial processes. This in turns helps in understanding different aspects of both economics and urban planning, like the forms of business opportunities, the city's economic identity, the city's land uses, and, accordingly, how to develop suitable policies to evolve and upgrade them (Manika et al., 2022). This section views some theories and discussions that explain the different factors affecting economic activities' locations choices, and patterns of concentration.

2.1 Factors affecting structuring the geography of urban economy activities

Quigley argues that the reason for cities' existence is to create higher densities and spatially concentrated locations, which in turn result in higher production and consumption. He viewed the importance of transportation costs as one of the first factors studied by economists for influencing economic spatial proximities (Quigley, 2006). Griffith, as well, has studied the distance factors affecting transportation costs and spatial autocorrelation factors as one of the main reasons for economic activity concentrations and dispersions (Griffith, 2021).

O'Sullivan introduced five axioms for urban economics as well, that form the basis of economic models for location choices (O'sullivan, 2012). These axioms are explained below.

First, Prices adjust to achieve locational equilibrium

This axiom can be explained by two examples. First, the salaries that are changed to encourage employees to work in both favorable and unfavorable conditions. This happens when there is a large competition for working in desired areas. Consequently, lower salaries are given there than in the less desirable areas.

Secondly, land prices change to maintain locational balance among businesses. Where the land near the city's core, which is the most accessible and hence in high demand from office enterprises, is the costliest. However, in the long run, office buildings on less accessible lands pay less for land and still earn a profit. Hence, they can be as profitable as the most accessible lands (O'sullivan, 2012).

Second, self-reinforcing effects generate extreme outcomes

This means that a change triggers other changes in the same direction, reinforcing the phenomenon. O'Sullivan explains this as vendors moving into locations next to another seller on Auto Road, which will create a comparison advantage for the shoppers, thereby attracting more customers. This in turn will result in more vendors relocating next to them since the auto road now is more appealing due to the increased customer traffic. The end result is a business cluster that competes with one another yet is situated close to one another (O'sullivan, 2012).

Third, externalities cause inefficiency

This axiom discusses that transactions limit the costs and advantages of the exchange to the particular buyer and seller. No one else faces a cost from the transaction since the customer pays the entire cost of creating the product or gets the entire benefit from the product. However, an externality happens when part of the costs or benefits of a transaction are received by someone other than the buyer or seller, for example, by someone not involved in the transaction (O'sullivan, 2012). This axiom discusses the presence of externals or intermediaries in transactions, which is found largely in informal economy processes.

Fourth, in situ production is subject to economies of scale

This means that the production of a larger quantity will help in decreasing the production costs, and in turn increase the profit. As explained by O'Sullivan, when the average cost of manufacturing falls as output rises, economies of scale take place. Two causes are explained for economies of scale:

- **Indivisible inputs:** No matter how many microprocessors are produced each day, one or a thousand, a clean room and other costly machinery are required. Because the cost of the indivisible input is dispersed over more output, the average cost falls as production rises.
- **Specialization of factors:** A worker in a tiny one-person industrial business does a broad range of production duties. While in a bigger organization with more personnel, where each employee specializes in a small number of jobs, productivity increases due to continuity as less time is spent moving from one activity to another, as well as increased competency from experience and learning. This means that a specialized worker in only one task is an expert in it (O'sullivan, 2012).

Fifth, spatial competition generates zero excess economic profit

Competition in urban economics includes a geographical component. Each company enters the market at a certain location, and the locations of other companies have an impact on each company's earnings. Spatial market competition, in which businesses offer marginally different items in an environment with open entry, is quite similar to monopolistic competition. In this case of open market entry, customers can move from one distinctive product to another, creating high competition for the existing businesses. And businesses will keep entering the market until economic profit is zero (O'sullivan, 2012).

Another researcher, Alonso, in 1964, modelled a process where accessibility is constrained by cost and preferences for various sized spaces. This means an economic agent will consider accessibility, what he or she can afford, and, given what can be bought, what sort of land is favored when deciding where to locate. And accessibility here refers to accessing suppliers, markets, labor, and information as main factors in an economic setting when picking a location (Alonso, 1964).

However, Shearmur had a different opinion about Alonso's factors, where he argued two problems. First, he argues that it is plausible to suppose that highly qualified employees may prefer to reside close to relevant occupations in high-order services, if we hypothesize that high-order service activity would seek to locate in proximity to highly qualified individuals as mentioned in Alonso's theory (Naud et al, 2009).

Hence, this equilibrium, as will be shown, is critically dependent on the fact that each factor's accessibility to the other is controlled by stable technologies, political settings, and culturally established preferences; if these are changed, equilibrium may be disturbed. Another problem, Shearmur argued, is the existence of intervening factors for land and accessibility. **Politics and public policy**, in particular, are crucial intervening factors. This is because governmental actions have a major impact on how people move about a city and, therefore, how accessible it is. These policy choices, including the construction of roads, the introduction of public transportation, and the relative subsidies granted to automobiles, subways, and bicycles, have an influence on how the requirement for accessibility will be translated into spatialized placement decisions (Shearmur, 2013).

Based on these arguments, Shearmur developed a more generalized framework for the factors influencing the geography of economic activities and explained this framework in three interconnected processes: **accessibility and land costs, transport and communication, and public policy/planning**. He describes that each of these processes influences itself (in a feedback way) and influences the other two processes in a complex manner, and with some affecting external factors as shown in Figure 5 (Shearmur, 2013).

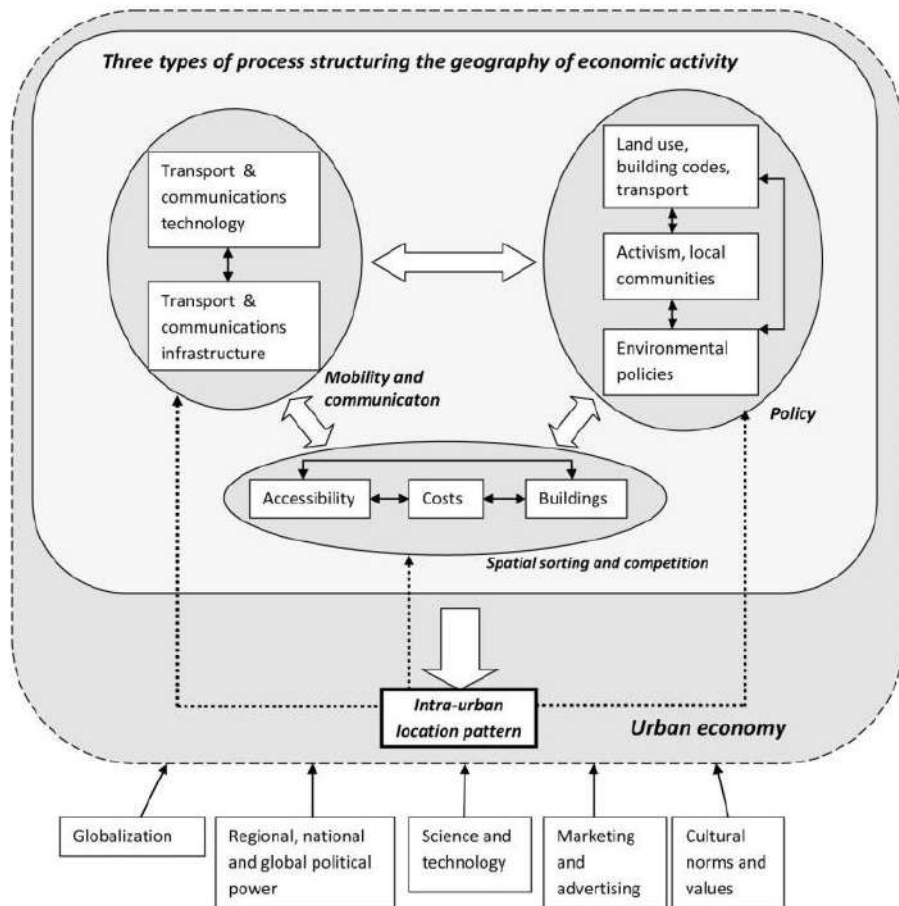


Figure 5: Processes affecting the spatial structuring of urban economy activities

Source: (Shearmur, 2011)

2.2 Spatial patterns of informal economy activities in space

Most informal economy activities occur on the streets, on sidewalks, at home, and in unplanned and illegal industrial zones or marketplaces, they usually do not take place in planned commercial areas (Bhowmik et al., 2011). The arrangements of these economic activities have been argued by many economists in microeconomic theory that only dealt with economic logic and hence failed in determining these locational choices objectively. However, the distribution of commercial land use is influenced by the built environment's spatial organization, and this spatial approach in urban economics theories, studied later by some researchers, could bridge the gap between economics, and urban disciplines (Mohamed et al., 2015).

Some theories that studied patterns of informal economy activities in space and the factors affecting their concentrations are discussed in this part.

Accessibility, visibility, and pedestrian and vehicular traffic

As described by Mohamed, the informal areas' inhabitants, for example, are the most familiar with their surrounding context, which enables them to choose the optimal locations for their commercial activities. To attract passersby, these locations are usually on spatially accessible and inter-visible streets that are linked to the metropolitan road network. Whereas residential uses, on the other hand, prefer isolated spaces since they are less reliant on mobility. The activities are said to spread on the internal routes as well as the borders of the settlement, where the light industrial activities, such as workshops, that need extensive vehicular accessibility, are situated near major roads, such as primary highways that link the whole city. While the small stores are mostly found on the internal routes, as they rely on pedestrian accessibility (Mohamed et al., 2015).

Other theories state the importance of accessibility and visibility for ordinary street vending activities by mentioning their occurrence at the transportation and commuter nodes, to make use of both the high pedestrian traffic and accessibility (Cohen et al., 2002); around marketplaces (Brown, 2006); in public spaces; and surely on street pavements (Satterthwaite, 2003). This is to make use of the passerby pedestrian traffic and the visibility of the mentioned locations (Suryanto et al., 2020). Other theories link the concentration of informal activities to the surrounding formal and informal activities (Suharto, 2004).

Customer attraction:

Customer attraction, as Yankson mentioned, is the most important element in the site selection process. Next comes the access roads availability and the lack of appropriate alternative locations (Suryanto et al., 2020). Customer attraction, as a crucial factor in street vendors' locations' decisions, has been said to have different reasons, like the location's identity and the existing activities in the surrounding context, as stated in some studies conducted in Indonesia (Suparwoko & Sriyana, 2006; Suparwoko, 2008).

These reasons behind customer attraction were proved as well in a case study conducted by Fahmy in Heliopolis streets, where the researcher discovered the preference of vendors for locations next to known restaurants, which act as magnets, attracting more customers to the area. Some sellers ask the owners for permission to sell their wares on the sidewalk, while others rent a portion of the sidewalk or street in front of these establishments on a daily or yearly basis. The restaurants, on the other hand, make use of these vendors to maintain the activity and make it a hub to draw in additional customers (Fahmy, 2018).

The multiplier effect

As previously mentioned, the self-reinforcing effect is a crucial factor in shaping the geography of economic activities. The informal activities specifically make use of each other's clustering to have what was defined by Hillier as a 'multiplier effect', which means that higher densities will attract more activities to gather to make use of the resulting comparison offered to the customers, and hence the high customer attraction (Hillier, 1996).

Social system and social attachment

One important factor in choosing the street vendors for specific locations is their cultural attachment to these locations. As discovered by Fahmy in Heliopolis case study, most of the vendors' grandfathers or fathers occupied the same zone, so they became familiar with the surrounding store owners, locals, regular tourists, and even municipal visits, and so the sons became attached to the location and chose to complete work at their fathers' locations (Fahmy, 2018).

Another important point is the existing social system that sometimes manages the organization of vendors in specific arrangements. As mentioned by Koolhaas, street sellers are arranged in public areas according to the social system, which creates the management regulations and use of the resources. This social system creates self-organization to create spatial arrangements based on deliberate planning (Koolhaas & Cleijne, 2007). These spatial arrangements are one of the delicate outcomes of informality, which produces a delicate governance inside the confines of official governance. Suryanto mentioned that mutual support and cooperation were what

helped the street vendors' survival, in his study for an informal market in Indonesia (Suryanto et al., 2020).

Time Factor

The time factor is an important factor in creating new arrangements and concentrations or new types of informal activities. As Fahmy mentioned in her study for Heliopolis streets, the area occupied by street vendors increases and becomes more personalized on Fridays (state weekend), where one or two vendors operate on weekdays, but on Friday, the number might reach four (family members). She explains that the abundance of people on the street on the weekend allowed these sellers to fully exploit the situation and share territory (Fahmy, 2018).

Type of streets

The different types of streets (main, secondary, etc.) are said to affect the arrangements of sellers along the street. As mentioned by Fahmy, the main commercial street, due to its vibrance, led to the respect of the sellers for the context, keeping it clean and well organized. Where the secondary street faced worse situation and less organized nature in the study (Fahmy, 2018).

The edge effect

According to Jan Gehl, the edge effect is the users' tendency to cluster at the edges of space, where their presence is more covert, and they have a better perspective of the space's economic interests. These edges are represented in a group of trees or building facades, for example. At these edges, the sellers can see but not be seen too much, and the user is less vulnerable (Gehl, 1971).

Corrupt political environment

The corrupt political environment and the government's neglect of the phenomenon is a factor that encourages more activities and unorganized behaviors. As mentioned in Fahmy's study, the vendors usually choose locations where they know that they will be safe, and the government will not chase them as often (Fahmy, 2018).

When more than one factor interacts in one space, this results in an advantageous location for a specific group of street vendors, and hence a cluster of informal economy activities.

3. Mapping a value chain

After reviewing some theories about formal and informal urban economy networks and their functional and spatial patterns, a brief literature review of some of the methods used in mapping these activities' value chains is given in this part.

Mapping a value chain, as McCormick and Schmitz explain, means mapping the relationships between the participants in the included activities. It is essentially a flow diagram in its most basic form. While the size differences between certain enterprises and the relative importance of different linkages are demonstrated in more advanced versions. As they explain, value chain maps make it easier to quickly understand complex realities, as powerful value chain mapping reveals inefficiencies, imbalances, and actionable leverage points. However, mapping the value chain depends mainly on the amount of data known about the workers and enterprises and about what we are seeking to know (McCormick & Schmitz, 2001). Below, some steps for creating the value chain are discussed briefly.

McCormick and Schmitz explain that there are two stages to drawing a functional value chain. First, it starts by developing an initial map that shows the outlines of the chain, including the primary activities carried out locally, their linkages to other operations, and the connections to the ultimate market, with some preliminary indicators of size and significance. And second is developing the final map, including calculating the numbers of key variables, figuring out which activities are strategic, and which are not, illustrating how many men and women are involved in each activity, and finding places where actions should be taken. And this may be accomplished by conducting a few interviews with industry experts, in addition to reviewing the available statistics for the destination nations, if the market is outside the country (McCormick & Schmitz, 2001).

Then they proposed some steps for the functional mapping process, starting with identifying and listing the activities that compose the chain, including manufacturing, retail, advertising, shipping, and other processes. This is followed by listing the participants performing each activity, with rough estimates for the number of businesses involved, then listing the final markets, followed by symbolizing the value chain elements. The next technique is to draw lines connecting businesses with distinct roles. In the beginning, the objective is to demonstrate the flow direction of commodities and services through the supply

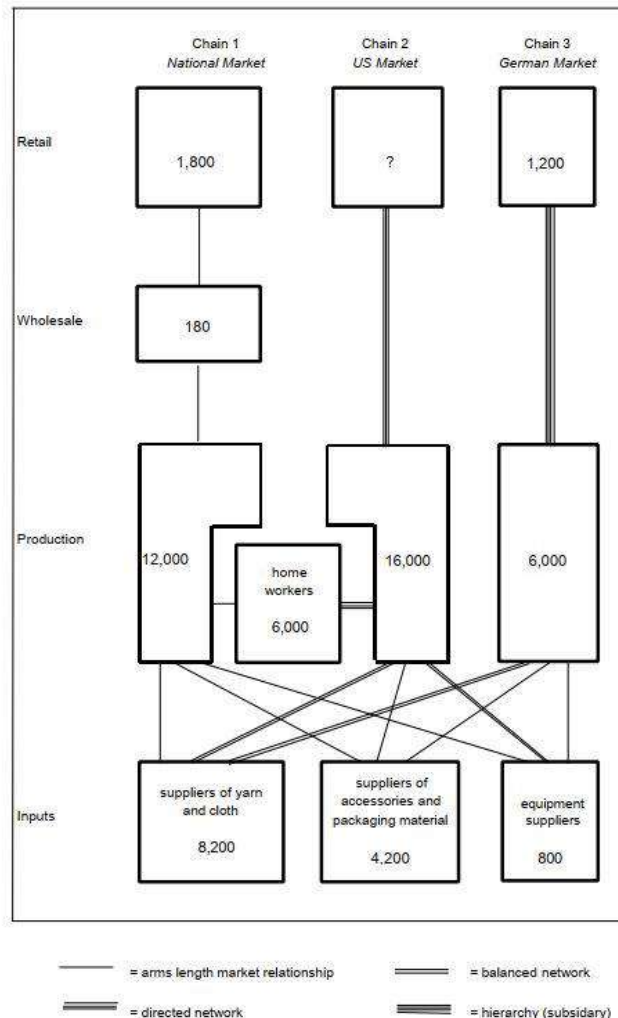


Figure 6: Functional value chain map

Source: (McCormick & Schmitz, 2001)

chain. Then, a further step may be taken to identify the predominant form of inter-firm interaction in each chain or chain segment by using basic symbols (see Figure 6) (McCormick & Schmitz, 2001).

While for the used methods and tools, they suggest reviewing secondary research resources and exploratory interviews for drawing the preliminary value chain map. The interviews can then be completed by taking this initial map to the next interviewee, to build upon it, and complete any missing data or connections (McCormick & Schmitz, 2001).



Chapter 3

3 Informal Urban Economy activities in Egypt

This chapter mainly discusses urban economy activities in the Egyptian context, especially the informal economy activities with their estimates, connotations, and classifications.

1. Informal urban economy activities in Egypt

According to an article published on the Information and Decision Support Center (IDSC) official website, among the Arab countries, which have a high share of informality, Egypt, Morocco, Lebanon, and Algeria are relatively large (IDSC, 2021). These informality rates started increasing with the contraction of public enterprises from 7% in 1998 to 5% in 2006, and then 4% in 2012, and the expansion of formal private wage employment from 8 percent in 1998 to 9 percent in 2006, and 11 percent in 2012 (Taha, 2014). This probably has many reasons like: the weak capacity of the official economy to contain the existing workforce and create enough job opportunities due to the massive population growth; the weak tax compliance cultures of many societal groupings; the Egyptian bureaucracy (Abughattas, 2016) that hinders the formalization process; and the informal economy's inability to keep up with costly and quick technical advancements, which leads workers, particularly in underdeveloped and highly populated regions, to use crude and affordable manufacturing techniques that allow them to maintain their businesses (IDSC, 2021). For this reason, the phenomenon of the informal economy in Egypt has expanded to reach every aspect of life.

The following part mainly discusses this phenomenon of the informal urban economy in the Egyptian context and its connotations and classifications in law.

1.1 Connotations of informal economy in the Egyptian context

1.1.1 Informal economy In the Egyptian law

The informal economy is still an unclear term in Egyptian legislation. However, the Egyptian labour law No.12 for the year 2003 is considered the main organizing law for Egyptian labour relations, and it only confined the description of work relations to their nature, either seasonal, occasional, or temporary, without referring to informal work with a specific definition (Adbel Halim & Omar, 2016). Only in article 26, in Book 2 'Individual Labour Relationships', the law referred that the concerned ministry shall follow up with irregular labour, referring particularly to the seasonal agricultural labourers, sea workers, mines and quarries workers, and contracting workers (Labour Law for the year 2003).

In a publication for the Arab NGO Network for Development (annd), a classification of the existing typologies of informal economy in the Egyptian context has been made into 5 types. **First**, informal employment in formal firms, which includes two types; outsource labour, which is a common type, where the new labour law does not ban it but legalizes and regulates it in the law articles; and casual or temporary labour, which is defined according to Law No.12, as work for a period that does not exceed two months and does not engage in the contracting activity of the enterprise. However, what happens in Egypt is that firms rely on employees for years, and when there is an insurance inspection, they are presented as casual labour for the inspectors. The **second** type of employment is represented by the informal domestic workers and their contributing family members. The **third** type is represented by wage workers who are not completely formal, like municipal bakery workers, who are registered but not covered by real insurance or a suitable wage. They have only conceptual or shell contracts that are not actually reflected. The **fourth** type is informal own-account workers, who usually work on their own or do casual work for an employer on an intermittent basis. The **fifth** type is the informal members of productive cooperatives (Adbel Halim & Omar, 2016). In addition to the existing labour law, some initiatives have been made by the state over the years towards the phenomenon of the informal economy to integrate them into the

financial and insurance schemes (Mahdy, 2021). However, there has always been a discussion about the reflection of these laws on the ground.

1.1.2 Spatial Informal economy practices in the Egyptian law

While for the laws referring to informal practices on the streets or what is exactly defined as an informal spatial practice, no unlicensed practices from the relevant governmental institutions are allowed to occur in public streets, as per Law No. 140 for the year 1953. This law is mentioned as being applicable to any actions impeding the passage of cars and pedestrians, such as street vendors. However, no clear specific regulation on using the sidewalk is stated in law (Fahmy, 2018).

Anyway, Fahmy has mentioned some of the laws that address informal practices and organize the use of streets and sidewalks. Building without a license is the first important law that bans any space occupation on the sidewalk without a license, like street vending and shop extensions. Another law is concerning any illegal alterations to the state's property, which exposes any lawbreaker to arrest or a fine payment. Another law that addresses environmental infringements requires the informal practice user to pay a fine if he throws garbage on the street. While one last law that considers the existing residents' complaints, explains that the police provide users the opportunity to remove any obstructions from the sidewalks; or they risk being arrested or paying fines (Fahmy, 2018).

Accordingly, any furniture that is placed improperly on the sidewalk, according to law, shall be confiscated by the police and taken to the municipality's office. Where the users are then required to pay the applicable fines to receive their items or furniture back. However, the informal practices users in Egypt, including street vendors, usually have their own ways of dealing with laws, either by paying bribes to those who are in charge, to keep them on the sidewalk without paying a fine, or just paying fines, stopping for some days, and then continuing performing the activity again. As described in Fahmy's study, these practices are almost turning permanent (Fahmy, 2018).

The informal practices resulting from urban economy activities, like the street markets phenomena, are prevalent in most of Egypt's streets, and the government mostly fails to stop them or force them to follow the rules of the sidewalks and street usage. This may have many reasons, including the corruption of the legislative framework, that leads to frequently breaking the laws, in addition to ignoring residents' complaints (Fahmy, 2018).

1.2 Informal economy estimates in Egypt

The latest estimates for the value of the informal economy in Egypt have some variations between different experts and researchers. However, the Tax Committee of the Federation of Egyptian Industries conducted a study at the end of 2018 that measured the output of the informal economy at 60% of the output of the formal economy in Egypt, which shows a massive prevalence. While for the contribution to GDP, according to the government estimates, it contributes about 40%, which equals almost 2.6 trillion pounds of the total 6.4 trillion pounds in 2020/2021. And for the share of informal employment, as stated by the Information and Decision Support Center, almost 50% of the workforce works informally. Within these high ratios, the micro, small, and medium enterprises form the highest ratios, where the number of informal small- and medium-sized units is almost four times the number of formal units (IDSC, 2021).

The World Bank group, based on 1996 and 2006 CAPMAS data, classified these informal economy ratios according to the size of enterprises, to understand the ratios of small units as stated before, into 3 categories: Micro enterprises (2-10 employees) account for 72% of total employment; small and medium enterprises (10-99 employees) account for 13% of total employment; and large enterprises (over 100 employees) account for 16% (World Bank, 2014).

These micro enterprises in Egypt, as stated by the World Bank, are small and unproductive firms that have no large capacity to employ formally and hence, have a small number of employees, usually informally employed. These enterprises are unlicensed, unregistered, and do not maintain regular accounting books (World Bank, 2014). In 2016, USAID reported that SMEs represent 95% of private

enterprises, yet their production does not exceed 25%, and this was explained by having a highly informal environment (Abughattas, 2016).

And for the economy sectors, a 2012 study in the MENA region countries identified that the tertiary sector forms the highest percentage of informality, where 28% of the sector operates informally, followed by the primary sector with 25.5%, then public administration and social services sector (including education and health) with 25.3%, and finally the secondary sector with 21.3% (Angel-Urdinola et al., 2012). The following part gives a more detailed classification of these activities in different sectors and their estimates.

1.3 Classification of Informal economy activities in Egypt

As discussed by Toso, the informal economy activities in Egypt have various shapes and types, ranging from primary goods supply such as food vending, to various services like ironing services, car repair services, and entertainment activities. He explained that they mostly take a mobile form, to both move quickly and serve many streets (Toso & Ravazzoli, 2013). Other forms of informal activities are explained by El-Rifae to be currency exchange; housing appliances, clothes, and food vending; in addition to independent carpenters, plumbers, drivers, and cooks (El-Rifae, 2014). This part explains the types of existing informal economy activities in Egypt and their estimates in different sectors.

In the 1988 Egyptian Labor Market Survey (ELMS), the informality ratios by gender were studied in the small and micro enterprises in different sectors in Egypt (see table 1). The study showed that the highest ratios of informality are found in trade, followed by services, and then manufacturing sectors (El Mahdi, 2002).

Economic Activity	Formal			Informal		
	Male %	Female %	Total %	Male %	Female %	Total %
Mining	0.23	0.00	0.20	0.03	0.00	0.03
Manufacturing	20.20	2.97	18.05	19.84	15.80	19.04
Electricity	0.23	2.46	0.51	0.57	0.00	0.45
Construction	2.03	0.00	1.78	5.92	0.00	4.76
Trade	59.60	22.85	55.01	35.56	49.59	38.32
Transport	2.80	2.97	2.82	5.93	0.34	4.83
Finance	3.93	5.48	4.12	2.12	0.65	1.83
Services	10.98	63.27	17.50	30.03	33.62	30.74
Total	100	100	100	100	100	100

Table 1: Small and Micro enterprises distribution, by sector, sex, and formality

Source: (Mahdi, 2002) based on ELMS 1988 study

Then, the informal employment in the service sector proved the largest ratio in 2006 in Egypt, with a ratio of around 70%, compared to only 29% in the manufacturing sector. Then, in the service sector, the retail trade employs almost 50% of its existing workforce, with an average firm size of 1.9 employees (the owner plus one wage worker). This means that a huge number of microbusinesses operate in the retail sector, which is mostly a part of the informal economy, which has 70% informal employment, according to ELMPS data (World Bank, 2014). Additionally, in a study conducted in 2015, the statistics revealed the high prevalence of informal operating households in the wholesale trade with almost 43%, followed by other services sector activities and then manufacturing activities (Abou-Ali & Rizk, 2015).

Another study conducted by the Cairo Center for Development Benchmarking (CDB) in 2016 to study the informality in 5 governorates of Egypt also stated that the formal sector's production, services, and trade specifically are directly and indirectly influenced by the informal sector (CDB, 2016). The study measured the ratios of women working informally in different sectors of the three categories: the industrial, the commercial, and the services sectors, to capture the highest activities in terms of informality, as shown in Tables 2 and 3.

In the industrial sector, the highest concentration of informal employment of women was found in finishing and mobilizing of clothing sectors, with more than 50% of the total studied sample, followed by cartoon collection and garbage sorting, then handmade carpets, and finally food factory activities. While in the commercial

sector, the garment selling activities showed the highest ratio of informality as well, with 39.8%, followed by selling groceries, then vegetables and fruits. In the services sector, the highest ratios were found in cleaning activities, then repairing old and new clothes activities, and then guarding activities (CDB, 2016).

