

## **COVID-19 and its Impact on Coworking Business Models Digitization in Slovakia**

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### **Abstract**

The pandemic crisis influenced the whole world and has left its mark not only on the coworkers themselves but also on the operators of these spaces. The main goal of this work is to characterize various types of coworking spaces based on regional differences in Slovakia and identifying changes in their business models digitization during the pandemic crisis. The theoretical part introduces the concept of coworking space and we discuss the changes in the coworking space business model related to a pandemic crisis. The study is based on primary qualitative research and secondary data gathered from web pages, online forums, and discussions. Several semi-structured interviews were accomplished with the selected coworking spaces in Slovakia. We obtained information about changes in coworking business models particularly from a digitization point of view related to the pandemic crisis. The interviews were transcribed and analyzed in the MAXQDA analytics pro-2020. There have been significant changes in the services provided by coworking spaces as well as there have been changes in the number of users. There was a significant decrease in revenues in all the coworking spaces. The so-called hybrid offices are a new trend in coworking spaces, and most respondents agree that coworking spaces have a bright future and will grow, be attractive, and be demanded by companies.

**Keywords:** Coworking space, business models, COVID-19, Slovakia, new trends.

**JEL classification:** L26.

### **Introduction**

Coworking spaces are a modern phenomenon that has not been properly researched so far. It is the subject of research for many experts and scientists, yet there is little empirical research. The origin of these spaces dates back to 2005 (Capdevila, 2013, Krause 2019). Coworking was initially considered a movement that resulted in an attractive concept as a counterpoint to a classic office space. It has become a trend of offering people flexible shared workspaces that create an environment that supports collaboration, user interaction, productivity, and innovation. After the economic crisis in 2008, long-established patterns of employment shifted from a traditional corporate culture to freelance and self-employed workforce. These collaborative spaces and related collaborative practices are an example of new ways of organizing work in a project and predominantly independent professions found in the cultural and creative industries (Murphy, 2018). According to some authors, coworking spaces are not only flexible shared office spaces for creative professionals "working alone" (eg Merkel, 2015), but also for the rest of the community, including entrepreneurs, small and medium-sized enterprises, and most recently corporate companies. (Bouncken, Clauss, Reuschl, 2016).

Since 2015, this trend and model of the working environment has been constantly increasing. In 2015, according to research on statista.com found a total of 8,900 coworking spaces were created worldwide with 545,000 members (statista.com). The latest research from

statista.com predicted that in 2020, coworking spaces would increase to 26,300 and the number of members would increase to 2,680,000 (statista.com). At the time, however, no one knew that these predictions would be greatly influenced by the massive spread of the new coronavirus COVID-19. Not only daily-day ordinary activities have changed, but society itself and the world's economies have also changed significantly. Before the pandemic situation, trends and the typology of coworking's business models were not sufficiently explored and it is clear that during the pandemic, these models considerably changed in several coworking spaces. As a result of the pandemic situation, new questions arise about the changes in coworking spaces business models. So far it is an unexplored topic in literature and therefore our main goal is to identify the impact of COVID-19 on business models of coworking spaces in Slovakia.

## **1 Literature review**

### **Coworking spaces and their business models in literature**

There are several definitions of coworking spaces, which are created based on their operations, the characteristics of the spaces, or even the types of their users. Some authors point to the values that are created in coworking spaces such as cooperation, collaboration, community creation, or knowledge sharing and networking. Very common and frequently cited definitions are the following.

Coworking spaces are shared working environments in which independent knowledge workers gather. (Spinuzzi, Bodrozic, Scaratti, Ivaldi, 2019, Bouncken, Qiu, Clauss, 2020)

Rese et al. and Butcher describe coworking spaces as a globally increasing phenomenon of new shared work environments used by freelancers, entrepreneurs, and small companies that often work in information technology and creative industries. (Rese, Kopplin, Nielebock, 2020, Butcher, 2018).

Bouncken and Aslam describe coworking space as the idea of spatial co-location that improves communication and knowledge sharing among independent knowledge professionals (Bouncken, Aslam, 2019).

Gormar et al. define coworking spaces as open creative labs that provide a community-like environment and the necessary surroundings for their users to build and maintain networks with different actors inside and outside the CWS (Gormar, Herbig, Rese, 2021).

Tremblay and Scaillerez define coworking spaces as spaces for sharing and collaboration to improve the work conditions of self-employed workers, but also of entrepreneurs and salaried workers, although there has been much less study of these (Tremblay, Scaillerez, 2020).

