

# Emerging Trends of Co-Working Spaces in Delhi NCR: Stakeholders' Perspective

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## Abstract

Co-working spaces are designed to provide a productive and collaborative environment for dynamic inhabitants coming from different professional backgrounds under one roof and working independently to accomplish their goals. Such spaces offer work areas at nominal rates and related infrastructure for people to work in a concentrated and focused manner without administrative bindings. The study entitled “Emerging trends of co-working spaces in Delhi NCR: Stakeholders' Perspective” was carried out as my master's (M.Sc. Resource Management and Design Application, Lady Irwin College) dissertation research in 2019-2020 in 12 co-working spaces, 2 of the same company, located in Delhi, NCR to identify the various attributes of co-working spaces, their benefits, and challenges, and factors that affect users' choice for such spaces. The selected spaces designed for more than a hundred users at a given point in time are in easily accessible IT, industrial, and commercial hubs of Delhi NCR with similar workspaces and facilities. The growth in the market and increasing demand for such spaces is a golden opportunity for co-working space providers to work in this direction. Competition from other companies is the major challenge for these spaces. The managers of the spaces were young as were the users within 40 years of age. The majority of the clientele was self-employed working on startups and business development. The work duration of the users ranged from 4-8 hours daily. Workspace plans offered to the users include private cabins, open workstations (open dedicated and open flexi), meeting/conference rooms with additional cubicles, boardrooms, and hot desks. Informal spaces for rest are breakout zones in all the offices with additional lounges, concourse, gaming area, and event spaces at a few selected spaces. The most liked attributes of such spaces for the users were economic viability and accessibility to offices and resources. Most of the users chose them due to the location and flexibility of such spaces.

**Keywords:** Co-working spaces, Dynamic inhabitants, Working independently, Administrative bindings.

## INTRODUCTION

*“The spirit of co-working allows you to find co-workers who are worth working with.”*

– Cynthia Chiam

In real estate terms, *space* is defined as an area or land used for residential or commercial purposes. Office spaces were earlier regarded solely as a place of work with a basic setup comprising of desks and chairs. In the present scenario, companies must have an online presence. Physical office spaces are not a necessity

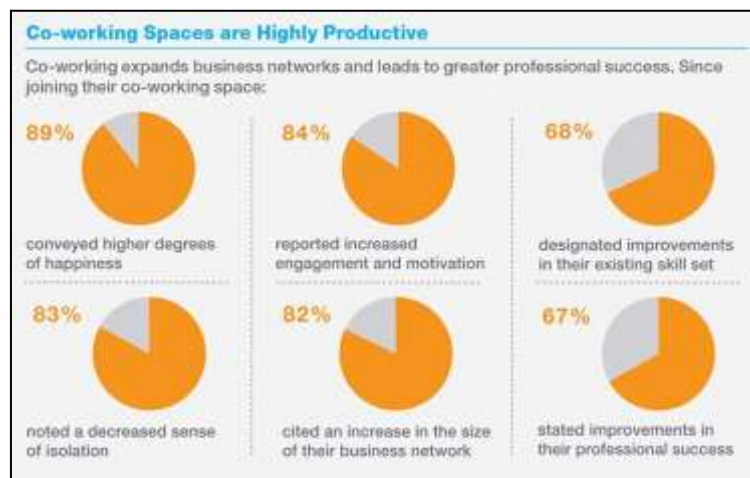
anymore and investing in real estate for office spaces has become non-essential for many companies. Working from home has become a viable option for many employees, freelancers, start-up teams, and other independent professionals in this technology-driven world. The needs of this section of people have given rise to the notion of ‘*co-working spaces*’, thereby revolutionizing the concept of work (Mallya, 2013).

**Co-working spaces** are commercial spaces designed to provide a productive and collaborative environment for its dynamic inhabitants. Such spaces are created without corporate constraints on what is perceived to be an “office” environment offering flexible memberships to suit the needs of most of its users. These spaces provide the users with many workplace options to choose from depending on their needs and create a community by interconnecting and inspiring tenants who generally work alone (Risio, 2019; Garrett et al, 2017; Johns & Gratton, 2013; Moriset, 2013). Co-working spaces increase a user’s self-efficacy and performance by creating a better balance between work and private life and because of easy access to community, professional, and social networks (Bouncken & Reuschl, 2016).

