

**THE IMPACT OF INTERIOR LAYOUT ON HUMAN  
BEHAVIOR: A STUDY OF CO-WORKING SPACES**

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Dissertation submitted in partial fulfillment of the requirements for the degree Master  
of Science

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## **ABSTRACT**

Coworking is a trending topic in the working world since the new millennium. Its productivity in creative matters is increasing the validity of the subject steadily. At the end of the war, with the bloom of the economy, Sri Lankan coworking got a huge rise in the working community with its IT and tech-based businesses.

As it is a new concept to the country, the impact of Sri Lankan culture in adapting to coworking should be examined in future adjustments and growth. Hence, as the first research of the subject area, a broad framework was developed for the use of future researches. The Theory of Proximity and the Five Coworking Core value system paved the ground for the research.

The case was elaborated under-identified four parts for the consistency in the rationale which was build up in the process. Since the Theory of Proximity has not studied priorly in Sri Lankan interior design field, it was necessary to study the cultural aspect of the participant coworkers towards the coworking concept, except to analyzing the layout design.

Two Colombo-based well-known coworking environments were examined Co-nnect and Likuid Spaces. Also, the results showed both the coworking environment layout arrangements and co-workers' attitudes should improve in being true to the core values of core working.

This research provides a universal framework for future researches in analyzing the adaptability of the coworking concept to any context of the world. Moreover, it sheds light on the Sri Lankan interior designers, business researches and venture capitalists towards new opportunities in business.

**Keywords:** Coworking in Sri Lanka, Interior Design, Proxemics, Core Values

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## **01 INTRODUCTION**

### **01.1 Statement of the Problem**

From a long ago, as a species, humans knew that they are influenced, guided and controlled by the macro-level factors of the nature such as day and night, weather or an earthquake and micro-level factors such as the stream near to the opening of the cave, isolated small tree at the mid of the savannah or the pillar at the center of the ground in front of the high seat of the tribal chief.

As with the gradual development of technology and civilization, these humans understood the relevance and the related impact of these factors on their activities and thought processes. They understood that they are not able to control the macro-level factors but have some control over the micro-level factors around them. And by trial and error, they were able to generalize their experiences and make some theoretical interventions to the ever-growing knowledge of human behavior and their immediate environment. Moreover, they used these theories along with their practice in the fields of town and country planning, urban design, landscape architecture, architecture, and interior design.

Coworking is a social working system, teamwork, always performed in interior spaces, and there is a vast dynamism related to it. In the places which gave birth to the coworking concept, people were eager to interact with each other than conventional working environments. And as a new concept with a mass growth in the working world, the adaptations of the core idea of coworking in different socio-cultural conditions would give a full new understanding in its future shape. So, this dissertation focuses on the interaction between human behavior and interior, especially concerning the coworking spaces of Sri Lanka.

### **01.2 Research Question and Objectives**

As we trace the history and the origin of the concept, we see that coworking is a product of Europe and Western culture. So, as it is a product of their nature, the Western community knows the flow and the process of the coworking system.

However, being a new formation of human arrangement foreign to their nature, most of the other regions faced some issues adapting to the concept. It is reflected by the number of researches done in the Western world, such as Eastern and South-Eastern Asian regions.

Hence, the questioned area is focused on identifying the particular qualities of Sri Lankan coworking culture, which are unique to its placement in providing maximum productivity and efficiency in the environment.

The above background allows the following objectives to be focused on the study in clearing the ground for further studies in the research area.

- Identifying the adaptations of the coworking concept to the Sri Lankan context.
- Deciding the measuring methods optimized for the context.
- Identifying context-related factors impact to the adaptability of a coworker.
- Producing materials for interior designers to optimize their coworking spaces' interior designs to be more convenient to the community.
- Measuring coworking interior impact on human behaviors.
- Identifying sustainable methods to develop Sri Lankan coworking community and its standards.
- Contributing to a ranking system for Sri Lankan coworking environments in the world context.

