



THE IMPACT OF COWORKING SPACES ON KNOWLEDGE
SHARING, INNOVATION,
AND SUSTAINABILITY FROM THE PERSPECTIVE
OF THE MICRO-CLUSTER MODEL

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Abstract

Purpose. This study aims to determine the impact of coworking spaces (CWS) on knowledge sharing, innovation, and sustainability. Furthermore, it aims to determine whether Tirana has the necessary infrastructure to implement the micro-cluster model, which provides dynamics like industrial clusters but on a micro-level.

Design/methodology/approach. The data collection methods include semi-structured interviews and in-field observations of the events organized by CWS in Tirana. The qualitative research follows the exploratory design approach.

Findings. The research findings are in line with previous international studies. They show that the impact created by CWS in Tirana in terms of knowledge sharing and innovation is quite positive by encouraging new business ideas and new innovative projects. However, findings show that CWS business model sustainability in Tirana is still unclear and under development. Factors like, for example, homogeneity and diversity in terms of the composition of the members of CWS play an essential role in determining the business sustainability of CWS.

Practical and Social implications. Regarding the implications of CWS in knowledge sharing, innovation, and sustainability, CWS are encouraged to be more selective in terms of the composition of members to ensure the longevity of the positive attributes provided by this new form of working. Therefore, CWS are encouraged to create clustered structures. The background from member to member needs to be complementary rather than too diverse. However, a certain degree of diversity is needed in CWS, which makes the process challenging to find the balance between diversity and homogeneity.

Originality of the study. This study follows a previous one applied in Tirana, but this time it considers the micro-cluster perspective which makes the study unique. Therefore, the research model and the research findings provide this study with a distinctive appeal.

1. Introduction

The phenomenon of coworking spaces (CWS) started around 1995 in Berlin, but today's current model emerged in 2005 in San Francisco. Compared to more developed societies, in developing countries like Albania, coworking remains a new phenomenon. Capdevila (2013) emphasizes that CWS-s create dynamics like clusters in terms of the professional development of the members. Thus, CWS-s encourage knowledge-sharing and innovation. In addition, under the proper conditions, they create a sustainable business model that provides value to society. Cities like Barcelona are seeing results in the professional development of CWS members, by arranging dynamics like cluster formation but at a micro-level. Hence, not focusing on the cluster formation of big international companies, instead of using the same model for developing such CWS-s that are in proximity together, which make possible the creation of professional benefits to its members like knowledge creation, innovation, creativity, and sustainability.

Tirana offers a good environment for the development of such a model, especially due to the closeness that CWS have with each other. Most of CWS-s are in the central area of "Blloku", which is the most vibrant part of the city. The composition of CWS in Tirana comes from professionals in the field of digital marketing, programming, design, freelancers, and self-employed professionals in general.

With regards to Tirana, and similarly to the Western Balkans, the literature at hand currently lacks studies regarding the impact that CWS-s have on knowledge sharing, innovation, and sustainability. Moreover, the micro-cluster model has never been used in the context of Tirana.

Tirana has been declared the European Youth Capital for 2022¹. This reputable award came with the responsibilities of empowering youth organizations where start-ups and CWS play a crucial role. Also, Tirana has been receiving much attention lately from digital nomads, which consider the city as an excellent place to settle for a specified amount of time (Demaj et al., 2021).

This study strives to determine the impact that CWS-s have on knowledge sharing, innovation, and sustainability in the context of Tirana. Furthermore, it aims to determine whether CWS-s in Tirana have the necessary tools to develop the micro-cluster model like developed cities such as Barcelona (Capdevila, 2014). Hence, this research investigates the phenomenon of coworking in Tirana and whether Tirana can implement the micro-cluster model as recommended by Capdevila (2013). Four research questions are developed for this study:

¹For more information: (https://youth.europa.eu/news/tirana-european-youth-capital-2022_en)

- i. How do CWS-s in Tirana affect knowledge sharing, innovation, and sustainability?
- ii. What external and internal factors can accelerate or slow down the increasing trend of new CWS-s in Albania?
- iii. How do internal and outer factors affect the process of a sustainable business model for CWS-s in Tirana?

2. Literature review

Nowadays, western economies rely on industrial clusters to facilitate economic development (Pohulak-Żiołędowska, 2008). Electronics in Silicon Valley, high fashion in Milan, and the banking industry in Frankfurt are just a few examples of clusters worldwide (Rosenfeld, 1997). The business cluster concept was first introduced by the well-known economist Michael Porter in 1990 (Porter, 1990). Porter emphasized that the economic development of the modern economy would be dependent on innovation and competitive advantage instead of the classic factors of production, land, labor, and capital (Porter, 1998). In Europe, the leading economic model is oriented toward clusters (Sternberg & Litzenberger, 2004; GTAI, 2018).

Clusters can be defined as the geographic concentration of companies, distributors, producers, and employees in a particular region. The economics of agglomeration explores the benefits that arise when economic activities are clustered together in a particular geographic area. Clusters and the economics of agglomeration are often studied in the context of regional economics, industrial organization, and economic geography (Tödting & Trippel, 2005). Scholars like Michael Porter have extensively discussed the competitive advantages that clusters can provide to firms and regions (Porter, 1990). According to Wennberg and Lindqvist (2008), clusters contribute to entrepreneurial initiatives by creating jobs, providing higher wages, and consequently, higher tax payments.

