The Importance of Location for Coworking Spaces and the Timed City Concept. Experiences, Perceptions, and Reality in Malta



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Abstract In this chapter we aim to unravel the importance of the link between three themes: location, Coworking Spaces (CSs), and the timed city concept. We argue that location, CSs, and timed cities are interdependent and complement each other. To do this, we use Malta as a case study, a small high densely populated, car dependent island state that has only been exposed to CSs in the previous decade. To support our argument, we conducted semi-structured interviews with two CS owners, four traditional employers, and an entity representing employers. The former provided their experiences of having CSs in Malta and the latter two discussed their perceptions of CSs. The reality and the importance of location are represented through Geographic Information Systems, by which we analyzed walkable areas within the catchment of the CSs. The findings highlight that location unravels the importance of micro-geography in the context of an island state when considering the applicability of CSs and the timed city concept. Furthermore, the research resonates with the literature with regard to issues associated with mobility, accessibility, job type, and peripherality.

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1 Introduction

This chapter aims to unravel the importance of location for Coworking Spaces (CSs) in relation to the timed city concept. The reason for investigating this topic is the need to show that CSs and chrono-urbanism¹ are location dependent; this is important for policy making and business. Geography has a crucial role here, the site and situation of CSs can influence their accessibility and the opportunities for people to use them. The timed city concept is very much proximity dependent, hence location is critical for its success. In cases where CSs and chrono-urbanism are applied as part of a policy package to encourage sustainable urban environments [2, 3], location plays a key role.

In this chapter we use the case study of Malta to highlight the importance of location for CSs and the timed city concept to work. We choose Malta because it is a unique case study in that it is an island state, has one of the highest population densities in the European Union and CSs started being established there after 2013. The fact that Malta has a high population density, on paper, makes it a good candidate to implement chrono-urbanism and link it with CSs. However, there are complexities, some of which are associated with location.

We will explore some of these complexities through experiences, perceptions, and reality. The experiences and perceptions are illustrated from a set of narratives that are derived from semi-structured interviews. The reality is portrayed using spatial analysis through Geographic Information Systems (GIS).

1.1 Background

Malta is a Mediterranean island state situated between Sicily and Libya. It joined the EU in 2004 and apart from having one of the highest population densities, suffers from severe car dependence compared to the other EU member states. We use the term 'suffer' because of the associated negative impacts of respiratory diseases, social inequity, accidents, environmental impacts, and economic issues associated with reliability and punctuality in relation to traffic congestion. All these negative impacts create an unsustainable human and physical environment. However, there are ways for Malta to work toward becoming a sustainable island. As discussed in Bajada et al. [2], small initiatives such as combining the timed city concept with CSs in a policy package can tweak and improve the situation.

The whole land area of the archipelago of Malta is only 316 Km2. The population is half a million [4] and is distributed mainly in the Northern Harbor and Southern Harbor districts, followed by the South Eastern, Western, and Northern districts

¹ Carlos Moreno defined chrono-urbanism as questioning in-depth what the city offers residents for the use of their lifetime. Chrono derives from the Greek, which means time. Hence, chrono-urbanism can be defined as the activities and lifestyles that people living in cities can perform as a result of the opportunities within the cities and what is available within their proximity [1].

(Fig. 1). CSs are dynamic in Malta; however, it seems that the numbers of CSs fluctuate around twenty. These are mostly established around the Northern Harbor and Southern Harbor districts. Figure 2 shows the density of existing CSs in Malta. Spatially, the map clearly shows that location plays a major role in choosing where to set up CSs, as they are usually established in districts and places that attract employment such as Gzira and St Julian's (Fig. 2). Interestingly, the capital city, Valletta, which is one of the main administrative centers in Malta, has two active CSs, and another one is located in its outskirts; the latter is only partly active and is also used as a makerspace.

Valletta is a good example to show the importance of location at the microgeographic level. Valletta is a peninsula that covers an area of 0.84 Km² [4]. Apart from being the capital city of Malta, it is also a World Heritage site. It is situated in the Southern Harbor district and forms part of the Grand Harbor. The topography of Valletta is hilly because it was built on a promontory, and therefore, the main activities are situated on the top part, while the residential areas and the peripheral CS are situated in the lower parts. The micro-geography here affects the location of the CS, and, on a micro-scale, the peripheral location of the CS affects it in terms of its visibility and usage.

