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Article

The dynamics of collaboration and knowledge sharing in co-working spaces: The study of Istanbul case

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ABSTRACT

The new working practices, which include individualised and freelance employment options, affected the nature of workspaces and transformed them into more flexible and less dependent on distance and fixed places. Accordingly, co-working spaces (CWSs) are the new platforms that initiate an environment for interaction between different groups or individuals in a community. This research aims to represent the development process and location patterns of CWSs in İstanbul and the dynamics of collaboration and knowledge flow between individuals or firms in CWSs. In this context, 20 semi-structured interviews were conducted with users from different sectors, managers, and founders of spaces. By presenting the results of the in-depth interviews, the research argues that interaction among co-located agents is related to the motivation and the requirement for collaborative action. The willingness and demand for collaboration of co-located agents are especially more prominent in the early stages of a business formation that can result from cost reduction or in the start-ups that are open to new business opportunities and meet investors. The physical environment and social community platforms provided by CWSs can act as an intermediary in the first interaction, yet trust between agents is also crucial for the continuity of knowledge flow that can contribute to innovative processes.

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INTRODUCTION

Information and communication technologies lead to detachment to fix job locations and flexibility of workplaces, yet economic actors still require space to develop more meeting opportunities for professional and social connections (Moriset, 2014; Mariotti et al., 2017; Durante & Turvani, 2018). The emergence of co-working spaces (CWSs) has provided a flexible solution, especially for freelancers, new ventures, entrepreneurs, and small

firms that accommodate a shared workplace for interaction and knowledge sharing with others (Bouncken et al., 2020; Maritotti & Akhavan, 2020). Moreover, it is claimed that this spatial alignment might have positive effects on the formation of social network linkages which can enhance creativity, knowledge exchange, work satisfaction, innovation capacity, and entrepreneurial performance (Spinuzzi, 2012; Moriset, 2014, Capdevila, 2015; Bouncken & Reuschl, 2018a; Bouncken et al., 2020).

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The number of CWSs has increased significantly, and their role in the innovative environment has become a crucial issue. Although co-working is becoming more prominent, the concept is relatively new, and some gaps still need to be filled theoretically and empirically (Mariotti & Akhavan, 2020). The potential of CWSs and their dynamics for innovative processes are mostly unclear in the literature. Few studies deeply examined the contribution of CWSs to innovative processes and revealed the importance of social interactions for innovation (Capdevila, 2014; Capdevila, 2015; Bouncken et al., 2018b; Bouncken et al., 2020; Mariotti & Akhavan, 2020; Bednář et al., 2021). However, there are still some contradictions regarding the participation of CWSs in knowledge flow and collaboration processes and the required conditions for these innovative actions. Moreover, it is also crucial to understand how the behaviour of economic entities – especially individuals – affects the conditions for an innovative environment.

The research presented was developed from a descriptive phase focused on comprehensively understanding CWSs as a “new model of work” in Istanbul. From the point of view established under the background, this study aims to reveal the dynamics that facilitate interaction between individuals in CWSs and the effects of these conditions on the transmission of knowledge among co-workers and collaboration processes. Subsequently, intending to resolve the potential of physical co-presence among co-workers, the article contributes to bring an understanding of different patterns and configurations in knowledge-sharing practices in a non-hierarchical spatial work setting (Bouncken et al., 2020).

This article is structured as follows. Firstly, there is a conceptual discussion of CWSs and their positions on knowledge flow, collaboration and innovation processes considering the literature review. Secondly, the methodology and data source for empirical qualitative research are explained. Thirdly, findings from the interviews are revealed and discussed with the consideration of the development process of CWSs in Istanbul and the dynamics of interaction, collaboration and knowledge flow among the co-located members of CWSs.

KNOWLEDGE FLOWS, COLLABORATION AND CO-WORKING SPACES

Changing business patterns with the development of the knowledge economy, individualised labour market, and flexible freelance workforce need a new form of space in this fragmented professional context. CWSs which are developed with this motivation, are defined as local workplaces for professionals (mostly freelancers, working in various degrees of specialisation) where equipped office amenities and resources are shared for a fee, and it is claimed

that a flexible environment with diverse organisations and individuals can enhance collaboration within the co-working community (Capdevila, 2013; Gandini, 2015; Sperindé & Nguyen-Duc, 2020).