The economic benefits obtained from cluster creation are various. However, most of the research in this field is focused on big international organizations that operate in powerful economies. On the other hand, developing countries and economies are not to be neglected. According to Schmitz & Nadvi (1999), these economies can still develop clusters, but a positive impact is not likely since several factors need to be well-established. Such factors can include the human capital, financial capital, and policies taken by the government to ensure a suitable environment for such development. Hence, countries that lack such resources do not have the assurance that a particular process would provide positive results. Western Balkans is one of these cases facing high rates of migration, lack of financial capital, and very debatable government policies towards foreign investments (The

Aspen Institute Deutschland e.V, 2020). Data from 2022 show that Albania is ranked fourth in the migration of professionals and skilled labor force (Kutuk, 2022; Oberhaus, 2019). Thus, the situation does not look very promising for using the human capital in the case of Albania, which is a significant factor in cluster development.

Capdevila (2013) introduces coworking spaces as an alternative to obtain similar results with the development of clusters. Accordingly, coworking spaces can be theorized as mini clusters, creating similar dynamics at a micro-level. Consequently, a mini cluster can serve as a shared environment in which entrepreneurs, small firms, digital nomads, and freelancers can create a degree of cohesiveness in knowledge co-creation. The term “micro-clusters” is intended here to describe the concentration of small companies, freelancers, and professionals in a cohesive environment. Such collaboration between these professionals leads to higher expertise within a geographic region (Michael, 2007).

The literature on co-working spaces and micro-clusters explores how these spaces contribute to the formation and development of small, specialized business ecosystems. Researchers emphasize the role of co-working environments in fostering micro-clusters —geographically concentrated groups of interconnected businesses, particularly startups and small enterprises (Huggins & Thompson, 2015). Co-working spaces act as catalysts, bringing together diverse professionals, encouraging knowledge exchange, and facilitating collaboration within these micro clusters (Von Hippel, 2018).

Studies suggest that the spatial proximity and shared resources in co-working spaces contribute to the emergence of micro-clusters, promoting innovation and entrepreneurial activities (Bouncken & Reuschl, 2018; Laukkanen & Tura, 2020). The supportive infrastructure provided by co-working environments enhances the networking and synergies among businesses within these micro clusters, leading to increased competitiveness (Huggins et al., 2018).

However, challenges such as competition for resources and potential conflicts among businesses may impact the sustainability of micro-clusters within co-working spaces (Radziwon & Bogers, 2019). 15). Despite these challenges, the literature underscores the significant role of co-working spaces in nurturing micro-clusters, ultimately fostering economic development and innovation in localized contexts.

The concept of CWS is complex, and it affects a variety of fields besides economics, such as urbanism and social sciences Rittel & Webber, 1973); therefore, many theories exist regarding CWS. However, the basis of this study relies principally on economic theories. The first theory this research is based on is the cluster theory which was first developed by Michael Porter (Porter, 1990). This theory emphasizes the role that clusters play in in-

novation creation and competitive advantage acquired from the member companies in a cluster (Kuah, 2002). Like Capdevilla (2013) shows in his work, CWS-s share similar characteristics with clusters. Therefore, the application of clusters theory might be interesting to see the impact of CWS on innovation.

The literature on co-working spaces and innovation highlights their pivotal role in fostering creativity, collaboration, and knowledge exchange among diverse professionals. Scholars argue that the flexible and dynamic nature of co-working environments contributes to an open innovation culture, encouraging idea generation and experimentation (Hysa & Themeli, 2022). Co-working spaces serve as hubs for interdisciplinary interactions, promoting cross-pollination of ideas that can fuel innovative initiatives (Radziwon & Bogers, 2019). Research suggests that the social dynamics within co-working spaces create a conducive environment for serendipitous encounters, leading to the emergence of novel solutions (Spinuzzi, 2012). Additionally, the accessibility of resources, networks, and expertise in co-working settings facilitates the innovation process for startups and entrepreneurs.

Previous research conducted in Netherlands has considered traditional clustering theories to develop CWS-s as micro-clusters of innovation, achieving cooperative attitudes, a sense of community, the foundation of start-ups, and soft competition among co-workers (Cuérel et al., 2019). Another research conducted for Norwegian start-ups has shown that CWS-s foster open innovation, emphasizing again the Capdevilla's (2013) analogy between CWS-s and micro-clusters (Sperindé and Nguyen-Duc, 2020). Desk research performed in Milan showed that location patterns of co-working spaces resemble those of service industries in urban areas, being like the so-called "creative clusters" that have high propensity towards innovation and creative economy (Mariotti et al., 2017; Moriset, 2013). However, challenges such as competition for resources and potential distractions may impact innovation within co-working spaces (Fosstenløyken, 2019). A multiple case study research has shown that the CWS model is more complex, offering at the same time opportunities and threats for both learning and innovation (Marchegiani and Arcese, 2018). Despite these challenges, literature underscores the positive correlation between co-working spaces and innovation, positioning them as catalysts for entrepreneurial creativity and breakthrough ideas.

Despite the current literature that shows several studies which link CWS with innovation, Western Balkans region stands far behind. This is because CWS is a new regional phenomenon. With regards to Tirana (the capital city of Albania), there is only one study that links CWS with open innovation (Hysa and Themeli, 2022), however neglecting the micro-cluster perspective that is core in the present study. Consequently, a first research gap

for the region and especially Tirana is the influence of CWS-s on innovation based on the cluster theory.