The common basis of all of these definitions is that coworking spaces are shared spaces that create and support individuals, institutions, or communities for users such as freelancers, entrepreneurs, while allowing them to cooperate and collaborate on/with each other.

Capdevila characterizes the business model of coworking spaces as an organizational form that essentially facilitates cooperation between companies (Capdevila, 2014).

### **Coworking business models and digitization**

Researchers generally agree that business models are structural templates for organizations that can provide a holistic and systemic view of how companies manage and grow their businesses (Amit & Zott, 2001; Schneider, Clauss, Bouncken, Laudien, Kraus 2019).

Capdevila describe coworking business model as an organizational form that essentially facilitates cooperation between companies (Capdevila, 2014). Another authors like Spinuzzi, et al. allege that coworking business model is directly related to community, particularly, the cooperation that occurs within professional workers and communities (Spinuzzi, Bodrožić,

Scaratti, Ivaldi, 2019). Furthermore, the coworking business model shows itself through the fact that innovative business ideas and models are creating whole new branches of business, fundamentally changing them, or even making some disappear (Schuermann, 2014).

Due to the COVID-19 pandemic, flexible business models are needed. Due to that questions like how coworking spaces can resurge from the ashes and come up with innovative ways to readjust their business models to better fit new users' demands.

Remotely, the business model of coworking spaces is no longer valid, as their main reason and value-add, which was physical and social interactions with other users have been drastically restricted (Bebegal, 2021). However, some coworking spaces have adopted new ways to keep supporting the needs of their communities. By reassessing the services and creating new solutions, the coworking industry has showcased the ability to readapt, remaining positive about the potential opportunities that may arise from this situation. A new working paradigm has emerged, not only questioning from where we work but also when, how, and in which way. The service demand of coworking spaces has changed, being necessary to redefine the value proposition, placing more emphasis on customization and proximity. Early versions of coworking spaces were geared towards specific sectors with the absence of a traditional employee or office model. Bebegal wrote that the pandemic crisis has completely changed this paradigm and coworking spaces are now seen as an attractive alternative for consultants, lawyers, other professional services employees (Bebegal, 2021), and also many big companies.

The other topics related to the changes in business models are digitization. During the pandemic, crisis digitization played an important role as it helped coworking space to solve problems more effectively and quickly. Thus, firms have increased their engagement in a digital transformation and in digitalizing their business models. Firms can apply digital technologies for improved or novel internal and external processes and integrate them into new business models (Bouncken, Kraus, Roig-Tierno 2019).

## 2 Research methodology

We run a primary survey and secondary data collection for our research. The primary research we run through semi-structured interviews realized among the providers of coworking spaces. We accomplished the secondary research through internet data gathering. Participants of these interviews were providers of the coworking spaces, which were from the urban area as well as rural areas. These coworking spaces differed by the size of the space, the number of users, profit, or nonprofit orientation. The biggest Slovakian coworking space in our sample is Campus cowork (<https://www.campus-cowork.com/>), which has two branches. We also run our survey in coworking Cvernovka (<https://www.coworkingcvernovka.sk/>), 365 labb. (<https://365.bank/blog/o-365/spoznajte-365labb/>), Nádvorie coworking (<https://nadvorie.com/coworking/>), and STREDco (<https://www.stredco.sk/>). More detailed information on respondents see in attachment table 3. The interviews were structured according to topics related to innovations in business models.

We have studied such areas as development of the number of clients, digitization, revenues, products and services, and activities performed.

Interviews collected during these surveys were transcribed to the MAXQDA analytics pro 2020 and analyzed applying thematic analysis.