	Women workers in the industrial sector					
	Cairo	Qalubiya	Giza	Beni Suef	Minya	The Average of the five governorates
Handmade carpets	0%	0%	0%	0%	6%	3%
Bread baker	0%	33%	0%	15%	3%	4%
Workers in textile factory, finishing and packing	35%	33%	33%	62%	0%	52%
Workers in food factory such as vinegar and pasta	2%	0%	0%	0%	12%	6%
Workers in ceramic factory	2%	0%	14%	0%	0%	3%
Street cartoon collectors / rubbish sorting	42%	0%	0%	15%	14%	20%
Workers on cutting machine	0%	0%	0%	0%	9%	4%
Workers on balance machine	2%	0%	5%	8%	9%	6%

Table 2: Women working informally in industrial sector

Source: (CDB, 2016)

	The most important activities of female workers in the commercial sector					
	Cairo	Qalubiya	Giza	Beni Suef	Minya	The Average of the five governorates
Selling poultry / liver / birds skeletons	0.50%	7.80%	0.00%	6.50%	7.30%	3.40%
Selling vegetables and fruits	5.70%	18.20%	13.50%	15.10%	10.90%	11.20%
Selling electronics / House ware	5.70%	3.90%	2.30%	2.20%	5.50%	4.20%
Selling groceries	3.80%	16.90%	4.50%	26.90%	21.80%	12.20%
Saleswoman in stores / retail / furniture / Shoes / clothing	57.10%	6.50%	48.90%	17.20%	25.50%	39.80%
Pharmacy worker / Medical Supplies office	3.30%	5.20%	3.80%	7.50%	3.60%	4.30%
Selling accessories / makeup / Perfume / Toys	11.80%	2.60%	1.50%	4.30%	2.70%	5.80%
Saleswoman in a stationary store / photocopying	1.40%	3.90%	16.50%	2.20%	0.90%	5.00%

Table 3: Women working informally in commercial sector

Source: (CDB, 2016)

Based on these estimates, the services sector, and trade and manufacturing sectors, are the highest in terms of informality, where the garment industry specifically forms a large proportion of these informal relationships. It is the second largest employer among the manufacturing industries in Egypt as well, employing almost 15% of the manufacturing workforce, based on Egyptian Center for Economic Studies estimates (ECES, 2020). Where it shares 34% of the country's industrial output, 4-5% of the country's GDP, and 14% of Egypt's exports (Ceeba, n.d.).

For these reasons, the garment activity was selected to study the dynamics of its value chain and the formal-informal linkages within its complex relations. Accordingly, the following chapter gives a quick overview of the general dynamics and components of the garment value chain.



Chapter 4

4 Garment urban economy activities

To understand the dynamics of garment economic activities in the case study, it was essential to have a brief background on the general dynamics in both the global and the Egyptian garments' value chains and the informality linkages in their complex networks. This is what this chapter mainly discusses.

A value chain covers the entire spectrum of tasks and services necessary to develop a good or service from conception to sale in its target markets, whether local, national, regional, or international. Input providers, producers, processors, and purchasers are all included in value chains with a variety of technical, commercial, and financial service providers that support them. As Chowdhary explains, the value chain analysis process is usually conducted by asking some critical questions. These include knowing the stakeholders included in the process and the flow of goods between them; knowing the customer groups with higher demands; identifying the target group of small-scale businesses, and their opportunities and challenges; studying the social dynamics within activities' networks; identifying who are the ones with greater power in the market; and finally, understanding market possibilities and obstacles that enterprises must overcome (Chowdhary et al., 2008).

1. General dynamics of Garment Global and Local value chains

A global value chain includes almost the same activities that take place within a local boundary, but in the case of garments, and especially in the developed countries, it means that, for example, the piece design is made in London, the manufacturing process takes place in India, the assembly is done in Mauritius, and with fabric originally sourced from China (McCormick & Schmitz, 2001).

What happens sometimes in developed countries' value chains is what Gereffi described as "Triangle manufacturing". In the 1970s and 1980s, this concept was developed as a means of profiting from good quotas and low-wage labour, while also utilizing the expertise that had already been acquired by many Asian suppliers.

Mccormick and Schmitz describe an example of this triangle formed by a US retailer, a Taiwanese company, and a manufacturer in a low-wage nation. When the Taiwanese company receives an order from the US retailer, it just outsources some or all of its manufacturing to another manufacturer in a low-wage nation in order to fulfill it (Mccormick & Schmitz, 2001).

While in underdeveloped countries, most of the garment chains operate at a sub-national level, where the included activities are represented in neighboring tiny firms that produce clothing for nearby clients as well. Most of the fabric, for example, is obtained from neighborhood dealers who in turn purchase it from domestic producers. The buttons, zippers, trim, and facings are domestically produced as well, or bought from regional vendors (Mccormick & Schmitz, 2001).

Value chain components

As discussed by Grumiller, the textile and apparel industry is a fine example of a sector that is geographically and organizationally segmented into global value chains, where the production of components and their assembly into final products is carried out via complex inter-company networks on a worldwide scale (Grumiller et al., 2020). These complex networks within the value chain can be classified into 5 parts as described by Gereffi. These parts start with the raw materials supply, including both synthetic and natural fibers; followed by the main components production by textile factories like yarns and fabrics; then the garment production factories, including domestic and foreign subcontractors; followed by the trade intermediaries that appear in export channels; and lastly, the marketing networks and retail level. Then he mapped the functional relations within the global value chain he studied (Figure 7), showing the flow to the different buyers' types (Gereffi, 2003).

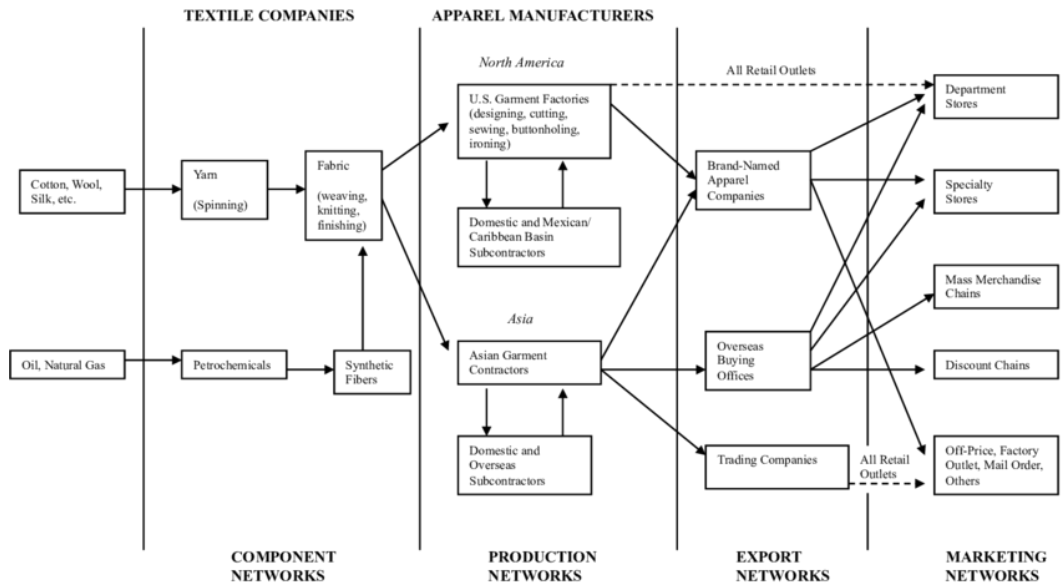


Figure 7: Global garment value chain relations

Source: (Gereffi, 2003)

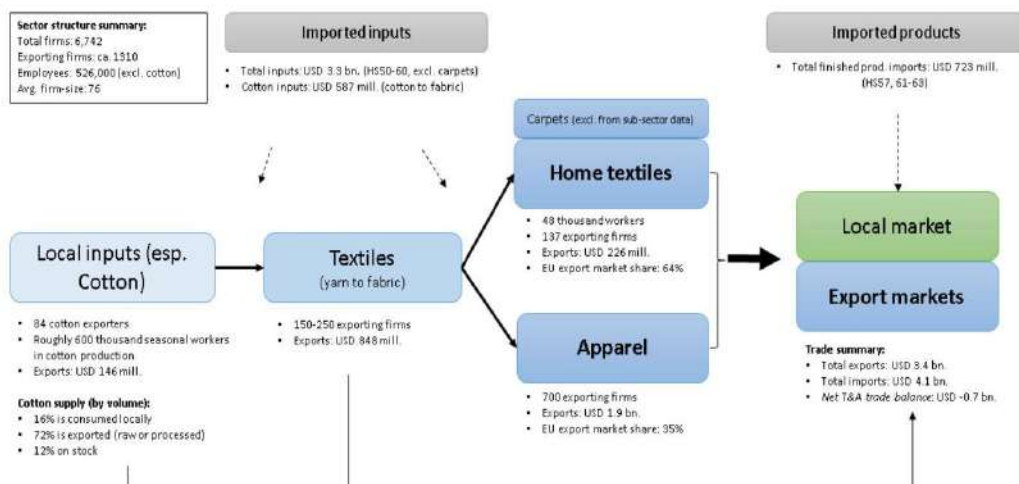
While McCormick & Schmitz explain the detailed structure of the stages of each part of the value chain components. They started with the inputs stage that follows raw materials supply and divided it into different types of suppliers, including the main yarn and cloth suppliers; the accessories' suppliers like buttons and zips; the packaging materials, hangers, bags, and boxes suppliers; and finally, the equipment suppliers. Then, in the next stage of the production process, the manufacturing starts, including pattern making; laying and cutting; assembly; pressing; and finally, inspection and finishing. These finished products enter the wholesaling process, starting by taking orders from different wholesale traders and then transporting them to a warehouse near the final market. The wholesaler in turns transports the products to retail, where branding and advertising take place, to sell to the final customers. Hence, the garment value chain has complex relations with different interlinked processes (McCormick & Schmitz, 2001).

Garment value chain in Egypt

The Egyptian garment value chain dynamics do not differ from the explained general dynamics. The value chain starts with textile manufacturing via upstream activities and downstream activities in manufacturing ready-made garments, woven and non-woven products, and home textile. This is in addition to many complementary services and industries, like design, packaging, transportation, and a considerable number of commercial activities (ECES, 2020). Figure 8 explains the textile and apparel value chain in Egypt.

What must be noticeable in Egypt is that most of the garment sector is now operated by the private sector, which, as mentioned, may be a reason for high informality rates. There are an estimated 3,500 private and investment sector businesses in Egypt's textile and apparel sector, with sizes ranging from more than 10,000 employees to less than 10. And the public sector is made up of 40 enterprises that are grouped under three sizable corporations. Where the public sector owns 90 percent of spinning and a 60 percent of weaving, but only 30 percent of garment manufacturing (Magder, 2005). While the Ready-Made Garments Export council (RMG), estimated the number of existing companies in 2019 to be from 3500 to 6500, stating that 90% of clothing factories are privately owned, with the majority operating in the informal sector, and supplying the domestic market (Ceeba, n.d.).

Almost 81% of the factories are located in Greater Cairo, Alexandria, Al Gharbeya, Al Sharkeya, and Al Dakahlia. While small and medium factories are concentrated in Cairo and Qalyubiya governorates, which account for 37% of all factories in Egypt, and Qalyubiya governorate ranked first with a 17% percentage in the number of micro-companies (Saed, 2020). While for the Importing process within the garments value chain, Egypt imports large quantity of production requirements like fabrics, dyes, and thick yarns, despite the presence of all the value chain components from cotton cultivation to the final ready-made products (ECES, 2020) (Grumiller et al., 2020).



Note: Employee numbers differ by source due to different calculation methods. The numbers used in this report represent more conservative estimates.

Figure 8: Egyptian Textile and Apparel value chain

Source: (Grumiller et al., 2020) based on UN Comtrade 2019 data

2. Informality in Garment value chains

There are numerous sizes and types of businesses in garment value chains which are connected by both formal and informal relationships (McCormick & Schmitz, 2001). As described by Ascoly, there is an increase in the informalization trend in the garment industry in both the domestic and international markets and this can extend to both the formally operating factories as well as the informal workplaces (Ascoly, 2004).

As discussed by Ascoly on the international markets, informalization is a method used by the global market to reduce costs while still being competitive, through using a variety of subcontracting arrangements. Many of these subcontractors work under a variety of different contracts and are probably engaged in the informal economy (Ascoly, 2004). Accordingly, there are various forms of informality that exist within the garment value chains. As discussed at a seminar organized by the Canadian Auto Workers (CAW) in 2002, there is an important distinction between those working for identifiable employers, such as part-time employees and contract workers, and those working for non-identifiable or shifting employers, such as home-based employees who work on their own account either individually or as

family members (Ascoly, 2004). Some of these informality types and dynamics inside the garment value chains, are described briefly in the next section.

Types of informality

Ascoly gave some examples of the informal employment forms in the garment industry as follows (Ascoly, 2004):

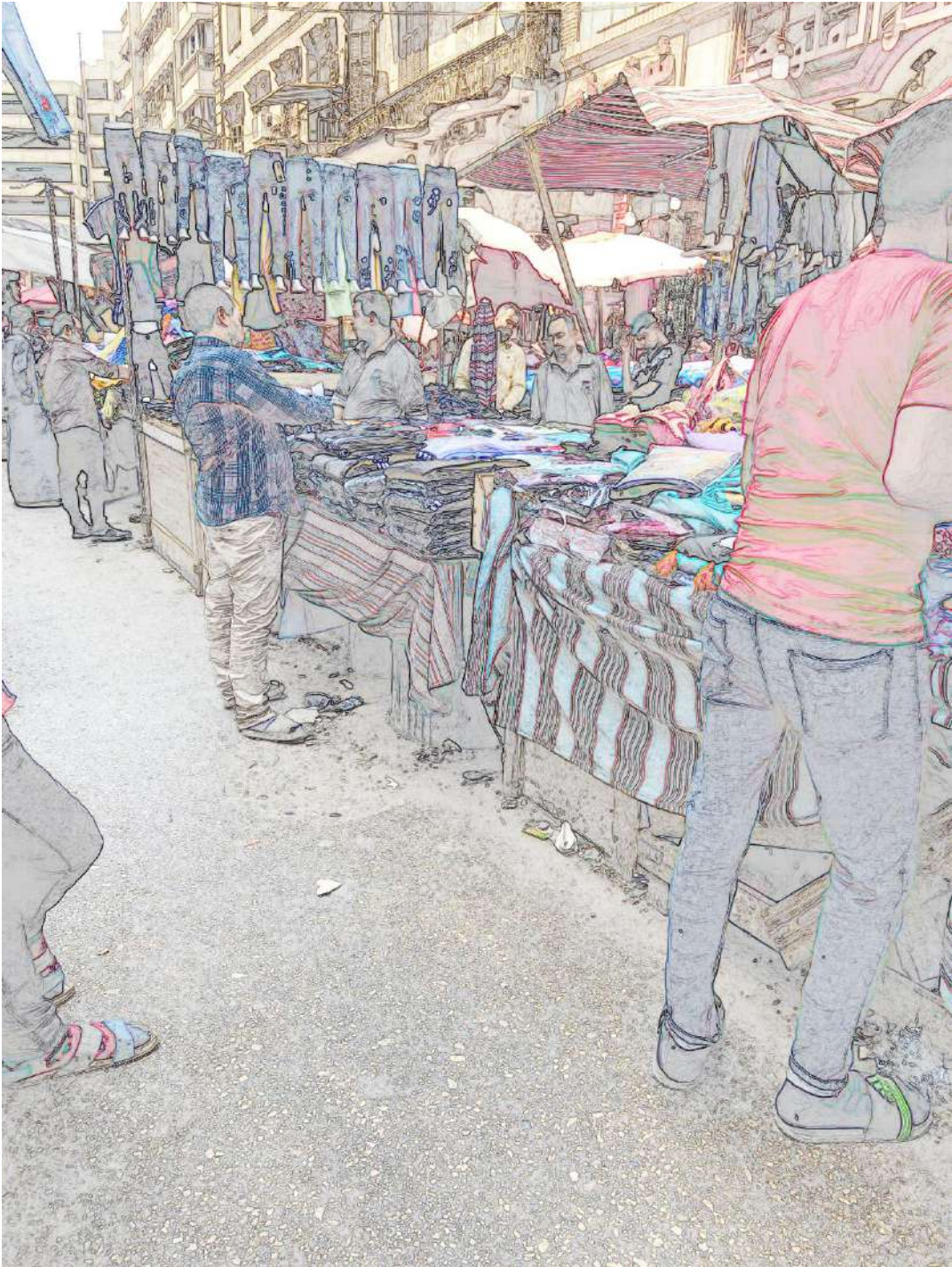
- **Subcontracting small workshops or homeworkers:** These workers do not receive the same pay and benefits as prescribed by law, have little to no legal protection, and are usually unable to organize unions. They are usually subcontracted by factory managers who take on the role of agents, giving employment to people outside the factory to perform part of the manufacturing process.
- **Informal employment in a new company within an existing factory:** Within an existing factory, the owner or manager establishes a new business and hires employees. These new employees might or might not receive the same pay and benefits as those who work in the factory that is currently in operation.
- **Informal employment by an employment agency:** In this scenario, some production lines within a factory might really be staffed by individuals who aren't employed by the business that manages the plant but by someone else or multiple others. Where a hiring company, agent, or person is permitted by the main factory owner to bring workers that will perform part of the manufacturing division of his business, these workers are not regarded as employees of this business, and their employment is either temporary or undetermined in duration.

The informal homeworkers are then discussed by McCormick and Schmitz to have no specific status under law in both developing and developed countries and hence are categorized as employees or independent contractors. Accordingly, homeworkers have various types classified by the ILO into three main groups (McCormick & Schmitz, 2001):

- The first group is made up of people working in rural, craft-based industries and who find their own marketing channels, create and make their own items, get their own materials, and mostly enlist the help of other family members.
- And the second group is composed of the manufacturing homeworkers. Producing homework preserves a craft-based aspect and incorporates traditional skills as well, but the workers are largely subcontracted to manufacture certain goods that are produced and marketed by others. Therefore, it mainly differs from craft-based homework in that employees must adhere to very stringent instructions and acquire raw materials from a prime contractor or intermediary.
- The industrial homeworkers form the third group. These workers complete a portion of the production process while other homeworkers or factory workers, complete the remaining steps. Accordingly, they typically perform tasks that only require a basic level of ability and are compensated on a piece-rate basis. They construct entire outfits from pre-cut pieces; they can also create individual items of clothing or perform specialized tasks like hemming, button-sewing, hand embroidery, inspection, or packing.

However, as described by McCormick and Schmitz, the distinctions between these various sorts of homework are becoming hazier due to the general trend toward globalization of industry, where every step of the process can incorporate elements of both craft and industrial homework, for example (McCormick & Schmitz, 2001).

After reviewing the urban economy activities; the formal and informal economy networks, and how they are linked both functionally and spatially, on global and Egyptian scales; and hence, choosing the garment activity and reviewing its general dynamics; the next chapters then represent the case study and its analysis and findings.



Chapter 5

5 Fieldwork

In this chapter, the adopted methodology in the case study is discussed, alongside with the tools and methods used in data collection and analysis. First, the chapter provides a description for the overall field study design, followed to reach the research objectives. Then the study selection criteria is discussed, a brief background on the selected markets of Al Attaba, Al Moski, and Al Ghoureya is given, and then, the specific boundary and the studied streets are determined. Subsequently, the data collection, and data analysis phases are being explained, discussing the process, and the various used tools to reach the research aim. The chapter shows how the use of comprehensive data collection tools and adapting a multi-method approach helps in a better understanding for the situation of the markets with their functional and spatial dynamics.

1. Field Study Design

Figure 9 shows the followed steps in the fieldwork with both the tools used, and the actions taken along the process. The process started by selecting the proposed site alternatives, and the selection of Al Attaba, Al Moski, and Al Ghoureya markets, then selecting the exact studied streets within the boundary of the studied areas. After that, the process of data collection starts in a multi-method approach which combines between qualitative and quantitative methods. The qualitative methods are represented in the conducted semi-structured interviews with vendors and government officials. The participant, and non-participant observation, and the geo-tagged photography are other qualitative methods to capture the spatial dynamics of existing formal and informal economy networks and their impacts on the surrounding urban environment. While the quantitative methods appear in the geo-spatial field data mapping to capture the types, numbers, and distribution of economy networks in the area, and also appear in the conducted online and field survey to capture the impact of these economy networks on the surrounding urban environment. The qualitative data extracted from the interviews and the observations are then analyzed using coding and counting for the collective answers to extract the functional patterns in the value chain. And then the spatial data

findings are represented using the open data source QGIS to analyze the different spatial and functional layers together, to extract both the micro and the macro spatial patterns of economy networks in this value chain. While statistical analysis is used in analyzing the conducted survey answers. These analysis methods are used then, to extract the research findings and discussions, which are then used to draw the conclusions, recommendations, and future research needs. This chapter explains in depth the data collection and analysis process, while the next chapter explain the data findings and analysis.

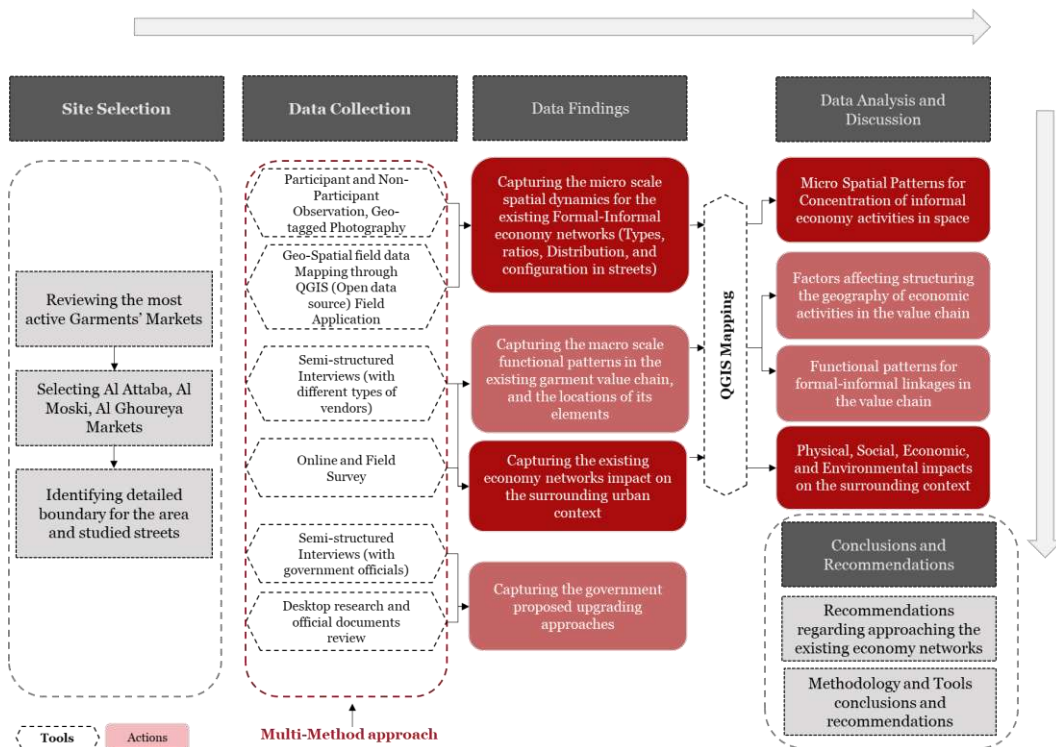


Figure 9: Field Study design

Source: Author

2. Study area

2.1 Study area selection justification

After selecting the garments activity to study its dynamics due to the mentioned reasons in chapter 3, the garments most active hotspots were reviewed, to be the first station in performing the study, including the interviews and observations, to have then a larger look on the rest of the value chain relations on a macro scale. Accordingly, 4 hotspots were reviewed as the most active markets in garments activity, based on literature review, and preliminary un-structured interviews: Al Attaba, Al Moski, Al Ghoureya, Wekalet Al Balah (Figure 10). After this, the three markets, Al Attaba, Al Moski, and Al Ghoureya markets were selected inside the boundary of Historic Cairo, excluding Wekalet Al Balah market due to its distant relationship with the rest of the three markets (Figure 11). This is to be able to collect a suitable amount of data within the available time boundary, and to be able to field survey the areas within walkable distances from each other.



2.2 Detailed boundary for the study area and the surveyed streets

After defining the boundary of the study area for the three markets, it was important to highlight specific streets in which the in-depth observation and site surveying process will take a place. For selecting the streets, the researcher followed three methods. First, two exploratory site visits were performed to generally observe the area and identify some parameters like the level of street activity, the diverse configuration and concentration of activities in the streets, the existence of formal and informal activities, and finally the hierarchy of streets' widths and levels. Second, Semi-Structured Interviews were conducted with garments shop owners to ask them about the most active areas and specific streets in the three markets, and the types of activities in these areas. Third, an online survey was published which includes questions regarding the most active and visited streets by them and the types of the activities they are used to buy from there. Based on these methods, the streets in the area were classified into three categories: the main commercial streets (shared streets), the secondary streets (mostly pedestrian streets), and the narrow alleys (pedestrian), this is to capture different spatial dynamics of economic activities in space with its different types.

For the main shared streets, the most mentioned and observed as active streets are Al Azhar Street, Port Said Street, El-Gaish Street, and Al Bostah Street. While for the secondary streets, the most mentioned street in Al Moski area, is Al Moski Street (Pedestrian Street), and in Al Attaba area, the branched streets from Al Bostah (Pedestrian streets), are the observed most active streets, while in Al Ghoureya market, Al Ghoureya street (Pedestrian Street with sometimes toktoks and Suzuki vans flow) is the most active as well. While for the Narrow alleys, they are presented in the narrow alleys branched from Al Moski street, and those from Al Ghoureya street (see Figure 12).



Figure 12: Surveyed streets classification

Source: Author

2.3 Background of Markets

Al Moski market, Al Ghoureya market, and a part of Al Attaba market, are located within the boundaries of Historic Cairo as defined by National Organization for Urban Harmony (NOUH), in Figure 14. And the study area belongs to Cairo West area, where Al Moski and Al Attaba belong to Al Moski district, while Al Ghoureya belongs to Wast Al-Qahira district, as received from the Official Portal of Cairo Governorate (Figure 13). These areas have a rich historic and economic background, as well as w complex current state. This part discusses a brief history of these areas till they reached the current state, to have an overall idea about the area and its dynamics before digging deep into the study.

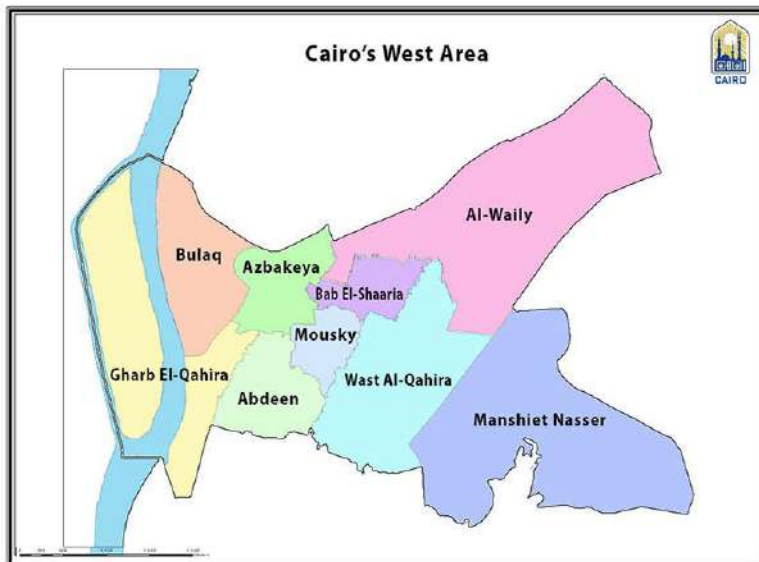


Figure 13: Cairo's West Area Districts
Source: Official Portal of Cairo Governorate

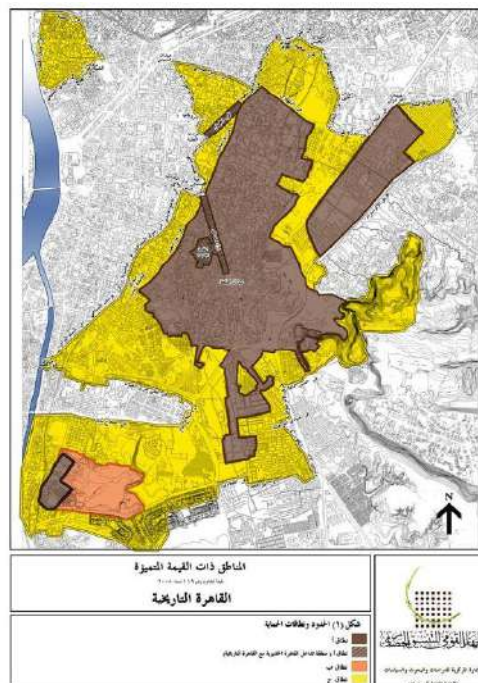


Figure 14: Historic Cairo boundaries. Source: NOUH based on the boundaries approved by The Supreme Council for Planning and Urban Development

2.3.1 Background on Al Ghoureya area

History of the area

Al Ghouri complex, or Al Ghoureya in arabic which dates back to 1503, is a funerary complex for the Mamluk sultan, which was built by Sultan Qansuh Al-Ghouri. In addition to this sultan's reputation for dictatorship, he was known for his artistic taste, and love for architecture, and music, which appeared clearly in the various components of the complex. The complex is on both sides of Al Moez street with a wooden roof, joining the two sides, and mainly includes: a Mosque and Madrasa on the western side of Al Moez street, and a khanqah, mausoleum, and Sabil-Kuttab on the eastern side (SIS, 2016). What characterizes this complex than the rest of religious complexes in the city, is the orientation of its facades which are not adjusted to the street alignment. This widened this area of the street, which enabled an urban space used for market booths. These booths and market stalls income contributed to the complex maintenance (Archnet, n.d.).