### History

The story of co-working began in 2005 when software engineer Brad Neuberg started the co-working phenomenon from a San Francisco collective space, and it has evolved dramatically ever since. According to Neuberg, the very first official co-working space to exist was San Francisco Co-working Space, located in the walls of Spiral Muse, a feminist collective. Although Neuberg began the first official co-working space, similar ideas had been percolating for years. C-base, which was founded in Berlin in 1995, was among the first hackerspaces around the world (Alberto Di Risio, 2019).

Co-working spaces offer a synergized and organized working environment to the members along with business networking opportunities with the other members. Moreover, they also provide access to several shared amenities and services such as conference rooms, Wi-Fi connection, refreshments and recreational space, flexibility to scale up or decrease the number of seats, based on business needs, hustle-free managed place, and so on (Knight Frank Research, n.d.). Users want to benefit from a collaborative environment to foster their innovation and thinking. The features that are relative to the individual include personalized space, privacy, security, and quiet spaces which are less valued than collective aspects like the needs of sharing and connecting (Leforestier, 2009). Co-working spaces, enhance the productivity of users as shown in Figure 1.



**Figure 1: Productivity effects of co-working spaces**

(Source: <https://www.knoll.com/knollnewsdetail/the-rise-of-co-working-inspiration>)

Co-working is becoming the choice for many new entrepreneurs, freelancers, and even big companies. India, as a populous country, has a huge segment of people coming up with different start-up initiatives. Apart from startups, many freelancers, independent professionals, and employees are looking for alternative spaces to work from. Keeping this cultural shift in mind, it has become imperative to provide more and more co-working spaces. Some of the companies providing co-working spaces in India include Awfis, 91 Springboard, InstaOffice, Innov8, WeWork, ABL, Coworkyard, Regus, Smartworks, Indiqube, Innwork and CoWorkIn.

According to Sykes (2014), co-working spaces are community-driven environments where co-workers can improve themselves with the help of other co-workers. These spaces allow people to work independently in a comfortable environment and service-oriented workplace with all facilities being provided at low-costs.

**SWOC analysis of co-working spaces**

SWOC Analysis is a technique used for assessing the Strengths, Weaknesses, Opportunities, and Challenges of any business. Table 1 summarizes the SWOC analysis of co-working spaces (BizFunding Resource 2019; Knight Frank Research, n.d.; Leforestier 2009).

<p style="text-align: center;"><b>Strengths</b></p> <p>For providers: • Large-scale leasing • High gross profits</p> <p>For users: • Affordable spaces • No management hustles • Networking • Flexibility • Community engagement</p> <p>For employers: • Talent-magnets</p>	<p style="text-align: center;"><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>• Lack of privacy</li> <li>• Disturbance and adjustment issues with co-workers</li> <li>• Lack of adequate space for some users</li> <li>• Lack of frequentation</li> </ul>
<p style="text-align: center;"><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• New designs</li> <li>• Additional services</li> <li>• Expansion to other sectors</li> <li>• Creating a worldwide community</li> <li>• Partnership with operators and other companies</li> </ul>	<p style="text-align: center;"><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Competition</li> <li>• Customer retention</li> <li>• Getting reserved/introverted people on board</li> </ul>

**Table 1: SWOC Analysis of Co-Working Spaces**

**Rationale**

Co-working spaces are dynamic, flexible, and economic workplaces that cater to the needs of the users by providing them with basic amenities and working facilities. They contribute to the users’ productivity and efficiency by providing them with the environment suitable for working without the thoughts of other issues, thus enabling the user to focus whole-heartedly on the work.

Co-working spaces in India are growing at a rapid pace, with flexible space operators leasing the highest

ever in 2018. Leasing by such workplace operators crossed 7 million square feet in 2018, according to Colliers International, accounting for 14% of the total leasing during the year. India has over 5,200 start-ups, strengthening its position as the third-largest start-up ecosystem after China and the US, and, therefore, start-ups are likely to continue to take up seats in shared workplaces. Interestingly, enterprises are opting for such spaces owing to higher flexibility, as well as greater ease in setting up offices without many administrative hassles. According to CBRE (a global commercial real estate company), in the next few years, with office rents continuing to move up across India, the total space leased by co-working operators in tier-1 and tier-2 cities could touch 6-10 m sq. ft. by 2020. Co-working spaces have a lot of advantages over conventional offices –learning from co-workers, community engagement, and networking to name a few (Sinha, 2019).