Co-working spaces have gained prominence as collaborative environments fostering knowledge sharing among diverse professionals (Bouncken & Reuschl, 2018; Hendriks, 1999). The phenomenon of knowledge sharing can be described as a process through which individuals, organizations, or communities exchange information, expertise, and insights to enhance collective understanding and problem-solving (Wang & Noe, 2010). In an organizational context such as CWS, knowledge sharing involves the voluntary contribution of (inter-) organizational members to share their tacit and explicit knowledge, fostering a collaborative culture that supports innovation and continuous learning (Bock et al., 2005). This view recalls Chester Barnard's systems perspective, where Barnard defines organizations (e.g., CWS-s) as "cooperative systems" (Barnard, 1838). The degree of cooperation has been identified as a significant determinant for knowledge sharing within organizations. Research by Nahapiet and Ghoshal (1998) emphasizes the importance of cooperation, facilitated by trust and social capital, in fostering knowledge sharing. Also, the culture of an organization plays a crucial role. A cooperative organizational culture, one that values collaboration and teamwork, encourages employees to actively engage in knowledge sharing (Cabrera & Cabrera, 2002). Cooperation is not limited to within an organization; inter-organizational cooperation, as highlighted by Inkpen and Tsang (2005), is also vital for knowledge sharing. The latter makes the case for the so called inter-organizational co-working spaces.

At the cornerstone of Cluster theory is the Proximity theory, which notes the importance of "closeness" for an innovative production process (Gertler, 1995). Likewise, this theory can be applied to other aspects, not only in traditional production. An essential trait of CWS is the proximity among members. As human interactions are catalysts for increasing knowledge exchange and knowledge sharing, then, the proximity theory and community theory can be used to measure the impact that interactions between CWS members have on knowledge sharing (Daña et al., 2020; Spinuzzi et al., 2019; Oldenburg, 1999). Scholars emphasize the role of physical proximity and shared workspaces in facilitating spontaneous interactions, leading to knowledge exchange (Parrino, 2015). A recent study conducted in São Paulo has demonstrated how social proximity facilitates knowledge sharing (KS) in CWS-s by building a sense of community and a viable network of communication among members (Nakano et al., 2023). Nonetheless, the authors warn that too much proximity might derail the knowledge exchange due to a flattening of differences between coworkers; thus, the phenomenon of conformity or groupthink might happen.

Research suggests that the sense of community within co-working

spaces promotes informal learning and expertise sharing (Gandini, 2015). Moreover, the flexible and open nature of co-working spaces encourages cross-disciplinary collaboration, enhancing the transfer of tacit knowledge (Spinuzzi, 2012; Wijngaarden et al., 2020). Social interactions, facilitated by the co-working environment, contribute to a rich knowledge ecosystem. Additionally, the technology-infused nature of these spaces supports virtual knowledge sharing, extending collaboration beyond physical boundaries.

Research has also connected CWS, KS, innovation, and creativity under the same framework. Thus, Rese et al. (2020) have shown that for creativity and innovation to happen within CWS it is needed to have a strong attitude towards KS and likewise a sharing behavior. The latter factors (both) are dependent on the level of collaboration orientation that on its side is independent on the agreeableness atmosphere within CWS. Consequently, a lower collaborative orientation, despite other moderating factors, might cause a low KS intention.

However, challenges such as potential knowledge hoarding and competition among members may hinder optimal knowledge sharing in co-working spaces. Despite these challenges, co-working spaces continue to be recognized as dynamic hubs fostering knowledge creation and dissemination among a diverse community of professionals. Again, this perspective is missing in the current body of literature with regards to the Western Balkans area, and especially Albania.

The third perspective is that of sustainability. Co-working spaces have increasingly been examined through the lens of sustainability, acknowledging their potential impact on environmental, social, and economic dimensions. Scholars highlight the role of co-working in fostering sustainable work practices, such as reduced commuting and resource-sharing initiatives (Mariotti et al., 2023). The shared infrastructure of co-working spaces aligns with sustainability goals by optimizing space utilization and minimizing ecological footprints. Here, the environmental dimension of sustainability is coupled with the economic one. The economic perspective of sustainability revolves around the idea that the usage of resources nowadays should be reasonable so we can preserve these resources in the future (Spangenberg, 2005). CWS-s serve this purpose by sharing space and resources, and consequently affecting the organizational dynamics.

From the social sustainability viewpoint, CWS-s, by sharing knowledge and fostering innovation support interaction and engagement of coworkers. In an environment of interorganizational coworking, this means stakeholder engagement.

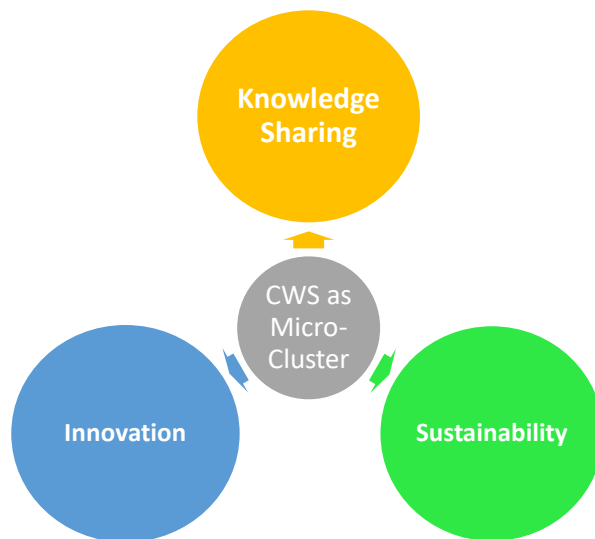
Additionally, research emphasizes the importance of sustainable design in co-working spaces, considering energy efficiency, waste reduction, and eco-friendly materials (Rogers & Yik, 2019). Co-working environments that

incorporate sustainable practices not only contribute to environmental conservation but also attract individuals and organizations with a shared commitment to sustainability values.