The first official CWS was developed by Brad Neuberg in 2005 in San Francisco. In 2013, more than 100.000 people were members of approximately 3000 CWSs worldwide (Capdevila, 2015). In 2018, the number of CWSs reached nearly 18.700, and the number of members was approximately 1.650.000 (Deskmag.com, 2022). The Global Coworking Unconference Community forecast in 2022 is 30.432 for CWSs and 5.1 million members worldwide (GCUC, 2022). Since the first foundation of official CWSs, the general aim has been to improve efficiency and eliminate social isolation created by the home-office environment (Capdevila, 2013).

Economic geography literature particularly emphasises the importance of proximity in localised learning and knowledge flows between stakeholders. Knowledge is generally classified as codified (explicit) and tacit knowledge (Polanyi, 1966). Codified knowledge can be easily shared, yet tacit knowledge is stickier and more challenging to be expressed or transfer through distance. For this reason, it is necessary to provide geographic proximity and co-location for knowledge transmission and close interaction between stakeholders. The new knowledge is consequently profoundly embedded in the geography, and processes for innovation require knowledge flows (Marquis & Battilana, 2009; Bathelt & Cohendet, 2014). Geographical co-locations can facilitate the share of tacit knowledge that may result in the development of new knowledge.

Innovation can be defined as the materialisation of new ideas into marketable products and services (European Commission, 1995). One of the processes in knowledge formation is the creation of new ideas with the help of interactions in a local ecosystem. The innovation capacity depends mainly on the flow of information between different actors rather than considering innovation as a process that runs in the R&D departments of organisations. Cluster theory emphasises that knowledge creation can be constituted within the agglomeration of firms. On the other hand, Florida (2002) claims that talented and creative individuals are the factors that trigger the knowledge formation process.

Nevertheless, the innovative capacity depends mainly on the flow of information between different actors. External sources of information and knowledge are also critical for developing innovative capacity. Knowledge-based development and innovations are a process of interaction with local and remote linkages. However, trust and frequent face-to-face interactions are essential to exchange processes that involve knowledge transmission and collaborative actions between partners (Capdevila, 2014).

From this point of view, it is argued that CWSs serve as interaction platforms between creative individuals and innovative firms and maintain relations between people working in different professions through the aggregation in place and events that procure new social connections between community members (Lee et al., 2004; Fuzi, 2015). Generally, CWSs can encourage inter-firm relations that can be classified as mutual learning, trust, and collaboration between professions formed by networks. Besides, users forming new initiatives might reinforce their innovative capacity and entrepreneurial performance. Moreover, collaborative activities between economic agents can facilitate decreasing operational costs of learning from each other or having access to knowledge (Capdevila, 2014).

For this reason, it is crucial to create environments that will help to constitute such information flows and support innovative processes through the interaction between different actors. The places that mediate people to meet can facilitate the interaction between different individuals, thus contributing to local innovation processes. Knowledge and information sharing can promote a “local buzz” in these places (Bathelt et al., 2014). Elements that unite these actors can be permanent and temporary environments or events that provide interaction. From this point of view, Capdevila (2015) analyses the innovation process in CWSs according to the concepts of places, spaces, events and projects. The related research also emphasised the importance of a multi-scalar perspective that considers firms, communities and individuals together. The role of CWS was demonstrated as an intermediary between creative individuals and innovative firms.

Moreover, some studies claimed the importance of the livelihood of cities in the localised innovation processes by attracting creative individuals and innovative knowledge-based companies (Florida, 2002). Further research has argued the effect of community formation on bridging creative individuals and organisations to each other (Lissoni, 2001; Coe & Bunnell, 2003). Although these inferences emphasise the necessity of different forms of working areas within the new occupational groups, mainly referring to the rise of the creative industries and new media sectors (Florida, 2002), the new spaces created for this flexible nonstandard job definition with uncertainty have also been criticised within the possibility of turning into a “bubble”. CWSs can provide micro-clusters for start-ups, and freelancers, yet as Moriset (2014) claimed, the bust of CWSs (co-working bubble) may be promoted by the high rise in new property development and resulting economic crisis in the real estate sector. Bouncken et al. (2018b) asserted that CWSs could also create conflicts, distrust, stress, and exploitation, which can distractingly affect the entrepreneurial capacity of individuals that may suppress the benefits of CWSs.