### Objectives

- 1. To identify the different attributes of the selected co-working spaces in terms of:**
  - Space use pattern
  - Location and infrastructure
  - Basic amenities
- 2. To gain insight into the factors affecting users' choice for co-working spaces concerning:**
  - Usability
  - Design feasibility
  - Facilities provided
  - Economic viability
- 3. To understand the perspective of companies providing co-working spaces regarding:**
  - The benefits of such places
  - Challenges therein
- 4. To suggest alternate models for designing holistic co-working spaces.**

### METHODOLOGY

The study on “*Emerging trend of co-working spaces in Delhi NCR: Stakeholders' perspective*” was carried out as my master's dissertation research in 2019-2020 to gain insight into the increasing trend of using co-working spaces by people and how has it been beneficial to them.

#### Preliminary Investigation

Preliminary Investigation was conducted to identify the prime research area and the sample for the study. The offices were visited before the final selection to understand the environment and feasibility of the study.

#### Locale

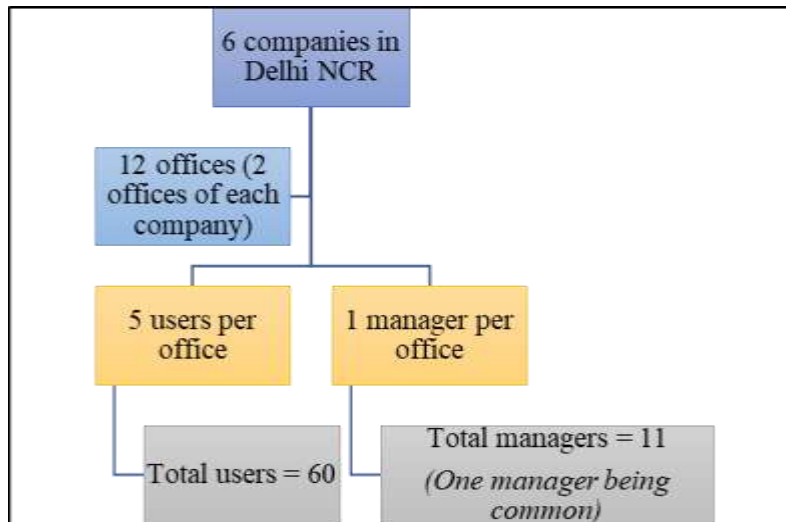
The study was carried out in co-working spaces located in Delhi NCR. The locales chosen for the study included Nehru Place, Okhla, and Connaught Place from Delhi while NCR regions included Noida and Gurugram.

#### Sampling

Many companies providing co-working spaces were identified out of which those operating in Delhi, NCR were shortlisted. The criteria for sample selection (the offices, users, and managers) to maintain uniformity in data are discussed below.

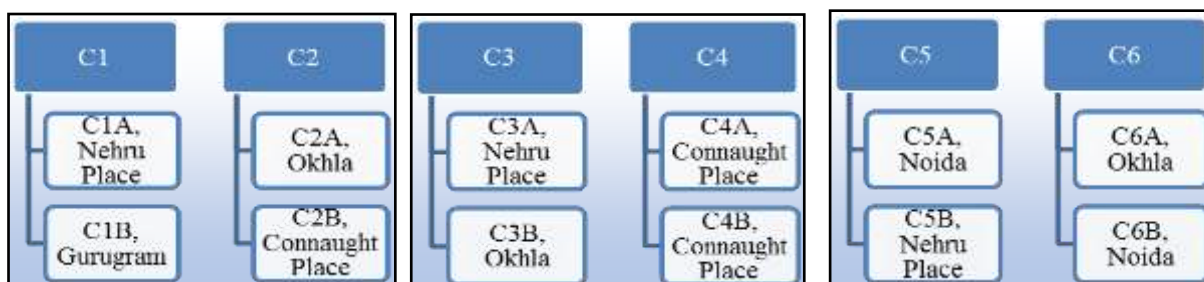
- **Companies providing co-working spaces** were selected on the uniformity of the following criteria:

1. Been in the business of providing co-working spaces for at least 2 years, i.e., the year of inception of the company should be 2017 or earlier.
  2. Operating at least 4 offices in Delhi, NCR.
  3. Each office provides space for at least 100 users.
- **Managers** of the selected co-working offices who have been in the job for over 6 months.
  - **Users** using co-working spaces for more than 6 months.



**Figure 2: Sample selection for the study**

The companies in the study were referred to as C1, C2, C3, C4, C5, and C6 for confidentiality reasons. These have been suffixed with the alphabets A and B to refer to the two selected co-working spaces from each of the companies.