### **01.3 Structure and Methodology**

The main three domains in evaluating the efficiency and productivity in any human process related to one another are physiological, psychological, and social. There are cultural factors upon them reacting and influencing all three of them. As so, according to basics, the three domains related to coworking could be reinterpreted as environmental, interactional, and community perspectives of the process. Previous researches such as Lyndon Garret mention this domain system and use it as a guideline to the research. (Garrett, Spreitzer & Bacevice, 2014) The research was based on four resources in interlinking the three domains. They are;

- Layout drawings of the coworking space
- Frequency maps related to specific functions of coworking
- A questionnaire to the members of coworking space
- Interviews with the coworking space managers

There was no research done in Sri Lanka in the subject area, up to now except this approach. Hence, a context related approach was taken other than merely depending on theories.

#### **01.4 Scope and Limitations of the Study**

In the world context, there are several researches done covering the subject area. However, as the idea of coworking is very new to the world, still the research database is not deep enough to go meta-analyses. The context relatedness and the attitudes of the users of the diverse scenarios should be collected before focusing on the inter-cultural and universal harmony of the coworking concept.

Moreover, the lack of Sri Lankan context-based data collection in the research area made a knowledge gap in making context-related approaches in the study. The study was planned with a broad view covering the entire scope of coworking culture in fulfilling the above-said knowledge gap.

Since many facts such as the Macro context (Urban/ Sub Urban), Micro Context Exterior (Architectural) and Interior can impact human behavior, for this research, it specifically focused on interior layouts and how would that affect human behavior.

#### **01.5 Proposed Outcome / Contribution**

Since context-related lack of knowledge related to the social gathering, human behavior, and interior environment are important problems that interior designers face while designing interior environments, this research attempts to fill that knowledge gap related to the coworking spaces.

Also, In Sri Lanka, no study has focused on identifying the qualitative and quantitative measurements and facts of traditional working environments. In the future, with the growth of researches in that area, analyses in between traditional working spaces and coworking spaces will also be possible with the findings of this research.

The findings of the research will be immediately related to the Sri Lankan coworking community in optimizing their productivity and enhancing the bonding to their crucial concept of coworking, the five core values.

## **02 AN INSIGHT INTO COWORKING**

Coworking has become a trend of the new millennium, and it is changing the entire working culture towards new dimensions which still early to predict where it is heading. The growth rate is still high, and it has not reached an equilibrium state still.

### **02.1 Start of Coworking**

Software development and related technologies were introducing and developing the latest advancements of the human creation since it was started to produce in mass scale after mid of the 1980s. Due to its nature of the requirement of high efficiency in production methods, software architects and software developers still think in new dimensions to introduce more efficient ways in process handling. Moreover, their findings benefit not only the software industry but many other industries which inevitably require efficiency in their production pipelines. The first idea of coworking in its modern form emerged from this background.

The practice of the idea was first elaborated as hackerspaces in Germany in the mid-1990s. According to the ethics of hackerspace concept, the places were community-operated physical places, where people could meet and work on their projects. The exact functioning varied from place to place and determined by its members. But they generally followed a ‘hacker ethic’, which include freedom (in the sense of autonomy as well as of free access and circulation of information), distrust of authority (that is, opposing the traditional/ industrial top-down style of organization), embracing the concept of learning by doing and peer-to-peer learning processes as opposed to formal modes of learning, sharing, solidarity, and cooperation. (Kostakis, Niaros, & Giotitsas 2014)

Germany’s Berlin located c-base e.V. established in 1995 is considered as the first notable coworking space which influenced so many likewise spaces later. Then, due to the many plus points of the concept, coworking became popularized among many of the freelancers who share common values. The convenience they had a gathering in a coworking space such as individual development and performance made them and



others around them much attracted to the concept back again. (Weijs-Perrée, Van De Koevering, Appel-Meulenbroek & Arentze, 2018)

## **02.2 Traditional Working vs. Coworking**

Before the popularization of coworking, in businesses of old (1950s - 2000s) stark, zero-atmosphere offices and cramped cubicles were the norm, and they did not exactly encourage creativity or boost the morale of the workers.

So, when this new idea of coworking came out, the shift was inevitable, many companies adopted the related new concepts into their working environments in energizing the workforce to get the most out of them. When workspaces began to change, open plan was the first big step. It opened interactions and ideas, and as technology became a more significant part of the environment, these spaces adapted to accommodate computers, cables, and more.