Chrono-urbanism, i.e., the timed city concept, is now a well-established term in the literature (e.g. [1, 2, 6]). It gained traction during the COVID-19 pandemic, when major cities such as Paris and Milan identified active traveling (walking and cycling)



Fig. 1 The six districts of Malta. Drawn by authors



Fig. 2 Density of CSs in Malta. Drawn by authors adapted from [5]

and use of public transport as a good solution toward sustainable mobility. As the name implies, the timed city concept is linked to the possibility of covering an area of the city within a certain time-frame. The timeframes most commonly applied are 15 and 20 min. Proximity is important, as within the said time period a person should be able to access activities such as employment, shops, other services, and leisure activities. Hence, CSs and chrono-urbanism fit perfectly together because CSs can facilitate the commute within a short distance and the set time-frame [3].

In Malta, the timed city concept has not yet been applied, but as discussed in Bajada et al. [2], there is great potential for this to happen. The island is small, distances are short, and high population density exists. The problem is car dependence and the associated infrastructure. In 2020, Malta had 780 vehicles per 1000 total residents [7], and despite strategy documents on sustainable mobility [2], the infrastructure is mainly designed to cater for cars. By making a change in policy and implementation, shifting more toward sustainable mobility and linking the timed city concept with CSs, the situation can improve, and location is critical in this case.

2 Literature Overview

CSs and timed cities are two concepts that work well together; they can be used as part of designs and implementations of sustainable planning strategies [2, 3]. Di Marino et al. [3] used spatial analysis through GIS to support this. Furthermore, CSs conglomerate naturally with services [8], which makes the idea of combining these activities with high urban density even more plausible [9].

Urban areas are, however, complex. These complexities are influenced by demography, mobility, accessibility, employment, and geography, amongst other variables [10]. When designing and implementing strategies that combine CSs and timed cities, it is imperative to consider these complexities. For example, mobility and accessibility are essential components to ensuring safe and equal opportunities for all sectors of society in a city [11].

Complexity is also influenced by the location of residences and places of employment. Residences and employment locations can be situated in peripheral locations and CSs can act as intermediaries and thus become places and spaces of interaction [12].

Location is a key component both for CSs and for chrono-urbanism. For CSs, location can be viewed in two ways. First, as a determiner of social capital, i.e., who will use the CSs; second, from a geographic point of view, users use CSs to improve their work-life balance, as CSs reduce stress from urban life and urban transport problems [13] and therefore helps one focusing on their mental wellbeing. Timed cities are dependent on proximity [6], which determines the (sufficient) number of opportunities individuals have to carry out activities within a time dependent catchment area that is accessible mainly by active traveling.

Essentially, location plays a key role for the success of both CSs and the timed city concept. This brief overview has shown that in relation to location, high urban density and accessibility are key components for CSs and timed cities to work well together.

The success of both CSs and the timed city concept heavily depends on their location. This concise summary has demonstrated that urban density and accessibility are crucial factors for enabling CSs and timed cities to effectively collaborate with each other. In general, a highly urbanized and accessible location would provide favorable conditions for the implementation of CSs and timed city concepts. Malta is a small island nation, and its urban areas are relatively densely populated, which may potentially support the integration of CSs and the timed city concept. However, the specific characteristics and challenges of Malta's urban environment must be taken into account in any assessment of the feasibility of implementing CSs and timed city concepts in the country.

3 Research Methodology

The research presented in this chapter is based on a set of semi-structured interviews carried out between October 2020 and January 2021. The interviews were held online due to the pandemic. Each interview included eight participants: two CS owners (CS), five traditional working space owners (TWS), and an entity representing employers (EE). CS owners discussed their experiences in Malta, while the other participants discussed their perceptions of CSs. The interview with the employers-related entity involved two participants.

Table 1 shows the code assigned to each participant, the location of their respective sites and the years that they have been established and operating in Malta. It is interesting to note that the two CSs were both established in 2017.

The interview questions were specifically designed for each type of participant (i.e., CS, TWS and EE) given their different backgrounds. In addition to the questions, the interviews included prompts to add to the discussion and facilitate the flow of the interviews. The CS participants were asked about their reasons for establishing their business in Malta and about the effect of the market on this. The TWS and EE participants were asked to provide their opinion on CSs, so that their perceptions could be identified. The interviews lasted between 30 to 40 min and were recorded for later transcription and analysis.

The analytical method was inductive. We used the grounded theory approach to identify themes from the transcripts. The following section includes the narratives and the relevant themes that refer to location.

We use GIS, specifically ArcMap 10.8 [14] to show the reality. By reality here were mean the reality on the map, which may eventually be used to test the outcomes on site. The analytical method uses two types of spatial analysis. The first spatial analytical technique is buffer analysis, which calculates the timed city concept (15, 20 and 30 min) over related distances. The buffer here is calculated using Euclidean distance, which means as the crow flies.