**Figure 3: The selected companies and their co-working spaces**

The purposive sampling technique was used because the sample was selected with Purposive sampling technique was used because the sample was selected with pre-defined characteristics as a representative unit for the universe. It focused mainly on the working population operating out of co-working spaces.

### Tools for Data Collection

To collect information, multiple sets of tools were used. These are as follows:

- Questionnaire
  - For managers
  - For users

- Rating scale
- Observation

*Ethical clearance for the study was obtained from the institutional ethics committee of Lady Irwin College before going ahead with data collection.*

Data obtained from selected stakeholders was analysed and interpreted both qualitatively and quantitatively followed by discussion keeping in mind the objectives of the study.

**Limitations**

- We were not allowed to meet the users personally. The questionnaires were handed over to the managers who got them filled by the users. Thus, all the information from the users was inferred from the questionnaires resulting in some loss of information.
- The managers refused to share the layout plans of the offices due to security and privacy reasons.
- Physical verification of all the areas in some of the selected offices providing co-working spaces was not allowed. Not all offices were cooperative to let the study be conducted on their premises, thus limiting the number of offices that could be included for the study.

**RESULTS AND DISCUSSIONS**

Based on the objectives of the study, the data has been analyzed and presented in the following sections.

**Profile of the companies**

The profile of selected companies is discussed in Table 2.

Information	Details					
	C1	C2	C3	C4	C5	C6
Year of establishment	2011	2015	2013	2015	2016	2015
Location	Delhi, Noida, Gurugram and Bangalore	Delhi, Noida, Gurugram, Bangalore and Hyderabad	Bangalore, Delhi, Goa, Gurugram, Hyderabad, Mumbai, Navi Mumbai, Noida and Pune	Delhi, Gurugram, Noida, Bangalore, Chennai, Hyderabad, Pune, Mumbai and Navi Mumbai	Bangalore, Chennai, Delhi, Noida, Gurugram, Hyderabad, Kolkata, Mumbai and Pune	Delhi, Noida, Gurugram, Bangalore, Mumbai and Pune
No. of offices in India	>10	>12	>20	>20	>20	>10

**Table 2: Profile of the selected companies**

C1 started operations in the year 2011 with a focus on providing users with affordable spaces, have diverse community, and a stress-free environment. The two selected spaces are located in Nehru Place and Gurugram which are well-known IT hubs. Both the spaces are designed for accommodating 100-150 users; these were more than 90 percent occupied at the time of research. The workspace plans available there included private cabins, open flexible seats, open dedicated seats, and meeting rooms/conference rooms

with break-out zones as an informal space. The most common users of these spaces were start-ups and freelancers.

C2 was established in 2015 with the idea to start something that may help a lot of people accomplish their goals and hence enter into the co-working spaces market. The two selected spaces of C2 are located in Okhla and Connaught Place which are commercial hubs. C2A was designed for accommodating less than 100 users while C2B for 100-150 users. The two spaces presently have occupancy of 80-85 percent. The workspaces available include private cabins, open flexible seats, open dedicated seats, and meeting rooms/conference rooms while the informal spaces comprise of break-out zones for relaxation. The most common users of these spaces are the start-ups.

C3 came into being in 2013 with a motive to help people co-work, network, and grow. The locations of the selected spaces are Nehru Place and Okhla, known IT and industrial hubs of NCR. Both the spaces are designed to accommodate more than 200 users and had occupancy ranging between 75-90 percent at the time of research. The workspaces available in these offices include private cabins, open flexible seats, open dedicated seats, meeting rooms/conference rooms, and board rooms. The informal spaces available are break-out zones, a lounge, a gaming area, and concourse. Start-ups are the most common users of these spaces.

C4 was established in 2015 with a focus on ergonomically designed workspaces to create a better work life. It had a mission to transform real estate into premium workspace. Both the selected workspaces of C4 are located in Connaught Place, the most popular commercial hub of Delhi. Both spaces can accommodate more than 200 users and had more than 90 percent occupancy at the time of research. It provides the users with several workspace options like private cabins, open flexible seats, open dedicated seats, meeting rooms/conference rooms, and hot desks along with break-out zones and multi-utility spaces. Start-ups and established companies are the most common users of the selected spaces.