DATA AND METHODOLOGY

Through research carried out since 2019 (Kozaman et al., 2019), the geographical distribution of CWSs, individuals' motives, and the dynamics of collaboration and knowledge flow processes in CWSs were investigated through a qualitative, inductive research perspective. This study aimed to provide an in-depth understanding of the role of space in knowledge flow and collaboration strategies. The research defined CWSs as shared workplaces with open space desks, meeting rooms, private offices, facilities and services managed by co-working businesses. CWSs are determined according to the concept of “community of practice” as Wenger Capdevila (2013) defined:

- Spaces that are open to the general public
- Spaces that let information and tools sharing among members.

According to this definition, secondary data were used from internet browsing (Google Maps search and spaces' web pages) to obtain a database of CWSs in Turkey and Istanbul. CWSs designed as an emerging business service provision model in Turkey should be studied in detail to understand the dynamics created by the spatial proximity of different professions within the framework of developing economies. Istanbul, Turkey's financial and cultural centre, is one of the major cities in which creative industries, freelancers and CWSs are concentrated. For the illustration of co-working practices, this research conducts descriptive and qualitative methods as follows:

- Location preferences of CWSs: Agglomeration patterns according to the spatial distribution of CWSs in Istanbul were revealed by density analysis using ESRI ArcGIS Pro software. Point density analysis was used to calculate the number of CWSs per-unit area according to the distribution in Istanbul from point features (ESRI, 2022). The spatial location choices of these initiatives are also influenced by the strategy that aims to create innovative environments for their continuity in the context of a strategy that focuses on specific creative audiences. Therefore, differentiations depending on the location selection will also be examined within the scope of the study.
- Semi-structured in-depth interviews: 20 interviews with managers and members were conducted in different CWSs in Istanbul since 2019. Owners and managers are asked to procure information about the motivations, location choices, underlying reasons for opening CWSs and tools used for maintaining interaction and collaboration among participants. Members of CWSs are asked to reveal information about the effects (benefits) of CWSs for networking, innovative capacity and information- flow between members.

DEVELOPMENT OF CO-WORKING SPACES IN TURKEY

After the explosion of the co-working phenomenon worldwide, it has been observed that low-rent shared offices and CWSs have been developed in the metropolitan areas of Turkey in a decade. In 2019, the number of CWSs obtained from secondary data was 127 in Turkey (Kozaman et al., 2019). Currently, the number of these spaces reached nearly 227. Since then, CWSs have been mainly concentrated in Istanbul (%73), Ankara (%9) and Izmir (%6) (Figure 1).

Even though most CWS entrepreneurs do not think that the market is oversaturated, they claim that there are too many CWSs and competitors. Before the CWSs, in addition to rentals, freelancers' office needs are met by different options like cafes and home offices. Although this trend continues, the efficiency and sustainability of usage can be questioned due to these places' working environment conditions (noise, poor internet connections, uncomfortable physical conditions).

When the change is considered from 2019, it is observed that the co-working companies that have established branches in more than a place have started to open new ones in different cities, and the strategy of expanding towards new centres in Istanbul has increased. In addition, to benefit from the advantages of different locations, some companies open more than one branch and enable users to benefit from all of them for flexibility and mobilisation.

Many CWSs are being opened with the main idea of bringing entrepreneurs together and providing a support group and office space for these entrepreneurs to grow. Furthermore, the development of CWSs is also associated with the economic crisis and the need for quiet and calm

environments for freelancers to work more efficiently rather than being isolated at home offices. Different answers were given from the interviews with executives and entrepreneurs of CWSs about the factors affecting the establishment of CWSs in Turkey. Some have emphasised the convenience that CWSs provide:

“Working in a more corporate environment, away from the noise, comfortable places where security is not a problem... Indeed, motivation to make a network also affects demands for CWSs. These areas also provide management support and offer prestigious spaces”.

Interview with CWS Sales Team Leader

On the other hand, in some interviews, global trends and the situation of creative sector employees in Turkey have been mentioned as the motivations for CWS development in Turkey. Furthermore, CWSs are also mainly convenient for reducing operational costs and asset purchases.

“Freelance, young people working in the creative industry are not people with much money. Another factor in coming to these areas is to find customers with the help of networking. On the other hand, working in CWSs is a new trend produced by the capitalist system. I also wonder how long this trend will continue”.