Coworking is mostly popular among the new generations named Xennials and Generation Y of the working population. But not that popular among the Generation I, Generation II, and Generation X who are much familiar with the older setting.

## **02.3 Intended Advantages of Coworking Spaces**

The main advantages of the coworking spaces are the productivity boost, the inspiration from the diverse community, and the flexibility of the culture. Most of the traditional working spaces are not capable of generating these advantages. Also, in providing these advantages, the infrastructure and the facilities of the coworking environment is critical. Here are some of them (Miller, Olsen, Rich, & Takao, 2016).

**Location** - Able to choose easily accessible, convenient, safe/ security, easy to find and traffic avoiding place from multiple options rather than going to a fixed place

**Community and culture** - A culture and a community of people who inspire to do the best work. The ability to share, lean on, review, learn from each other, grow and be part of an impactful community that enables growth is what it is all about

**Inviting space** - The look and feel of the space designed for the worker firmly in mind, comfy couches, cornered off nooks for privacy, magazines dotted around for

inspiration, library, meeting rooms and conference rooms, manager's attitude and social skills, and some specifically chosen soft background music

**Facilities** - Fiber Wi-Fi/ high-speed Wi-Fi, water cooler, standing desks, kitchenette, free of charge coffee and drinking water, convenient plug sockets/ power extensions, variety of seating options, skype room, sound, and video recording equipment, printers, scanners, photocopiers, computers, single/ dual monitors, working pods, virtual office plans, personal lockers, parking space, pet-friendly areas

**Flexibility** - Flexibility of timings - Choosing one day, one week, one month or one-year periods which provide 24/7 access to a dedicated desk

**Cost** - Affordable rates of the coworking spaces

**Promotion** - Promote brand by distributing brand merchandise, like coffee mugs, t-shirts, pen, and pencil with brand name and logo printed on them

#### **02.4 Disadvantages of coworking spaces**

Coworking is still in its developing and expansion stage. Hence the disadvantages are not that discussed. However, after the expansion reaches a particular stage, the downside will be discussed more. However, the study covers the less talked area, being comprehensive.

##### **Lack of Privacy**

One of the main disadvantages of coworking is the lack of privacy. When comparing to a traditional working environment, working in a coworking public place with little privacy can leave some companies vulnerable to their business competitors, mainly occupying the same coworking space. Sometimes maintaining privacy and confidentiality on phone calls with sensitive clients and keeping private information protected in public areas could be a struggle and can also lead to claims being filed against, lawsuits, and costly situations that could never be bargained. Intellectual property laws are there, but hacking problems are not always revealed before the damage occurs.

## **Diminished Productivity**

When comparing to traditional working, coworking environments are somewhat uncontrollable and peculiar environments. So, at some stages, those spaces could be highly crowded, noisy, and disturbing. One of the top reasons for workers joining coworking spaces is to increase their productivity. However, at some stages, these spaces create the exact opposite effect.

These spaces could be ideal environments for brainstorming and networking. But if the crowd, noise, and distraction made by them are not regulated very well, they are rarely the right places to sit down and get work done.

## **Tech Headaches and Hassles**

To work outside of a well-connected corporate office, it always requires some high-tech equipment, hardware, and software to do the job right. While some advanced coworking spaces are equipped with all the latest and greatest technology, many still lag at the expense of their members. Not only the high-quality printer, audio/ visual equipment, laser-cut machine or the 3D printer for some works get to be done, but there might also be disappointments due to the high-speed internet connection at a coworking space that is not as fast as advertised. Not only that, sometimes, there may be no one available to help and answer the tech questions in an emergency.

**Lack of frequentation:** because it is not ‘their office.’

The lack of responsibility and hence the freedom taken by a coworker by refraining from reporting to a senior staff member seems like a weakness of the coworking concept. Frequent reporting is an assessment of a worker by encouraging, error managing, and increasing productivity.

## **02.5 Core-Values of Coworking**

In analyzing and systemizing the coworking concept towards shaping it into a global movement, initial contributors have identified five core-values of coworking. According to Kwiatkowski & Buczynski (2011), those five are;

- Community
- Openness
- Collaboration
- Accessibility
- Sustainability

These five core values are the core ideas of the coworking concept. Also, on almost all occasions, the characteristics of the workers who choose coworking environments tally with these qualities or they respect these values. And, all these five core-values show the freedom and the free form of the interrelationships in the organization. For a broad understanding, the ideas are discussed one by one hereafter.