Current state

The complex has an important cultural value, as it hosts cultural events in the Khanqah hall since 1995, including Nubian music, and religious recitals (SIS, 2016). However, the most noticeable thing in the area now, is the modern kiosks and sellers for a variety of fabrics and clothing, with some street vending activities, in a very active commercial environment with a touristic nature.

Khanqah: A sanctuary for spiritual retreat of Sufi brotherhood

Sabil: An Arabic name for a building that offers free fresh drinking water to passersby.

2.3.2 Background on Al Moski area

History of the area



Figure 15: A historical photo for Al Moski area.

Source: (Alsharkawy, 2017)

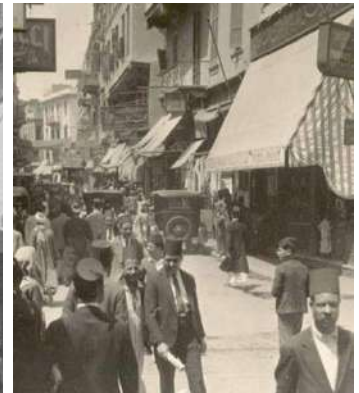


Figure 16: A historical photo for Al Moski area.

Source: (Alsharkawy, 2017)

Al Moski district is one of the largest and populated commercial areas in Cairo, which is well-known for having stores on every square inch of its streets. It is bounded by Bab al-Sha 'riyah Square, Abd EL Aziz Street, Al-Azhar Street, and Al Khazendar Square, from the north, south, east, and west, respectively (Alsharkawy, 2017).

The district is attributed to its founder, the Prince Ezz El-Din Moussak, who is a member of the royal family. He constructed a Qantara with his name in the area where he dwelt and built himself a palace there. However, he passed away in Damascus, and in the time of the French campaign, the soldiers destroyed the palaces of princes who escaped out of Cairo, including the region of Qantaret Al Moski, and established a path from there to Al Azbak mosque Square, which is currently Al Moski street. Then during the reign of Muhammad Ali, he gave the order to pave and widen the streets and alleyways in the Al Moski district. And he gave Al Moski name to the route running from the Al Moski area to the Royal Imperialism of Azbakiyah, a hospital that Muhammad Ali had refurbished (Alsharkawy, 2017).

Then due to the abundance of commercial activity in Al Moski, the influx of foreigners, and the congestion of the area, Muhammad Ali started constructing Al

Seka Al Gadida street, which is now Al Azhar street, and made it 8 meters wide. Then Khedive Ismail finished the project and extended the street till reaching the west of Al Azhar university (Alsharkawy, 2017).

Current state

This market has been growing ever since it was founded, and merchant numbers, and product variety have increased alongside with it, increasing the economic growth in the area as well (Elshenawy, 2022). Al Moski and Al Attaba areas are frequently combined in popularity, being the largest commerce markets in Egypt, as Al Moski serves as an extension for Al Attaba market (Elshenawy, 2022).

2.3.3 Background on Al Attaba area

History of the area

The establishment story of Al Attaba market comes within Khedive Ismail project of 19th century. Whereas a part of his plan to create a city that can compete European towns, was establishing public squares, large boulevards, and some other modernity characteristics (Raymond, 2001). The covered markets trend in the 19th century was one of these attempts to create modern shopping experiences that can compete with the existing conventional souqs. These markets include, Attaba market (1892), and some other markets as well. As explained by Al Sadaty, the aim of these markets, was creating an alternative for the street markets, to avoid their negative effects, by creating new commercial building type that can offer a range of goods and guarantee a healthy and clean environment for purchasing and selling (AlSadaty et al., 2021).

The actual establishment of the market was in the reign of Khedive Tawfik, when he donated a land to the Endowments, to start construction. The location of the market was advantageous for many reasons. First, it was situated on the frontier between mediaeval Cairo and the city center of the nineteenth century, which was a neighborhood for aristocrats and pashas (AlSadaty et al., 2021). Additionally, a modern public transportation system was built as part of the modernization effort between 1894 and 1917, with an agreement of eight tram lines, six of which begin at Al Attaba Al-khadra plaza, a few feet from the Attaba market (Raymond, 2001). This caused the market to be confluence of tram lines and a stop for numerous routes,

making it the literal center of the city (Reynolds, 2012). By 1917, Al Attaba market and Attaba square were within 15 to 20 minutes walking distance from the city's farthest point (Reynolds, 2012). The floor plan of the market building covering 6260 m² consists of two main corridors that meet in a massive square central space covered by a metal-trussed roof, classified internally into four sections, each sells a different food type (Reynolds, 2012) (AlSadaty et al., 2021).



Figure 17: A historical photo for Al Attaba area

Source: (Elshenawy, 2022)

After establishment, Al Attaba square and its environs underwent some dramatic alterations, which had a significant impact on the market, some are accessibility transformations, and others are urban space transformations. First for the accessibility, before 1869, Al-Moski street and the tiny lanes leading to Attaba square were the only means of entry to the plaza. Then, four wide, roadways were cut through the old fabric, connecting the square to the other developed areas, expanding accessibility, and altering the Square's destiny significantly (Raymond, 2001) (AlSadaty et al., 2021). Abdel Aziz street, was opened in 1870, to be one of these roadways that connected old Cairo and modern Cairo. Then Prince Farouk street (El-Gaish Street now) was constructed to connect Attaba Square to the Bab al-Shaeryea area in 1920s. While in 1930s, Al Azhar Street was constructed to connect Attaba Square to the Al-Azhar Mosque, the heart of Fatimid Cairo

(Raymond, 2001) (AlSadaty et al., 2021). While for the Urban space, the current space was separated into two spaces, Al Attaba AL Khadra square and Azbak square, by a palace built by Abbas Pasha I, that was later demolished, connecting the two spaces into the huge Attaba square (AlHadidi, 2017) (AlSadaty et al., 2021).

The value of the area came from functioning as a commercial hub including some upscale commercial buildings, making it an exceptional commercial center. Additionally, the region functioned as a cultural hub, where the famous singers and pioneers of Egyptian theatre used to perform, due to the presence of Al Azbakeya garden and the national theatre, in addition to the Khedival Opera house that served as the cultural center of the city until it was destroyed by fire in 1971 (AlSadaty et al., 2021).

Current state

Regarding the current administration, The Egyptian Endowment Authority currently owns Al Attaba market. Whereas, Cairo Governorate, as the local government, and the Endowment, as the building's owner, are responsible for the building's exterior. And law 119/2008 states that Attaba square falls within the boundaries of Khedivial Cairo, whereas Attaba market buildings fall within the boundaries of historic Cairo. This is because, Al Attaba square is located precisely on the border between historic Cairo and Khedivial Cairo (AlSadaty et al., 2021).

Over the years, the population has grown, and the region has become denser. Tens of thousands of Egyptians still congregate daily in Al Attaba square, ensuring its unchangeable commercial identity (Elshenawy, 2022). Despite this thriving commercial identity of the area, and according to Al Sadaty, the current encroachments on the building and the surrounding context, threatens and undermines the market's value (AlSadaty et al., 2021). For the building, a layer of fixed extrusions concealed the historical facades. These extrusions reduce the width of the entrances, not only to exterior facades, but also to the inside of the marketplace, significantly reducing the corridor width. This accordingly hinders the movement of clients and the unloading of goods throughout the day, in addition to impeding the emergency evacuation and circulation, and affecting the natural air

flow inside the building. This all results in affecting the shopping and commercial environment that was once advertised (AlSadaty et al., 2021).

Regarding the social identity of the area, Al Sadaty explains based on his interviews with merchants, that there are currently two categories of shopkeepers. One represents the original tenants who inherited the tenure of their stores, those users are aware of the building and the area's value, and care about them. While the second represents the immigrants to the area described as "ghoraba" (strangers). Those mostly switch their trade to another, based on profit conditions, shifting primarily to imported mobile phone accessories and renovating their premises, without broad guidelines to maintain the historic structure. The disparity between the two groups widens as time passes, as original shops face difficulties in retaining their clients and attracting new ones, at the same time of attracting the new shopkeepers to a whole different group which is mostly composed of wholesale customers (AlSadaty et al., 2021).

Current market conditions that are deteriorating cannot be evaluated in isolation from the deteriorating conditions of the surrounding environment. As Al Kadi described, some of these conditions include, the densification process, the decline in residential uses, and the prioritization of vehicular traffic over pedestrian movement. (El Kadi, 2012). The informal street markets started flourishing from the 1960s, and the 1970s, due to immigration of foreigners from rural areas, which in turns caused shifting the area's social strata drastically. Accordingly, the neighboring metropolitan areas lost their attractiveness. As a result of these macro and micro changes in physical and non-physical features, Al Attaba square and Al Attaba market had been affected significantly (AlSadaty et al., 2021).

2.3.4 Upgrading Plans

However, no clear plans were announced for the development of these markets. Only some news for revitalizing parts of Khedival and Historic Cairo, including Al Attaba market, and some other markets, as referred by Al Sadaty, based on his interview with the head of the Administration (AlSadaty et al., 2021). Other news was spread by social media pages claiming the transfer of Al Moski, Al Attaba, and Al Fajalah markets, to alternative areas, and selling their land to a foreign investor.

However, as stated on Cairo Governorate official Facebook Page, The Council of Ministers' Information Centre denied these news, and noted that there is a plan to upgrade and reorganize the area, considering its heritage and value. This is through dividing the markets to specialized commodity markets and creating structured location for each vendor “بواكى”, aiming to preserve the business owners' entitlement in these markets.

Based on this rare knowledge, certain government officials were interviewed in-depth to grasp the present upgrade plans. According to respondents, there is no clear plan for renovating the marketplaces. An official from Cairo Governorate said there is a plan to develop Historic Cairo, which involves upgrading historic buildings, public spaces, and markets. Five locations are to be upgraded including, Darb Al Labana, Behind Al Hakem Mosque, Darb Al Tamaeen, Behind Al Hussien Mosque, and Souk Al Selah. But no overall picture exists for further development stages, including markets upgrading. As furtherly mentioned, the upgrading procedure starts by the markets' administration in the district presidency of each district surveying the existing activities, then asking the surveyed vendors to apply in the district for a license. The district presidency reviews the applications based on several parameters to make a compromise between the total number of vendors and the available locations. The accepted applications are then given a specific position in the market with a monthly rent. Then, Al Moski District Presidency conducted interviews helped to understand the type of collected data. Where the markets administration employees said they started the inventory process per governorate request, but they don't know the reasons of this inventory. They added that the inventory procedure only covers street vendors' national ID numbers and being registered or not; explaining that if the market is upgraded, only the registered would be granted specific spaces, while unregistered activities are usually evicted. But as mentioned, there are still no clear information or plans are announced.

3. Data Collection, and analysis

3.1 Data collection tools

3.1.1 Capturing Micro Spatial patterns

The observation process was essential to document the current status of the existing situation and its dynamics and the spatial arrangements of formal and informal economic activities in the studied area. As mentioned by Urban Institute, the observation process can help the researchers to understand what interviews cannot fulfill, like what interviewees may not commonly observe or mention in interviews or what they may be unwilling to share (Urban Institute, 2014). And this process does not mean only the act of looking or recording information, but as mentioned by Byrne, the observer is analyzing and interpreting what he is observing within the process (Byrne, 2021). For this reason, the process of observation followed in this research included assisting tools, that will be discussed in the following part, including Voice recordings, Geo-tagged photography, route tracking, Field geo-spatial mapping, and Counting and Coding. These tools within the observation process were used overall on 11 site visits, distributed on three stages as mentioned below.

First, Exploratory Site Visits

Two exploratory site visits were conducted initially at the beginning of the study on two weekdays in March, to have an overall idea about the area, its dynamics, the existing activities, and the areas where they are most active. This in turns helped the researcher to select the detailed boundary of the studied area and the streets to survey besides the initial interviews, and the survey first results. The process of observation was un-structured and naturalistic to only observe the current state with no main points to collect or intervention in the existing natural setting.

Second, Site Visits for Structured Observation

Three site visits were conducted in three different days including two weekdays (10-05-2022, and 16-05-2022), and one weekend (Friday 13-05-2022), and taking into consideration conducting them in different times to observe the different dynamics along the day. Where the first two visits took place from 12:30 pm and lasted for 3

hours, and the last one (16-05-2022) took place from 8:30 pm and lasted for 2 hours. The gap in the day was filled in the next site visits, to ensure having all day observation process. This observation process aimed to observe specific points dragged from literature to understand the spatial dynamics of the existing economy networks in a structured manner. The main observation points were as follows:

- Street name, Street type (Main, Secondary, Alleys)
- Activities' locations on map
- Type of existing formal and informal activities (Garments, shoes and bags, etc)
- The configuration of activities in different street types (No. of activities per street cross section, and their arrangements)
- Surrounding uses (residential- commercial- Industrial- mixed use- touristic- religious)
- Nearby transport and commuter nodes
- Surrounding Magnets (crowd attraction areas)
- Presence of edges (Fences, bridges, etc)
- Participant observation for People and Vehicular traffic in the area
- Participant observation for People accessibility to the area

These points were mainly observed by using three tools:

I. Voice recordings

Voice recordings on mobile were very effective and essential tool in this case. the highly congested area in terms of vehicular and pedestrian traffic, as well as the activities, resulted in a difficult walking experience. This, in addition to the sensitive situation of informal vending activities made from writing down the notes and paper documenting a very hard process. Accordingly, the voice recording was the dominant used tool in documenting the observed notes.

II. Geo-tagged Photography

The Geo-tagged photography was an essential tool to capture the dynamics that cannot be seen due to the limited memory and perspective of the researcher during the observation process. These photos can then be analyzed in depth to extract some

of the required data, or even new data, and then be used in the analysis part. Around 200 photos were captured by the researcher's mobile phone, and geo-located on maps using a mobile application called myTracks, which will be explained below, that enabled the researcher to have a recorded route with taking photos along this route.

III. Route tracking application (myTracks)

myTracks application, was used to document the taken routes and the studied streets by tracking the taken routes, starting at a certain point, and ending the recording at the last observed point, using OpenStreetMap (Figure 18). The application enabled the researcher to have an organized documentation for the studied routes, the images along these routes geo-based, and any landmarks, or notes. And then can export the data later as gpx files, to be imported into any other mapping application like GIS, or google earth pro.

Therefore, this structured observation process aimed to have a documented track for the studied routes, with geo-based photos on it, in addition to the notes in the voice recordings, to have a comprehensive image for the studied area, through the previously mentioned observation points, that will complement with the data collected from the next observational site visits.

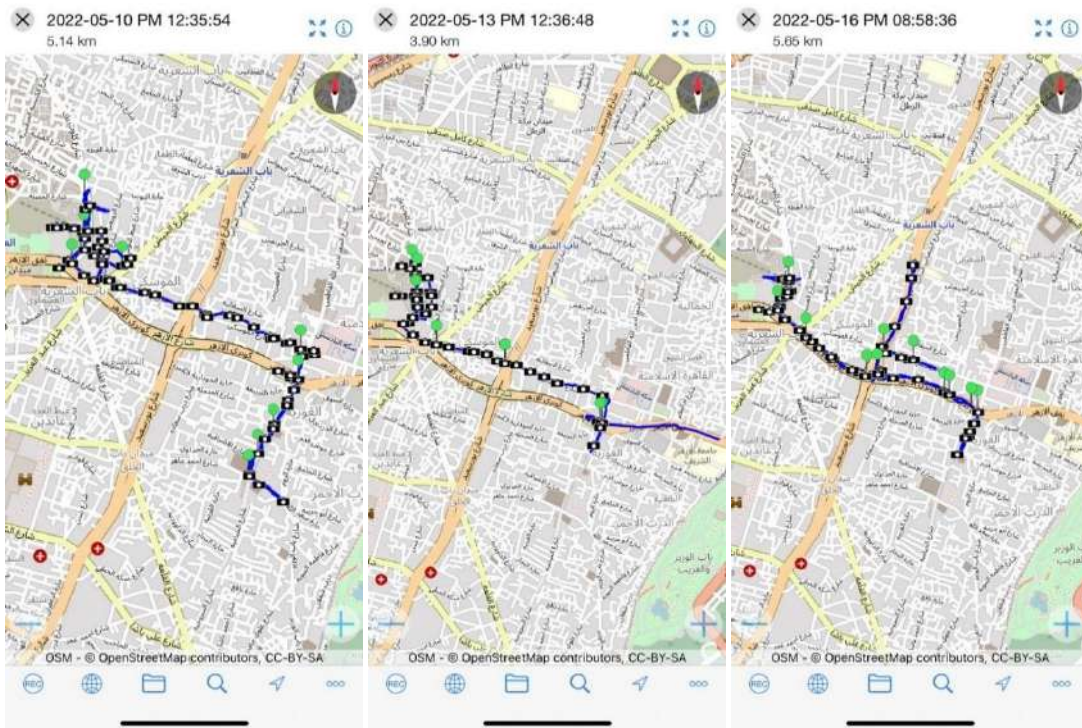


Figure 18: Route Tracking for observation visits on different days

Source: Author using myTracks application

Third, Site Visits for Geo-Spatial Field Mapping

Three site visits were conducted on two weekends, and one weekday, from 3:30 and lasted for 3 hours, and from 11:30 pm and lasted for 3 hours as well. Where the surveyed streets mentioned previously were distributed on the three days as shown in Figure 19. These site visits mainly aimed to map the mentioned streets on field in terms of number of existing activities, types of informal practices, and types of activities, in addition to taking notes completing the previous site visits notes. This field geo-spatial mapped data can be then entered into QGIS open data source and used to capture the different patterns of activities' concentration, clustering of certain types, and types and percentage of existing informal practices. This was accomplished by using a field mapping application called Input application, that is available for both IOS and Android users, and used for field surveying using open street maps. This application uses Mergin Maps plugin, which in turn enables the user to synchronize the captured data into QGIS open data source.



Figure 19: Surveyed streets for performing the Geo-Spatial field mapping

Source: Author

IV. Field Geo-Spatial data surveying

The process of point data creation was accomplished first, by creating an ordinary QGIS project using OpenStreetMap layer, then synchronizing it to input application on mobile by installing Mergin maps plugin on QGIS and following some technical steps. Then after synchronization, a geopackage layer was created with the required fields for mapping, which in this case were as follows: Type (Formal-Informal), type of informal practice (pushcart, wall hanging, etc), Activity (garments- shoes and bags, etc), Number, and any additional notes. After the preparation of the required fields, and ensuring synchronization with the mobile application, then on opening the mobile application, points can be added from mobile while walking, observing, and counting, filling in the required fields (Figure 20). For the activities count, the process was done by using an electronic rosary, which facilitated the counting process while walking in this active and dense context. After collecting the point

data on mobile, by updating the project on QGIS, the researcher could have all the collected data on QGIS for further edits and analysis (Figure 21).



Figure 20: Point data collection and field mapping on Input app.
Source: Author using Input app

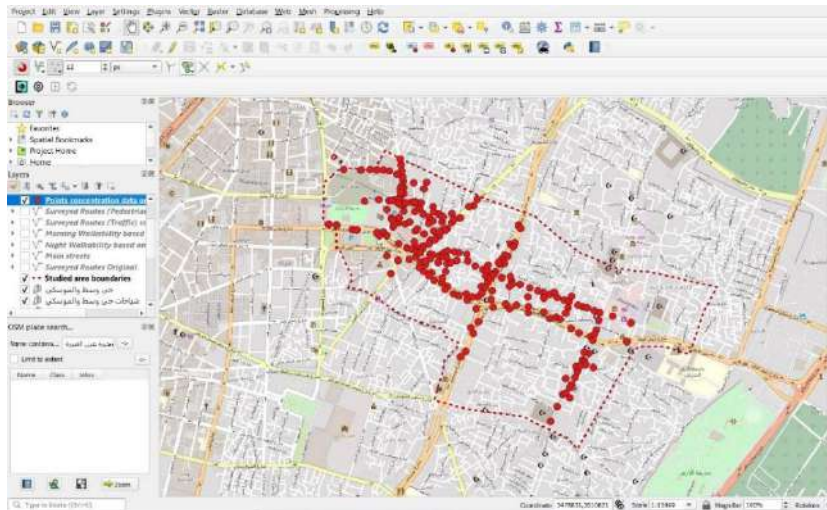


Figure 21: Point Data collection on QGIS after synchronization with Input app.
Source: Author

Fourth, Site Visits for conducting the Interviews

Three site visits were performed to mainly conduct the interviews, with naturally observing any new feature that was not observed in the last site visits. These site visits were conducted in two weekends, and one weekday, in three different times as well. The process was held by tracking the route taken to reach the interviewees, geo-tagging the interviews locations, and taking geo-based photos for the vending locations of interviewees, to be able to analyze their answers later considering their locations and their spatial dynamics.

3.1.2 Capturing Macro Functional and Spatial patterns

I. Open-ended Semi-Structured Interviews

The Semi-Structured interviews with formal and informal garments vendors, mainly aimed to understand the value chain relations of the existing garments activities and the flow of resources and goods in this value chain in the three markets, as well as the locations of this value chain elements inside and outside the boundary of the studied area and the reasons of these location preferences. Additionally, understanding the different formal and informal dynamics and relations inside this value chain related to the transportation, fiscal transactions, and other complementary activities to the garments activities was an important aim.

To conduct the interviews, the area was observed initially in the first 5 site visits, to capture the different activities clusters, and the different types of garments trade activities in the area, to be able to take a sample from each type of garments trade activities and capture the different value chain dynamics. For this reason, based on the observations, the studied area was classified into three zones where each zone has dominant type of garments trade activities as shown in the Figure 22. The first zone is Al Attaba area (Al Bostah street and the branching secondary streets, as mentioned previously), which is characterized by dominance of outwear garments trade activities. The second zone is Al Moski street, and its branching alleys, which has dominance for the homewear garments trade activities, with some outwear garments trade activities and Home Textile activities as well. And the third zone is Al Ghoureya street, and its branching alleys, which is characterized also by dominance of Home Textile trade activities, with homewear garments activities. For this reason, the interviews were distributed over these three zones, to be able to have data collected from the different existing activities and have an overall idea about the different value chain dynamics.

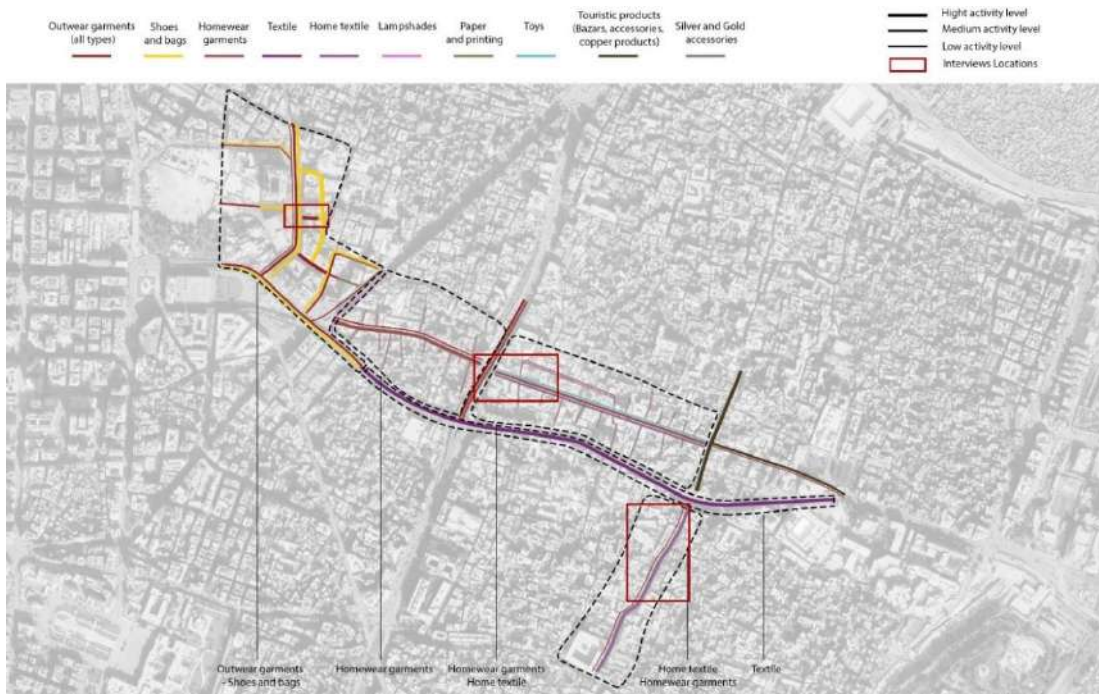


Figure 22: Interviews' locations

Source: Author

Then from each zone, a small area was selected which has a high activity level, and various types of formal and informal trade activities, as a starting point for the interviews (Figure 22). The interviews were held with vendors from different forms of trade activities, including wholesale shops, retail shops, vitrines (this type will be explained in the following chapter), and pushcarts vendors, and from different age groups, as explained in Figure 23. The researcher was able to conduct the interviews with only the trade activities' stakeholders, and not include other manufacturing components, due to some reasons, including the limited time; and these activities' locations that may either lie outside the area in the surrounding areas, or in the area but invisibly inside the buildings, unlike the trade activities.

The most interviews were conducted in Al Moski, as it was the first location to perform the interviews, then followed by Al Ghoureya, then the least is found in Al Attaba, as the saturation point from the answers was reached easily in the three zones from the fourth to the fifth interview in each area. The total number of interviews with vendors is 26 Interviews: 13 in Al Moski, 7 in Al Ghoureya, and 6 in

Al Attaba. And they were held in three different site visits, two on weekends, and one on weekday.

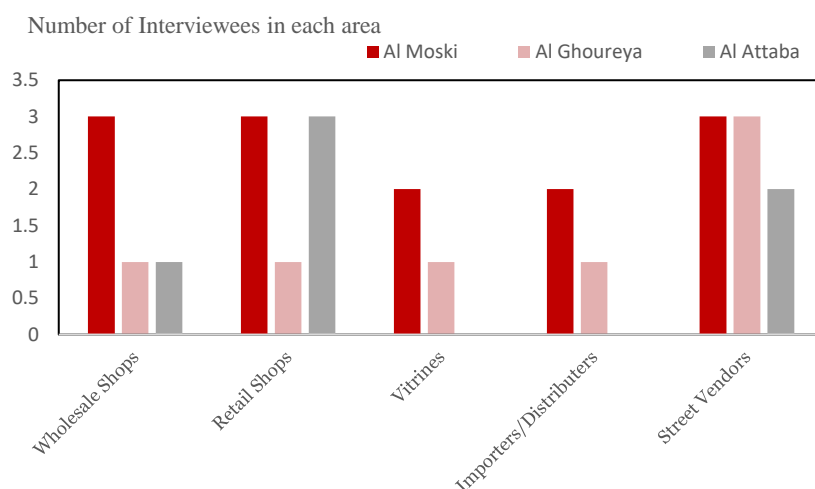


Figure 23: Number of Interviewees from garment vendors, by trade activity type

Source: Author

Before each interview, the researcher introduced herself and provided the interviewees with main info about the research topic and aim. Then to record or write down the answers of the interviewees, she took an informed consent from them, where some vendors accepted, and some preferred not to record due to the sensitivity of their situation. And only a small percentage of the interviewees refused to mention their names in the study and preferred to be anonymous. The researcher left the interviewees to take the discussion to the direction they want, but at the same time, she made sure that some questions were answered in any order (Check appendix A).