Interview with CWS Community Coordinator

CWSs provides the opportunity to make a quick start without investing in physical assets. Networking activities are generally referred to as a prioritised reason for the preference of CWSs, with new business opportunities or protection from isolation through interactions. Moreover, some companies and departments have chosen to take place in such areas to eliminate the burden created by office expenses and prefer to purchase all office facilities and services as an external resource. On the contrary, some

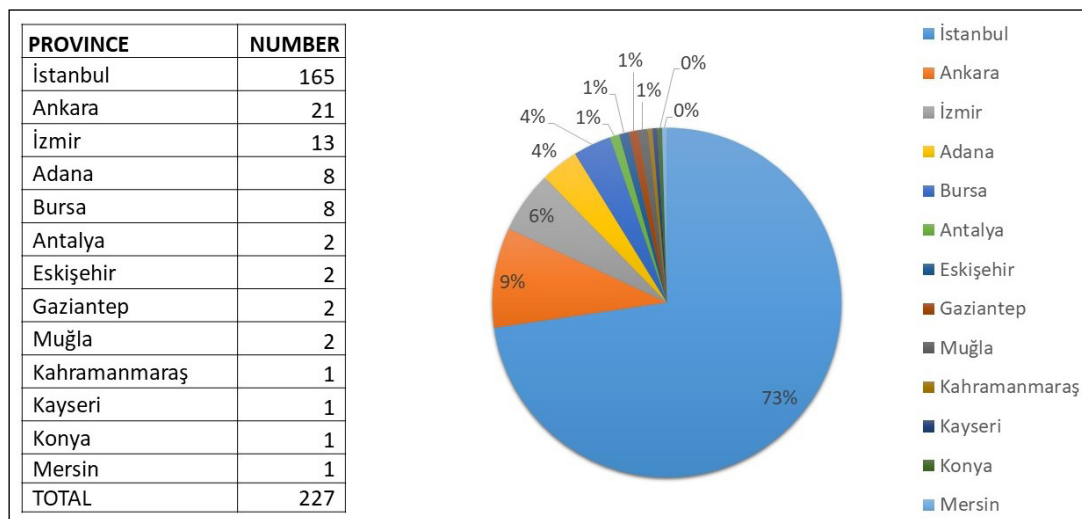


Figure 1. Distribution of CWSs in Turkey (in February 2022). Source: Data were obtained from internet browsing by the author.

global companies that locate their departments in CWSs, prefer not to be known as a user with the concern of loss of reputation related to the idea that the company is incapable of having its own space.

Spatial Distribution of CWSs in Istanbul

Istanbul approximately, with 16 million population, is the city with the largest share of GDP (30.1%) in Turkey, where major economic activities are concentrated.¹ As well as being the country's financial centre, the accumulation of the creative industry and freelancers led to the formation of the first CWSs in Istanbul in 2011.²

As mentioned, from the data obtained by internet browsing, Istanbul (165 CWSs, %73 of Turkey) stands out as the city with the highest concentration of CWSs in Turkey. It may also be possible to compare changes in spatial distribution from the observation in 2019 to the present. When the distribution of CWSs is examined, it is observed that there is a high concentration in specific areas such as Şişli (%22), Sarıyer (%11) and Beyoğlu (%9) in 2019. Nevertheless, some of the previously prominent districts have changed over three years. For example, the number of co-working spaces has increased from 5 to 16 in Beşiktaş (%12) and 8 to 16 in Kadıköy (%12). The quantity also expanded prominently in Kağıthane (%10) and Ataşehir districts (%10) during this period time (Figure 2). On the other hand, in Beykoz-Kavacık, some co-working companies closed their offices due to low demand.

The distribution of CWSs that can be followed in Figure 3

presents an agglomeration pattern along Büyükdere Avenue in the central business district (CBD), and this extension proceeds to Beyoğlu, one of the cultural centres of Istanbul. On the city's south-eastern side, the site selection pattern reveals two prominent places: Kadıköy and Ataşehir Districts. While Ataşehir continues to develop as a financial centre, Kadıköy stands out as an area where the sectors of creative industries and cultural activities tend to cluster, similar to Beyoğlu District (Enlil et al., 2011).

Some factors determine the location choice of CWSs. The vision of the CWS Company, real estate values, accessibility, and reaching different types of potential users come to the fore as essential criteria. It can also be claimed that CWSs, which aim to create a local community, seek to bring different types of users together. It is assumed that the environments which have the potential to create collaborations are also crucial for the continuity and success of CWSs.