However, challenges exist, including the need for more standardized sustainability practices across co-working spaces and addressing potential greenwashing concerns (Kopplin, 2022). Despite these challenges, the literature suggests that co-working spaces, when designed and operated with sustainability in mind, can serve as catalysts for fostering environmentally conscious work practices and community engagement.

Based on the research gaps identified through the analysis of literature, the following conceptual model in figure 1 is designed to represent the influence of CWS-s on innovation, knowledge sharing and sustainability.

Fig. 1: The conceptual model of this study



3. Methodology

Methodologically, this work finds inspiration on Capdevila (2013) – referring to CWS as micro-clusters and analyzing knowledge dynamics in localized communities – and Hysa & Themeli (2022) – regarding the enhancement of knowledge co-creation, resilience, and open innovation while trying to attenuate complexity in CWS-s located in Albania. In one side, we are interested in CWS-s from a micro-cluster perspective, involving knowledge exchange, innovation, and sustainability. On the other side, we aim to explore such dynamics in the Western Balkans area, and particu-

larly Albania, since studies of this genre are almost completely missing.

The study follows an exploratory research approach, searching for qualitative data through semi-structured interviews and in-field observations. The location of this study is Tirana, the capital of Albania and the only city that offers CWS-s in Albania.

The sample size includes 8 CWS-s, which participated in this research, showing a high degree of collaboration and availability. The sample size in this study is not a large one due to the low presence of CWS-s in Tirana, although according to sample size parameters in qualitative research this study exceeds by far the threshold, guaranteeing the data saturation by combining a reasonable number of interviews with natural observations (Dworkin, 2012; Vasileiou et al., 2018). Since the investigated CWS-s were the most available and accessible ones (among other co-working spaces), then the sampling criterion was that of *convenience sampling*, which according to Corbetta (1999, p.352) “is a group of persons [or entities] chosen with the sole criterion that are the most easily accessible”. The CWS-s that participated in this research were: Destil Coworking, Coolab, Dutch Hub, TUMO Tirana, Inno Space Tirana, Hotspot Tirana, Oficina Hub Tirana, and OMA coworking space. In total, 26 respondents participated in the semi-structured interviews. Thus, on average three participants were asked in each of the CWS-s. The educational background was diverse, including professionals from different fields like architecture, consulting, design, programming, and marketing.

Interviews were divided into three main sections (see appendix 1). Each section had the purpose of collecting data regarding CWS and the impact on knowledge sharing, innovation, and sustainability. Each section had between 7 and 9 questions, including sub-questions like background and education. The structure of the questions involved multiple-choice, binary, rating, and open-ended questions.

Another tool used for data collection was the in-field observations. Observations were based on the interaction between CWS members in different events to study participants’ behavior toward each other in a natural environment. The observations were focused on several criteria like the interactions between members, the participation in discussion, and the event’s attendance. Four events were attended, each of these events at a different CWS. Each of these events was different in terms of the purpose it served. The first event was attended at Destil, and it involved a workshop for graphic design. The second event was held at OMA, and it involved a workshop on online marketing. The third event was organized at TUMO Tirana, focusing on computer programming. The final event attended was at Coolab, and it involved open discussions through different successful entrepreneurs. Natural observations served to crosscheck with the data obtained from interviews. For example, one of the interview questions was

related to the organization of events from each CWS and the respective attendance from CWS members. As mentioned above, four events were attended, and this confirms the willingness of CWS-s and their participants to engage in experience sharing. During the observations, moments of collaboration and creativity were captured, aiming expertise development, knowledge co-creation, and innovation. Additionally, the focus on sustainability was almost constant. There were cases in which “sustainability” as a keyword was not mentioned, but indirectly the participants referred to actions and behaviors which recall the sustainable development goals.

4. Findings

The data analysis on the impact of CWS on knowledge sharing, innovation, and sustainability, is performed through deductive thematic analysis (Terry et al., 2017). In interview-based studies, themes emerge after data coding, but in this research, themes have been deductively created (i.e., knowledge sharing, innovation, and sustainability). Therefore, the interview transcripts supported by observation notes were analyzed to find similar patterns directly classified under the pre-established themes.

The impact of CWS on knowledge sharing, innovation, and sustainability, has been evaluated on a scale 1-4 (“low impact”, “average impact”, “positive impact, and “very positive impact”. This evaluation is based on the score on each variable being studied. Each participating CWS has been attributed with a letter for privacy reasons (A to H). These letters were assigned randomly to each CWS.

The semi-structured interviews and the in-field observations revealed the composition of CWS-s with young professionals from 19-38 years old. This shows insights into the typology of the professions of CWS members. As can be seen from table 1, the dominant professions are programming, digital marketing, graphic design, and freelancers. Most of participants are females, indicating a good trend for the development of creative communities with no gender restrictions.

Tab.1 – General information on participants

Age range	19-38 years old
Gender	15 females 9 males
Nationality	21 Albanians, 3 Kosovo, 2 Italians
Occupation	Programming, Marketing, Graphic Design, Freelancers

4.1 Impact on Knowledge sharing

As shown in table 2, the CWS engages in a high degree of cooperation.