II. In depth Semi-Structured Interviews

To understand the functional and spatial dynamics of the existing economy networks, it was essential to view the situation from the point of view of the state. Hence, beside interviewing the vendors, 4 semi-structured interviews were conducted with government officials, 2 via phone calls, and 2 face to face interviews. The first phone call interview was with Khalil Shaat, Cairo Governor's advisor, and Senior Policy Advisor at GIZ (German International Cooperation). The second phone call interview was with Dr.Marwa Ahmed Soliman, manager of international

and local funding department at Urban Development Fund (UDF). While the third and fourth face to face interviews, were conducted in Al Moski District Presidency Building, with two employees, one in the Markets' administration department, and the other in the Housing administration department. These interviews mainly aimed to understand the former, and the current approaches taken from the state towards the existing economic networks, and vendors in the studied markets, and if there are any plans to upgrade the studied area as a part from Historic Cairo development project, and finally the available data about the existing economy networks. The interviewees were asked their consent to write down their answers, and they were left to take the interview to the direction they want, while making sure that they will answer some questions as well (Check appendix B).

III. Un-structured Interviews

In addition to the semi-structured interviews conducted with the vendors, and the government officials, the researcher could make use of two site visits via car hailing applications, in conducting two un-structured interviews with the drivers that come to pass by the area a lot of times due to their job. The main aim of these two interviews was forming an initial image for the situation of these markets, the most active streets there, and the most congested ones with both traffic and activities. The questions were not prepared, and the conversation was left for them to talk about whatever they want. Their consent was taken to write down their answers and use their names in the study.

3.1.3 Capturing the Impact on the Surrounding Urban Context

Online and Field survey with shoppers and passerby and residents

The aim of the conducted survey was mainly to measure the impact of the existing activities on the urban context of the studied area from the point of view of passerby, shoppers, and residents. And as mentioned by Mehta, the significance of pedestrian impressions in the evaluation of the street environment cannot be overstated, where pedestrians are the best group to evaluate their perceptions towards streets (Sisiopiku & Akin, 2003; Chu, Guttenplan, & Baltes, 2004; Mehta, 2008). (Kinyingi et al., 2020). So beside participant observations and the impact drawn from the interviews, the survey was created to measure the pedestrians' perception towards

the street environment with the existing economic activities in place, and validate the answers with observations and interviews. For example, when most of the survey answers referred to the difficult walking and shopping experience as an impact of the existing un-organized activities, literature was reviewed to extract variables through which walkability is measured, and then used in the structured observation for the area to later analyze the walkability in the surveyed streets. Another important aim of the survey was to identify the reasons of shopping in these locations specifically and compare them to the vendors answers to have an overall image of the situation, and also determine the most active streets they visit or pass by.

Accordingly, the survey was published online in English and Arabic languages, on Facebook, groups related to the area, and different social media channels. Alongside with the online survey, it was conducted also as a field survey, where the researcher could face to face conduct the survey with 22 shoppers, and pedestrians distributed over the three specified zones previously, to capture the dynamics on site. The survey could collect 100 responses online, and 22 responses in field, with total 122 responses. It depended on reaching the saturation point in the answers, as there were no available studies to reach the population size for the passerby, pedestrians, and shoppers in the area. Regarding the survey sections, it was classified into three sections, the first section for basic info about the respondent, the second section includes general info about the respondent's visits to the studied area, and the third section evaluates the impacts of activities on the surrounding urban context from the respondent's point of view (Check appendix C).

3.2 Data representation and analysis

3.2.1 Analysis of Observations

I. Coding for the voice recordings:

The voice recordings are written down and coded to be categorized into the previously mentioned observation points with the related photos attached which are analyzed to capture or annotate some of the observation points as well.

II. Mapping the economy micro-Spatial patterns

The points database collected using Input application as mentioned previously, are used to create first, a Heatmap, using number of activities as the points weight, and hence can grab concentration locations, and accordingly, analyze the patterns of concentration considering the previously mentioned literature. Second, the points database is categorized to identify the clustering of various activities' types, and informal practices' ratios in streets, by categorizing the points according to different values from the collected fields. This can be then used to analyze the different micro spatial dynamics of activities concentration and configuration in different streets' types.

3.2.2 Analysis of Interviews

I. Thematic analysis and coding

Coding was used for categorizing the interviews' answers into themes and hence, start extracting findings and analyzing them. The coding was used for categorizing the answers regarding:

1. Value chain of each existing type from the activities explored through interviews.
2. Informality in value chains and their impacts
3. Reasons for choosing locations
4. Residence/ storage locations of vendors
5. Peak times and peak days in activity
6. Upgrading Governmental approaches

II. Mapping the extracted data

First, Functional mapping for the value chain: the previous extracted data by coding are translated into a functional diagram for the garments value chain in the area including all the activities' types and the flow of resources and dynamics between them.

Second, Spatial mapping for the value chain: This functional diagram is then spatially mapped using QGIS open data source. The process is fulfilled by creating a point data base for each category of value chain elements (production, trade, etc), and then allocating them on the map giving them different weights according to the times they were mentioned by vendors. Then connecting them by line data base showing the flow directions from different locations to each other inside and outside the area. Hence, analyzing the value chain relations and their different spatial dynamics and areas' relations to each other.

3.2.3 Analysis of the Survey results

The quantitative answers of the survey like those of the likert scale questions are analyzed using statistical analysis to produce charts and diagrams that represent the perception of shoppers and passerby towards accessing the area, and the traffic and walkability in the area. While for the qualitative questions, coding is used to categorize the answers to have collective feedback about the respondents' perception about the resulting challenges from the existing economy networks, that is later reviewed alongside with the observation analysis and the interviews analysis.



Chapter 6

6 Findings and Discussion

This chapter represents the main findings, analysis, and discussion points and it is classified into two main parts. **The first part** mainly aims to represent and map the existing situation, including both macro and micro situations. It starts by mapping the existing value chain activities, and their functional and spatial dynamics on a macro scale, through mapping the functional and the spatial garments value chain and power relations in the area. Then it maps the micro spatial relations of informal activities, by mapping the concentration of informal economy activities and their dynamics within the micro context (the boundary of the studied area). And finally, it maps the informality linkages in these value chain relations on both macro and micro scales.

The second part includes understanding the underlying patterns behind the previously explained and mapped situation. It starts by analyzing the spatial patterns on macro scale, discussing the factors affecting the spatial distribution of economy activities within the value chain. Then it narrows the scope, analyzing and discussing the spatial patterns of informal economy activities concentration within the micro context. Finally, it discusses the impacts of these informal economy networks on the urban context's different aspects (spatial, social, economic, and environmental).

1. Mapping the situation

1.1 Functional- Spatial value chain mapping

1.1.1 Identifying the types of existing activities

The existing trade activities observed in Al Moski and reported via interviews were mainly wholesale shops that sell high quality products and other ones for lower quality products, with a prevailing nature for the wholesale activity. And for the retail, there are small retail shops, Vitrines (small area of about 1.2-2 m², where vending activities take place in mostly a registered frame, as shown in Figure 28), a prevailing percentage of street vendors, in addition to some vending activities that take place via online methods. There exist also some distributors for goods that are usually own-account individuals sitting in the streets with other traders. And in addition to the garments activities, some activities exist for Home textile products in both wholesale and retail shops, with very few home textile street vending activities (Figure 24). In Al Ghoureya streets, the home textile trade activities exist in a larger percentage than the garments activities. And the activities mainly exist in wholesale shops and retail shops for home textile and garments, and vitrines for garments, and very small percentage of informal street vending activities for garments and home textile (Figure 25). While in Al Attaba streets, the previous activities exist but with a large dominance for the informal street vending activities rather than the shops. There exist some manufacturing small workshops as well as mentioned by most of the interviewees (Figure 26).



Figure 24: Categorization of existing garments and Home Textile trade activities in Al Moski street and its branching alleys Source: Author

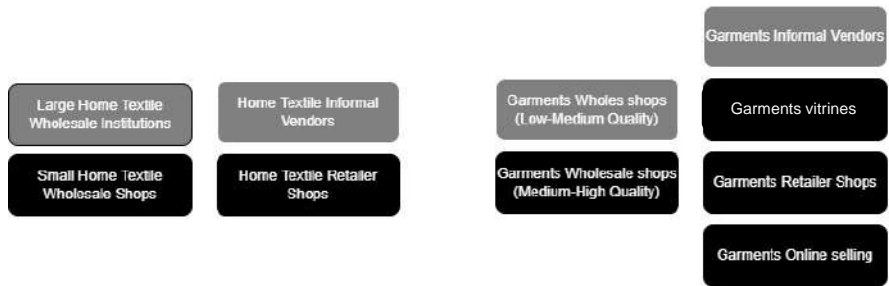


Figure 25: Categorization of existing garments and Home Textile activities in Al Ghoureyah and its branching alleys.

Source: Author

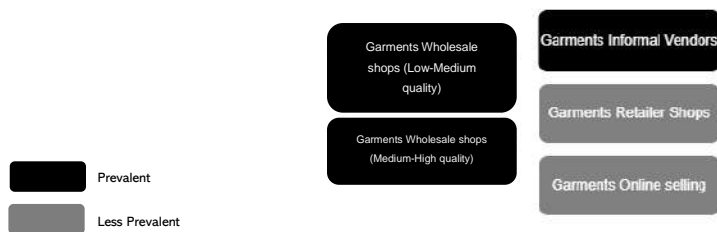


Figure 26: Categorization of existing garments trade activities in Al Attaba streets (Al Bostah street and its branching streets)

Source: Author



Figure 27: Aza cart for goods' transfer

Source: Author



Figure 28: Vitrine vending space

Source: Author

1.1.2 Value chain components description

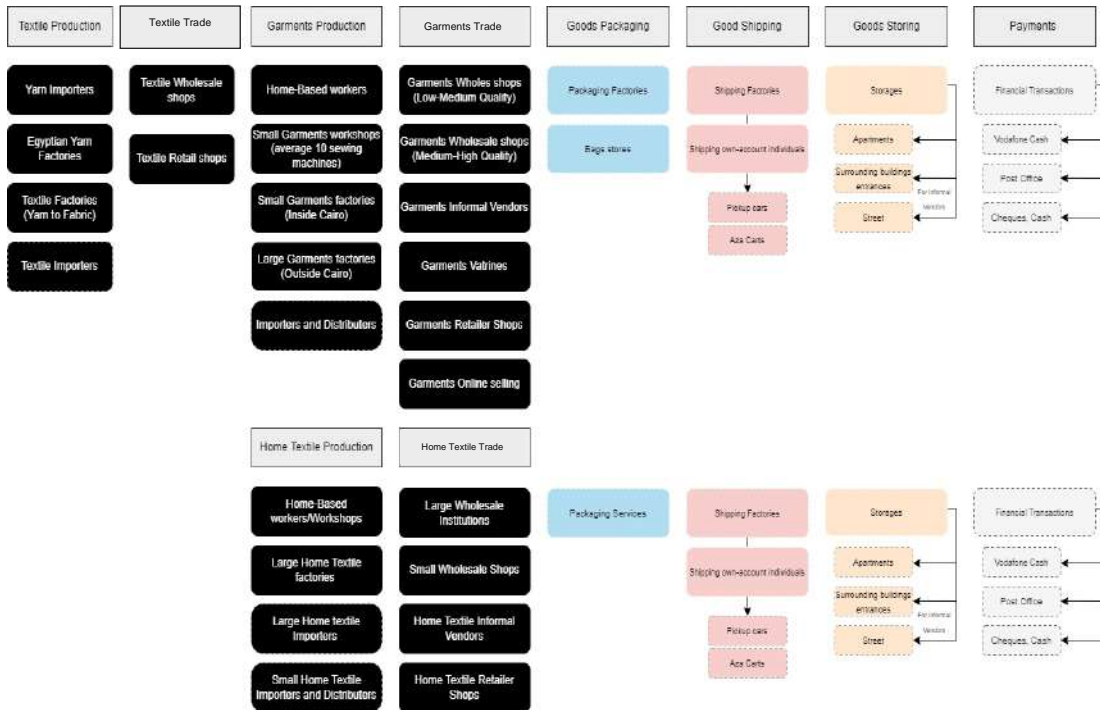


Figure 29: Garment and Home Textile value chain components as explored in the study area

Source: Author

According to what have been discussed previously in literature regarding the garments value chain components, the garment and home textile value chain elements were categorized into 4 categories, after exploring the existing dynamics in the three markets. These categories are textile production, textile sale, garments' production, and then garments' sale which is composed of both retail and wholesale trade activities. These categories form the main categories in the value chain, alongside with some complementary activities as mentioned before, and categorized into goods' packaging, goods shipping, goods storing, and payments or money transactions activities (Figure 29).

Main Value chain components

As explained by the interviewees alongside with the studied literature, the textile production category is the first step which includes different elements like Egyptian yarn factories, yarn importers, textile factories, and finally textile importers. And The Textile trade activities then form the second category including both wholesale textile shops, and retail textile shops.

Then for the garments production, the process as reported, occurs via either large garments factories outside Cairo that usually have more than 100 workers as stated in literature, or small garments factories inside Cairo and mostly in the surrounding areas, or small surrounding workshops that usually operate informally with less than 10 workers, or finally informally via home-based workers. The importers and distributors of garments are also an existing category including large formal importing entities and own-account importers, and large or small distributors for the trading activities. The garments trade activities are mentioned previously as they were the first observed and mapped categories that exist within the boundaries of the area.

Complementary Value chain components

The packaging complementary activities as discussed by the interviewees, are composed of bags factories (bags manufacturers), either big factories, or small informal ones; and places performing the packaging process itself, usually for the low-quality products produced by small workshops (mostly informal).

While for the goods' shipping, the process occurs via 2 methods: the first is shipping factories, which are usually formal large businesses that ship products from different governorates or from far large factories or ship to them; and the second is shipping own-account workers, which mostly work informally as own individuals or small businesses. These own account workers either own a small pickup car that take the products from the shipping factories, which are usually near the three markets in the surrounding areas, as will be explained later, and then ship them to the narrow internal streets; or work on aza carts (see Figure 27) to enter the very narrow alleys that cannot be accessed with pickup Suzuki vans.

Goods storing usually takes place in rented surrounding apartments for the formal shops. And in the case of street vending activities, the storing occurs either in the street by tying the pushcarts in their locations, or in the surrounding buildings entrances in an informal way, where the vendors pay the doorman an amount of money weekly to keep an eye on the products.

And finally, the financial payments take place either in cash and cheques in direct transactions, or Vodafone cash and the near post office in Al Azhar street for the online money transactions.

In the next part, the relations and flow between these actors are mapped both in terms of functional and power relations, and their spatial relations. This functional and spatial mapping process for the value chain did not aim to capture the number of involved actors or stakeholders in each stage, but only capturing the dynamics, the flow directions, and the spatial dynamics of these activities.

1.1.3 Functional value chain mapping

Functional value chain of Garments in the study area

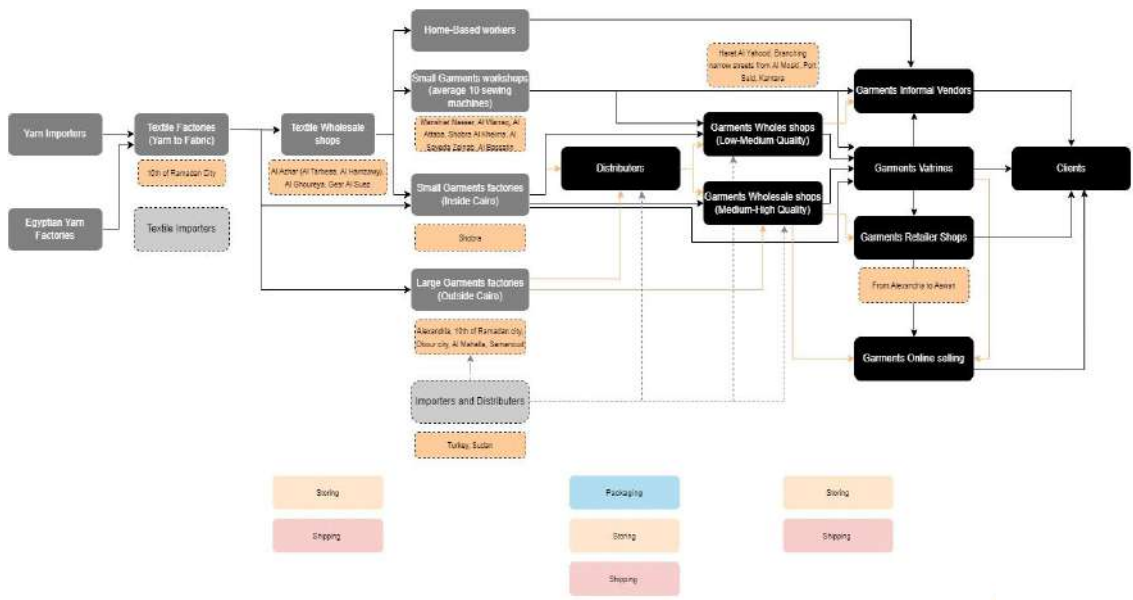


Figure 30: Functional map for the garment value chain relations in the study area

Source: Author

The flow of goods within the garment value chain is mapped in Figure 30 based on the collective answers of interviewees, that were selected from each category of trade activities. The process starts by the flow of textile from the large textile factories, that are located mostly outside Cairo, to the textile wholesale shops that are usually in the surrounding areas like Al Azhar, Al Ghoureya, and some other areas like Gesr Al Suez. The finished textile flows then to the garments production stage. Where the large textile factories, give directly to the large garments factories, that are mostly outside Cairo as well, and some small garments factories inside Cairo; while the previously mentioned textile wholesale shops, give to the smaller manufacturing entities where some informalities take place like the home-based workers, and the small manufacturing workshops that are mostly located in the surrounding areas, and some small factories as well. After this stage, the goods start flowing from the production to the trade stage, where the relations become more intersecting and inter-related in a complex manner.

Between the production and the trade phases, there are some intermediaries' relations that take place via the distributors that usually take the goods from either the small garments factories, the large garments factories, or the importers (when there was an active import process). Then they start distributing them to the garments wholesale shops, both the high quality and the low quality of them. These garments wholesale shops of different qualities are the dominant trading entities in Al Moski, and what it is popular for. The low-quality wholesale shops of them take the goods basically from either the distributors, or the small garments (usually informal) workshops that are scattered in the surrounding areas, to pass the goods then to both the vitrines and street vendors, and sometimes directly to customers that sell them online to different areas inside and outside Cairo. While for the high-quality wholesale shops, they mainly take their goods from the distributors, the small factories, or the large factories, and the importers, to pass them to the vitrines, retail shops, or the online sellers' customers. Within the retail trade activities, a lot of exchange processes for goods take place, as for example the street vendors sometimes take from the vitrines, or from the retail shops, low-quality and low-price goods, in addition to taking from home-based workers. Other times, the vitrines take from or give to retail shops. Finally, the goods reach the final customer which is usually from low to medium economic classes.

It is important to highlight the high importance of the wholesale shops as the dominant and the most important element in the value chain, as they are the organizers of all the trade flow within the area, either to formal or informal traders, or directly to the customers, in addition to their importance as facilitators for the existing street vendors to maintain their activities. The surrounding small and mostly informal workshops as well, have a significant role in keeping the balance inside the value chain. While for the import process, it was explained to be very stagnant by all the interviewees, due to the current boundaries on the import process and the increasing prices, hence, most of the garment products in these areas were said to be Egyptian, and the role of importers within the value chain was said to decrease significantly.

Functional value chain map of Home Textile in Al Ghoureya and Al Moski

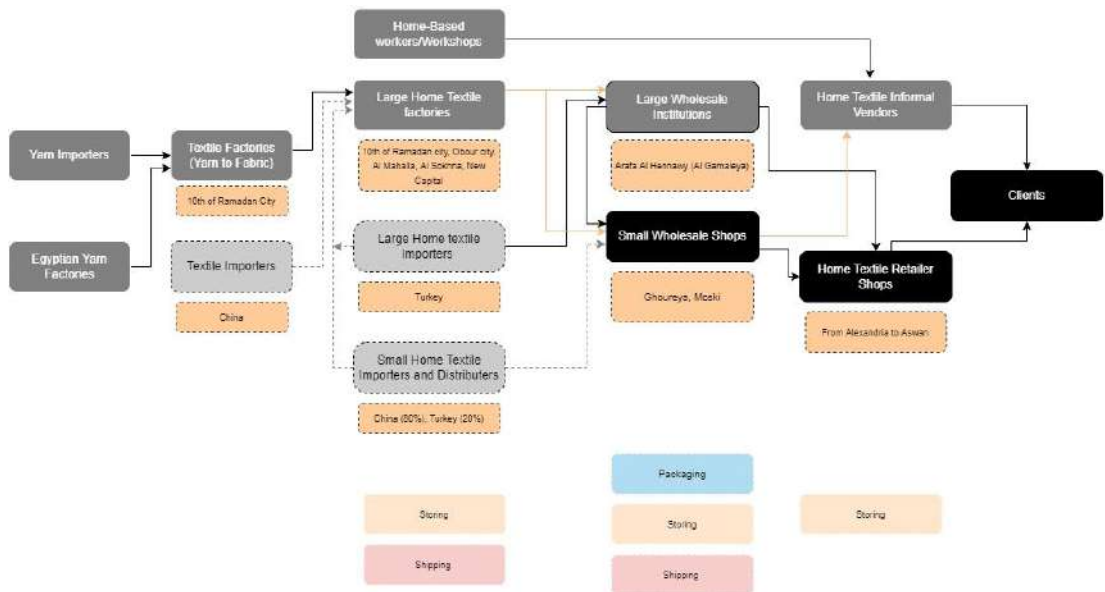


Figure 31: Functional map for the Home Textile value chain relations in the study area

Source: Author

Home Textile functional value chain relations were not studied as a main component in study area, but due to its existence in the study area as the second dominant activity, and in a direct spatial relation to the existing garment activities, it was studied to understand if there are any functional or spatial relations with the existing garment activities. From the studied value chain in Figure 31, the only similarity found was in the locations of value chain components, where the large manufacturing home textile factories are located outside the city, mostly in the industrial parts of new cities. Then they give to the large wholesale entities that are similarly existing in the proximate surrounding areas, to pass the finished products then to the wholesale shops, that may deal then with the few existing Home Textile street vendors. Then the relations in the downstream activities are all spatially interrelated in the study area and its surroundings as well as the garment activities, but with significantly lower ratios of informality especially in the trade activities.

1.1.4 Spatial value chain mapping



Figure 32: Geo-spatial map for value chain components of garments activities in the study area

Source: Author

Studying the spatial dimension of the value chain and its mapping showed a strong relation between the existing economic activities and the surrounding areas. Which probably has a significant influence in attracting more activities to the very condensed commercial area, or the existence of many vendors that have been there for years. Figure 32-33 showed that upstream activities that tend to be **larger economic entities including large number of workers**, like the textile production factories and the garments production large factories, tend to locate at the fringes of the city, or outside the city in other cities especially the industrial districts of new cities, like 10th of Ramadan city, Al Obour city, 6th of October city; in addition to other cities like Al Mahalla, Samanoud, and Alexandria. These large entities do not show to have special proximity to the very condensed area at the heart of Cairo, unlike the downstream value chain relations that are **smaller economic activities with fewer workers** and more informality ratios, that tend to be in the surrounding areas for the studied markets and in more condensed and sometimes informal areas.

These smaller activities like the small workshops mentioned previously, are explained by 90% of the interviewees to be in the areas surrounding the market, like

Manshiet Nasser that showed high economic connectivity to the area, as reported by almost half of the interviewees. As explained by the interviewees, most of the workshops are located there, in addition to containing storages, and residence locations for the value chain activities (with their different types: street vending, vitrines, and shops), this is as explained by most of the interviewees due to the significantly lower land prices than those existing within this active commercial market or other locations. Other studied locations that contain these workshops and are spatially related within proximate areas to the markets, are Al Sayeda Zeinab, and Boulaq. Other areas located in the very dense fabric of Cairo, but in less proximate areas are Shobra, and Shobra Al Kheima; and Al Warraq, Gesr Al Suez, and Al Bassatin. Finally, the studied area itself form strong economic networks and mutual relations within the boundary of study area (Figure 34), the garments wholesalers especially existing in Al Moski, as the ones with power in the value chain, simply provide the street vendors, the vitrines, and the retailers in Al Moski, Al Ghoureya, and Al Attaba with goods, which in turn exchange products within each other. Another example is the textile wholesale shops that are located in Al Azhar street and Al Ghoureya area that provide the small workshops in the whole area, and the small surrounding factories with the textile needed for the garments production process; in addition to the workshops in Al Attaba that support the street vendors in Al Attaba, and Al Moski with the finished goods.

Other strong spatial relations are found within the complementing services like the shipping companies, which are mostly located nearby in Al Ghoureya, and Port Said street to Bab al khalq and Ahmed Maher street; and the surrounding packaging services that exist in Al Moski, and Gesr Al Suez; and the storage areas, that are mostly either in the surrounding buildings to the shop, or outside the area nearby in Manshiet Nasser as mentioned by the interviewees.

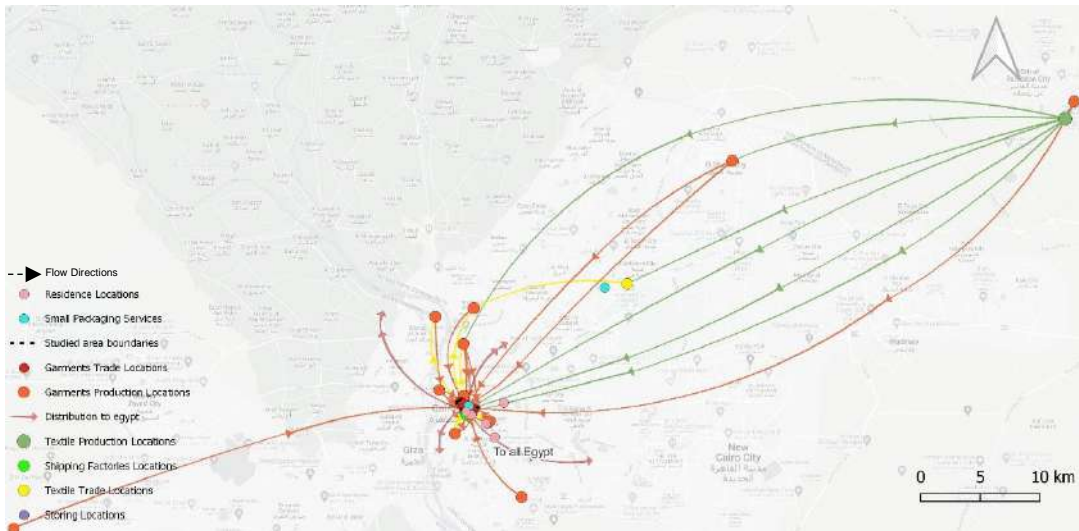


Figure 33: Geo-Spatial value chain map for garments activities in the study area.