Code	Location	Years established
CS1	Valletta*	3
CS2	Birkirkara	3
TWS1	St Julian's	2
TWS2	Birkirkara	5
TWS3	Luqa	17
TWS4	Lija	10
TWS5	Paola	11
EE1	Floriana	72

 Table 1
 Description of the semi-structured interview participants

* The location of this CS is on the upper part of Valletta, is not in the outskirts

The second spatial analytical technique uses Network Analyst, is an application in ArcMap 10.8 dedicated to solve network related problems. In this case, we use it to produce an isochrone of the 15-min city, which covers a proximity of 500 m from the CS. Isochrones are specifically used to show a an area that can be reached in a specific amount of time from a certain starting point, in this case by walking [15].

4 Analysis

This section is divided into two parts. The first part refers to the narratives derived from the semi-structured interviews, the second part refers to the spatial analysis.

4.1 Experiences and Perceptions: The Narratives

The main themes that emerged in relation to location of CSs were: the site, accessibility, residential location and job type, and peripheral areas. The following narratives highlight the experiences of CS owners and the perceptions regarding CSs from TWS owners and the EE.

The site. CSs in Malta are located in the central area. Both CS1 and CS2 indicated that they chose the location of their CS based on its level of accessibility. CS1 is based in Valletta, which makes it highly accessible through different means of transport such as bus, ferry, bicycle, public transport, together with the possibility of travelling by car.

"We're in Valletta, so, by being here, which was a deliberate choice, we're at the hub of the bus network, and we've got the ferries, both sides and whenever they get, the fast ferry to Gozo, then that will be coming in, just down the hill from us." (CS 1).

The choice of being located in central areas is backed by the argument that public transport is not well connected with rural or peripheral areas and therefore does not enable the CSs to flourish.

"If we had chosen to be in Zurrieq or Qrendi [rural peripheral villages] ... people wouldn't have the option to come by public transport anywhere near so easily..." (CS1)

Accessibility. CS owners pointed out that location choice is determined by the small size of Malta. This enables individuals coming from all of Malta to make use of CSs as they are always in close proximity to their homes.

"...it becomes easy to appeal to a lot of the market just by having one location because nowhere is really far". (CS2)

This narrative, however, is counteracted by EE, who stated distance is not a problem but traffic is. Similarly, CS2 highlighted the waste of time spent travelling across Malta, which is definitely not linked to the distances but to being stuck in traffic.

"Well, actually even in Malta an hour's commute is not desperately uncommon, you know, I can save two hours a day if I do not travel." (CS1)

"The issue of traffic is that most of the time employees and employers generally use their cars ... I'm thinking of the Maltese and their love of cars." (CS1)

Considering this, many employees experience a high level of stress as they are in traffic on a daily basis. This is also related to the fact that most offices are in central areas. In addition, the fact that many people who work in the same area also creates problems in the availability of parking lots.

"... parking problems and all of what it actually entails trying to get into the center of Malta in the morning." (TWS2)

The owner of CS2, which is located in the central part of Malta, is aware of the traffic and parking problems close to the office. They said they were trying to find solutions to the limitations of parking and traffic as they were aware that registration with and use of the CS may be affected by traffic and parking issues.

"We've explored, tried to explore, possible solutions to the problem of parking locally... So, one of the things that we tried to do is identify parking hotspots and find a way, how to track these spots so that our clients can go on an app, for example, and, you know, see where they can [park]." (CS2).

Residential location and job type. The idea of using CSs depends on the employees and the nature of the company. TWS3 operates predominantly online and employs individuals from Gozo and people who live abroad, and had already started giving its employees the option to work from home or CS based outside their premises before the COVID-19 pandemic. For this company, it was more beneficial to keep its employees by giving them the option of working remotely rather than losing them because of the long time spent in traffic during peak hours.

"We started working from home with all our Gozitan employees, ... to avoid all the traffic and hassle... As soon as COVID hit, we asked all employees ... [to] start immediately working from home. We had already done all the changes necessary from an infrastructure point of view to be sure that all our employees could log into their systems and log into our servers and so on remotely." (TWS3).

The operation of CSs in Malta is also related to the type of job. It has been pointed out that some jobs cannot be carried out in a CS environment.

"For example, working in CSs may be a problem if the type of work requires a level of privacy to the employees and the customers." (TWS3)

"...if you're a divorce lawyer, for example, and you don't want to show everyone that you're divorcing, everybody's gonna see you" (TWS5)

Peripheral areas. CS owners feel that these spaces can alleviate pressure on traffic problems as their location can be peripheral.