Tab.2 – Yes or no question responses on the degree of Knowledge Sharing

	Yes	No
Do you cooperate with other members of the CWS?	(A,B,C,E,F,G,H)	(D)
Do you share work-related insight with other members?	(A,C,E,F,G,H)	(B,D)
Have you worked together for a particular project, assignment, or any other work-related activity?	(A,B,C,E,F,G,H)	(D)

Seven out of eight CWS-s responded with a “yes” when asked whether the cooperation exists in these CWS-s or not. The responses to the second question are also in line with the answers to the first question. Thus, when these CWS-s were asked about sharing work-related insights within the CWS-s, six out of eight responded “yes”. It is crucial to consider that one of the CWS that responded with “no” answered with a lack of cooperation in the first question. The last question shows similar results to the two previous questions. Seven out of eight CWS-s responded with “yes” when asked about working together on projects or other work-related activities.

Besides yes or no questions, the participants were asked rating-scale questions to measure the impact of Knowledge Sharing. Table 3 summarizes the results.

Tab. 3 – Participants assessment from 1 to 4, in terms of Knowledge Sharing in CWS

	Low	Average	High	Very High
The degree of cooperation between members		(D)	(B, E)	(A,C,F,G,H)
Sharing of work-related information (insights, recommendations)	(D)	(B)	(E,H,C,A)	(G,F)
Participants assessments in terms of collaboration with each other on projects	(D)	(B)	(E,F,C,A)	(G,H)

The participants’ assessment of cooperation between members falls mainly into the very positive category. Five out of eight CWS-s chose “four”, which means that their experience in terms of cooperation between members is very high. Two out of eight responded with “three”, representing a high degree of cooperation between members. One CWS responded with “two”, representing average cooperation. However, there are differences in terms of information sharing frequency among CWS members.

One out of eight states that the frequency is low. Another CWS responded with two, which represents an average frequency. Half of the CWS argue that the level of intensity in terms of information sharing is high among CWS members, and the rest express a very high level of frequency. The last question the section asked the participants regarding their assessment of the collaboration on projects and assignments within the CWS. Thus, whether this experience was positive or negative for the members of CWS, one out of eight provided a low evaluation of specific group experiences. Another CWS provided an average evaluation, while four out of eight CWS-s argued for a high level of satisfaction in joint projects. In addition, two out of four emphasized a very high level of satisfaction with previous CWS projects.

The participants were also asked open-ended questions regarding the experience that members CWS members had when working together. As shown in table 3, most CWS-s give a positive evaluation of these experiences. When asked about the factors that trigger such a high level of satisfaction, their answers fall into categories like *“teamwork”*, *“more creative ideas”*, *“innovative processes”*, and *“learning something new”*. Nevertheless, some of the CWS-s participating in this study show that such joint projects *“might get complicated and not provide the desired outcome”*. When asked about some of the reasons for such negative experiences, the participants pointed out factors like the *“lack of cohesion between members”*, *“failure of communication”*, and *“failure to find a mutual solution”*. When asked to elaborate more on the topic regarding the cooperation within CWS, the representers of CWS “D” attributed this negative evaluation to the *“lack of cohesion between members”*. According to them, it comes from the *“diversity in the composition of members”* of these CWS. Thus, according to representatives from CWS “D”, the previous structure of the CWS involved professionals from different backgrounds, which brought problems in communication and perspectives. Therefore, this CWS decided to reformat the CWS and the composition of the members by attracting professionals with identical or more similar backgrounds.

4.2 Propensity for Innovation

The participating CWS evaluate themselves as being open to new ideas and projects (see table 4).

Tab. 4 – Yes or No questions answered by CWS-s

	Yes	No
Based on previous experiences, is your CWS open to new ideas and projects?	A,C,E, F,G,H	(B,D)
Have you ever developed new products or services with members of CWS?	A,C,F, H,G	(B,D,E)
Do you think that the environment in CWS encourages creativity?	A,C,F,H, G,B,E	(D)
Do you have a CWS strategy to promote collaboration?	(A,C,F,H, G,B,E)	(D)

Six out of eight CWS argue that there is a certain “*degree of openness to new ideas and suggestions*”. Most argue that they have been involved in “*developing new products and solutions*”. Three out of eight express that the development of products has not been the main goal for them, and they have not been involved in such activities. However, almost 88% of the participants emphasize that “*CWS is an environment in which creativity and innovation are encouraged*”. Seven out of eight further point out that they operate according to an innovation strategy that encourages collaboration between members by fostering innovation.

As shown in table 5, the semi-structured interview results indicate that these CWS evaluate themselves as proactive in encouraging creativity and innovation.

Tab. 5 – CWS assessment in terms of innovation

	Low	Average	High	Very high
To what extent is your CWS open to new ideas?		(D)	(B,E,F,A)	(C,G,H)
To what extent does your CWS encourage innovation and creativity?			(B,D,A)	(C,E,F,G,H)
To what extent do you collaborate within CWS to develop new products?		(D)	(A,B,C,F)	(E,G,H)
To what extent you collaborate with other CWS on developing new products, services, or projects?	(D)	(B)	(A,C,F,H)	(E,G)

However, one of these CWS-s does not include collaboration among members or developing products within the CWS. As mentioned in the first section, the manager of this CWS experienced not very pleasant previous coworking experiences. Nevertheless, the other CWS-s seem to rely a lot on the innovation strategy within the CWS to encourage new ideas and innovative business solutions. An important point is collaboration with other CWS-s on developing projects or new products. Six out of eight CWS-s showed a high and very high degree of collaboration.