Source: Author

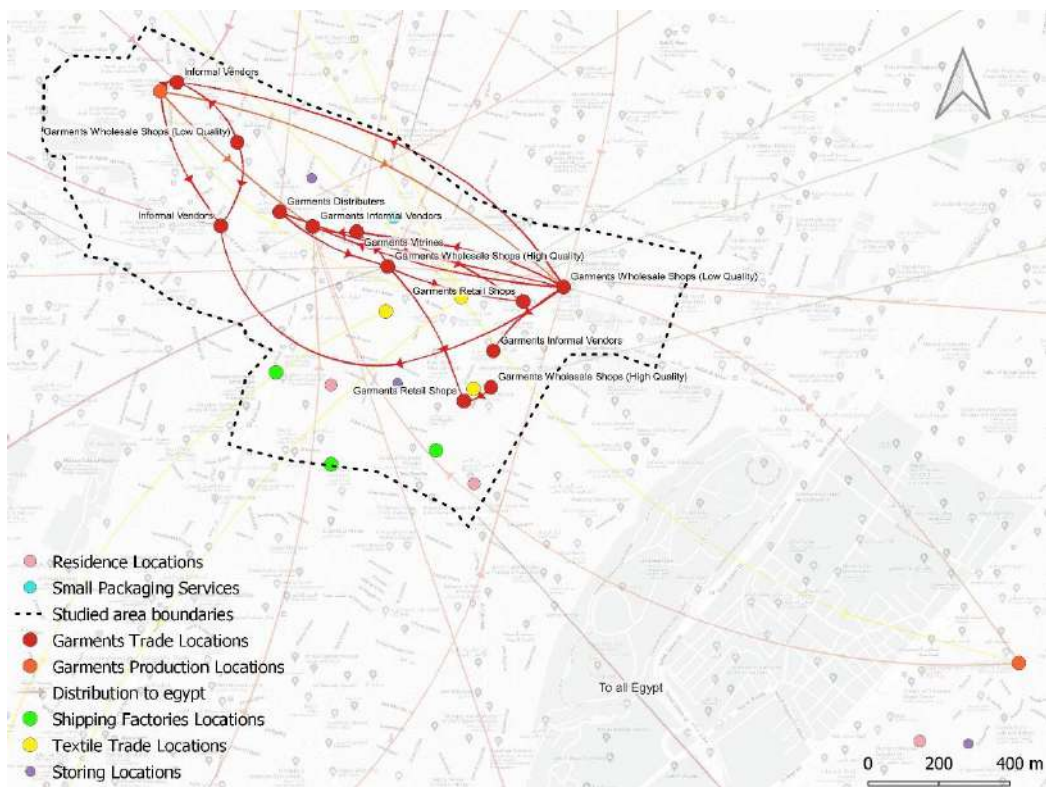


Figure 34: Geo-Spatial value chain map for garments activities in the study area-Meso-scale.

Source: Author

1.2 Understanding Formal-informal linkages in the value chain

Based on Observations, Formal-Informal vendors Interviews, and the conducted survey, Informality in the studied area is approached and mapped below in three dimensions.

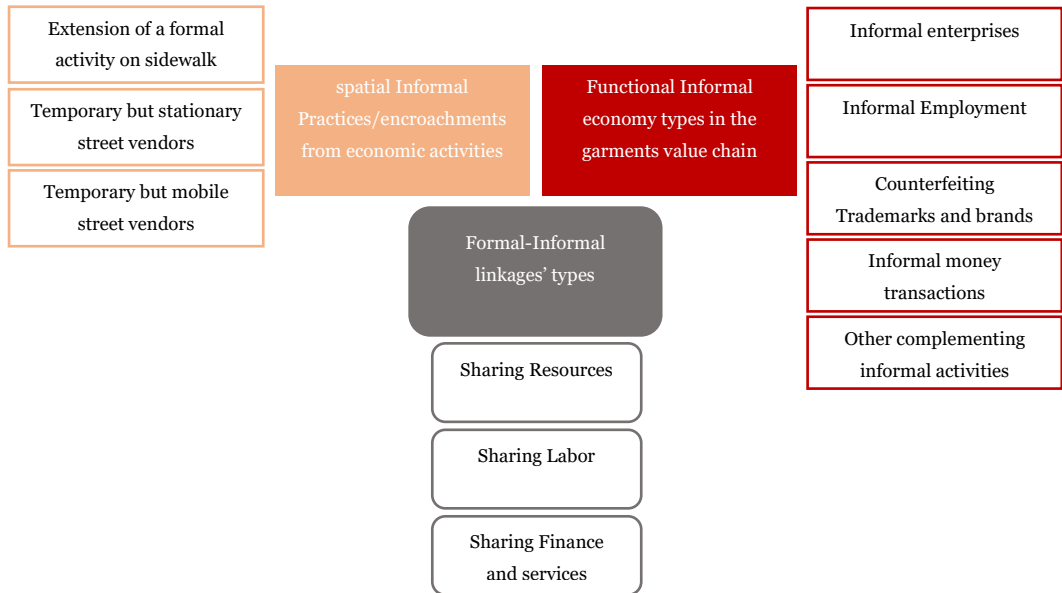


Figure 35: Explored informality dimensions for economic activities in the study area.

Source: Author

1.2.1 Mapping the informal spatial practices/Encroachments within the area

First: Types of Informal spatial practices from economic activities

The informal practices' types were classified into three categories, according to (Toso & Ravazzoli, 2013): extension of a formal activity on the sidewalk, temporary but stationary street vending, and temporary but mobile street vending; and mapped over the three types of streets in the studied area.

I. Extension of a formal activity on the sidewalk

This is the most known informal practice in Cairo streetscape. It is explained as a part of Cairo's historical system and socio-cultural relations, and not only a way to satisfy daily necessities (Toso & Ravazzoli, 2013). In the studied areas, it appears in all types of the market streets; the main, the secondary, and the branching narrow alleys. The extension happens by the formal shops that display their products in a

distance ranges almost from 0.5 to 2 m in front of their shops directly. This often simply occupies part of the pavement, allowing pedestrians to pass, and occasionally blocks the entire pavement, forcing people to walk in the roadway. This relies on the pavement width, street type (Main, Secondary, etc.), and street activities. Below is a breakdown of the practice in the three studied areas.

First, in Al Moski street (a secondary pedestrian street), there are two shops on both directions with informal extensions and pushcarts in front of each (Figure 36). This implies pedestrians have no sidewalk and must use a limited path between activities (as the street is pedestrian). In the case of pushcart existence, the extension is a metal stand with hanging items. While when there are no pushcarts in front of the shop, the extension occupies the pushcart's space. In the branching narrow alleys from Al Moski street, the low width only takes two stores or vitrines in both directions, leaving a narrow route for pedestrians and no place for a pushcart (Figure 37).



Figure 36: Informal Extension of a formal activity in Al Moski Street. Source: Author



Figure 37: Informal Extension of a formal activity in branching alleys from Al Moski Street

Source: Author

Second, Al Ghoureya street (a secondary pedestrian street) begins with an informal activity on the fence and a formal or informal activity on the other direction. After 30 m (the end of Al Ghoury Complex), the street becomes composed only of formal shops with informal extensions (Figure 38). Home textile products have a large extension, almost 2 m of products exhibited on the ground and sometimes hung in front of the business. In the case of clothing, the extension extends from 0.6 to 1 m, and the products are hung on a stand or displayed on a mannequin. This extension swallows practically all the pavement and compels pedestrians to walk in the roadway, which is mostly pedestrian with regular Toktoks, Aza carts, and sometimes pickup automobiles for products, making walking difficult. When there are no stores, informal vending appears between them, but most of the main street is formal vending, as home textiles are sold in shops.

The branching streets have stores or vitrines in both directions (or only one direction) with little extensions in front of them leaving narrow passage for pedestrians (Figure 39), just like Al Moski street's branching alleys.



Figure 38: Informal Extension of a formal activity in Al Ghoureya Street.

Source: Author



Figure 39: Informal Extension of a formal activity in branching alleys from Al Ghoureya Street.

Source: Author

Third, in commercial-shared streets like Al Bostah Street in Al Attaba, Al Azhar Street, and Port Said Street, two formal businesses in both directions extend onto the pavement, then informal pushcarts appear on the pavement or after the pavement on the street. This extension sometimes fully blocks the sidewalk and sometimes leaves minimal walking space, but in all situations, it forces people to walk on the roadway (Figure 40,41).



Figure 40: Informal Extension of a formal activity in Al Azhar Street.

Source: Author



Figure 41: Informal Extension of a formal activity in Port Said Street.

Source: Author

II. Temporary but stationary street vendors

In the study area, informal street vending dominates the clothes trade. According to respondents, these sellers own the state land where they stand (their parts of the street) and come to work every day without legal tenure documentation. Part of these sellers squatted their positions a long time ago, and it eventually became theirs (wadaa' al yad), where they even inherit it to their sons or relatives. And the second component is sellers who sub-rented these premises from the existing vendors (ardeya) without legal documents, or who rent to each other if they quit the vending area. These street vending activities are mapped in two categories of streets in the studied area: pedestrian secondary streets and narrow alleys, and main commercial shared streets.

First type: the stationary vending activities in the secondary pedestrian streets and the branching alleys

Informal vending is focused on secondary pedestrian streets. Where they cluster as two to four pushcarts with narrow pathways for pedestrians, or hanged products on the wall, or metal stands, or mats on the ground. Pushcarts are almost 1.2-1.5 m*1.2-1.5 m. They are normally mounted on a wooden or metal foundation without moving wheels, as if they are fixed in the street (as if the vendors own this lot of the street). The vendors in the three sites claimed that they have worked in these places for years and that this is their location.

In Al Attaba (Figure 42, 43), secondary streets contain one of the highest ratios of vending activities, with 3-4 pushcarts per street cross-section and two inactive formal stores on each side.



Figure 42: Stationary Street vendors in Al Attaba secondary streets (Al Bab Al Sharky street). Source: Author



Figure 43: Stationary Street vendors in Al Attaba secondary streets (Al Essielli street). Source: Author

While In Al Moski street, the pushcarts are less in concentration than the previous streets in Al Attaba, so the street as mentioned before has only 2 pushcarts per street cross section with a narrow path in between for pedestrians. The carts are also fixed in their locations as the interviewees asserted that this is their daily job locations for years as well, but the carts do not have this fixed wooden base, but rest on movable wheels instead (Figure 44). While in the branching streets from Al Moski, the pushcarts disappear, and the hanged products on the walls appear instead (Figure 45).

Al Ghoureyya as mentioned before has the least concentration of informal carts, where they appear only at the beginning of the street at both sides of Al Ghoury Complex (Figure 46), then after almost 30m they disappear, and only appears sometimes on the walls between 2 formal shops.



Figure 44: Stationary Street vending activities in Al Moski street.

Source: Author



Figure 45: Street vending activities in a branching alley from Al Moski street.

Source: Author



Figure 46: Street vending activities in Al Ghoureyia street.

Source: Author

Based on evening observations, these fixed carts remain tied and left in Al Attaba (Figure 47). In Al Moski, most carts are left tied in place (Figure 48), but some vendors bring them inside any near building.

“At night, I store the goods in any near building and pay the building doorman 50 pounds weekly to keep them safe. The rest of the carts do the same, and the ones who leave the cart covered in the same location, have the doorman near them and know that he will keep an eye on them. While in Al Attaba, the vendors, just leave them tied in their locations” (Salah, A garment street vendor in Al Moski street)



Figure 47: Storing goods of stationary vending activities in streets at night, in Al Bab Al Sharky street (Al Attaba) Source: Author



Figure 48: Storing goods of Stationary vending activities in streets at night, in Al Moski street. Source: Author

Second type: the stationary vending activities in the main commercial shared streets.

Informal vending is common in Al Azhar around Al Attaba (before its intersection with Port Said street), Port Said, Al Bostah, and El Gaish streets (Figures 49, 50, 51). But the activities here cluster in both directions of the street as 1-2 carts on the roadway and sometimes on the pavement as well, narrowing the street width and causing vehicular traffic problems and difficult pedestrian walking. The carts here are different from the previous type since they have wheels and can be moved easily if the municipality visits. At night, either most or some of these carts are removed from main streets like Al Azhar (Figures 52,53).



Figure 49: Street vending activities in El-Gaish Street. Source: Author



Figure 50: Street vending activities in Al Bostah Street. Source: Author



Figure 51: Street vending activities in Al Azhar street

Source: Author



Figure 52: Storing of some street vending activities for their goods tied in the street, while removing the others (Al Bostah street).



Figure 53: Storing of few street vending activities for their goods tied in the street, while removing the others (Al Azhar street).

Source: Author

III. Temporary but mobile street vendors

This type exists in the studied area but with lower ratios than the stationary street vendors. Some activities were observed, like pedestrian individuals selling light products such as small electronics. And some other serving activities that include food and drinks vending for the existing vendors and probably for the shoppers. These practices are performed by pedestrian or cycling individuals, or on a movable small pushcart.

Mapping the informal practices situation in secondary pedestrian streets

To conclude, the informal spatial practices from economic activities in Al Attaba secondary streets, and Al Moski, form one of the highest ratios, due to concentration of stationary street vendors on both sides of the street, and sometimes in the middle of the street, leaving only very narrow paths for pedestrians to pass. This is in addition to the informal extensions of formal shops, and sometimes the mobile streets vendors, in addition to the continuous passage of aza carts. While Al Ghoureyra street has few ratios of informality due to some informal extensions of formal shops only, and very few informal street vendors.

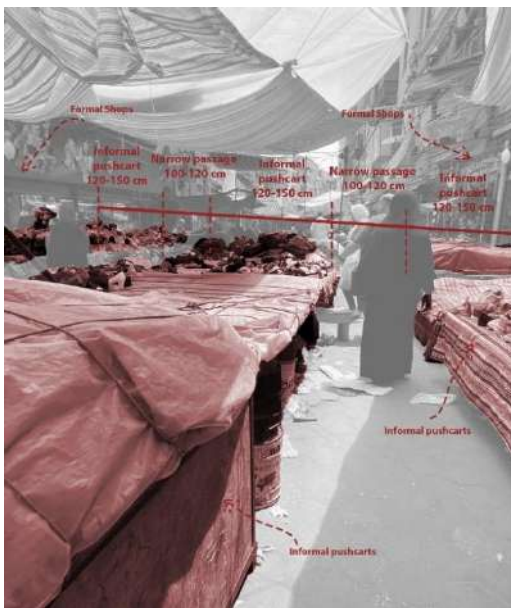


Figure 54: Informal Practices mapping in Al Attaba secondary streets.

Source: Author

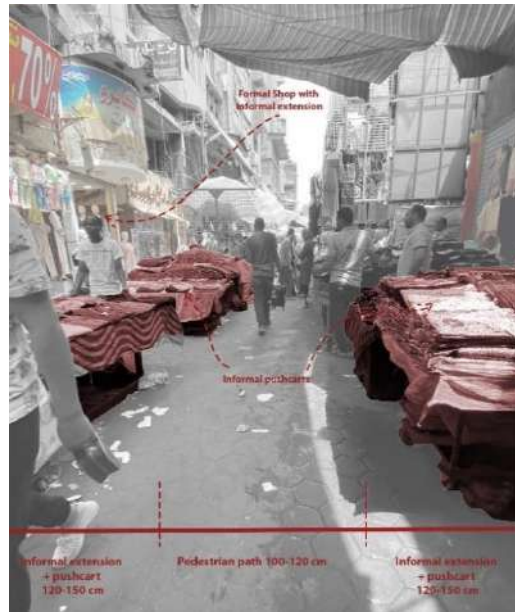


Figure 55: Informal Practices mapping in Al Moski street.

Source: Author

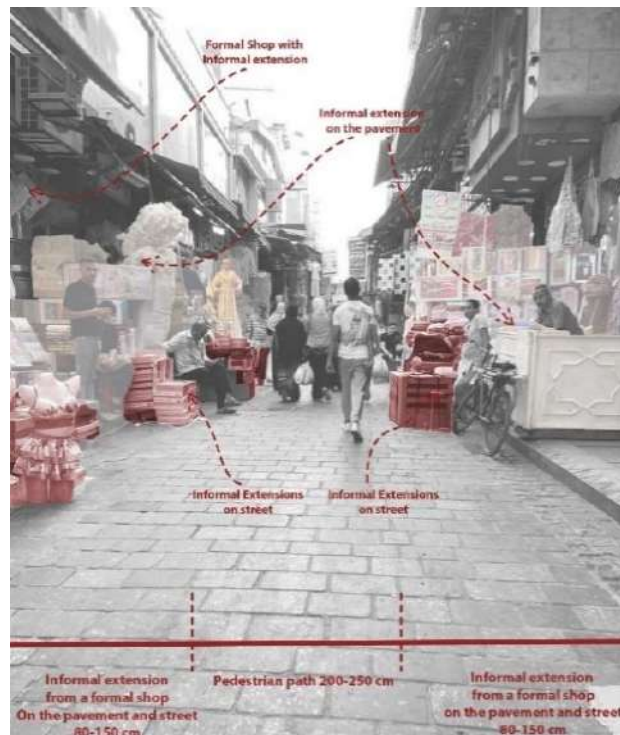


Figure 56: Informal Practices mapping in Al Ghoureya street.
Source: Author

Mapping the informal practices situation in the branching alleys

While the branching alleys has fewer ratios of informality, as they have only extensions of formal shops, and very few street vending activities (usually hanged on the wall, so does not take a space), leaving more space for pedestrians. Where Al Moski alleys have higher informality ratios than those of Al Ghoureya alleys.

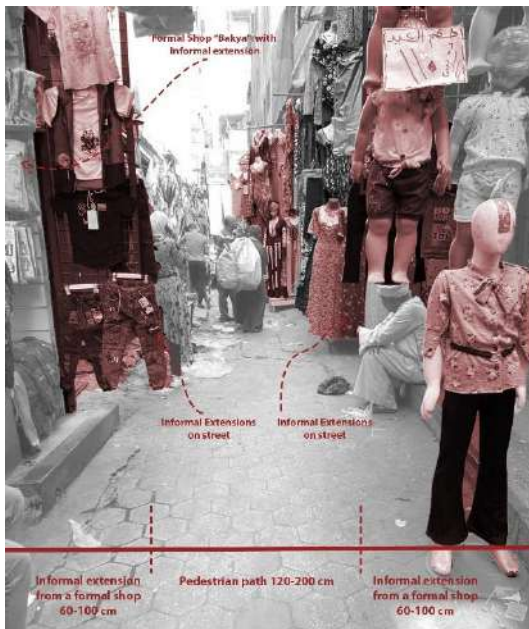


Figure 57: Informal Practices mapping in a branching alley from Al Moski street.

Source: Author

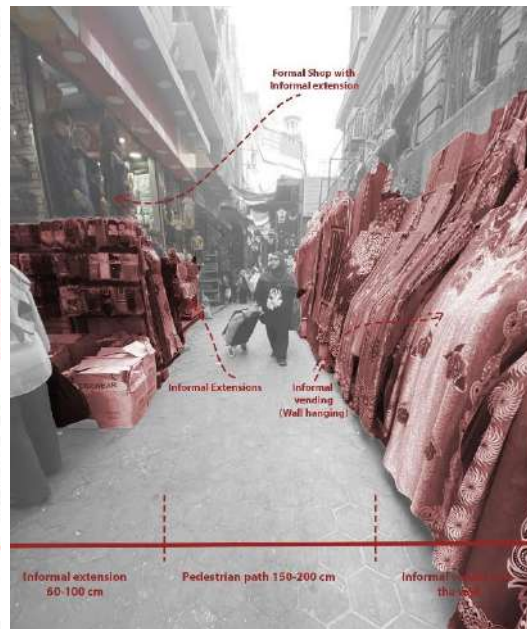


Figure 58: Informal Practices mapping in a branching alley from Al Moski street.

Source: Author



Figure 61: Informal Practices mapping in El-Gaish street. Source: Author



Figure 62: Informal Practices mapping in Al Bostah street. Source: Author

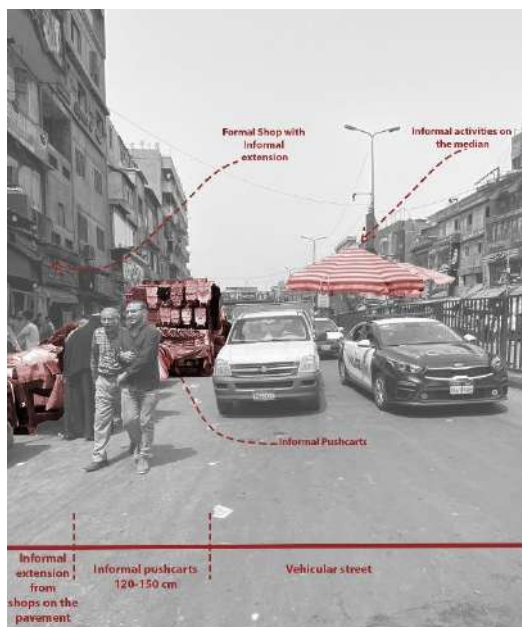


Figure 63: Informal Practices mapping in Port Said street. Source: Author

Second: Geo-Spatial Mapping for Informal practices in the area

First: Ratios of Street vending Activities in the area

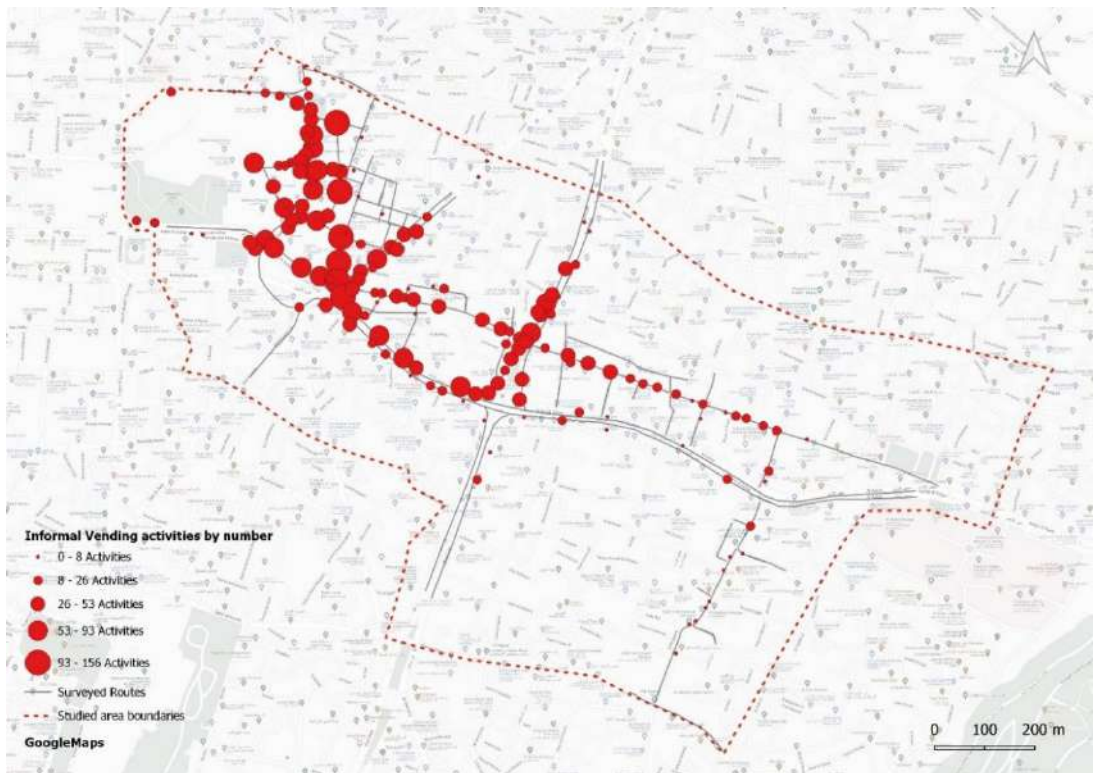


Figure 64: Numbers of street vending activities in the study area

Source: Author

After explaining informal economic practices in the previous section, this section maps them along the studied streets to detect informality ratios, types, and distribution. After counting the number of activities on streets and mapping them, the area ratio they occupy was computed by multiplying the number of activities by 2 m² (indicating the typical area for one pushcart). The total occupied area was divided by the area of the surveyed streets to get the percentage they occupy. This was particularly done on specific streets (Figure 64). The challenging and congested conditions of the surveyed area and the difficult walking during site visits must be noted, as they may have influenced the surveying process or recorded numbers.

The total number of street vending activities in the studied streets was around 4800 activities. By calculating the ratio of the area, they consume from the studied streets, it was found they occupy 15% of the streets area, which is probably a large

informality ratio, considering that a small ratio of these vendors has licences for street vending, according to Al Moski District Presidency interviews. In the main commercial streets, Al Bostah street has a 40% ratio, whereas Al Azhar, El-Gaish, and Port Said streets have 20%. Despite the high congestion in Al Azhar street, the smaller ratio than Al Bostah can be explained by the concentration of activities in one direction of the street (the direction that branches into Al Bostah street), in addition to the concentration of activities in the part of Al Azhar from Al Azbakeya garden till its intersection with port said street, then street vending almost vanishes due to the dominance of home textile and textile usages (see Figure 65). When evaluated over the entire area of Al Azhar street, this resulted in a lower ratio than other streets, although having larger concentrations in particular areas. The concentration patterns that will be discussed later, will offer a deeper understanding for the situation. In secondary pedestrian streets, the ratio ranges from 65% in the most active branching streets from Al Bostah street (such as Al Gohary and Al Bab Al Sharky streets) to 10% in the least active streets, compared to 30% in Al Moski street and only 4% in Al Ghoureya street. Secondary streets displayed more informality due to the absence of car lanes, that make them filled by activities leaving very small pathways for pedestrians, aza carts, and sometimes toktoks or vans to pass. In Al moski pedestrian alleys, it's 0-12%, compared to 0-2% in Al Ghoureya. Analyzing the various factors affecting these concentrations, are discussed later in section 2.1.

Second: Types of Street Vending Activities in the area

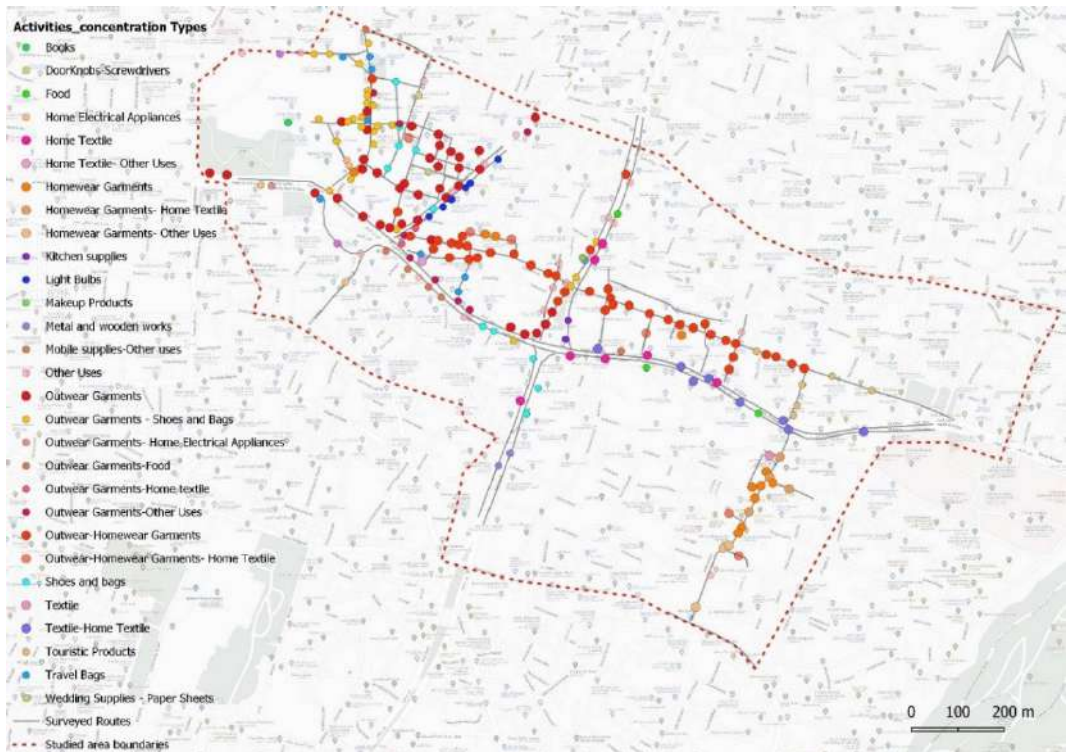


Figure 65: Types of street vending activities in the study area

Source: Author

Mapping street vending activities in surveyed streets demonstrated how dominant activities vary thematically. In Al Attaba streets, including Al Bostah as a main commercial street and the branching secondary pedestrian streets, outwear garments and shoes and bags street vending is dominating, while formal shops are less active mixed-use retail or wholesale shops. Outwear and homewear garments are then gradually dominating street vending activities in Al Moski Street, while formal homewear and outwear garment shops, together with some home textile shops, dominate the existing wholesale trade. Then, Al Ghoureya street has mostly home textile shops, homewear garment shops, and relatively few street vendors. The branching alleys from both Al Moski and Al Ghoureya streets, are the least in street vending activities with dominance for wholesale shops for both garments and home textile.