C5 was founded in 2016 to disrupt traditional work culture in India taking inspiration from futuristic workspaces. The selected spaces are located in Noida and Nehru Place which are IT hubs. The spaces are designed for 100-150 users and presently have occupancy of about 85 percent. The users have workplace options including private cabins, open flexible seats, open dedicated seats, and meeting rooms/conference rooms. Other spaces include break-out zones, event spaces, and collaboration zones. Start-ups are the common users of the spaces.

C6 was established in 2015 to provide shared spaces to people who could not afford to get their own offices, especially during the initial days of their business. The selected spaces are located in Okhla and Noida. C6A was designed for more than 200 users while C6B was for 100-150 users; the spaces were 75-85 percent occupied at the time of research. The spaces provided include private cabins, open flexible seats, open dedicated seats, meeting rooms/conference rooms along break-out zones for relaxation. The common users of the spaces are start-ups.

### **Comparison of company profiles**

All the co-working spaces in the study are located in well-known IT, industrial, and commercial hubs of Delhi, NCR. These locations are well chosen for their easy connectivity via road and railways (metro). The considerable working population in and around these areas makes it a profitable business.

The comparison of the workplace features in terms of facilities, kind of workspaces, and informal spaces provided to the users in the selected co-working spaces is discussed in Figure 3.

S. No.	Details	C1		C2		C3		C4		C5		C6	
		C1A	C1B	C2A	C2B	C3A	C3B	C4A	C4B	C5A	C5B	C6A	C6B
1	Facilities												
	Wi-Fi	P	P	P	P	P	P	P	P	P	P	P	P
	AC	P	P	P	P	P	P	P	P	P	P	P	P
	Power backup	P	P	P	P	P	P	P	P	P	P	P	P
	Printer/scanners	P	P	P	P	P	P	P	P	P	P	P	P
	Cafeteria/Pantry	P	P	P	P	P	P	P	P	P	P	P	P
	Tea/coffee machines	P	P	P	P	P	P	P	P	P	P	P	P
Water dispenser	P	P	P	P	P	P	P	P	P	P	P	P	
2	Workspaces												
	Private cabins	P	P	P	P	P	P	P	P	P	P	P	P
	Open dedicated seats	P	P	P	P	P	P	P	P	P	P	P	P
	Open flexi	P	P	P	P	P	P	P	P	P	P	P	P
	Meeting rooms/conference rooms	P	P	P	P	P	P	P	P	P	P	P	P
	Cubicles	-	-	-	-	P	-	-	-	-	-	-	-
	Hot desks	-	-	-	-	-	-	P	-	-	-	-	-
Board room	-	-	-	-	-	P	-	-	-	-	-	-	
3	Informal spaces												
	Break-out zone	P	P	P	P	P	P	P	P	P	P	P	P
	Lounge	-	-	-	-	P	P	-	-	-	-	-	-
	Concourse	-	-	-	-	-	P	-	-	-	-	-	-
	Multi-utility /event spaces	-	-	-	-	-	-	P	P	P	P	-	-
	Gaming area	-	-	-	-	P	P	-	-	-	-	-	-

Figure 4: Comparison of the workplace features in the selected co-working spaces

**Insight into co-working spaces: Users’ perspective**

Various aspects of the co-working spaces as perceived by the users gave an insight into the factors affecting their choices for co-working spaces.

**Profile of the users** reveals that the youngsters were in dominance at the spaces. Most of the subjects were up to 40 years of age with almost two-thirds (65 percent) being less than 30. More males than females were using the selected co-working spaces (55 percent). The selected spaces had a higher percentage of self-employed clientele (62 percent) including entrepreneurs working on start-ups mostly business development, businesspersons, and freelancers like writers, graphic designers, and web designers than salaried.

**Sources of information** from where users got to know about such spaces were mostly through their relatives and friends (47 percent). Besides these, mass media (newspapers/ magazines and television) and social media (online sources like advertisements, Google, and property sites) also served as significant sources of information (32 percent).

**The usage pattern of the selected co-working spaces** revealed that the majority of the users (85%) were operating from their present offices for more than 8 months and almost half of them had been associated with the current co-working spaces for more than one year. Seventy-three percent of the subjects were first-time users of co-working spaces and they had not switched to any other company from the present one providing co-working spaces. About 90 percent of the subjects were daily users of co-working spaces with about three-fourths (77 percent) spending 4-8 hours in the co-working spaces doing their work.