### **02.5.1 Community**

The focus on community means, emphasizing the people, their interactions, and the relationships they form. That formation and humanity in it are above everything else. So, every decision community makes consider members and their opportunities to interact with one another. By doing so, it generates a sense of belonging around all of them.

The shape or the color of the community is a product of the members. The Manager and the management are facilitators and do their participation may be measured by the facilitation and infrastructures provided.

### **02.5.2 Openness**

The openness in this context has a direct influence on the open-source ideals of the software movement. It is about being more transparent, more expansive, more liberal, and more inclusive in both moral and economic perspectives. By making coworking ‘open,’ it could evolve into something much more significant than anyone of the founders could control. It is the potential of openness.

No one governs the community in a centralized way as in a traditional office. Hence, openness builds trust and the strength of the community.

### **02.5.3 Collaboration**

Members of a coworking space are collaborators more than customers. These members work together, not just with each other but with space too and gradually tend to have the most profound bonds with the community. Also, coworking spaces allow for the formation of trust and deeper relationships between coworkers.

Sharing the shared values and common goals as a community, helping each other coworker as a part of the daily routine, both as a consultant and a newbie are significant parts of the coworking concept. The mix of people with different abilities and experiences creates a large pool of knowledge.

### **02.5.4 Accessibility**

The critical element here is self-selection and gaining access to the selected environment. Coworking spaces allow the members and participants to self-select themselves in. In an environment composed of willing self-selected participants is a remarkably positive and productive place to work. People who cite exceptional productivity levels from working at a coworking space are gaining the benefits of choosing the space and people for themselves to work and surround when they work.

Moreover, accessibility can be viewed in financial and physical dimensions. While the financial perspective aims to provide the necessary infrastructure for the early stages of a start-up without having substantial initial investments, the physical perspective ensures the accessibility of the spaces for members at any time (24-hours-access).

### **02.5.5 Sustainability**

Sustainability requires a contained system or process that can continue without drawing upon resources outside. In coworking spaces, it means making sure the businesses and communities related to the coworkers are structured in a way that creates a continuous loop of giving and receiving balancing the persistence of community.

Sustainable engagement on the economic and environmental levels can be achieved through the collective use of resources. Furthermore, coworking prevents remote working and facilitates socially conscious behavior.

## 02.6 Coworking Spaces in Sri Lanka

Sri Lankans, as a pioneering community in the software development industry working with several multinational institutions, have adapted to this new concept currently. Also, it seems that it has a high growth rate in the context due to the big noise made about the work efficiency related to it.

The idea of coworking came to Sri Lanka as an emerging business venture with the end of the war (in 2009). The tech-savvy independent freelance workers and the startup companies which did not see the importance of maintaining a 24/7 workspace in high-cost Colombo city area were very grabbed to the idea initially.

Here is a list of contemporary operating coworking spaces in Sri Lanka.

	<b>Management</b>	<b>Location</b>	<b>Centre Name</b>	<b>Capacity</b>
1	Business Hubs	273, Galle Rd, Mount Lavinia	Kensington	28
		208, Stanley Thilakerathne Mawatha, Nugegoda	Waterloo	120
		1st Floor, 366, Galle Road, Colombo 03	Wimbledon	62
		24 1/1, Deal Place, Colombo 03	Knightsbridge	
2	Agaya Holdings	125/2, 3rd Lane, Subadrarama Road, Nugegoda	Agaya	
3	HUB9	No. 9, Park Gardens, Colombo	HUB9	
		148, Fife Road, Colombo	CatalystHUB9	
4	Coco-space	110-1/1, Havelock Road, Colombo 05	Coco-space	
5	Cafe Sociale	316A, Galle Road, Colombo	Cafe Sociale	
6	HomeTree Coworking	16, Station Road, Colombo 04	HomeTree	225