According to the current location choices and semi-structured interviews with expansion managers of CWSs, it is possible to evaluate CWSs in Istanbul in three categories:

- CWSs located in CBD
- CWSs located in Cultural Districts
- CWSs located in sub-centres

CWSs Located in Central Business Districts

The CWSs in CBD is generally used by freelancers, small-scale companies from creative sectors, entrepreneurs, self-employed professionals and start-ups in different

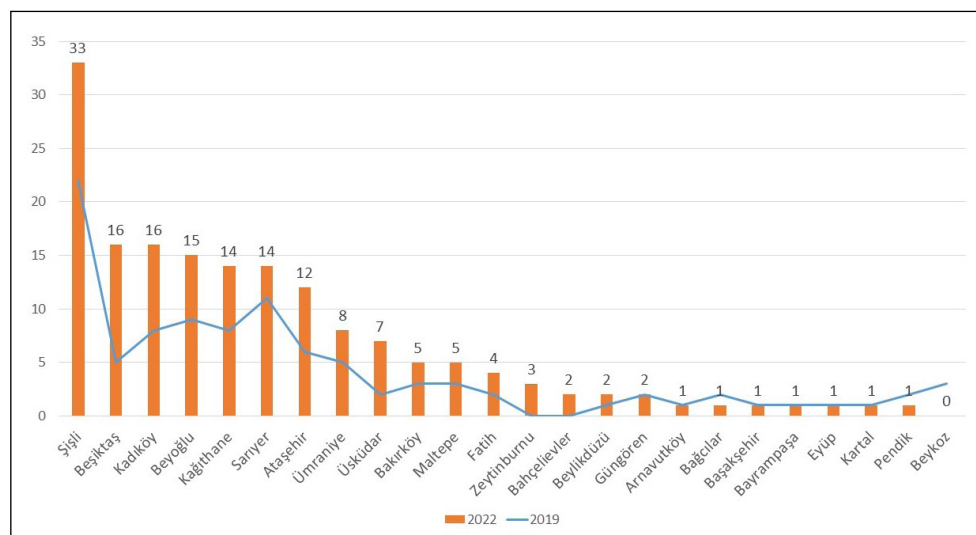


Figure 2. Distribution of CWSs by districts in Istanbul (in February 2022). Source: Data were obtained from internet browsing by the author.

¹ Turkish Statistical Institute (2022, March 23), Gross Domestic Product by Province 2020, Retrieved from <https://data.tuik.gov.tr/Bulten/Index?p=Il-Bazinda-Gayrisafi-Yurt-Ici-Hasila-2020-37188>.

² Döm, İ. (2018), Coworking, Deloitte Times, Retrieved March 23 2022, from <https://www2.deloitte.com/content/dam/Deloitte/tr/Documents/the-deloitte-times/Coworking.pdf>.