Workspace details show that the users hired these spaces for professional purposes to accomplish their tasks in a proper office set-up with more than forty percent of the respondents working on their start-up projects; there were a few freelancers also including web developers, graphic designers, and writers. About thirty-eight percent were employees of other companies indicating that even established institutes were benefitting from these spaces. Among the various workspace plans available for the respondents, the most in-demand were the open dedicated plans as indicated by 55 percent of users. One-fourth used private



cabins with two-seater, three-seater, or four-seater arrangements while the rest opted for open flexi or unfixed seats. The monthly rent for the space varied according to the plan selected from Rs. 10,000/- to 40,000/- and above. About two-thirds of the respondents were paying less than Rs. 10,000/- per month for the spaces they were using.

**The users hired these spaces for varying reasons** which included flexibility in terms of use and easily accessible location (more than 40 percent); some also chose these spaces for availing the networking opportunities to improve their business. The most liked attributes of the co-working spaces include economic viability (47 percent), accessibility to space and resources in terms of location and informal spaces (35 percent), and flexibility and networking possibilities (about 25 percent). The majority of the users (70 percent) did not have any problems in the selected co-working spaces.

More than half of the subjects reported having a good network with fellow entrepreneurs in the co-working spaces. About 47 percent, however, worked individually in these spaces and were not using these workstations for networking purposes. Nearly 23 percent felt that networking helped them get new and better ideas to invest in their projects in turn opening new vistas for future success, while for 15 percent, it was an opportunity to grow more networks with people from their field.

**Satisfaction rating of various aspects of selected co-working spaces as perceived by the users**

The users were mostly satisfied with the various aspects of their co-working spaces. The majority (95 percent) found their workspaces satisfactory to highly satisfactory in terms of returns on investment for the workspaces. They were willing to continue in the same place with a change in workspace plan or current work desk if required depending upon the expansion of the team and other factors (70 percent).

The various aspects of co-working spaces were scored based on the ratings by the users to gain insight into their preferences for the physical environment, ambience and facilities in the offices; the total scores were then used to rank the companies. The scoring of workplace features for various parameters are depicted in Table 3.

S. No.	PARAMETERS	SCORES (Out of 3)						Total (Out of 18)
		C1	C2	C3	C4	C5	C6	
<b>Physical environment</b>								
1	Temperature	2.6	2.8	3.0	2.2	2.0	2.2	<b>14.8</b>
2	Ventilation	1.9	1.7	2.9	2.1	1.9	2.0	<b>12.5</b>
3	Noise	2.2	1.8	2.1	1.6	1.7	2.0	<b>12.4</b>
4	Lighting	2.9	2.3	3.0	2.4	2.1	2.2	<b>14.9</b>
5	Hygiene/Sanitation	2.4	2.4	2.9	2.3	2.2	2.3	<b>14.5</b>
6	Overall indoor climate	2.6	2.3	3.0	2.5	2.5	2.5	<b>15.4</b>
<b>Total (out of 18)</b>		<b>14.6</b>	<b>13.3</b>	<b>16.9</b>	<b>13.1</b>	<b>12.4</b>	<b>13.2</b>	
<b>Ambience</b>								
1	Interiors	2.2	2.6	3.0	2.7	2.7	2.6	<b>15.8</b>
2	Space use pattern	2.3	2.9	3.0	3.0	2.9	2.9	<b>17.0</b>
3	Lighting	2.6	2.9	3.0	2.6	2.7	2.6	<b>16.4</b>
4	Workstation	2.3	2.7	2.9	2.5	2.6	2.7	<b>15.7</b>
<b>Total (out of 12)</b>		<b>9.4</b>	<b>11.1</b>	<b>11.9</b>	<b>10.8</b>	<b>10.9</b>	<b>10.8</b>	
<b>Facilities</b>								