### 3 Results and Discussion

#### Current situation of coworking spaces in Slovakia

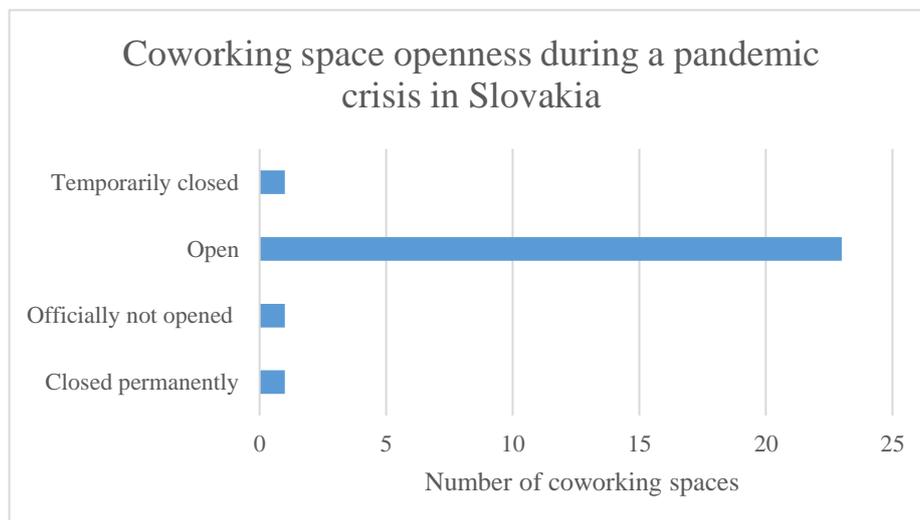
The history of the coworking spaces development in Slovakia has started 14 years ago. However, the new openings achieved pick in 2018. According to our research, we have identified 27 coworkings with available contact information. They are distributed across the whole of Slovakia (see picture 1) but the highest concentration is in Western Slovakia regions. Key characteristics of these spaces are presented in Table 1 (in attachments).



*Picture 1. Coworking spaces across Slovakia*

Source: own elaboration by authors

*Chart 1. Openness in coworking spaces during pandemic crisis*



Source: own elaboration by authors

Chart 1 describes the number of coworking spaces, which were closed during the pandemic crisis. From 27 coworking spaces, there were 2 closed of which one has closed permanently and the other one temporarily.

## Interview results

The interviews were run with providers of coworking spaces (see more in attachment Table 3. Profile respondents of coworking spaces in Slovakia ) to identify key trends that occurred in their business models during a pandemic crisis.

## Impact on users

The question “Has number of your users changed during Covid 19?” was answered by providers as follows:

*Table 2 The respondents answer on question related to users changing*

<b>Coworking Cvernovka</b>	Definitely yes. In the first wave, almost everyone in the office exchanged, the vast majority, which was the first time in three years.
<b>Nádvorie coworking</b>	During a pandemic, the users have changed quite a bit. At the end of 2020, our occupancy rate decreased sharply, especially the fix desks, that belong to concrete users. If someone new comes, he/she prefers part-time occupancy or a flexible desk.
<b>Campus coworking</b>	From May to October 2020, when the second COVID – 19 wave started, we kept occupancy at 80-90% in both spaces, and then, since October especially in November, December – sharp decrease occurred again, that we had not seen before.
<b>365 labb.</b>	Not during almost the entire pandemic, even users occupied their places less. They wanted to keep the place so they still paid for it, of course, we offered them various discounts, etc. only at the end of the current period we lost two offices for the reason, that they would very much like to stay there but it doesn't make sense for them due to business development.
<b>STREDco</b>	The pandemic impacted them significantly through active students who used coworking for their activities but due to virtual teaching at home are no longer use it.

Source: own elaboration by authors

The pandemic crisis had an impact on the change in the number of users in all addressed coworking spaces. This finding can be justified by the fact that people were forced to stay at home and work from home. Due to that clients stop to pay membership fee that influenced financial situation of the coworking spaces.

## Impact on products and services

The question “Has products and services you offer to your customer changed due to the pandemic?”, the respondents answered as follows:

*Table 4 The respondents answer on question related to service and product changing*

<b>Coworking Cvernovka</b>	I don't think they changed, we just started to disinfect to a greater extent, and probably everybody did it, but the portfolio of services remained the same.
<b>Nádvorie coworking</b>	We did not change the products. We just added 3 supplementary services, that are for all new members. We provide them with web support for free for a year, at the same time we provide accounting and consultancy services. They

	have free advice here, and if users use them for more than half an hour than they have to pay for them.
<b>Campus coworking</b>	We have created a new product called the hybrid office. It is an office where for example company with 36 people rent an office for 12 people, in which their rotate, and we call this a hybrid office. Furthermore, we cope with situations that employees demand from their employers some alternatives to the home office, and often it is coworking. This is another product that is being developed and we want to do another project with the working name “Ps. you go” which is a credit system. In short, it means offering people the greatest flexibility available and what we can afford because those people are in urgent need of it right now. Things are much more flexible and much shorter.
<b>365 labb.</b>	Products have not changed.
<b>STREDco</b>	I don't think anything has changed.