Moreover, in-field observations noted a high degree of cooperation between CWS-s. The evidence for that is the attendance of the events by members of other CWS-s. In field-observation results show that the events organized by these CWS involve a high degree of attendance from members of other CWS-s. Furthermore, from the asked open-ended questions, the participants mentioned the *“organization of joint activities”*. Thus, they join forces together for the organization of different events. When asked about the reason for organizing this kind of event, the answers varied. A vast majority emphasized *“diversity in terms of new ideas”*. Other reasons include *“innovation and shared interests”* between CWS-s. An additional reason mentioned by one of the managers of CWS is that *“these joint events provide a less heavy financial burden”*. Therefore, through collaboration, the CWS-s can significantly reduce the cost of events, such as rent, invitation of guest speakers, and equipment needed for the event.

4.3 Impact on Sustainability

Twenty-six participants in this study provided answers based on their awareness of creating a sustainable business model for their CWS (see table 6).

Tab. 6 – Yes or No Questions regarding Sustainability answered by the participants.

	Yes	No
Does your CWS have a homogenous composition in terms of members?	(D, B, E)	(A,C,F,G,H)
Did your CWS open before the global pandemic?	(A,B,C,D,E)	(E,G,H)
Did your CWS close or reorganized during the pandemic?	(A,B,C,D,E)	(E,G,H)
Have the members of CWS changed during the years?	(B,C,D,E,G,F)	(A,H)

Their answers were grouped according to the CWS that they represent. The criteria for a sustainable business model were taken from the previously cited literature, considering the homogeneity of the professional and

academic backgrounds of members. CWS-s were asked whether the CWS had a diverse or homogeneous composition in terms of members. 5 out of 8 CWS responded that the composition of CWS-s involved professionals from different backgrounds. Three CWS-s answered by having a homogeneous composition of the members. To measure the response towards external factors, CWS-s were asked about the Covid-19 pandemic effect. Five out of eight CWS-s responded that Covid-19 had a profound effect. Furthermore, two CWS-s added that their business was closed during the pandemic.

Therefore, they organized two different CWS-s after the situation became a little easier regarding the pandemic. In addition, the other CWS-s say there was a reorganization in office structure and in the members since some members were afraid to work in such spaces due to viruses. The turnover rate of members leaving CWS has been a problem since before the pandemics, as shown in table 6. Only two out of eight CWS-s have not experienced problems with member turnover rate. When managers of these CWS were asked about the reasons for such turnover rate, they gave different answers like “members moving to another country”, “closing their activities”, etc.

Participants reflected average and low levels of homogeneity in their CWS-s, except for CWS-s “D” and “B”, which have a narrower focus; therefore, the composition of CWS is more homogeneous (see table 7).

Tab. 7 – Participants assessment regarding Sustainability of the CWS

	Low	Average	High	Very High
How would you evaluate the homogeneity of your CWS (in terms of members)?	(G,H)	(A,C,E,F)	(D,B)	
How would you evaluate the cooperation with NGO-s?		(D)	(A,B,E,F)	(C,G,H)
How was the impact of COVID-19 on your CWS?			(A,B,C,D,E,F)	(G,H)
To what extent do members of CWS leave the CWS?		(B,D.A)	(C,E,F,G,H)	

Based on the business model of the CWS outside of Albania, like in Barcelona or Berlin, the CWS-s rely a lot on cooperation with different NGO-s. In the development phase, a sustainable CWS needs to have a mission. Therefore, NGOs are essential partners in joint projects and provide a long-term solution for these CWS-s. Regarding this perspective, most of these CWS-s have close relations with the NGO-s. This finding can also be noticed through in-field observations. The events that were observed were

all done in collaboration with certain NGO-s. Typically, the NGO-s are the ones that decide on the event, guest speakers, and the CWS offer the right environment for the event to occur. Only one of eight CWS answered with average cooperation with NGO-s. In addition, CWS-s were sensitive to outside factors since the turnover rate is between average and high.

4.4 CWS impact on three levels

Table 8 is a summary of CWS' impact on innovation, knowledge sharing, and sustainability taken all together.

Tab. 8 – The impact of CWS in Tirana in Knowledge sharing, Innovation and Sustainability

	Low	Average	High	Very High
Knowledge Sharing	(D)	(B)	(A,C,E)	(F,G,H)
Innovation		(D)	(A,B,C,F)	(E,G,H)
Sustainability		(A,D,G,H)	(B,C,E,F)	

It shows that CWS-s impact on knowledge sharing is relatively high. Six out of eight scored a high and very high degree of knowledge sharing based on collaboration among the members, sharing work-related recommendations, and collaboration in terms of specific projects or ideas. The innovation variable shows an even higher score than knowledge sharing since only one CWS scored a moderate degree of effect in innovation.

From in-field observations, it can be identified that members of these CWS are open to collaboration within the CWS and other entities such as NGO-s or other CWS. However, the impact on a sustainable business model is not very high. The results are divided between the average degree of impact and high impact. However, from open-ended questions on the semi-structured interviews, it can be noticed that these CWS are sensitive structures by being affected to a high degree by internal factors. It includes factors like members turnover rate or outside factors, such as reliance on collaboration with different entities such as NGO-s.