1	Work equipment	2.3	2.7	2.9	2.1	2.4	2.2	<b>14.6</b>
2	Wi-Fi	3.0	2.7	2.9	2.6	2.3	2.6	<b>16.1</b>
3	AC	2.9	2.1	2.9	2.0	2.0	2.2	<b>14.1</b>
4	Power backup	3.0	2.2	3.0	2.5	2.4	2.4	<b>15.5</b>
5	Printers/Scanners	2.2	1.6	3.0	2.0	2.3	2.1	<b>13.2</b>
6	Cafeteria/Pantry	1.5	1.8	2.6	2.1	2.3	2.3	<b>12.6</b>
7	Tea/Coffee vending machines	2.3	2.3	2.5	2.3	2.5	2.6	<b>14.5</b>
8	Drinking water	2.7	3.0	3.0	3.0	3.0	3.0	<b>17.7</b>
9	Washrooms	2.2	2.4	3.0	2.6	2.5	2.3	<b>15.0</b>
10	Security	2.7	3.0	2.8	2.9	3.0	3.0	<b>17.4</b>
11	Medical room	1.1	1.3	1.7	1.2	1.2	1.3	<b>7.8</b>
12	Furniture	2.4	2.5	3.0	2.6	2.7	2.7	<b>15.9</b>
<b>Total (out of 36)</b>		<b>28.3</b>	<b>27.6</b>	<b>33.3</b>	<b>27.9</b>	<b>28.6</b>	<b>28.7</b>	
<b>Overall total (out of 66)</b>		<b>52.3</b>	<b>52.0</b>	<b>62.1</b>	<b>51.8</b>	<b>51.9</b>	<b>52.7</b>	

**Table 3: Scoring of workplace features based upon user rating**

Comparison of the scores obtained by the co-working spaces revealed that C3 received the highest score of 62.1 out of 66 and was way ahead of the other companies. It scored well for most of the parameters for physical environment, ambience and facilities and the users expressed complete satisfaction for most of the parameters. The scores of the other five companies ranged between 51 and 53 and their ranking order was as follows: C6 (52.7), C1 (52.3), C2 (52.0), C5 (51.9) and C4 (51.8) in that order.

The selected spaces were well equipped and maintained and the users were more or less satisfied with the space, amenities and environment.

### **Suggestions and Recommendations**

- Co-working spaces could have informal setups like lounges, gaming areas, gym or workout zones for recreational purposes. Occasional recreational activities/social events like dancing, singing, gaming, mimicry could also be hosted for all the users for casual engagement and relaxation.
- A regular feedback system must be set in place to assess the users' satisfaction with the workspaces so that their grievances are addressed timely; this will help in making the spaces more user-friendly and accommodating as well as develop a loyal customer base.
- One-to-one interactions, mentor guidance and counseling must be incorporated into all co-working spaces to enable users to work efficiently and achieve their goals.
- Co-working spaces may also be specifically designed for particular sectors particularly education. With increase in awareness about the importance of literacy and education in improving quality of lives, students and research scholars can really benefit from use of co-working setups. Most of the college libraries are well equipped with latest books, journals and online resources. However, unlimited access is only available to in-house students and research scholars. Outsiders need a series of permissions for access to other college libraries which is a taxing and time-consuming process. Designing co-working spaces colleges/ university libraries could be a valuable addition to the existing education system. Facilities and services provided in this co-working model could be modified to suit the needs of the research scholars/ students. A well-equipped library, e-resources, seating arrangements, latest journals, newspapers and magazines, internet facility, facility for group

discussions, adequate lighting, printer setup, coffee/snacks are some of the amenities that the users could benefit from. Spaces could be designed to accommodate research scholars/students of different fields who can network and engage with each other for productive outcomes. On a similar concept, public libraries can also be modified to accommodate co-working setups for collective benefit of the population.

### **Suggested Areas of Further Research**

- Impact of co-working spaces on productivity of users.
- Assessment of eco-friendly practices in co-working spaces.
- Comparison of user efficiency in traditional offices and co-working spaces.

### **Proposed layout for holistic co-working spaces**

The selected co-working spaces in the study meet the basic needs of all the users. However, further design modifications and additional facilities can enhance the function of the existing spaces. Hence, a layout plan with additional spaces and facilities has been proposed to make the co-working spaces truly holistic and beneficial.

### **Details of the proposed layout**

The proposed layout as depicted in Figure 5 has the following work areas and recreational setups:

- Reception • The area has reception desk and storage facility. • Seating has been provided for visitors. Sq. m.
- Team zone (108 sq. m. per TZ) The section on the left is reserved for companies who may want to run their businesses from a co-working space. It has a meeting room, private cabins, pantry, open workstations, printer/scanner setup, storage and washrooms. The open space may have individual work-stations as per company's requirement. In case the space is not rented out by a company, it can be converted to open workstations for use by individuals.
- Open workstations (240 sq. m.) • Open desks and cubicles are provided for users. • The space also has a provision of printer/scanner in one corner.
- Breakout Zone (120 sq. m.) This zone has been proposed as a relaxation area to be used during breaks. It is equipped with a gaming setup, a television and seating. It also has a separate washroom.
- Meeting/Conference rooms (42 sq. m. per MR) Two meeting/conference rooms have been provided for users to interact with their clients. The rooms are equipped with conference tables, storage and an audio-visual setup.
- Private cabins (14 sq. m. per cabin) There are five private cabins each of area that can be rented by users who desire privacy. Each cabin is equipped with a table and a revolving chair. Extra chairs can be accommodated as per user requirement.