"I think that these centers have a positive effect in terms of the load on the transportation infrastructure and so far as if companies were to decentralize their office space" (CS2).

The location of CSs is beneficial for people's health and wellbeing as people can work within a community. When working in peripheral areas, they will experience less stress every morning in traffic, and they can also experience the social connections and features of social capital in the community.

Some participants, however, stated that having CSs located in peripheral areas would not reduce the traffic problem, as it is found everywhere.

"...mobility, I still struggle to see how it has much of an effect on CSs ...because if it's not teleworking ...it still involves an element of transportation" (CS2)

Some are also unsure about the possibility for CSs to operate in peripheral areas, since even if the space is attractive to the employees as they do not need to travel to central areas, on the other hand, customers who have to travel to non-central areas might perceive this as inconvenient.

"Because of being central, and it's easy to go to different parts of the island, but also for customers to visit us." (TWS2).

4.2 Reality: Spatial Analysis

The spatial analysis in Fig. 3.



Fig. 3 Spatial analysis includes the buffer analysis and isochrones from the CSs. Drawn by the authors.

shows the buffer analysis and network analysis that has produced the isochrones. The buffer analysis shows the catchment area when departing from the CSs: in 15 min–500 m, 20 min–700 m, and 30 min–1000 m. The isochrones show the reachable areas when departing from the CSs in 15 min walking distance, which also covers 500 m. As the shape of the isochrones shows (Fig. 3), they are influenced by the micro-geography and the transport network.

Whereas the buffer analysis shows that a wider area can be reached within the set timeframes, the isochrones around the locations of the CSs indicate a more restricted catchment area. If individuals were to walk or cycle to the CSs, they would find barriers in relation to road infrastructure. This is evident from the irregular shape of the isochrone pattern, which indicates major roads as patterns, such as in the case of Mriehel, Birkirkara, and Pembroke (Fig. 3). The patterns that emerge in these cases are all along roads, e.g., Birkirkara and Pembroke, or the road acts as a barrier, e.g., Mriehel. Based on the authors' knowledge of the areas, these roads are mainly intended for car use. Infrastructure for safe pedestrian walkways and safe cycle lanes are minimal or non-existent. The reality here is that access to apparently accessible areas is actually still difficult due to poor infrastructure: as the timed city concept requires, infrastructures should be mainly devoted to active mobility.

5 Discussion

The case study used in this research, Malta, shows that location plays a major role when considering the applicability of CSs and the timed city concept. Additionally, the micro-geography is crucial in certain instances for the use of the CSs, especially in cases where there are topographical or infrastructural changes. Perhaps, these details at a very small scale emerge because of the small size of the study in question. To our knowledge, micro-geography in this context, and together with the idea of timed cities, has not been explored academically, yet. Location has been certainly looked into, e.g. [3, 9, 12], but not from a micro-geographic perspective.

This research resonates with the literature in terms of the narratives that emerge in association with more generic references to location. For example, when talking about the site, central areas are better connected than rural or peripheral areas, as discussed in Di Marino et al. [3]. This connectivity is particularly associated with accessibility as is also referred to in Di Marino et al. [3], which also looked into the location of public transport infrastructure. Furthermore, mobility and accessibility are associated with the stress or the feat of reducing stress in the daily commute when using CSs, as is supported by Weijs-Perrée et al. [16]. In this research, this argument of stress emerges in relation to both CSs located in a central area and CSs on a peripheral area. According to Mariotti et al. [17], peripheral areas have a major role in improving the health and wellbeing of employees.

6 Conclusion

This research looked into the role of location when considering the applicability of CSs and the timed cities concept. To do this, we carried out semi-structured interviews with CS owners, traditional workplaces, and an employer entity. The narratives revealed the realities of CS owners, and the perceptions on CSs of traditional workplace owners and of the employer entity. We also used GIS to show the reality as displayed on a map, which was backed up by the authors' knowledge of the mentioned areas.

The findings resonate with the literature when referring to the role of location and the associated link with CSs and timed cities. Interestingly, the concept of microgeography emerged indirectly from the narratives and specifically from the spatial analysis. To our knowledge, this concept has not yet been directly investigated in the context of CSs and timed cities, especially with reference to island states.

We conclude this chapter by formulating a set of recommendations for future research. First, studies are needed that investigate multiple variables, including economic aspects, location of services, wellbeing, and accessibility by alternative modes of transport, such as public transport. Second, further investigation is needed on the role of micro-geography in the links between CSs and timed cities. This can be explored within the case of an island state but also in comparison to other case studies on the mainland.

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