Source: own elaboration by authors

Coworking spaces do not feel the high impact of a pandemic crisis on their modification of products or services. Most of them claim that the products have not changed and rather have modified their business models with several new services.

### Impact on coworking space activities - Online events

The question “How pandemic impacted your coworking space activities? Have you started to offer online events?” was answered as follows:

*Table 5 The respondents answer on question related to activity changing*

<b>Coworking Cvernovka</b>	We always work on online events, which our members have free of charge.
<b>Nádvorie coworking</b>	We did nothing during the pandemic. We froze the whole course of events. We are members of the coworking association and webinars were held within them.
<b>Campus coworking</b>	We created events on various topics, but the market remained extremely oversaturated because everything was suddenly online. So we withdrew them for a while, but we plan to revive them again.
<b>365 labb.</b>	In my opinion, promoting the community online is stupid. We are completely out of these activities.
<b>STREDco</b>	Not at all.

Source: own elaboration by authors

Most of the coworking spaces did not create online events during a pandemic.

They believe that the market was too saturated with online events, and they do not think that creating and maintaining a community depend on the online environment, but rather on the personal meetings.

### Impact on revenues

The question “Did your revenues change during pandemic?” was answered as follows:

*Table 6 The respondents answer on question related to impact on revenues*

<b>Coworking Cvernovka</b>	Certainly yes. Our main income is from renting space, it is also our biggest expense, and during the pandemic, we lost revenue from organizing events, whether external or those we do internally.
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<b>Nádvorie coworking</b>	Yes, revenues fell down a lot as we very much fewer members. In numbers, revenues fell by almost half during 2020.
<b>Campus coworking</b>	Partly fell but it was balanced by a nice income from events that we did during the pandemics
<b>365 labb.</b>	Revenues fell extremely as a result of the cancellation of the rent of certain spaces, which the companies had for private purposes.
<b>STREDco</b>	Definitely yes, due to lower rent. The second reason is that a few projects were stopped because of pandemics, so our grants were canceled.

Source: own elaboration by authors

All coworking spaces expressed drop in revenues as a result of the pandemic crisis. There are several reasons, and particularly the decline in users and their membership payments and to stop organization of the events.

### Digitization

One of the questions which were related to value creation was as follows: *Does digitalization change your business model during a pandemic? Do digital technologies affect your value creation, value proposition, and value capture?* Most of the respondents agreed that digitization does not change their business model during a pandemic but helps them to solve the problems or processes more efficiently. As respondent from Campus cowork said: *Digitization during the pandemic impacted only internal processes. We are more efficient, we have a better overview, we do better task management, we are more integrated. The other advantage of digitization is that people can communicate with each other despite the fact they work remotely.* As a respondent from coworking Nádvorie said: *Digitization did not have a significant impact on us, but the communication with members.*

### Future development and new trends in coworking spaces

The pandemic crisis influenced the employees as well as the entrepreneurs. Most of them have to work from home. People need to socialize and that's why the majority of populations were tired and destroyed of such a system. People who are used to work from offices don't want to stay at home and that's the fact they will always looking for another place to work. That's why the coworking spaces will be demanding and start to be even more attractive for the majority of entrepreneurs or employees. In our interview, all respondents agreed that the coworking spaces will raise in the future: *"In the future of post-pandemic crisis, there will be a place in the office as a reward. It will be a prestige to be in an office and I think those coworking spaces will grow and there will be a boom of them. I believe that it will be in great demand because people and entrepreneurs have learned to work from home or send employees to be at home. I think that if people are at home all day, it is probable that work performance will also decrease, so they will look for these coworking spaces."*(STREDco)

Coworking spaces will be used more and will have to expand their spaces. The fact is that coworking space is still cheaper for employers or entrepreneurs than the classic offices. In the classic office, there is needed to have own or rented services (cleaning printing, facility management as such, and so on). As manager from Nádvorie coworking said: *"It's much better to have coworking, and I think a lot of people have realized that, so I expect the increase of demand for these spaces this year and also the next year."* (Nádvorie coworking)

The new trend of coworking spaces is hybrid offices, which are more flexible to the clients. As one of our respondent from Campus cowork said: *"It's the hybrid offices and hybrid*

*models and short-term models of operation, that's more attractive for our clients, and I think it will stay with us for a while.*" (Campus cowork)

The same opinion has got the other respondent from 365lab. : *"I think it's nice to have such a hybrid coworking and I think that those coworkings will be used even more, as in our bank about 60% of people stay in the home office, which is nice, but I think that these people stop being comfortable as you need to go somewhere where you have a job and then come home where you have privacy. And I also know that a lot of companies can already flip into this segment and already have some shared offices. It's much more efficient, cheaper than to pay somewhere for full space. So, I think coworking spaces will continue to grow and be successful."* (365 lab.)