5. Discussions

This section of the research involves interpreting the results obtained from this research in compliance with the literature. In addition, it aims to provide answers to research questions. A further consideration is attributed to the development of the research that can serve as a starting point for future research about CWS-s in Albania and Western Balkans. Thus,

the research is not only for academic reasons but also to further contribute to future research regarding CWS-s in the case of Tirana since it is an exciting phenomenon that can accelerate in Tirana with the right tools. The analysis of the results in the context of Tirana will also include some inter-organizational tools that can help to achieve the mini-cluster model, which is used in developed cities like Barcelona. As a last step of the research, an explanation of future steps to develop a sustainable model is done.

The findings of this study show how CWS-s affects knowledge sharing, innovation, and sustainability. It should be mentioned that CWS-s in Tirana are composed mainly of relatively young professionals, which makes it easier to provide a more proactive environment in which knowledge sharing and innovation can happen more quickly.

The members of these CWS-s showed a high degree of willingness in terms of knowledge sharing, involving sharing work-related information with each other in the form of insights and recommendations. Furthermore, CWS-s involved the members in joint projects by further stressing the cooperation among individuals. This finding is supported by Capdevila (2014, 2015), as stated by Hysa & Themeli (2022), where coworkers in Barcelona used collaborative techniques to generate new knowledge and resources. Thus, individuals from different backgrounds work together on a particular project and share their perspectives with the other members in their field of expertise. This fact further contributes to the personal and professional development of each of the members of the CWS and expands their network. The latter finding is in line with Parrino (2015) where a diversity in professions, status and affiliation contributes to value cocreation. Nonetheless, other research states that too much diversity can harm CWS-s. According to Goermer et al. (2020), CWS-s need a certain degree of homogeneity. CWS managers addressed this concern by trying to include their CWS members from similar professional backgrounds but still involving a sense of diversity. Thus, not by involving professions unrelated to each other like data analysts and graphic designers. Instead, a more common trend is to involve professionals whose background complements other members' backgrounds, like a graphic designer in a CWS composed mainly of digital marketing specialists. Findings of this study derived from in-field observations show that members of these CWS-s tend to work with individuals from similar or complementing backgrounds.

On the other hand, innovation was the variable that had the higher score in terms of the CWS impact in Tirana. As mentioned earlier, the composition of CWS, mainly of young professionals, makes possible the incubation of new innovative ideas and projects. The participants showed a very positive approach towards innovations. The results show that in many instances, the members of the CWS get inspired by the coworking environment and decide to collaborate on innovative joint projects. It is essential

to mention that most CWS members are self-employed, and they have the flexibility to join different projects. 75% of the participants in this study showed that these CWS have a very positive impact in terms of innovation.

In-field observations of the events organized by these CWS confirm this statement. In the events organized by CWS, a very positive approach from the members could be observed towards new ideas. Observations were based upon specific criteria like the level of proactiveness between members, the attendance of the events, and the generation of new ideas. Some CWS-s even joined forces together to develop such events to have a larger attendance of professionals, which leads to more ideas and a more considerable degree of creativity. Thus, creating a sense of community among CWS-s creates the essential foundation for approaching the micro-cluster model, which consists of more professional interaction between members of the CWS community. This finding is coherent with previous research conducted in Berlin by Blagoev et al. (2019).

An unexpected result in this research was the low score of the sustainability variable, which was the variable with the lowest score. Even though the concept of sustainability can be used in many contexts, the focus of this research was to find out how sustainable is the business model that CWS-s have in Tirana. The criteria used for measuring the level of sustainability included inner and outer factors. Thus, events like pandemics profoundly affected these CWS-s by closing some of these working spaces. However, Covid-19 was a phenomenon that closed other many consolidated structures than CWS. In addition, most CWS-s are small businesses; therefore, the sensitivity toward external factors can be understood. Additional outer factors include socio-economic factors in Albania like the migration of professionals or the lack of entrepreneurial initiatives.

Nevertheless, from this research, CWS-s in Tirana are also very vulnerable due to internal factors. The results show a high degree of professionals that leave these CWS. Some of the reasons are not related to the CWS environment; however, these CWS can take specific actions to reduce the high turnover rate. One of these reasons includes the composition of the CWS-s in terms of members' backgrounds. Nevertheless, this is hard to achieve since the owners of the CWS need to generate income from this activity instead of carefully selecting the members of the CWS. Therefore, considering the context of Tirana, we see CWS-s have the positive effect of having a high impact in terms of knowledge sharing and innovation. Yet, they do not provide a very sustainable business model due to internal and external factors. Because these CWS-s were reopened after the Covid-19 pandemic and considering the operation of these structures in a developing country like Albania, CWS-s in Tirana have shown that they are resilient and can provide a certain degree of sustainability.

Research results are in line with the literature in the field of CWS. The

micro-cluster model emphasized by Capdevila (2013) provides innovation and creativity to the place being implemented. As can be seen from the results, the CWS-s positively impact knowledge sharing between the members by contributing to their personal and professional development. It is also reflected by Rese et al. (2020), which further emphasizes the importance of CWS in knowledge sharing. Furthermore, he stresses the aspect of proactiveness between members, which was high in the events observed in Tirana. Sperindé and Nguyen-Duc (2020), affirm that CWS-s can be used as incubators for the development of creative and innovative ideas. The approach toward innovation and creativity in Tirana is very positive, and there is a sense of collaboration between members and between different CWS.