The main streets have varied uses clustered together. Al Azhar street is the commercial core connecting the branching streets and shows how activities vary from one cluster to another.

Al Azhar's activities vary from clothes, shoes, and bags street vending with mixed-use shops to textile and home textile shops with very few home textile informal practices- that emerge predominantly as informal extensions for formal shops- near Al Ghoureya street. While Port Said and El Gaish streets have informal vending activities, which vanish away from Al Azhar street, and mixed-use shops. This part discussed the informal economic practices that take place spatially, whereas the next part classifies the informal functional economic relations inside the mapped value chain.

1.2.2 Classification of informal economy activities within the value chain (Mapping the Informal economy types)

I. Unregistered enterprises:

The previously discussed linkages reveal merely the spatial informality of garment trade in the studied area. Whereas the informality spreads in the value chain, both functionally and spatially. Based on interviews and literature analysis, Figure 65 classifies value chain elements as Registered, Unregistered, or Both. According to the value chain mapping, there are two types of informal work in garment production. First, some work is done by home-based workers who have 1 to 3 sewing machines at home and work on unfinished garments pieces (as mentioned by ILO, they perform industrial homework) or manufacture others (manufacturing homework) to sell to informal vendors specifically, as they cannot afford to give a quantity for a wholesale shop. Second, small workshops with 10 sewing machines in small apartments, "taht al selem" as mentioned by the interviewees, that manufacture low-quality clothing for street vendors or small vitrines. This frequently happens without business registration.

In the garments trade, as noted, informal vendors compose a high share of trade activity in the three areas that represent an unregistered enterprise (untaxed). The study showed that informal vending activities are present largely in garments but not in home textiles. The rationale, as explained by the vendors, is that brides come to take huge amounts that informal vendors cannot afford and that are more confidential to be offered by shops. However, few street vendors have a license, based on an interview with Al Moski District Presidency employee.

While in the complementary activity of goods packaging, in addition to huge factories, there are small packaging workshops that package the items produced by the garment workshops, which are sometimes registered and others not. Some unregistered enterprises take part in shipping the goods as well, as usually the shipping is done by own-account individuals or small unregistered enterprises. Additionally, goods are stored in rental apartments that have no license for this usage or in building entrances (for street vending activities).

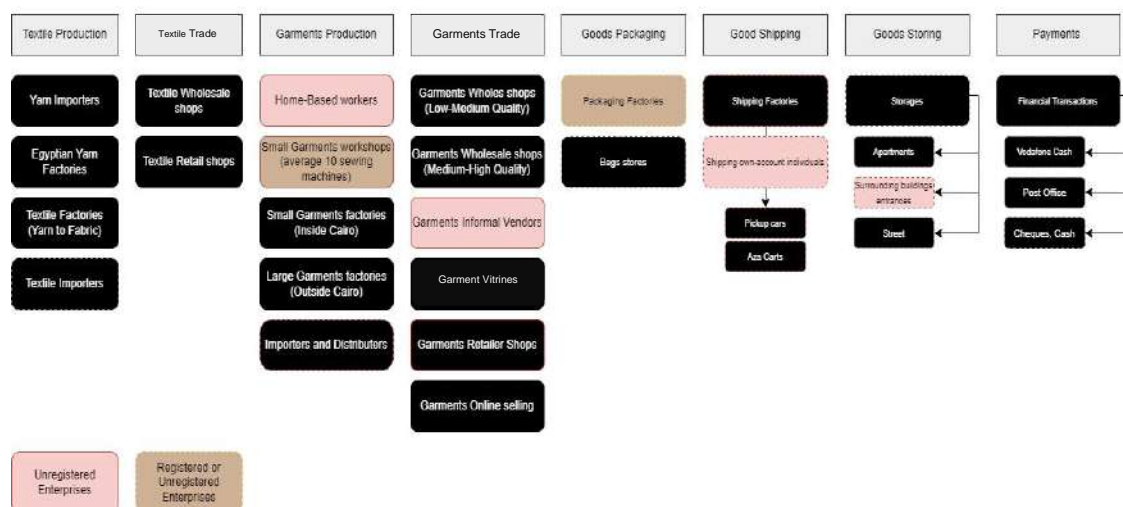


Figure 66: Registered and Unregistered activities in the studied components of garment value chain.

Source: Author

II. Informal employment (in informal- in formal enterprises):

First: Informal employment in informal enterprises (small unregistered or unincorporated):

Informal employment in informal enterprises is classified according to the previous discussed literature into different categories. The workforce in different sectors of the garments' value chain has been analyzed according to these categories and what was explored by interviews and observations, is three categories: Own-Account workers, Wage workers, and Unpaid family workers.

First: Own-Account workers, this type dominates employment in informal enterprises in the studied area. The first obvious form for this type of employment is the **street vendors** who work for their own to gain their livelihoods. A second informal own-account work is found in the transportation of goods through two methods. The first method is through the **aza carts drivers**, who work independently to transfer the goods from the shipping companies' locations to the internal shops, vitrines, or carts in the narrow alleys and vice versa, and take for example 10 pounds per each transfer, as stated by the interviewees. While the second way is the **own-account shipping workers** who work independently in transferring the goods themselves or rent their cars or Suzuki vans for the shop owners themselves and take for example 300 pounds per transfer. And finally, the third form of own-account workers is the home-based workers in small-scale garments manufacturing.

Second: Wage workers, as explained before in literature, this type represents the workers in an employer-employee relation in an unregistered enterprise. This type is found in the form of workers who work as employees in unknown and unregistered small manufacturing workshops, as explained before. And secondly, which was specifically mentioned in Al Attaba, is resembled in a person who hire informal street vendors to work for him and get paid daily. This was referred to, as "Parallel market" and found in Al Attaba informal vending activities.

Third: Unpaid family workers, this is represented by home-based workers in garments manufacturing, that work individually or have 1 to 2 relatives working with them in the same home and are in some cases unpaid. It can be represented as well in pushcarts' owners, who bring their family-members to work with them and are in some cases not paid as well.

Second: Informal employment in formal enterprises:

Informal employment in formal enterprises found in the study area were classified, based on what is discussed before in literature into: Unregistered workers, and Casual or day laborers.

First: Unregistered workers, this as discussed earlier, refers to the workers for formal employers without social insurance or official contracts, and is found in the retail and wholesale shops owners, that informally hire shop vendors. Additionally, the employees in the small-registered workshops, or small factories without having their total labor rights.

Second: Casual or day laborers, this is found a lot specially in the context of Al Moski and Al Ghoureya, where the wholesale trade environment, is usually accompanied by different activities like casual workers who bring goods from manufacturing factories and distribute them for wholesalers or directly for the retailers. Based upon some of the interviewees' answers, these are workers who casually work and exist in the area, depending on the days of goods distribution or goods money collection.

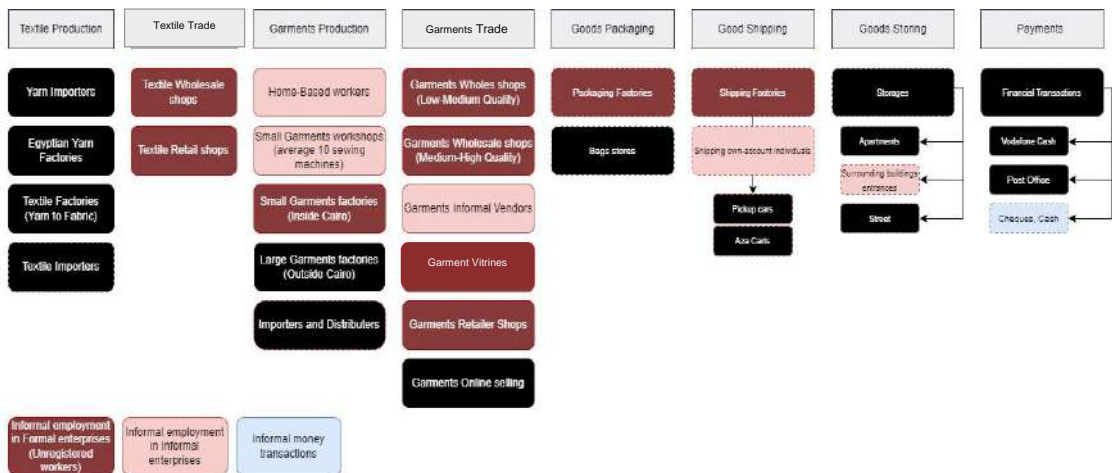


Figure 67: Informal employment types in the studied components of garment value chain

Source: Author

III. Counterfeiting trademark goods and trafficking in counterfeit goods

One of the informalities that is found in the studied relations, is both counterfeiting trademark goods and trafficking in these goods. As explained by interviewees, some of the shops in Port Said Street for example, take Egyptian garment products from Al Moski wholesalers, and put international factories badges, to sell them as imported products. This is found also in the small garments' manufacturing workshops, that imitate the products of large factories, producing low quality goods,

with the same design and the same packaging, to sell them later to the low-quality wholesale shops, and informal vendors who in turn sell them to the clients with lower prices. This explains why there are many sold garment pieces on social media pages that have the same design, with significant differences in quality and price.

IV. Informal money transactions

As stated by most of the interviewees, the money transactions taking place in any garments trading process, usually take place informally, based on confidence, and word of mouth that mainly depends on social relations between traders. This includes relations either between, the wholesalers and manufacturers, the wholesalers and retailers, or informal vendors with wholesalers and retailers. This happens in two ways, either agreeing on a specific amount that buyer will pay for the seller on a frequent base (every two months, for example), or paying after the buyer himself sells the goods and could pay the goods' prices.

V. Other complementing informal activities

Alongside the previously explained activities within the value chain, other accompanying informal activities appear. Some of these activities are related to the transportation of people within the studied area. In Al Ghoureya street, it was observed the high frequent passage of Toktoks that transfer clients and shoppers in the area. Thus, the existing economic activities created another cycle of informalities to cover their contextual needs. Other informal activities that appeared to serve the existing economic activities, are some food and drinks mobile vendors and sometimes stationary vendors, that were observed in the three markets to serve the vendors, and the shoppers.

1.2.3 Types of Formal-Informal linkages within the value chain

Accordingly, it can be concluded that there are various types of linkages between the formal and informal economy activities, through which resources, labour, services, and finance flow. Sharing labour can be represented in hiring workers informally either in garments factories, through a series of sub-contractors, or small workshops, and hiring vending workers in wholesale and retail garments shops. While sharing services, appears in providing the market with some services, like the

informal street vending activities that provide a large stratum of the community with garments at low prices that they can afford. Other services can be found in the shipping services provided by aza carts drivers, and Suzuki van own-account workers. These services are essential for both formal and informal trade activities and are tailored for this market needs with its street designs. The distribution of garments for the wholesale offices and vitrines is done usually through informal services by own account distributors. And other services can be found in the basic daily services offered at the market from informal food or drinks vendors that serve the existing activities, in addition to the transportation services like the toktoks services for the shoppers in the area. Sharing resources appears in the exchanged goods between formal traders, informal traders, and formal-informal traders, in addition to the flow of textile raw materials from formal to informal entities for informal production in small workshops or firms. Finally, sharing finance appears in the daily financial transactions between formal and informal traders, that mainly depend on social relations and confidence through delayed financing schemes.

This shows how the formal and informal sectors act as one integrated economic system within the garment's value chain, which will probably appear in other activities. Where the informal existence as well as the formal one in the value chain, forms a significant role in keeping the delicate economic balance for both the vendors, and the customers, and their removal from the value chain can probably result in disturbing these integrated economic relations, and in cutting down a source of low-priced goods provision for the customers. Accordingly, the informal enterprises are no more marginal, but essential within the production and trade systems, and where any intervention to marginalize or remove these informal economy activities, will disrupt the whole system. These formal and informal relations then need to be understood, organized, and integrated without breaking the existing linkages.

After mapping the existing formal and informal situation within the value chain, and their spatial dynamics, the following section analyzes the factors which affect these activities' distribution in different locations, and concentration within the micro scale, and how this impacts the surrounding urban context.

2 Understanding Underlying patterns (reasons and impacts) of urban economy activities existence

2.1 Factors affecting spatial distribution of economic activities within the value chain

As discussed previously in literature, there are various factors affecting the spatial distribution of economic activities and choosing specific locations instead of others. Based on the conducted interviews, survey, and previously discussed literature theories, these factors are analyzed in the studied area after studying and mapping the value chain and its spatial dynamics.

I. Clients' attraction from all parts of Egypt

"This is a commercial market where clients come from all parts of Egypt." (A Home Textile shop vendor in Al Ghoureya)

What was explained by nearly 90% of the interviewees, that one of the strongest reasons for working either formally or informally in the studied areas, is clients' attraction from Alexandria to Aswan. The markets in the three studied areas attract the highest number of clients that can pass by any market elsewhere, due to some features characterizing them like Low selling prices, Centrality of the markets, Spatial accessibility to the markets, Self-reinforcing effect, and Economic identity and fame of the area. These features are discussed briefly below.

First: Low Prices of goods

The market in Al Attaba, Al Moski, and Al Ghoureya targets the low-income strata of clients selling the goods at lower prices than in any other place, as explained by Hagg Mostafa (an informal vendor). This results in attracting a large number of clients from both low and middle classes from all over Egypt that seek to buy goods at lower prices which in turns encourages vendors and shop owners to work in the area. The selling process in the market is described by the interviewees to be of lower profit than other markets outside the area, but of faster selling rate which they prioritize over the higher profit. This higher selling rate is common for both the retail where they sell for larger number of clients, and the wholesale shops where

they sell for a larger number of retail activities and informal vending activities gathered in the same area. The lower prices also are due to the large ratio of wholesale shops in the area which usually sell the goods at lower prices than retail shops. Furthermore, in the conducted survey, 78% of the garments' shoppers, stated that they shop there because of low prices, that is mostly because of the wholesale prices.

“I chose Al Moski, because the selling process here is very fast especially for the wholesale, even if it was cheaper than any other location as in Nasr City or Heliopolis, but it is faster for me to sell here as there is a clustering of activities in the same area that would take all from me.” (Essam, A Vitrine and a small workshop owner in Al Moski)

“Even if the profit is less than other areas like downtown, but the rate of selling here is higher.” (Formal home textile shop owner in Al Ghoureya)

Second: Centrality, and spatial accessibility of the markets

As described before by Manika, the stores and commercial activities are typically located downtown, or in close proximity to commercial centers (Manika et al., 2022). This was endorsed in the study, as one of the main reasons discussed to cause clients' attraction to the area is its presence at the heart of Cairo. Being at the heart of Cairo, as explained by one of the interviewees, that forms with its surroundings one of the dense residence locations for some of the middle and below-middle class population and in turns a wide segment of probable clients, in addition to its commercial identity, this attracted many vendors who preferred working in the area, then brought their relatives to reach this level of condensed activity.

The centrality of the area in the heart of Cairo also caused the area to be accessible from all parts of Egypt whether inside or outside Cairo for, as explained by the interviewees. And what helped more in this spatial accessibility is the presence of Egypt train station near the markets to attract shoppers from all governorates and especially rural areas, and then the near transportation hubs represented in Al Attaba metro station, the buses and minibuses, that are usually taken to and from Al Azhar, Port Said, and Al Gaish streets.

Based on Interviews, this caused the shoppers in the area, to be from everywhere, inside Cairo and outside Cairo, from New Cairo, Giza, 10th of Ramadan city, Qalyubia, Fayoum, Benha, Port Said, who come to shop from the area in specific seasons, or occasions. While some of the shoppers interviewed in the field were retailers or online garments sellers, who come to take goods from the area to sell them later in their shops or online in their governorates. This spatial accessibility for the area is a strong factor in clients' attraction for the studied areas, and in turns a perfect location for economic activities. In addition to the Interviews, the following survey results measured the level of accessibility to the area from the point of view of the shoppers, and the passerby.

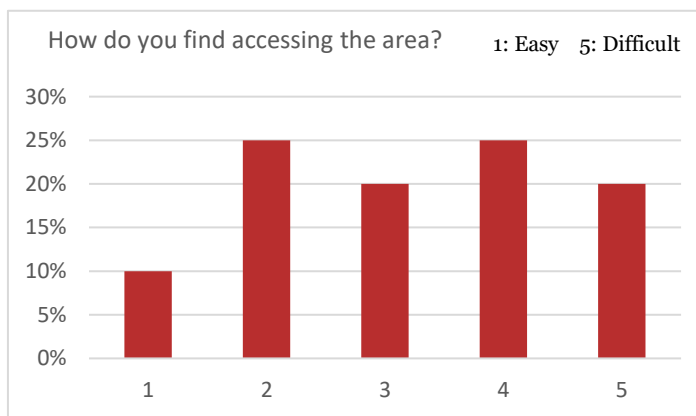


Figure 68: Evaluation of passerby and shoppers for the ease or difficulty of accessing the area

Source: Author based on survey results

Despite describing the vendors for the area as easily accessible, the shoppers have different opinions between being easily accessible and difficult to access, and the results were close, where the highest vote 25%, went for level 2 and level 4 in the ease of access for the market, followed directly with 20% for level 3 and level 5 (Figure 68).

And when they were asked about why they see accessing the area is hard (if they see it hard), 12.5% from the answers that see it hard stated that accessing the area with the metro is the easiest way, and 34% stated using the metro as their method for accessing the area (Figure 69), while another 12.5% stated that accessing the area with private cars is hard as there are no parking areas, and the rest of the answers

will be discussed later in the impacts of the existing economic activities on the surrounding urban context section.

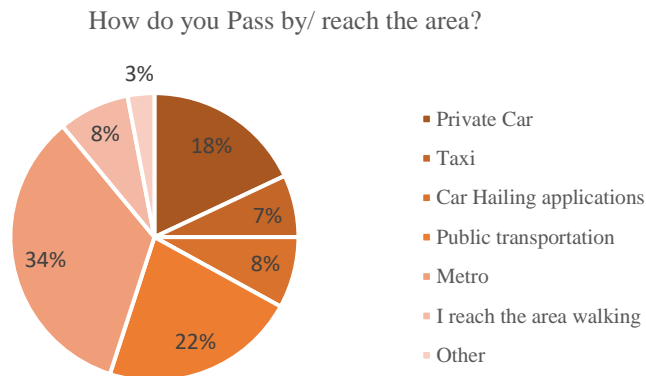


Figure 69: The way by which the passerby, shoppers, and residents reach the study area.

Source: Author based on survey results

Third: The self-reinforcing effect - The multiplier effect

“Al Moski is the largest known commercial area, and it includes clustering of different goods from all types that attract clients to come and shop everything they need from the same area. For this reason, the activities continued to cluster beside each other” (Mohamed, home linens and blankets shop owner in Al Moski)

This proves what was discussed earlier by O’Sullivan in his 5 axioms of urban economics, where the clustering of sellers beside each other, creates comparison for the consumers which in turns attracts more buyers (O’sullivan, 2012). For this reason, activities prefer to cluster beside each other, and this continues to increase and attract more clustering activities in a multiplier effect as mentioned by Hillier (Hillier, 1996) (Fahmy, 2018). Not only the same type of activities that create comparison, but also different types of goods that enables the buyers to find everything they want within the same area, and the activities take advantage from the surrounding other activities. So, different activities start to appear beside each other by time as explained by a home textile shop owner in Al Ghoureyah.

Fourth: Economic identity of the area

One of the strongest factors in attracting clients and hence, in attracting new sellers to the area, is the economic identity of the area that is famous for its wholesale and retail trade since a long time ago as discussed before in the history of the three areas. The interviewees in the three areas pointed out that Al Moski being the most famous wholesale market in Egypt, and Al Ghoureya being one of the oldest markets in Egypt, and Al Attaba being an old market since the 70s, are main reasons for having this level of clients' attraction, and hence sellers' concentration.

“I chose to work and have my shop in Al Moski, as it is the most famous wholesale market in Egypt, where clients from all governorates come to this area specifically.” (Amer, children garment's store owner in Al Moski)

“Here is the heart of Cairo, and it is a very old market since the 70s. and a very large market where clients come from all Egypt.” (A Homewear garments shop owner in Al Attaba)

II. Profession inheritance and Socio-cultural attachment

A large part of people's choice to work in an area, is their preference for the area as was referred previously by Alonso (Alonso, 1964). And accordingly, based on the conducted interviews, a large ratio of the interviewees were not newly comers to the area, but working in the area for 15-30 years. Their choice to work in the area, or just squatter with a pushcart in the area, is that they simply prefer working in the area. They are culturally attached to the area and to the work in the area that they inherited from their fathers and grandfathers, and in which they used to work since they were taught working. This is surprisingly for both the shops owners, and also for the pushcarts' vendors.

“My father bought this Vitrine from the 90s from someone else. Then I worked in it after my father.” (Mohamed, a garment vitrine owner in Al Moski)

“I have been working here in the last 15 years, we are three brothers working here” (Salah, garment street vendor in Al Moski)

“I am working here for the last 10 years, and we own the shop a very long time ago. My father owned this shop, and then I inherited it with my two brothers and worked here.” (Essam, Shop owners in Al Attaba)

III. Land costs

As land cost affects the location of economic activities, interviewees were asked about land rent and ownership prices and their perceptions. 90% of the answers said the land is expensive and they pay a lot for rent and ownership. In Al Moski and Al Ghoureya, rents range from 10,000 to 25,000 pounds monthly, but are usually paid annually, which means 150,000 to 300,000 pounds yearly, depending on shop size. The medium sized shop ownership was nearly 5,000,000 pounds. In Al Attaba, rents are higher than Al Moski, around 40,000 pounds monthly. The three areas' interviewees mentioned high land costs due to economic activity, accordingly most shops are rented, not owned. This explains the clear land use change from residential to commercial, where most residents left the three areas, to take advantage of high rent prices, and leave this dense commercial area.

Only 10% of interviewees mentioned low land costs as the reason for their presence. Yet, traders still compete to sell their, either formally or informally. This refers to O'Sullivan's first urban economics axiom, "Prices adjust to achieve equilibrium". This is reflected in how vendors prefer high-priced shops in exchange for high accessibility and activity levels. However, the land costs affect significantly, choosing the vendors to reside, or have storage areas in the surrounding areas (especially the informal ones as Manshiet Nasser), as they have lower land costs.

IV. Relations within the area and the surrounding areas

First: Spatial autocorrelations

In addition to the conducted interviews, the studied value chain was analyzed spatially to capture the spatial autocorrelations between the different elements, and how it acts as an essential factor in choosing the locations of these value chain elements. As mentioned previously, they can decrease the transportation costs, and in turns increase the value added and hence, attract economic activities to locate. The spatial relations between the small production workshops in the surrounding areas like Manshiet Nasser, Bab Al Shaariya, Al Darb Al Ahmar, Boulaq, and the

street vendors for whom they provide the finished goods in the area; the proximity between the wholesalers in Al Moski with those whom they provide with finished goods like the surrounding retail shops, vitrines, and the street vendors in Al Moski, Al Ghoureya, and Al Attaba; and the textile wholesale in Al Azhar, and Al Ghoureya and the surrounding sourcing workshops and small factories for garments production; these are all dependents on the proximity as a main factor in decreasing the transportation costs and facilitating the value chain relations. These spatial relations are expressed in Figure 70, 71, showing the areas with strong, medium, and weak relations based on the vendors collective answers.

“Al Attaba street vendors take from Al Moski area, as they take their goods from the wholesale offices located in Al Moski. While Al Moski and al Ghoureya have strong economic and spatial relation, they usually exchange products either homewear or home textile.” (A garment distributor in Al Moski area)

Another proximity factor is found between the value chain activities and their complementing services, like the surrounding packaging services, that exist specially to facilitate packaging the small-scale garment production by the previously mentioned workshops. And the surrounding storage areas for the wholesale and retail activities that tend to have near storages but with lower prices than those present in the high-priced commercial area, and hence resort to the surrounding areas with low prices as Manshiet Nasser. And the shipping factories existing in the nearby streets in Al Ghoureya, and Port Said street to Bab al khalq and Ahmed Maher street, to easily receive the goods from large far factories, and then ship them to the surrounding wholesalers using small Suzuki vans, or aza carts with lower transportation costs. Another example explained by a distributor of goods in Al Moski area, is found in the facilitation of money transactions in online shopping processes, by the near post office in Al Azhar street from the different wholesalers.

The proximate residence locations as well have significant importance, in decreasing the transportation costs between residence and work locations. Accordingly, workers in the area who have migrated from rural areas many years

ago to work in the area, have chosen to reside in the surrounding areas, like Manshiet Nasser, and Al Darb Al Ahmar. However, the opposite relation is valid as well, where many workers chose to work in the area as they are residing in proximate locations, as stated by Shearmur previously (Shearmur, 2013). Mohamed, a street vendor in Al Moski street, has explained that he prioritized to reside in a nearby area, which will decrease his transportation costs like Al Darb Al Ahmar, over having a lower residence rent in a far location away from his work. This supports O’Sullivan’s first axiom, which stated that prices adjust to achieve locational equilibrium, where easily accessible and nearby locations, will be higher in price than other far locations to achieve this equilibrium, and occupy both locations (O’sullivan, 2012).

“My hometown is in upper Egypt, but we are living here many years ago, in al darb al ahmar. The rent of my apartment is 2100 pounds, which is expensive for me, but it is at least saving the cost of transportation that I may pay if I lived in another less expensive location.” (Mohamed, a garment street vendor in Al Moski street)

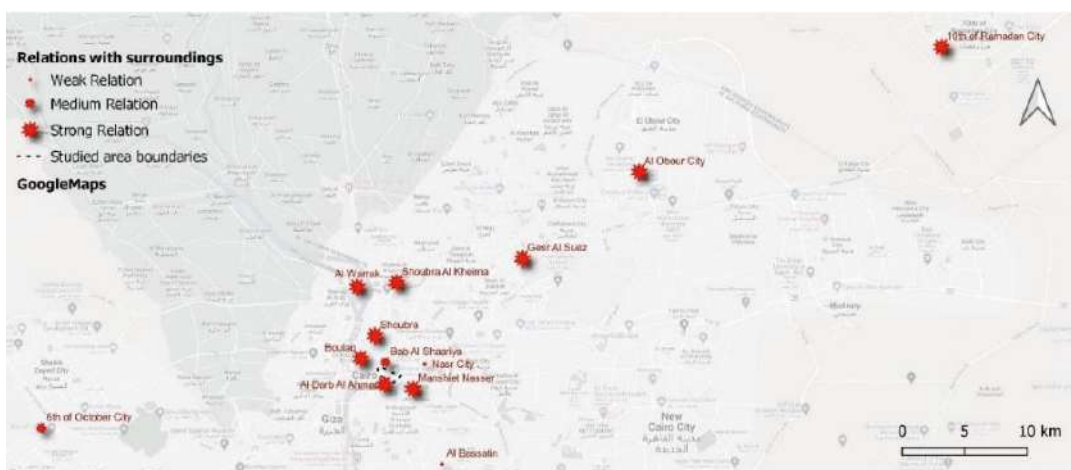


Figure 70: Surrounding areas with specific relations to the study area. Source: Author



Figure 71: Surrounding areas with specific relations to the study area- Meso scale. Source: Author

Second: Social Relations/ Solidarity

Social relations supporting the working environment in the area are a major factor in workforce attachment to the area. These social relations have different dimensions, including former relations between vendors from the same hometown, and when someone comes to work in the area, he encourages his relatives, which led to street vending and activities' clustering. Another aspect of vendors' social relationships is the solidarity that comes from working together for years as neighbors. This improves their trust and economic relations, where it facilitates their financial transactions, so they can pay late cheques; facilitates their goods exchange, and marketing for each other. This thriving social environment has a significant role not only in shaping the area with its activities and attracting new ones, but also in keeping the location as a preferred work location for those who work there over years.