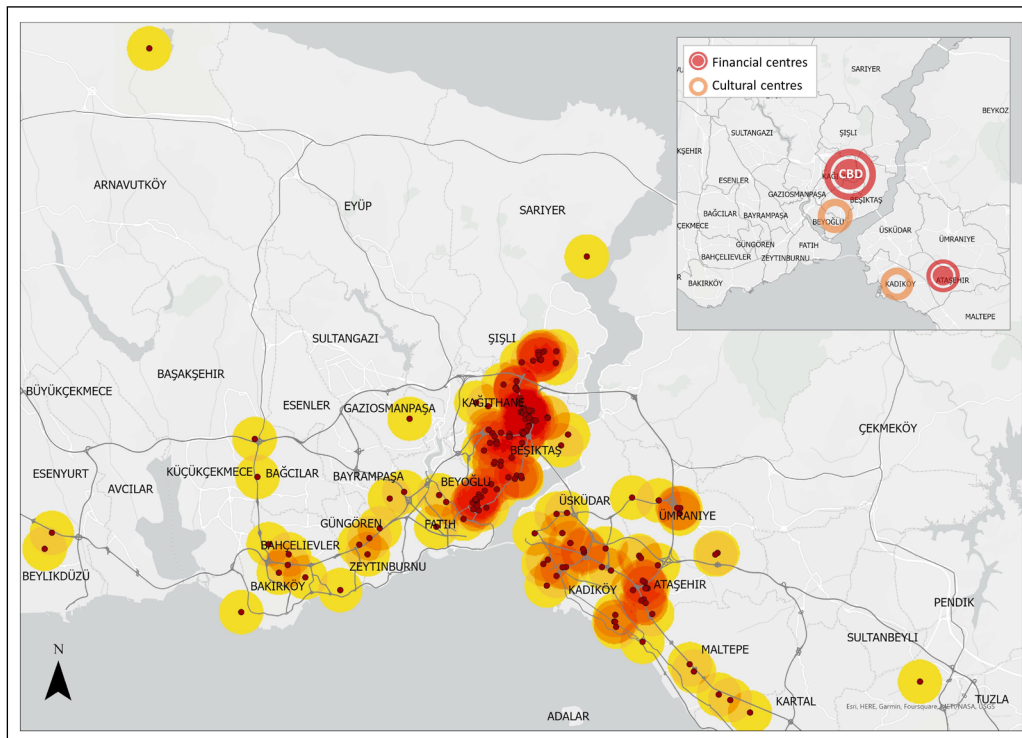


Figure 3. Spatial distribution and density of CWSs in Istanbul (in February 2022).

professions. Simultaneously, sales offices or service departments of large firms which prefer to use CWSs, choose to locate in these areas. These workspaces in the financial centre aim to gain new customers with the help of the existing agglomeration and the prestige that the space provides.

By renting larger spaces in multi-storey buildings and skyscrapers, it becomes possible to reach individual and corporate customers. In addition, some CWSs here have made spatial location selections that will provide cooperation opportunities, especially to create a synergetic environment where universities, small-scale companies, and start-ups come together.

CWSs Located in Cultural Districts

Especially for freelancers in creative sectors, it is crucial to be in an environment surrounded by vibrant cultural activities and agents involved in cultural industries with common economic interests. Beyoğlu and Kadıköy districts can be defined as neighbourhoods with various cultural facilities and events. Firms and individuals working in creative sectors are also concentrated in these centres of Istanbul (Enlil et al., 2011). Furthermore, by the existence of CWSs, the agglomeration of creative individuals is conceived as a gentrification tool for the districts subject to transformation projects. One of the examples of this case is the Bomontiada in Şişli, which involves the transformation of an old beer factory into a cultural event centre. A CWS located here is seen as a tool for the social vitalisation of

the place and is induced to make site selections in this area.

CWSs Located In Sub-Centres

Most of CWSs chose to locate in the financial centres of the city to benefit from the advantages of the existing structure. Besides, there is also a strategy to choose sites in the sub-centres. Some CWS entrepreneurs envisioned spreading all over Istanbul and intended to open more than one branch in each district. The CWSs in the sub-centres are primarily a result of this expansion and a budget reduction strategy for users who still need formal office areas. Moreover, some co-working companies prefer to be competitive in the market by following the strategy of spreading and gaining more individual customers. Especially this spreading strategy serves as a solution for users who need virtual offices which offers a business address, phone number, and access to office facilities and services such as meeting rooms and secretarial without renting a physical office. Another reason for location choice in sub-centres is the new real-estate projects that try to lease their office spaces. The project owners see CWSs as attraction sources for new customers and a facilitator of a more vibrant environment. Reasonable rent prices, incentives of the real-estate project owners, presence of some leading companies can induce the site selection of CWSs.

Dynamics in Collaboration Practices and Knowledge Flow in CWSs

Spinuzzi (2012) defines CWS as a communitarian organisation with good neighbours allowing collaborations

resulting from relations through space. These working environments can provide opportunities for interaction, which improve entrepreneurial self-capacity. It is possible to refer to different dynamics contributing to collaborative processes in CWSs. Some users prioritise communication opportunities, and co-working businesses must satisfy the demands of skilled labour to create this environment. Informal face-to-face relations are referred to as the basis for further formal partnerships. The ecosystem that CWSs offer is especially crucial for start-ups and young entrepreneurs to establish a connection with future project partners or investors. Figure 4 represents the opportunities and conditions that CWSs create for relations between co-located agents.

Motivation and Requirement of Networking

The contribution of CWSs in supporting innovative platforms is generally dependent on internal features related to the action of co-working managers and users' motives regarding the requirement for interaction with different people. For example, some CWSs consist of shared or individual offices where users are prone to work without any interaction. Moreover, some users are unwilling to work in an open environment, claiming that, in contrast to the main idea of serving quiet places for workers, open areas in CWSs are not convenient for concentration due to human mobility and noise.