According to our respondent digitization and digital transformation is and will be a trend that will influence coworkings both in activities, processes, and efficiency.

#### **4 Conclusion**

The pandemic crisis had an impact on coworking spaces in Slovakia. We mapped the current situation of coworking spaces in Slovakia by the method of semi-structured interview and secondary analysis. We found out that from 27 coworking spaces and only 2 are closed due to the pandemic crisis.

In the second part, we analyzed the impact of the pandemic crisis on coworking spaces in Slovakia by semi-structured interview. We studied mainly the areas related to the creation of the business model, particularly digitization. Based on the interviews, we identified various changes that occurred in the areas. The results of this analysis suggest a decreasing number of users in all interviewed coworking spaces. This was mainly due to pandemic measurement that forbade people to leave their homes and also they felt threatened and preferred to stay at home. In the case of changes in services and products, most coworking spaces didn't change their products but the services changed. In the case of Campus cowork, they created a new product called a hybrid office, which is characterized by flexible usage of one office by more users. In the case of services, there were new consulting services offered with a favorable price model.

Coworking spaces are also characterized by offering high flexibility to their users, and the current situation with a pandemic crisis has increased this flexibility even more. Most respondents believe that these coworking spaces will grow in the future as a result of providing services and products that are both more cost-effective for larger companies and at the same time offer the flexibility discussed above. This is a big advantage that is not possible to achieve using traditional offices. Last but not least, it is clear that people need to socialize, which means that they will always look for a community and society. For this reason, we believe, that the future of coworking spaces is on the rise.

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## Attachments

*Table 1. Key characteristic of the coworking spaces in Slovakia*

Name of coworking space	Openness during COVID-19	Region	Year of foundation	Founder
STREDco	Open	Zilina	2 019	High school
Coworking Priestor	Open	Banska Bystrica	2 020	Entrepreneurs, civic association
365.labb	Open	Banska Bystrica	2 019	Corporate company
Liptov Hub	Officially not opened	Zilina	2 020	Entrepreneur
Coworking METRO	Open	Zilina	2 017	Civic association METRO
Baña Coworking	Open	Kosice	2 021	Civic association
Coworking Poprad	Open	Presov	2017	Entrepreneur

My Residence Showroom & Coworking	Open	Presov	2 018	Entrepreneur
Eastcubator Prešov	Open	Presov	2 016	Entrepreneurs
Starport	Open	Kosice	2 018	Freelance Product Designer
Cowork Rovinka	Open	Bratislava	2 017	Entrepreneur
D1 Shared Office	Open	Bratislava	2019	Corporate company
Coworking Šaľa	Open	Nitra	2 013	Non-profit activity
Fleck coworking	Open	Trencin	2019	Entrepreneur
Ponk Coworking	Open	Nitra	2 014	Civic association
Collabor8	Open	Bratislava	2020	Entrepreneurs
The Spot	Open	Bratislava	2 021	Entrepreneurs
Zarobenô	Open	Bratislava	2020	Entrepreneur
Dvojbodka Cowork	Open	Bratislava	2 013	Entrepreneur
Búdka 22	Open	Bratislava	2 018	Entrepreneur
Coworking Steel Tower	Open	Nitra	2 019	Business entity
Coolworking	Temporarily closed	Nitra	2 020	Business entity
Progressbar Coworking	Closed permanently	Bratislava	2018	Civic association
Campus City	Open	Bratislava	2018	Entrepreneurs
Coworking Cvernovka	Open	Bratislava	2 017	Entrepreneur
Nádvorie coworking	Open	Bratislava	2018	Entrepreneurs

Source: own elaboration by authors

**Table 3. Profile respondents of coworking spaces in Slovakia**

Respondents number	Name of the space	Respondent position	Gender
1.	Campus cowork	Chief operations officer	Women
2.	Coworking Cvernovka	Founder of coworking	Women
3.	The Spot	Head of The Spot	Men
4.	Nádvorie coworking	Community manager	Men

5.	STREDco	Manager	Men
6.	365 labb.	Community manager	Women

Source: own elaboration by authors