Furthermore, the community within CWS can connect creative entrepreneurs with different organizations in Albania by encouraging creativity in more influential organizations, which are a little bit traditional for new ideas and projects. Firstly, the sustainability of the CWS business model must start with the positioning that the CWS has, thus, whether it is an incubator or whether it has an environmental approach. According to Oswald & Zhao (2020), the incubator model offers the best chance to develop a sustainable business model. Even though it is hard to distinguish the focus that CWS in Tirana have, their features mostly resemble incubators by providing a model which has more significant changes for a sustainable business model.

5. Conclusions

The favorable location and the proximity between these CWS-s create a suitable environment for the micro-cluster model to be implemented. Moreover, the composition in terms of members is diverse enough to develop creative communities, which is one of the main purposes of the micro-cluster model.

Referring to the conceptual framework, sustainability is the main prerequisite to provide the longevity of benefits provided in the present to CWS-s in Tirana like knowledge sharing and innovation. Tirana is fulfilling the prerequisite of innovation, which is the first step on the development of creative communities. Secondly, the score in terms of knowledge sharing is very good, which shows the willingness and the motivation that members of these CWS-s must share their know-how with other members. However, the factor of sustainability shows that if CWS-s do not take certain actions, the benefits provided from innovation and knowledge sharing will not last for a long-time. Since CWS-s as micro-clusters yield similar benefits to industrial clusters, sustainability is in the cornerstone of the micro-cluster model. However, the differences between these two models

need to be evaluated as well. Industrial clusters, since they focus more on macro-level, provide a higher degree of security as the main actors are the governments and big international companies. Micro-cluster model by the other hand, does not have such security, because CWS-s are a much more fragile business model, therefore the level of sustainability and assurance they need is much higher than in the case of industrial clusters, which are much more solid structures.

Although the concept of coworking is new for Tirana, it has shown a very positive trend for the future. It is early to speak about a micro-cluster model, thus creating the dynamics of the clusters in terms of members' personal and professional development. But, considering the impact on knowledge sharing and innovation, Tirana, as a city approaching coworking recently, is making extensive progress. The CWS-s in Tirana are affecting the knowledge sharing between the members by increasing the cooperation between them in terms of sharing insights and recommendations and encouraging collaboration on joint projects. On the other hand, innovation is being affected positively through these CWS-s by being used as incubators to develop new ideas, products, or projects. It is worth mentioning the collaboration between CWS-s, which have made possible the development of a creative and innovative community within these CWS-s, primarily through the development of events like workshops or training.

To claim these benefits to be continued in the long run, outer and internal factors need to be considered. External factors are challenging to be managed in the context of Tirana since issues like migration and socio-economic factors are difficult to control. However, the CWS can control the internal factors. The CWS-s need to be more selective in the composition of the members inside the CWS because only in this way the micro-cluster model can be achieved. It is vital to have diversity within the CWS. However, a sense of homogeneity is needed for a more sustainable business model. Hence, it is the responsibility of managers and owners to create the balance between innovative ideas through the diversity of members and ensure a sense of reliability and assurance by creating a sustainable business by having a degree of homogeneity in terms of members. Despite the positive effects on knowledge sharing and innovation, which are affected positively by CWS, more emphasis and attention should be attributed to the sustainability factor.

Appendix 1: Semi-Structured Interview

Section 1: CWS and Knowledge Sharing

1. What is your academic, professional background?
 - 1.1. What is your age? (optional)
2. How were you informed about the existence of this Co-working space?
3. What are the factors that attracted you to make use of this Co-working space?
4. In a scale of 1 to 5, what is the degree of cooperation between you and other members of CWS?
 - 4.1 In a scale of 1 to 5, to what degree you share work-related insight (data, professional advice, recommendation) with other members of CWS.
 - 4.2 Do they share this kind of insight with you too?
 - 4.3 Have you worked together for a particular project, assignment, or any other work-related activity?
 - 4.4 If yes, how would you evaluate the level of this collaboration?
 - a. very negative
 - b. negative
 - c. acceptable
 - d. good
 - e. very good
5. Does your CWS organize activities that help in the bonding, or regarding collective learning between the members?
 - a. Yes
 - B. No
 - 5.1 If yes, can you mention any of the events organized?

Section 2: CWS and innovation

6. Based on your experience in CWS, do you think that the environment is open towards new ideas, solutions, products?
 - a. yes
 - b. no
7. Have you ever collaborated with the other members of CWS, on developing new products, project, or service?

- a. yes
- b. no

8. Do you feel like the environment in this CWS, encourages creativity and innovation?

8.1 If yes, to what extent?

- a. very low
- b. low
- c. normal
- d. high
- e. very high

9. Is any of CWS, a client or partner in terms of your professional activities?

9.1 If yes, do you include them in the process of developing new products, services, or projects?

9.2 Do these clients or partners reciprocate to you?

Section 3: CWS and Sustainability

10. Based on your information, do the members of CWS come from a similar background?

- a. similar
- b. different

10.1. How can you classify the purpose of your CWS?

- a. Social
- b. Environmental
- c. Incubator
- d. Limited to professions
- e. Mix

11. Does your CWS have a homogenous composition in term of professions?

11.1 If yes can you show the background of members?

11.2 From 1 to 4, how would you evaluate the homogeneity of CWS in terms of members background?

12. Do you cooperate with different NGO-s

12.1 From 1 to 4, to what extent?

13. Did your CWS open before Covid-19?

13.1. If yes, from 1-4 can you measure the impact that it had on your CWS.

14. How long since your CWS has opened?

14.1. For how long CWS members have been part of your CWS?

14.2. Have the members of CWS changed frequently during these years?

14.3 From 1 to 4, how would you measure the substitution of members in your CWS?

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