“The people here are all relatives either the shop owners/renters or the street vendors, they may all belong to two or three hometowns. And this was the reason for prevailing the activities in the area till it reached the current state.”
(Mohamed, home textile importer in Al Moski)

“We cannot stand anywhere else, our relatives are here, and everything we know is here.” (Garment street vendor in Al Ghoureya)

V. Public Policy/ Planning

Public policy and planning regulations play a role in deciding where to locate an economic activity, as does their absence. In the study area, their absence or negligence is a main reason why economic activities spread or occupy spaces and buildings. The government does not even document the changes in land use and the trend of transforming most buildings in the area into storages, workshops, and wholesale and retail shops. An employee at the Al Moski District Presidency building said there is no detailed planning for the district's real usages, changes, or activities. This encourages more activities to locate without planning constraints, or without considering them. This shows lack of state governance for the situation. Accordingly, informal governance dominates it, through self-organized systems, where the resulting informal spatial arrangements are based on social relations between formal and informal street vendors, their mutual economic benefit, or a powerful actor that controls how and where these vendors are located, as found in Al Attaba parallel market, as mentioned by interviewees.

Finally, what attracts or affects the location choices of economic activities is not usually a single factor, but a group of integrated and inter-related factors from the previously mentioned factors together. These are the factors that shape the economic dynamics, the production level, and the delicate economic balance within the value chain, in these specific locations, where the locations form a significant role in the existing economic dynamics. And that can easily be disturbed if any factor of them is disturbed functionally or spatially.

After identifying the spatial distribution of activities within the area and its surroundings, and the factors affecting it, the next part looks closely on the spatial micro concentrations of informal vending activities in the studied area.

2.2 Concentration patterns of informal economy activities in the micro context

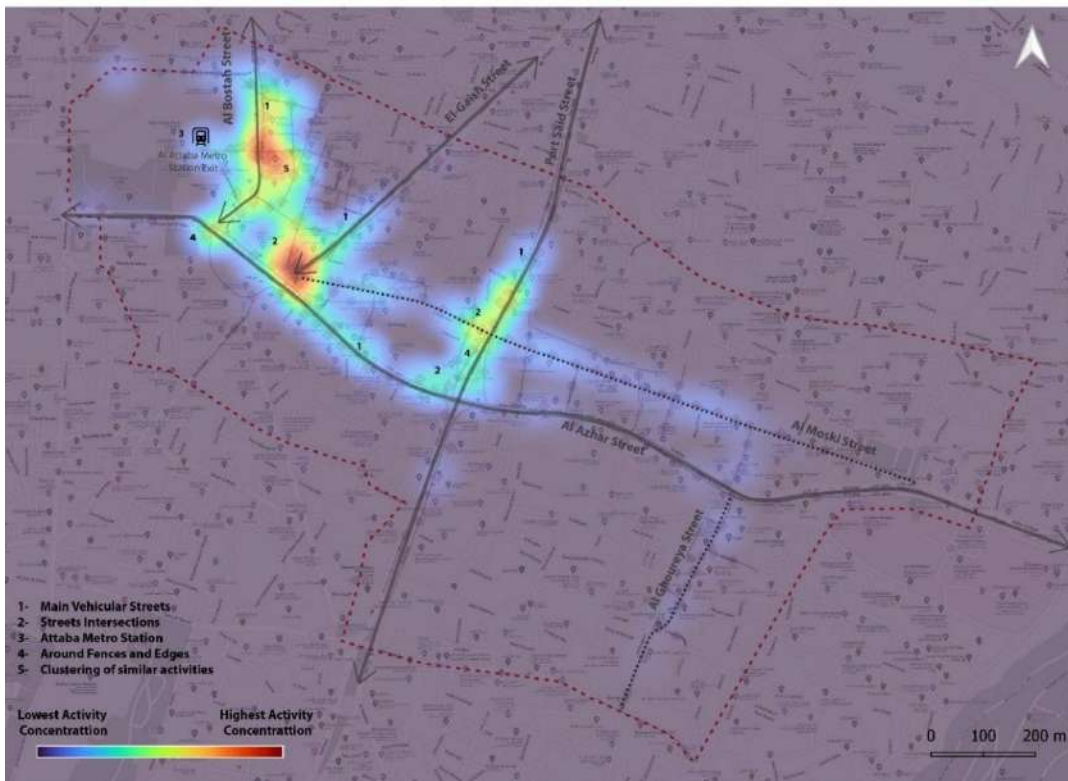


Figure 72: Heat map for Concentration patterns of street vending activities

Source: Author

After mapping the informal vending activities' types and numbers, a heatmap showing the activities concentration was created using QGIS, using the number as the weight for the points (Figure 72). The heat map is created to extract the different patterns of the micro spatial concentration of the informal vending activities, taking into consideration, the discussed literature before for the spatial concentration of informal practices and economic activities.

One of the first noticed patterns, is the hierarchy of activities' concentration in the different streets' types. The highest level of activities concentration is found in some parts of the main streets, like Al Azhar street, Al Bostah street, the northern part of Port Said street near Al Azhar, and the northern part of El-Gaish street near Al Azhar. The secondary branching streets from Al Bostah street, have very high concentration of activities as well. Then the next level comes in the secondary

pedestrian streets like Al Moski, then comes Al Ghoureya, and then finally the lowest level of activities concentration is found in the narrow branching alleys from Al Moski, and Al Ghoureya. This can be rooted back to different reasons, one important factor is the visibility and accessibility of the chosen locations as discussed previously in (Mohamed et al., 2015), these two factors are both highly achieved in the mentioned main streets that feature high pedestrian traffic, and high vehicular traffic, which makes them highly visible from both shoppers and passerby, and that contain the main transportation hubs or bus and microbus stations that create a good accessibility at least at these external streets for shoppers, vendors, and goods' transportation. Another important factor is the level of heritage attraction points existing in these streets, for example, Al ghoureya street witnesses the lowest level of informal vending activities in the studied areas, this is because, it has many touristic elements like Al Ghoury complex, Al Fakahany Mosque, Sabil Mohamed Ali, and Zuweila Gate, which in turns creates a touristic nature in the area that requires policemen existence to ensure the safety of the area. The part of Al Moski street near the intersection and after the intersection with Al Moez street, features the same organized nature and touristic nature of economic activities as well, and hence fewer informal vending activities or at least organized number of them. Another important factor behind the street vending activities' concentration is the wide street dimension which enables the vendors to take the pavement, and also a part of the street as mentioned before, and increases the probability of vehicular and pedestrian traffic, so they gather, and then cluster and multiply beside each other. The street land uses are very important factors in shaping the street vending nature in the three areas, as the highly commercial mentioned main streets probably ensures a higher level of visibility from vehicular and pedestrian traffic, than the residential usages of the branching alleys from Al Ghoureya street for example.

Another noticed pattern is the concentration of activities at the streets' intersections, as the intersection of Al Azhar street with El-Gaish street and Al Moski street which witnesses the highest concentration, Al Azhar street with Al Bostah street, Al Azhar street with Port Said street, and Port Said street with Al Moski street. Any street intersections, even the branched alleys usually witness a

higher concentration of activities than the rest of the street. This can be explained due to the high exposure of the areas at the street intersections, which increases their visibility and their probable number of passersby, in addition to having more space to cluster at the intersections, than the rest of the street. For this reason, the activities concentrate at the intersections, public spaces or plazas, seeking higher pedestrian traffic (Dewar & Watson, 1990) (Suryanto et al., 2020).

Additionally, Al Attaba Metro station exit, forms a condensed node for street vending activities. Especially on weekends, the area around Al Attaba metro station witnesses a high concentration of activities. This is due to the high pedestrian traffic that pass by the area going out of or heading to the metro station. This preference from the passerby to reach the area or pass by it using the metro station as the easiest way, is clearly identified in the conducted survey answers, that will be explained later. This was discussed before as well by Suryanto, and Bhowmik (Bhowmik, 2005) (Suryanto et al., 2020), which both described that proximity to transportation and commuter nodes is a main factor in vendors' preferences for their economic activities' locations.

Other points that host high activities' concentration are found usually around the fences, bridges' walls, or generally at the urban edges. This is found in the studied areas clearly at the fence of Al Azbakeya garden, where different activities cluster in the surrounding main and secondary streets around the fence. The small fenced green area in front of Al Azbakeya garden, and the edge of the buildings at the entrance of the northern part of Port Said street from Al Azhar street, also witness a large concentration of activities. This is what was described as the edge effect by Derk de Jonge, a sociologist that determined that the edges produced by building facades, or a group of trees for examples, are usually desired zones for residing, as they offer greater opportunity for the vendor to observe the surroundings, and make him less vulnerable (Gehl, 1971) (Fahmy, 2018).

One more important factor in attracting the vending activities was explored to be the surrounding activity types, including the formal and the informal. The process of concentrating the vending activities was explained by the interviewees which explained that the start was around similar activities. In Al Moski, the area is known

with its wholesale identity of garments, and hence, garments street vendors started clustering to make use of the clients targeting the wholesale or the retail shops in Al Moski. Then the vendors started clustering around each other bringing their relatives, in what is called self-reinforcing effect as discussed before (O'sullivan, 2012). While when looking at Al Ghoureya, which is known more for its home textile wholesale identity with some homewear garments, we find few informal vendors existing which is explained by the interviewees, as the home textile activity nature is different than that of the garments. For this reason and depending on the type of activity prevailing in the area, in addition to the explained reasons previously, there are only few street vendors in Al Ghoureya in comparison to the garments' street vendors in Al Moski. This self-reinforcing effect is also found largely in Al Attaba branching streets, which witness a large ratio of informality. This can be found in the form of many garments' activities clustered around each other, then large shoes and bags vending activities beside each other, then electrical appliances vending activities, and the whole area is classified in this thematic nature for each street or each group of streets (See Figure 65).

Other factors as explained in the previous section, have effects that may not be seen spatially, like the social relations between vendors that encourage some vendors to stay in a specific street beside his relative rather than choosing another location in another street. Additionally, the weak government existence in a specific area or specific streets that usually leads to the prevalence of vendors with their static pushcarts, like the branching streets from Al Bostah street.

2.3 Impacts of informal economy networks on the urban context

The previous concentrations for informal vending activities affect the surrounding urban context with its various aspects. These impacts area studied from point of view of passerby, shoppers, and residents in the area, in addition to the participant observation of the researcher, and the vendors and officials' interviews. Based on the conducted survey, when the passerby and shoppers were asked about the impact of the informal vendors on the area from their point of view, 74% negative answers were received, versus 14% positive answers, and 12% that mentioned the positives and the negatives in their answers.

I. Spatial/ Physical impacts

First: Traffic congestion

The survey demonstrated a dichotomy between accepting passersby and shoppers for the activities and encouraging their existence and emphasizing their negative effect on traffic. Nearly half of the negative answers about street vendors' impact mentioned traffic congestion as the main problem. And 60% rated the area's traffic as worst (Figure 73). This traffic congestion restricts passersby from reaching their destination on time and hinders those who try to access the area itself using private or public transportation, except for Al Attaba metro station, which is described by respondents as the easiest way. They said traffic is crowded because the streets are narrow and squatting narrows and sometimes blocks them. They described them as "Unorganized" activities that produce chaos due to un-organized attitudes from sellers and shoppers. This activity causes heavy pedestrian traffic, and high movement patterns from vendors and aza cart drivers who transport items between activities, hindering traffic flow. These attitudes exist as well, on main streets like Al Azhar, Port Said, and El-Gaish, which have substantial traffic.

Additionally, most replies mentioned the need for parking lots. They don't like to drive there since they don't know where to park or feel unsafe leaving them. Even if they go by car, they must park far from their destination since the internal streets are too narrow and congested. Despite the negative impacts on traffic, they said these activities are the vendors' only job and that their existence is vital for the area but needs organization to alleviate the resultant traffic problems and chaos.

“On Sunday, the official weekend for the activities in Al Moski, the bus passes the area in five minutes. On the contrary, on weekdays, the bus takes almost an hour and half, and if there is a special event, it will take it two to three hours to pass the area.” (A resident in Al Sayeda Zeinab, and a passerby that passes by the area daily)

“They have no effect except the congestion, but they serve us with good prices and gain good money as well” (A worker in Al Attaba area)

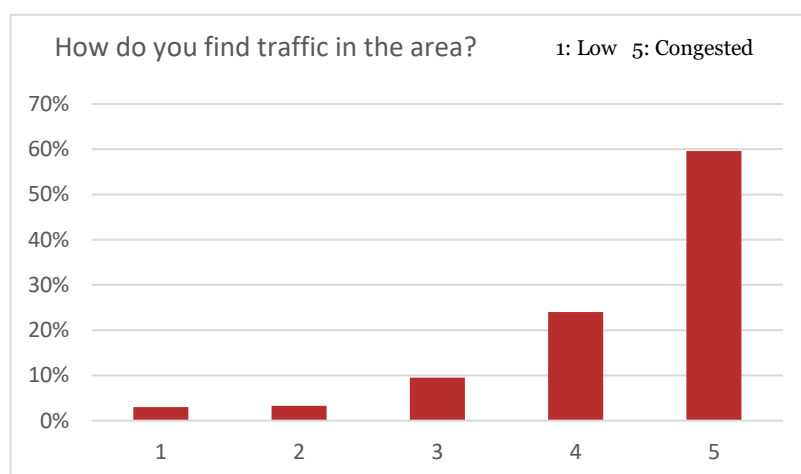


Figure 73: Evaluation of passerby, shoppers, and residents for the traffic in the area

Source: Author based on survey results

Second: Low walkability

Walkability from point of view of shoppers/ passerby/ Residents

“It feels intimidating for me to even think of walking around this area.” (A passerby by the area)

“The area is very congested, no places for people to walk and no spaces even in front of the activities for people to stand and shop.” (A shopper in the area)

“Their presence is not bad especially they serve goods, but the irregularity of places they sit in made a huge impact on passersby and traffic.” (A passerby by the area)

These are some responses to a question concerning the impact of the area's street vendors. Nearly half of negative responses reported problems regarding walking and shopping in the area. According to the respondents, the irregularity and density

of vendors locations contribute to this impact. This 'chaos' and unorganized movement of pickup trucks and aza carts is another reason that creates irregular pedestrian barriers and disrupts shopping. These reasons result in activities occupying the entire sidewalk and part of the street, leaving no space for pedestrians to walk or shop. This narrows the roadways, making it harder for pedestrians to walk with cars and pushcarts and hence, impedes the traffic as well. Another key problem is the lack of open areas to rest throughout the shopping journey, as there is no empty street or pavement to install street furniture or stand and rest.

On a likert scale for evaluating the walking experience through the area from 1 to 5 (where 5 is the most difficult), 37% of the responses went for 5, while 30% went for 3 (Figure 74). This showed the contradiction between their responses regarding the difficulty of walking due to unorganized activities, few others that see walking in the area is not a problem, and their responses that supported the presence of these activities as an important socio-economic asset. Many respondents stated that activities should be organized in controlled spaces without eviction.

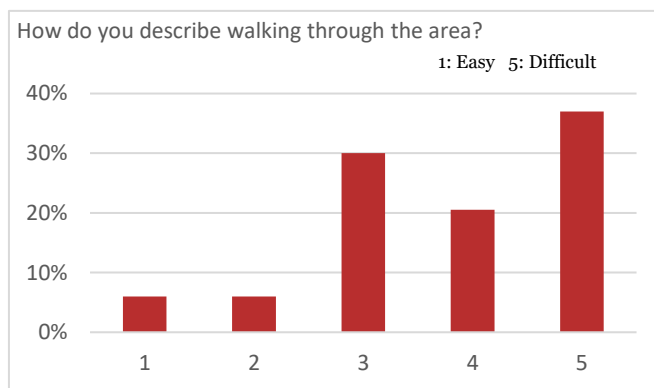


Figure 74: Evaluation of passerby, shoppers, and residents for walking in the area

Source: Author based on survey results

Walking experience in the studied streets (Based on interviews, Participant Observation)

After getting the survey responses with the passerby and shoppers perceptions referring to the difficult walking as a dominant impact of the activities alongside with the congested traffic, the researcher surveyed the streets to evaluate their walkability based on the five hierarchical needs for walkability explained by Alfonzo, which are feasibility, accessibility, safety, comfort, and pleasurability (Alfonzo, 2005). The observations were conducted on different weekdays and weekends, on different times of the day, to capture the different situations of the streets.

From the observed streets, branching pedestrian streets from Al Bostah street in Al Attaba and Al Azhar street were the most difficult to walk on. These pedestrian streets were the mentioned previously with the highest concentration of street vending activities. In high-intensity commercial areas, Saeed and Furlan recommend a 2.5-4 m walkway without a front zone or walkway, while these streets have 3 to 4 pushcarts with almost 1.2 m only for walking, difficult accessibility for any specific item or shop, low safety due to short passages that can result in easy thefts, and certainly low comfort and pleasure due to congestion (See figure 54). Whereas In Al Azhar street, despite being a main commercial wide street, walking is difficult due to the lack of a specific passages where pedestrians can walk. Instead, pedestrians must walk between random barriers on the street in an unidentified pathway, in addition to the consecutive intersections with other streets that increase activity. Then comes Al Moski street in difficulty, due to the high concentration of activity, but in more organized nature than Al Attaba secondary streets which leaves more space for pedestrians to walk. Al Bostah, El-Gaish, and Port Said streets join Al Moski street in difficulty. Where Port Said has activity on one side of the pavement and street, while the central median is relatively small and fenced, so pedestrians must use the street, as in Al Azhar, but with less pedestrian traffic. Al Ghoureya Street has fewer street vendors and wider passages, followed by the second part of Al Moski Street, which is less active and more ordered as mentioned in section 2.2. Finally, the pedestrian and narrow alleys branching from Al Moski

and Al Ghoureya streets are comfortable to walk because there is no street vending, few aza carts, and a prominent wholesale identity.

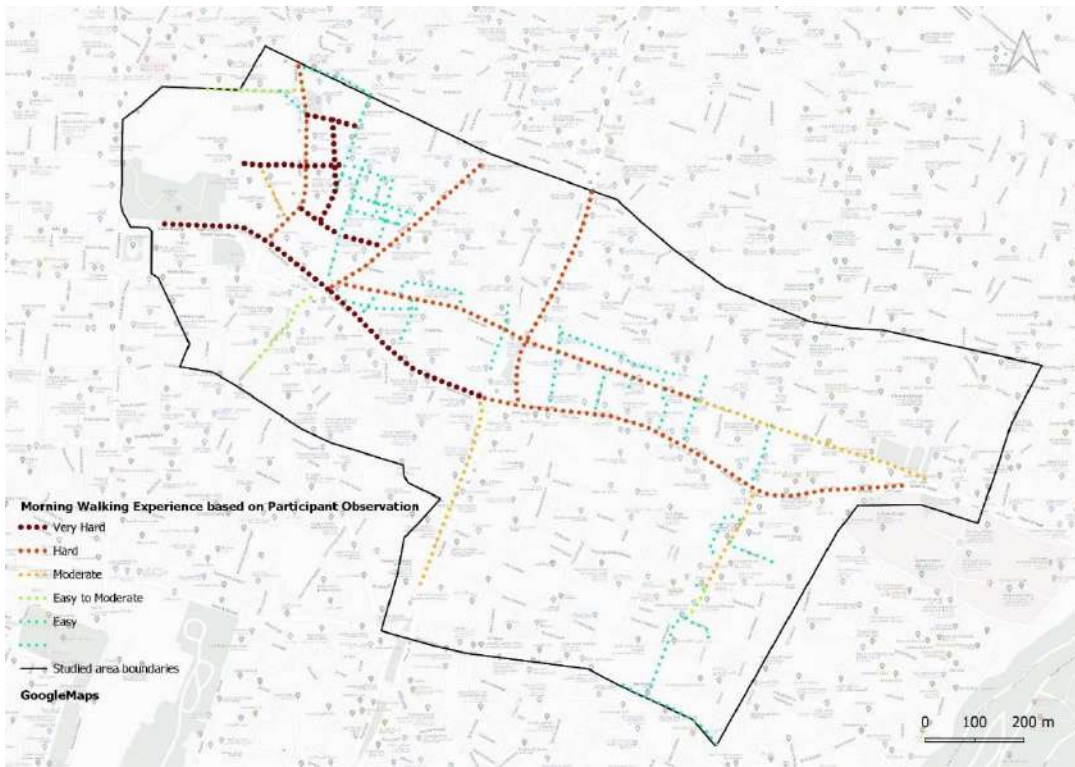


Figure 75: Morning walking experience in the study area

Source: Author based on observations, interviews, and survey results

At night, in the main commercial streets, despite being, lower in pedestrian traffic, the walking is still hard, due to the transportation of goods that usually takes place at night around 9 pm, with aza carts, suzuki vans, and pickup trucks. This is either to deliver the goods to the wholesalers and retailers, to ship them from the wholesalers to outside the area, or to transfer the goods to surrounding storage areas. This results in difficult walking in the main shared commercial streets, while in the secondary pedestrian streets the activity level decreases at night, and hence walking become easier, and accessing any shop or cart becomes easier. After almost 10:30 pm, the activities almost are closed, and the goods are already transferred so, the congestion in the main streets is resolved and they start being easily accessible and walkable. While the internal streets that almost only depend on commercial

activity with no vehicular passage and no other usages, are almost dead after closing the activities resulting in unsafe streets.

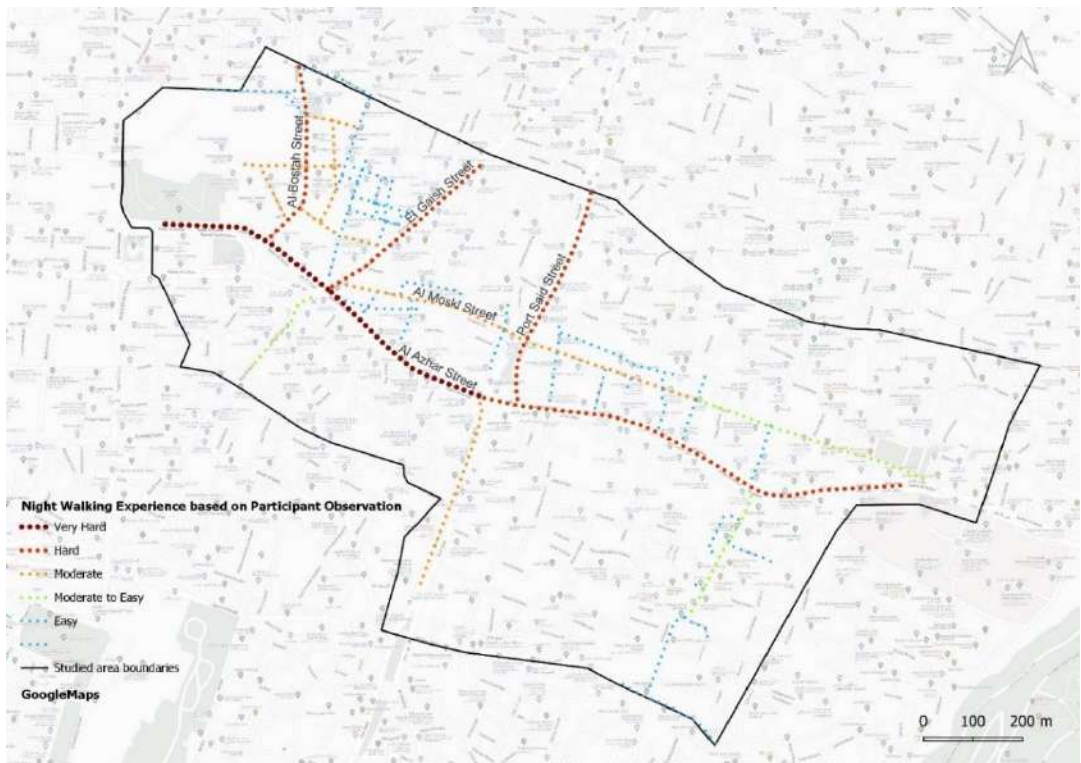


Figure 76: Night walking experience in the study area

Source: Author based on observations, interviews, and survey results

These activities are working all the week except on Sunday, as the only weekend. So, this congested situation remains the same on almost all days but with peak activity on Thursday, Friday, and Saturday. Hence, they face more congested nature and difficulty in walking in the streets. This is due to rural trips that visit this commercial area on weekends to shop or just entertain in the area, in addition to some touristic trips that visit Al Hussien and Al Ghoureya area, alongside with the increase in the typical shopping visits from the customers to make use of the state's weekend (Friday, and Saturday). While along the year, the area is more congested on the specific events like Ramadan, various feasts, or seasonal changes.

Third: Land use change

Based on both interviews with the officials, interviews with the vendors, and the observations, it was found the Al Moski area has almost no more residential uses, where almost all the upper floors are transformed into storages, workshops, or other upper floor shops. The same buildings and land use change was reported in Al Attaba by the interviewees of Al Moski District Presidency, who explained that most of the buildings have been transformed into commercial uses like, storages, or garments shops and exhibitions, or workshops. This is because most of the people sold their apartments or preferred to rent them due to the high commercial land price. So, they can make a high use of them, and at the same time leave this congested economic area. They explained as well, that there is no detailed or updated planning for the area that identifies the land uses or even capture the ongoing change in land uses with the prevalence of commercial activities. The attached land uses map is a GIS map from CAPMAS 2016 studies (Figure 77), that shows a high difference between the existing situation on ground and the official maps, showing most of the uses in the area as residential lands, while the use has transformed into commercial uses. In Al Ghoureya, the area still preserves some of its mixed uses containing some residential usages, as referred by some of the interviewees in the area, especially in the branching internal streets.

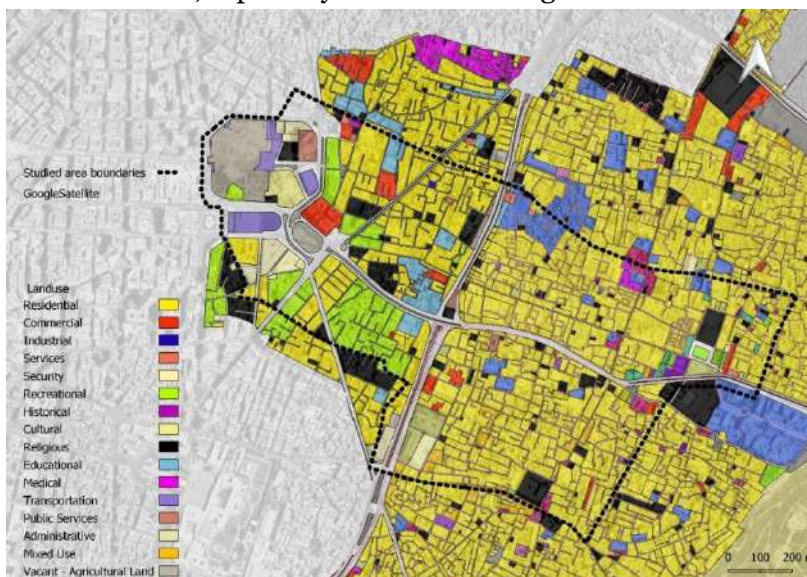


Figure 77: Land use map for the study area

Source: Author based on CAPMAS data for the year 2016

II. Social Impacts

One of the consequences cited by survey respondents and interviewees is the lack of safety; owing to thefts coming from heavy pedestrian traffic and the area's congestion and chaos; in addition to vendors' disagreements that lead to fights and affect pedestrian safety as well. Additionally, existing activities decreased the socioeconomic level in the surrounding areas and affected its cultural and heritage value due to uncontrolled encroachments on heritage buildings and mosques.

“The main problem here is losing the socio-cultural identity of the area that has been of a high heritage value for years. The point is how we can preserve its cultural and heritage identity while keeping its commercial dominant use.” (An employee in Al Moski district Presidency)

III. Economic Impacts

For formal shops:

The opinions of formal shops owners have varied significantly, between two opinions. First, acceptance for the surrounding street vending activities, and seeing that this is their job, and that their presence benefits the area as it attracts more customers, and accordingly, they deal with them and give them goods. And the second is resentment, explaining that their presence affected them negatively, and suggested their organization in specified locations.

- 1- Visual obstruction due to the informal vending activities spatial arrangements

Some of the vendors expressed their resentment for being spatially obstructed when the street vending activities clustered in front of them or surrounded them from all directions. This as per their responses, decreased the flow of the clients for them, and affected the accessibility of customers for their shops due to the unorganized and condensed activities leaving no suitable room for people to pass. Additionally, this changed the target economic strata of the market, as these activities selling staff at very low prices, attract customers of lower economic class. This is in addition to the arising clashes between vendors sometimes. For example, a shop owner in a branching street from Al Moski, and a shop owner in a branching street from Al Attaba express their opinions as below and see that their organization in controlled

specified spaces will be a win-win situation for all types of trade activities. However, other opinions contradicted the previously explained ones, explaining their acceptance for the vendors, and that if a customer wanted to reach any shop, they will reach it in all cases.