“We are a company established in an incubator centre as a spinoff. After some years, we preferred to locate in a CWS. It is difficult for me to concentrate in the common working area. We have a private office here, but it is small

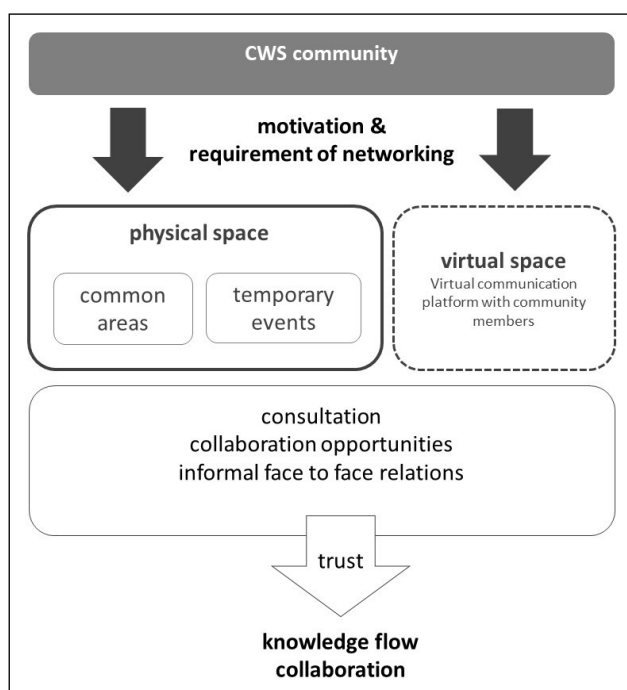


Figure 4. Different opportunities for interaction in CWSs.

and not arranged according to our needs. Especially software developers and process developers need a quieter environment. Confidentiality is also important. The marketing and sales units can stay here, but it would be better for us to go to a separate private office”.

Interview with CWS Member, Industrial Engineer in a Software Development Company

It is observed that the co-working spaces, which work as an intermediary to bring companies together, create a critical talent pool that's especially beneficial for new initiatives and entrepreneurs. However, it is comprehended that due to their experiences, some companies prefer to choose remote office areas with low interaction inside CWSs due to the risk of losing talented employees to other firms. On the contrary, some users support the claim that there are different areas of interest for everyone since there are individuals from many different sectors. It is mentioned that even instant social interactions (developed during a coffee or smoking break), such as informal knowledge sharing and consultation, are valuable. Collaborative actions and knowledge sharing based on iterative exchange procedures established by frequent, face-to-face transactions between agents will contribute to the absorptive ability of both sides (Capdevila, 2014).

However, as Bathelt and Glückler (2011) mentioned, networking to access information flows can be problematic sometimes. Companies eager for social interactions can enjoy the benefits of community resources and external knowledge for competitive advantage, yet can hide their resources from the group. Besides, interdependence between co-workers and closed communities can also induce a lock-in effect (Maskell and Malmberg, 2007; Bathelt & Glückler, 2011). Places, where there is a long-term co-existence, can foster an atmosphere of trust, but diversity and dynamism are also crucial for developing innovative capacity.

“After a year and a half of working in a CWS with a creative hub vision, I found that being in CWS made some restrictions and did not help me anymore. It would be best to have your own office when you reach a certain level. After a while, it can be troublesome to talk about your financial situation and projects in public. You did not want everyone to hear everything about your company”.

Interview with a Designer in CWS

On the other hand, firms or individuals in a community can also benefit from being close to competing companies. Although some firms do not intend to collaborate and share developments with others, being co-located in a CWS provides knowledge flows about new developments or changes based on social interactions and personal relations that support the development of “local buzz” (Bathelt & Glückler, 2018).

Space as an Incubator for Collaboration and Knowledge Flow

Some of CWSs prioritise the creation of a community in which interaction and information sharing take place. Social and professional events are the key activities that are used to boost the process of community formation. Furthermore, as a business strategy, some of CWSs use the community as a local specialised talent pool for their projects:

“Our members are generally individuals who work in the sectors of creative industry, technology development, engineering and social sciences. Our goal is to create a community, and this place has two different pillars. One is a strategic design studio, and the other is a creative hub. We are trying to employ people from the CWS community in the creative hub. We have two kinds of activities to encourage them to be here. One is social events, and the other is professional events. Our social events include parties, cinema days, barbecues, and outdoor sports. Professionally, we organize feedback sessions and workshops called 101 Class. Everyone has to give a lecture about what they can teach to other community members”.