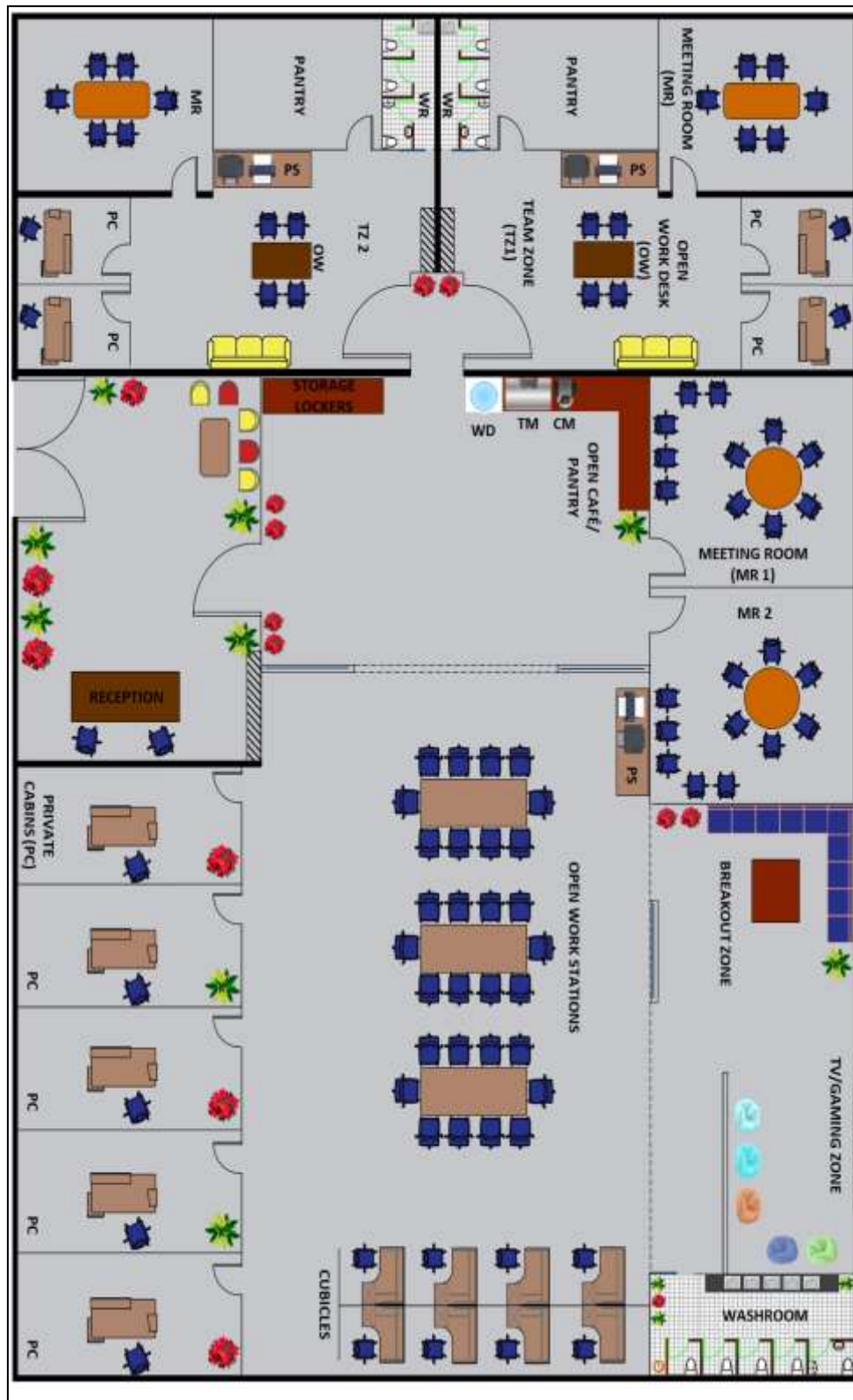


Figure 5: Proposed layout of a co-working space

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