“Another problem for us, the formal shops, is clustering the street vending activities in front of us that caused a congestion in the street, so the rate of clients that can reach us decreased, and we are not seen anymore.” (Essam, a shop owner in Al Attaba)

“When I opened my shop, I was seen from Al Moski street directly from all clients, there were no pushcarts in front of me. But now a tent is put, and some surrounding informal activities gathered, and I am not seen any more from the street.” (A shop owner in Al Moski)

2- Competing with lower prices

Another explained negative impact by the shop owners, is the resulting competition for their goods' prices. They explained that the street vendors do not have to pay for water, electricity, taxes, or even workforce, and hence, they sell almost the same goods at lower prices, that usually attract customers. This sometimes result in clashes and conflicts between formal and street vendors.

3- Counterfeiting the market brands with lower prices

However, another reason for these lower prices, is another interrelated impact, which is counterfeiting the known market brands that are sold inside the shops. As explained by some of the vendors, the small workshops explained previously, usually imitate the garments pieces of large factories with the same design and even the same packaging but with lower quality, and with a difference about 50 pounds in the piece and sell them to the street vendors who sell them with lower prices than the original ones sold in the shops. This creates unfair competition to the formal market and the formal firms, but still these products have their own customers. This was reflected in the survey answers from some of the shoppers, that explained that these goods are not only lower in prices, but also are lower in quality, and hence sometimes, they tend not to buy from them as they do not know the real source of these goods.

However, there is another opinion from the interviewees as mentioned before, that see these activities as either an asset attracting more clients to the area, or benefiting them financially, as sometimes it is said in Al Moski for example, that the shops take rent from the vendors to let them stand in front of them. Additionally, some of the wholesale offices, as mentioned previously, sell low quality goods with low prices 'shaa'by goods', and these shops usually sell their goods to street vendors, and so they benefit from them as they are their target customers. While the neutral or the rejecting actors for the idea, are those who usually do not have a direct benefit from these vendors, as they sell high quality products. And accordingly, they do not deal with vendors, and hence they are seeing their negative impacts solely.

For informal vendors:

The main challenges facing the informal vendors themselves from being informal, were expressed by them to be only the government evictions and other harassments from the municipality that pass every period of time to remove all the activities. They expressed that they may be preparing and organizing the goods on the cart for 2 hours in the morning, and then suddenly a municipality visit come to remove everything, and they cannot then return their goods except by paying a fine, or they have to take all their goods and store them in a building nearby, till the government leaves and then return them again, as expressed by a garment street vendor in Al Moski. Another main problem that both informal and formal vendors expressed, is the continuous increase in prices of raw materials and finished goods, that led them to increase the selling prices in turn, and so the rate of selling decreases.

IV. Environmental Impacts

One of the threatening environmental impacts in the area, is the successive eruption of fires. The dense and unorganized activities that blocked the streets, have resulted in inaccessible streets with no space for fires emergencies. One of Al Attaba shop owners explained that in 2016, there was a fire in the area, and the fire trucks could not enter the area, and only narrow paths were left for the people to pass. As explained by the head of the housing administration in Al Moski District Presidency, the fires eruption is one of the main problems, where during the interview, two fires were reported, one of them was in Port Said Street.

Using of each vendor for a microphone to draw customers persuasively, causes noise pollution and a noisy, disturbing environment as well. Additionally, waste and pollution from leaving garbage of vending activities after finishing, creates an unclean environment.

“It's very messy because every seller runs a record using a microphone to advertise his product, and this makes the place very vociferous, and there are also a large number of them” (A passerby in the area)

However,

However, some respondents explained that they see no negative effects from street vending and have got used to it, because the area has always been a commercial center. Furthermore, no complaints were found in Al Moski district presidency, except for few road encroachments. On the other hand, these activities have some positive impacts, as they draw more clients to the area and thus, give the area its identity and spirit, and stimulate economic and price competition amongst sellers. They serve poor and middle-class customers with low-priced goods and options. Where they serve both vendors and a large stratum of customers and work as an interactive component in the investigated value chain that maintains its equilibrium and dynamics. Additionally, their locations in the macro value chain or micro context inside the study boundaries have various urban spatial, social, and economic characteristics that affect the dynamics of this economic activity. Accordingly, evicting or transferring them can disrupt the delicate balance and flow of resources, while leaving them un-organized and un-integrated will continue to create significant issues. Approaching them must generate a win-win situation that serves both the vendors and the surrounding urban context with its cultural value and commercial identity, after a deep understanding of both components' overall dynamics.

Chapter 7

7 Conclusions And recommendations

1. Conclusions

This research approached its aim by adopting a geo-spatial mapping and analysis method for studying the existing economic activities and their value chains, alongside the regular value chain analysis that is usually used solely to study the economic relations and flow of resources between the different activities. The value chain analysis and understanding the different existing relations helped in identifying the types of informalities in the value chain and their linkages with the formal economy networks, and the different power relations and flows directions. The geo-spatial analysis assisted in two ways: first, on a macro scale, it assisted in exploring the various spatial autocorrelations between economic activities and analyzing the factors influencing their distribution in space; and second, on a micro scale, it assisted in capturing the existing ratios, types, and concentrations of informal economic activities within the study boundary and interpreting the different concentration patterns of these activities in space. Accordingly, these methods helped in answering the research questions and fulfilling the research aims by adopting a multi-method approach that used various tools to capture the different situation dimensions.

The usage of this multi-method approach, combining qualitative and quantitative data collection methods, helped in exploring the existing situation and interpreting it in a more comprehensive manner than the regular data collection methods used. First, the literature was reviewed in chapters two and three to extract different informal economy connotations internationally and in the Egyptian context, and the different variables that have been discussed in literature to affect the distribution of economic activities and their concentration patterns, in addition to the garment value chain dynamics. Then, after extracting the required data from literature and selecting the garment activity to study, the case study was performed in three of the most active garment markets in Egypt: Al Attaba, Al Moski, and Al Ghoureya markets. The used multi-method approach was adopted then, using various tools to observe and map the micro-spatial dynamics, including voice recordings, geo-

tagged photography, route tracking using an open data source mobile application, counting and coding, and field geo-spatial mapping using an open data source application that is directly synchronized to QGIS; semi-structured interviews with vendors, and in-depth semi-structured interviews with government officials, in addition to an online and field survey. Then QGIS was used to map the resulting spatial value chain and the micro-spatial dynamics. Combining these tools together with the usage of open data source tools helped significantly in an easier and relatively quick inventory and mapping process for the area during the field visits; allocating the geo-spatial dimension of the urban economy activities and interpreting a further spatial dimension that is not usually captured by the official institutions when studying the economy activities and markets; in addition to understanding the economy activities' functional relations, flow directions, and impacts on the surroundings by using the interviews and the survey. This approach helped in a comprehensive exploration and interpretation of the existing situation, including both formal and informal economy activities, and added value to the existing official data.

First, the functional mapping for the value chain helped in identifying the flow directions and the power relations as well as the formal and informal linkages within these relations. After analyzing the value chain in Al Moski market, complex relations were found between both formal and informal entities in most of the value chain stages. The process starts with the flow of textiles from large textile factories to the textile wholesale shops. The textile then flows to the garments' manufacturing, either in large garment manufacturing firms or smaller manufacturing workshops where some informalities take place. The garment manufactured products flow to the trading entities, either directly or through intermediaries' relations. These trade entities are either high-quality wholesale shops or low-quality wholesale shops, which then sell the products to various types of retailers such as street vendors, vitrines, retail shops, or directly to clients from all over Egypt. And finally, within these retail trade activities themselves, a lot of exchange processes for goods take place between the different activities. Based on this, the wholesale shops act as a dominant and significant element in the value chain, as they are the organizers of all the trade flows within the area, either to

formal or informal traders, or directly to the customers. The garment value chains in both Al Ghoureya and Al Attaba markets are almost the same as in Al Moski, regardless of the prevalence of some components over others. The dominant trading activities in Al Attaba streets, for example, are street vending activities, which are only found in a small percentage of Al Ghoureya streets. However, the three markets are interconnected along the value chain. After analyzing the previous relations to understand the formal-informal linkages, it was found that the informality takes many dimensions and prevails in the various components, functionally and spatially. Some unregistered activities are found in the manufacturing phase, represented in small workshops that operate with a maximum of 10 workers in a regular apartment, manufacturing low-quality garments, in addition to some home-based workers that work on 1 to 3 sewing machines. In the trade phase, the street vendors form a large percentage of the informal trading activities, of which a very small percentage have licenses for street vending, and they get their products usually from the small workshops mentioned previously, or the home-based workers, or some wholesalers, in addition to the unregistered work taking place in the vitrine retail activities. Then the complementing activities included some informal work as well, represented in small packaging entities, servicing the small workshops; and some shipping services represented in own account aza carts or small unregistered shipping enterprises. Additionally, some other related informal economy activities were found in counterfeiting trademark goods, informal money transactions, and some complementing activities. These formal and informal relations were found to have different types of linkages, through which labour, services, resources, and finance flow. This shows the formal and informal economy activities as one economic system, where the informal services or enterprises are no more marginal but essential for this delicate flow of resources and services within the production and trade systems, and where any understudied intervention to marginalize or remove these informal economy activities will disrupt the whole system.

While the use of geo-spatial analysis for the value chain in this research helped to enhance the previous understanding of the existing functional relations. It helped to explore the spatial autocorrelations inside the value chain, the specific spatial

proximities, and the geographic distribution of economic activities within the value chain and the various factors affecting it. The study showed a strong relationship between existing economic activities and the surrounding areas, excluding the larger economic entities that tend to be located at the fringes of the city, or the industrial areas of new cities, or even other cities. While the smaller economic activities that usually have higher rates of informality tend to be in the very congested parts of the inner city, including informal areas. These activities include, for example, the small workshops and the home-based workers; in addition to the residences of the street vendors, vitrines' vendors, and some retail shop vendors; and some storage areas and packaging areas as well. These activities, as mentioned, are located either in areas surrounding the market directly, like Manshiet Nasser, which showed high economic connectivity to the area, as an informal area, and in turn low-priced land; or other proximate areas to the market; or within the boundary of the study area itself, showing strong relations between Al Moski, Al Ghoureya, and Al Attaba. Accordingly, the factors affecting these spatial locations of economic activities were discussed based on the value chain geo-spatial analysis, the survey answers, the observations, and the extracted factors from literature. These factors include clients' attraction level of the area, based on low prices of goods; the centrality of the location and its spatial accessibility; self-reinforcing effect; and the economic identity of the area. In addition to the socio-cultural attachment of vendors to the area, the existing and surrounding land costs; the economic spatial autocorrelations discussed previously between the area and its surroundings; the social relations within the area and its surroundings; and finally, the role of public policy and planning. Most of the time, it's not just one factor that affects where economic activities take place. Instead, it's a combination of a number of the mentioned factors that work together.

Whereas the geo-spatial analysis of the micro-spatial dynamics of the informal economy activities in the study area assisted in identifying the different types of informal practices resulting from economic activities, their different configurations in streets, their concentration patterns and the factors affecting them on a micro scale, and the impact of these economic activities on their urban context. These types of informal practices were classified into three categories: extension of a

formal activity on the sidewalk; temporary but stationary street vending; and temporary but mobile street vending; and mapped into the different types of streets. The study showed the prevalence of informal extensions of formal shops in all the street types, mostly leaving no space on the sidewalk for pedestrians, especially in the main commercial shared streets where there is a prevalence of street vending activities as well, and hence, no space is left for walking, except on the street. Whereas the stationary street vending activities prevail in both the main commercial streets and the secondary pedestrian streets, where they have a more permanent nature during the trade hours and even at night, storing the products at the same locations. These street vending activities occupy almost 15% of the overall studied streets' area, where the ratio in main commercial streets ranges from 20% to 40%, and in the secondary most active streets ranges from 65% in Al Attaba secondary streets, to 30% in Al Moski street, to only 4% in Al Ghoureya street. While the branching alleys have few street vending activities, ranging from 0% to 12% in Al Moski alleys and 0% to only 2% in Al Ghoureya alleys. Allocating these ratios on a geo-spatial dimension then helped to interpret different patterns of concentration, making these informality ratios clearer. The patterns of concentration were found related to the hierarchy of street types as mentioned before; at the streets' intersections; at Al Attaba metro station; around fences, bridges, and edges; and finally, in similar clusters of activity types. These patterns have been shown to be dependent on various factors that attract the concentrations of informal activities, such as the visibility and accessibility of main commercial streets that feature both high pedestrian and vehicular traffic; the government existence that is related to the touristic nature of a specific area or street; the street width that allows for more encroachments; and the street land uses, which range from highly active commercial to less active residential areas; the edge effect; the existing formal and informal activity types; the self-reinforcing effect; and the existing social relations between vendors. The intersection of some of these factors together is what results in these concentrations of street vending activities inside a specific boundary.

The impacts of these informal economy networks were then discussed based on the interviews, the survey results, and the observations, to identify the different stakeholders' perceptions towards these networks. The passerby, the shoppers, the

residents in the area, the formal and informal vendors, and the government officials' answers were analyzed to extract different impacts on the area. These impacts were classified as spatial impacts, including the congested traffic and the low walkability, as the worst impacts on the area, along with the noticeable and uncontrollable land use change. Then there are economic impacts that include the visual obstruction of informal vending activities to formal economy activities; competing with the formal shops with lower prices; and counterfeiting the market brands with lower prices. Then social impacts that are related to lack of safety due to thefts and conflicts, as well as the loss of the area's socio-cultural identity. And finally, environmental impacts include fires and resulting waste, sound pollution, and visual pollution. Despite mentioning these impacts by most of the respondents, they said that these activities serve the poor with low-priced goods, create economic competition, and hence attract more customers to the area, in addition to the significant role they have in keeping the balance of the studied value chain. Accordingly, evicting these activities can result in undesirable consequences for the existing value chain connections, while leaving them uncontrolled will give birth to new complex challenges. However, no clear plans were found or announced for upgrading the studied markets; only some news about upgrading them in the next stages of the current upgrading process in Historic Cairo and based on only basic data for the registered and unregistered activities of them, without broader understanding of the existing dynamics. And this can simply lead to misguided upgrading decisions that affect the existing dynamics.

2. Recommendations

As received from the interviews in Al Moski district Presidency, the intended upgrading plans for the markets mostly depend on eliminating the unregistered street vending activities while creating specified locations for the registered ones. According to the studied dimensions in the research, this can lead to either destroying some of the value chain connections that have geo-spatial dynamics in the area; changing the existing dynamics that can affect both the economy networks and their spatial dynamics, disturbing the existing delicate balance and existing livelihoods; or just the return of these informal vending activities or encroaching on

different surrounding areas. For this reason, the research recommends that the under-studied relocations or evictions for economic activities are not suitable solutions for upgrading existing areas or markets with these thriving and complex dynamics. The upgrading plans must include a comprehensive study for the various integrated dimensions, taking into consideration the different stakeholders' interests and creating a win-win situation that benefits the different actors while preserving the cultural and economic identity of the area.

Ignoring the existing informalities and the corrupt government control of these informal linkages is not an optimal solution also, as it will lead to more informalities impacting various economic, social, environmental, and physical aspects. Accordingly, there must be an integration of the existing informal economy activities with their various types by both facilitating their entry into the formal sector and decreasing the blockages to the formal sector and creating more formal jobs. Or at least start integrating these activities by organizing them under some state regulations rather than totally formalizing them and start enhancing their productivity by extending their legal and social protections to make use of the added value they are providing in terms of low-priced goods, or skilled labour, or different services for a wide socio-economic stratum of the community, while making sure that no illegal or underground practices are being done. Additionally, there must be a continuously upgraded detailed planning capturing and controlling the continuous land use changes in these economically thriving areas.

Furthermore, there must be an integration of the spatial informal economy practices into the state regulations without eliminating the existing dynamics or natural spatial arrangements. This can be done by specifying organized locations for vending that create visibility for both the formal and informal activities, and maybe taking a suitable monthly rent from the vendors, in exchange for getting organized market services and better, safe, and clean working conditions. While different strategies are needed to deal with the formal shops, where more strict regulations are needed to control their informal extensions. Another critical aspect is redesigning the streets and sidewalks to accommodate the existing thriving and congested situation, considering designing a space for vending locations, specific

passages for shoppers, specific passerby pedestrian paths, and finally a suitable space for vehicular passage. The vehicular traffic, as one of the most affected aspects by the unorganized road encroachments, must be organized to open the roads for the flow of economic resources in shipping that take place through the main commercial shared streets; to release the congestion, and hence facilitate passing by the area, visiting, or residing in it and in the surrounding areas; and to facilitate the pedestrian walkability that decreases on these main streets, as mentioned previously. Additionally, some of the internal streets must be left with few activities available to be designated for emergency entry to the area.

Finally, approaching these sensitive contexts that have thriving socio-economic dynamics, such as the study area and many other similar locations at the heart of Cairo, must be based on a comprehensive understanding of the situation and its dynamics. This can be done through collecting comprehensive data as well, not only identifying the registered and un-registered activities as found upon interviewing the government officials, but must be inclusive of the different aspects, including the various value chain economic dynamics, their geo-spatial dimension, as well as the other socio-cultural dimensions. These dimensions must involve all the affected stakeholders' perspectives, from the formal and informal vendors, shoppers, passerby, residents in the area and its surroundings, governmental institutions, and if there are any working international or local organizations in the area. To perform this comprehensive data collection process, various tools in turn must be used, including observations, interviews, surveys, and open data sources. Adopting new technologies, such as open data sources, in the inventory process of any area shall be a significant method for both the state, in order to have a relatively quick and updated dataset before making decisions, and for researchers and urban planners conducting studies in similar areas.

3. Future Research

Since time was limiting the researcher to studying the value chain dynamics from only the trade sector's perspective inside the studied markets and focusing on their geo-spatial dynamics inside the boundary of the studied area, further research will be important to study the other value chain components' perspectives. This includes the various formal and informal manufacturing entities and their geo-spatial dynamics, to capture an overall image of the whole process and its imbedded spatial dynamics.

Other studies as well can start studying how to develop strategies for better dealing with these old markets at the center of Cairo, without destroying value chain connections or dynamics, whilst preserving the socio-cultural identity of the area. Further studies can also propose strategies that can be adopted in the future upgrading plans for the mentioned markets or measure the impact of these plans, if already announced, on the studied and mapped dynamics in this research.

Moreover, further studies can explore other garment markets in similar congested contexts as Wekalet Al Balah or different contexts such as the markets currently prevailing in Heliopolis and Nasr City, taking the study to other urban contexts, and comparing the urban economy activities' dynamics, their geo-spatial relations, and their impacts, to those studied in this research. Additionally, other international contexts can be studied and compared to the Egyptian context in terms of the existing dynamics and the strategies followed in dealing with them.

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All Photos attached at the cover pages of chapters are captured and created by the author.

Appendices

Appendix A

Semi-Structured Interviews with vendors (Formal and informal vendors)

These questions were classified into two categories, one regarding basic info about the vendor and the activity and its micro dynamics, as follows:

1. What is your name?
2. Where do you live? And how do you access your workplace?
3. How long have you been working here?
4. For how long do you work here throughout the day?
5. (For street vendors) How frequent do you come here to work?
(daily/monthly/seasonally)
6. Why did you choose this exact location to work?
7. Who are your clients?
8. (For street vendors) Are you subjected to any rejection from the residents or government? How?
9. What is the price of m2? How did you get your workplace?

And the Other part is regarding the value chain dynamics and relations, as follows:

10. What do you know about the production system of this activity/ where are the locations of raw materials-manufacturing- storages-distribution lines?
11. Do you have storage areas? Where?
12. (For street vendors) Where do you store your furniture/tools after finishing?
13. Do you think the surrounding activities of the same type get their products from the same sources?
14. Do you have specific relations to the surrounding activities? Whether of the same type or different types?

15. How do your financial transactions take place?
16. How do you receive/transport your products? What is your opinion regarding the distances between you and the other value chain elements?

Appendix B

In depth Semi-Structured Interviews with government officials

1. How do you define informal vending in the area?
2. What is the legal way of approaching the informal vendors according to law?
3. Are there any complaints that come to the governorate/ district from residents or passerby in the studied area because of these markets?
4. How does the state deal with these complaints?
5. Are there any plans to develop Al Attaba, Al-Mosky and Al-Ghoureya markets? What are these plans and who is responsible for them (consultant - executive)?
6. Have the informal garments' vendors in Al-Mosky, Al Attaba, and Al-Ghoureya markets been counted or surveyed in any way? If yes, what are the methods and tools used?

Appendix C

Online and field Questionnaire questions directed to shoppers, passerby, and residents in the study area

Section 1: Basic information

1. What is your name?
2. Age
 - < 15
 - 15-35
 - 35-65
 - 65 and above
3. Gender
 - Male
 - Female
4. Where is your residence location?
5. Where is your work location?
6. Please enter your email to contact you if there are further investigations.

Section 2: General information about the specified area

7. Which area of these areas do you pass by/visit?
 - Al Moski area
 - Al Ghoureya area
 - Al Attaba
 - I do not pass by any of these areas
8. Why do you visit this area?
 - I live there
 - I work there
 - Shopping
 - I pass by it during a trip to another destination
 - Other
9. If shopping, what are you used to shop in the specified area?
 - Residential appliances

- Home textile (linens, etc)
 - Ready-made Garments, shoes, and bags
 - Mobile Phones and Phones Accessories
 - Other
10. If you shop garments in the area, how often do you do your shopping?
- Always
 - Sometimes
 - Never
11. If you shop there, please explain why do you shop your garments in the area?
12. Please list the names of your other best garments' shopping locations outside the area.
13. How often do you pass by/visit the selected area/areas?
- Daily
 - Weekly
 - Monthly
 - Seasonally (Feasts, different seasons)
 - Occasionally
14. How do you pass by/reach this area?
- Private car
 - Taxi
 - Car hailing applications (Uber-Careem-etc)
 - Public transportation bus -Microbus
 - Metro
 - I reach the area walking as I live near to it
 - Other

Section 3: Evaluating the Impact of economic activities on the area

15. How do you find accessing the area? (Likert scale from 1-5, where 1 represents easy, and 5 is difficult)
16. If difficult, from your point of view, what are the reasons that make accessing the area difficult?

17. How do you describe walking through the area? (Likert scale from 1-5, where 1 represents pleasant, and 5 is Unpleasant)
18. How do you find the traffic in the area? (Likert scale from 1-5, where 1 represents low, and 5 is congested)
19. From your point of view, what is the impact of the street vendors on the specified area?
20. Please list the names of the most active streets in the area in terms of garments' sales.

إلى ديناميكياتهم المكانية داخل الإطار الحضري. ثم يركز الفصل الثالث على الوضع غير الرسمي في مصر، وتصنيف الأنشطة غير الرسمية في مختلف القطاعات بما في ذلك نشاط الملابس. بناءً على ذلك، يناقش الفصل الرابع الديناميكيات العامة في سلسلة قيمة الملابس، حتى يمكن بعد ذلك في الفصل الخامس، تناول دراسة الحالة مع مناقشة الأساليب والأدوات الرئيسية المستخدمة، ثم عرض النتائج الرئيسية والمناقشة في الفصل السادس. و ينتهي البحث بعرض الاستنتاجات والتوصيات في الفصل السابع.

كلمات دالة:

الاقتصاد غير الرسمي، الروابط الرسمية و الغير رسمية، أنشطة الاقتصاد الحضري، تحليل جغرافي مكاني لسلسلة القيمة، انماط مكانية و وظيفية

مستخلص البحث

تجري مؤخرا دراسة أنشطة الاقتصاد غير الرسمي على انها نظاما اقتصاديا متكاملًا مع شبكات الاقتصاد الرسمي , موجودا معها في علاقة متعددة المستويات. تشمل هذه الشبكات أشكالًا مختلفة من تدفق العمل والتمويل والمدخلات والمخرجات. وعادة ما تكون للأنشطة التي تشكل هذه الشبكات , ديناميكيات مكانية يمكن أن تخلق فرص عمل أو تؤثر على العلاقات الاقتصادية بطريقة سلبية. وقد أظهرت بعض نظريات الاقتصاد الحضري أن دراسة التوزيع المكاني لأنشطة الاقتصاد هذه يمكن أن تساعد إلى حد كبير في الكشف عن أوجه القصور في المواقع وتحسين القرارات ويمكن أن تساعد في تحسين فهم ديناميكيات شبكات الاقتصاد الحضري داخل السياق الحضري، لتشجيع اتخاذ قرارات أكثر كفاءة تتعلق بالاقتصاد والتنمية المكانية على حد سواء. في مصر، ضمن اتجاه التطورات الحالية، تبذل الدولة الكثير من الجهود لتحسين المناطق المتدهورة، وأنشطتها وأسواقها الاقتصادية غير الرسمية. ومع ذلك، هناك نقص في البيانات حول هذه الروابط غير الرسمية والديناميكيات الحالية لسلاسل القيمة للأنشطة، أو كيفية ترابطها في الفضاء، و الذي قد يؤدي الى قرارات تطوير غير شاملة.

وبناءً على ذلك، يهدف هذا البحث إلى فهم ورسم خريطة لشبكات أنشطة الاقتصاد الحضري القائمة، في واحدة من أكبر الأسواق في مصر , داخل القاهرة التاريخية ، والتي تتمتع ببيئة مزدهرة من أنشطة الاقتصاد الرسمي وغير الرسمي. وتهدف الدراسة إلى رسم خريطة لسلسلة القيمة لقطاع مختار من الأنشطة (نشاط الملابس الجاهزة) عن طريق تحليل جغرافي مكاني لسلسلة القيمة ، لفهم الروابط الرسمية وغير الرسمية ، وكيفية توزيعها مكانيًا على نطاق كلي ؛ بالإضافة إلى فهم أنماط تركيز الأنشطة غير الرسمية في الفضاء على نطاق صغير وتأثيراتها على السياق الحضري المحيط. والهدف من ذلك هو تكوين صورة شاملة عن الأنشطة القائمة وشبكتها الوظيفية والمكانية على المستويين الكلي والصغير، مما يمكن أن يساعد بدوره في تشكيل قرارات تحديث شاملة للمنطقة. ويتم تحقيق ذلك من خلال اتباع نهج متعدد الأساليب يجمع بين الأساليب النوعية والكمية ويستخدم أدوات مختلفة بما في ذلك مصادر البيانات المفتوحة لرسم الخرائط الميدانية، و عمليات المراقبة ، والمقابلات، و استبيان ميداني و عبر الإنترنت ، والبحوث المكتبية.

يبدأ البحث بمقدمة لفهم المشكلة البحثية وأهداف البحث و منهجيته. ثم يستعرض البحث في الفصل الثاني الاقتصاد الحضري غير الرسمي بما له من دلالات وأنواع الروابط مع شبكات الاقتصاد الرسمي ؛ بالإضافة

اقرار

هذه الرسالة مقدمة في جامعة عين للحصول على درجة العمران المتكامل والتصميم المستدام .إن العمل الذي تحويه هذه الرسالة قد تم إنجازه بمعرفة الباحث سنة 2022.

هذا ويقر الباحث أن العمل المقدم هو خلاصة بحثه الشخصي وأنه قد اتبع الأسلوب العلمي السليم في الإشارة إلى المواد المؤخذه من المراجع العلمية كل في مكانه في مختلف أجزاء الرسالة..
وهذا إقرار مني بذلك،،،

التوقيع:

الباحث : سارة سامح امين فؤاد

التاريخ: 25/08/2022

الروابط الرسمية والغير رسمية فى أنشطة الاقتصاد الحضرى

تحليل جغرافى مكانى لسلسلة القيمة لأسواق الملابس فى القاهرة التاريخية

مقدمة للحصول على درجة الماجستير فى العمران المتكامل والتصميم المستدام

اعداد :سارة سامح امين

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جامعة.....

الدراسات العليا

التوقيع

أجيزت الرسالة بتاريخ:.....

موافقة مجلس الجامعة/.../.....

ختم الإجازة

موافقة مجلس الكلية... / ... /

جامعة عين شمس

مصر