Interview with CWS Community Coordinator

Due to the financially limited budgets, especially for young entrepreneurs who are starting a new business, it is beneficial to be in a creative hub to enable solutions for outsourced works with the help of a community. There are different advantages of working in an open office area in CWSs. These advantages can even result in finding solutions to daily problems from other members working in different sectors. Daily knowledge-sharing activities may also result in tacit knowledge-sharing with the formation of trust between firms or individuals. Each co-worker has specific skills, and collaboration with other users can reinforce their capabilities. CWSs provide the necessary intermediation for networking and a physical environment for working.

“Taking part in a CWS that works as a creative hub boosts my motivation. We experience problems in our daily work routine, and the person at your side desk can help you to solve that problem right away. For example, I met with an academician. He supported me in controlling my business account and budget with computer software. I am still using it. He did not charge me. One of the graphic designers made illustrations for the advertisement of my products. Everyone is doing their work at their desk, but there can be something that inevitably supports you”.

Interview with the Founder of a Design Company in CWS

Within CWSs, interaction and collaboration between users are reinforced by the help of commonplace sharing,

face-to-face relations and working under the same institutional structure that reduces cognitive distance. The interviews with CWS sales managers revealed that some firms are eager to collaborate and demand to be physically close to the companies they want to interact. The existence of proximity to construct trust between agents helps to solve any problems that may arise in the collaboration process.

“Some companies request an office unit to be allocated on the same floor or nearby the companies they want to interact with”.

Interview with a Sales Manager of a CWS

CWS organisations and users have experienced the struggles of not being together due to the pandemic. In such an environment, new strategies are developed that encourage the users to stick to these places with various remote creative activities (online yoga courses, online craft hobby activities, etc.). Moreover, virtual community platforms established by CWSs enable the connection and interaction with other users, thus promoting the generation and maintenance of “local pipelines”, which can contribute to the circulation of instant knowledge and collaboration opportunities. As Boschma (2005) emphasised, geographical proximity can be compensated by cognitive, organisational, institutional and social proximity that can be established through networks and common institutional systems. Although it is a market strategy to ensure the continuity of the business, the activities and virtual platform of CWSs can mediate to ensure the proximity between users to create a community.

CONCLUSIONS

This paper assumes that CWSs can operate as a trigger for the emergence of innovation, collaboration and knowledge flow by sharing the same places that provide interaction between users. Activities and events for establishing relations are also crucial for forming communities. In particular, co-working spaces constitute the environment for knowledge flows established by opportunities created by face-to-face interaction. Following the findings of Clifton et al. (2019), it is seen that these interactions can also occur on an informal basis.

As mentioned, some CWSs emerge as intermediaries for developing partnerships and collaborative projects among co-workers. In some cases, sharing the same space ensures spontaneous tacit or complementary knowledge sharing. Co-working managers, who have more inclusive knowledge of individuals' professions, can mediate with users in search of specific talents and capabilities for their initiatives. Moreover, virtual platforms also provide the opportunity for instant interaction for further possibilities in collaboration. The use of shared spaces and activities in these CWSs can facilitate the acquaintance of firms and

influence the formation of trust between agents and social networks.

It is reasonable to suggest that there is a divergence between the requirements of different co-workers that are a part of CWSs. For example, the networking needs of freelancers, entrepreneurs, and start-ups can be more critical for co-workers with regular jobs. Moreover, some users only seek a physical space that prevents isolation or avoidance the burden of severe office expenses. At the same time, creative young entrepreneurs require the support of a community, considering the need for complementary knowledge and professional relationships with individuals or firms from different sectors to develop new ideas. The need for network building also shapes the environment of CWSs by pulling the attention of investors where creative agglomeration takes place. The willingness to interact according to the needs of firms or individuals can be another determinant in addition to accessibility, budget limitations or facilities in choosing the proper CWSs to work.

CWSs can provide a connection between individuals and firms that can boost the potential of innovation with the help of local or global external sources. Yet, there are concerns referring to the criticism that small businesses can be low value-added with a lack of innovation attempts. Moriset (2014) considers that the motivation of small firms is being flexible, and they are not willing to innovate or expect any growth in their businesses. Moreover, many freelancers and creative entrepreneurs have low incomes or are employed at affordable prices and are often faced with the uncertainty of the continuity of payments. From this point of view, further investigations may include the analytical evaluation of collaborations in CWSs that are concluded with innovative processes to understand whether or not knowledge exchange between agents contributes to innovative capacity.

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