7	Wehive	435/15A, Longden Hill, Colombo 05	Wehive	
8	<b>Likuid Ventures</b>	<b>5, Charles Place, Colombo 03</b>	<b>Likuid Spaces</b>	<b>55</b>
9	Colombo Cooperative	365, Galle Road, Colombo 03	Colombo Cooperative	30
10	Loft 1024	73/5, Ward Place, Colombo	Loft 1024	
11	John Keells Holdings	Creascat Boulevard, No. 89, Galle Road, Colombo 03	John Keells X	
12	Youth Business Sri Lanka	No. 50, Nawam Mawatha, Colombo 02 (Ceylon Chamber of Commerce)	Y Impact Hub	
13	<b>Shangri-La Hotel Chain</b>	<b>1, Galle Face, Colombo 02 (Shangri-La Colombo)</b>	<b>Co-nnect</b>	<b>30</b>
14	Hatch	14, Sir Baron Jayathilaka Mawatha, Colombo 01 4th floor, 218, Stanly Rd, Jaffna	Hatch	600
15	MAS	MAS Solutions Centre, Ground Floor Twinery, Foster Lane Nawala	Catalyst HQ The Hive MAS Active	
16	Orion City	Dematagoda	NEST Kitted Out Warm Shell	

*Table 1: List of Coworking Spaces in Sri Lanka*

Not only that, now there are several more included in the global platforms such as <https://www.coworker.com/> which connects over 150 countries for online bookings of coworking spaces which provide great convenience to frequent business travelers. The price range per person in LKR is as follows in the coworking spaces of Colombo and suburban contexts.

- One day - 500 to 2500
- One week - 3000 to 20000
- One month - 10000 to 30000

## **02.7 Coworkers in Sri Lanka**

In the study, three categories were identified among the coworking space user community. They were categorized as follows.

- Short-term users – from One Day up to 1 Week
- Mid-term users – up to 2 Weeks/ 1 Month regularly
- Long-term users – up to 6 Months/ 1 Year regularly

Short-term users are the people who come to get immediate work done or to meet a client for arranged few hours. They tend to use the board room facility or meeting space facility most of the time.

Mid-term users work for short term goals, such as developing and launching an app within a short period. Till they have to discuss with each other, they come regularly. Also, most of the time after the project gets done, they dismiss until the next project comes.

Long-termers are the people who run startup-like businesses. They regularly come until they fix their own space and tend to use separated office partitions within the coworking space.



## **03 THEORETICAL FRAMEWORK AND METHODOLOGY (RESEARCH DESIGN)**

### **03.1 Theory of Proximity (Proxemics)**

Anthropology, specifically Cultural Anthropology (the study of human societies and elements of cultural life) has many common research grounds with the subject of Interior Design. Also, for designing the interior interactions among multiple diverse ethnicities of each corner of the globe, the knowledge in Cultural Anthropology is necessary.

The theoretical background of the research is based on the theories of American Anthropologist Dr. Edward Twitchell Hall. He was a researcher well known for developing the concept of proxemics and cultural-social cohesion. Moreover, he explored how people behave and react in cross-cultural events defining personal space to the situation.

Dr. Hall coined the term proxemics in 1963, defining it as "the interrelated observations and theories of humans' use of space as a specialized elaboration of culture". (Hall, 1982) In his foundational work on proxemics, *The Hidden Dimension*, Hall emphasized the impact of proxemic behavior (the use of space) on interpersonal communication. According to Hall, the study of proxemics is valuable in evaluating not only the way people interact with others in daily life, but also "the organization of space in houses and buildings, and ultimately the layout of towns." (Hall, 1963) Proxemics remains a hidden component of interpersonal communication that is uncovered through observation and strongly influenced by culture.

It is evident that when strange people get to know each other, they open up themselves more and share themselves more and reduce the distance among them in accepting the other. So, when becoming familiar, the time they spend jointly with each other increases. With much closer relationships, such as becoming friends, they even share their private spaces with the other. It is as universal to all the civilizations of the world (Newell, 1995).

Hence, this behavior is typical in coworking spaces too and could be used to measure the interlinking power/ interrelatedness of the members of the community. It is observable that after getting to know the older ones, new members tend to share more, and they get much closer in the physical space also. According to Hall's theory, space, distance, and territory are the main three components of the study of proxemics. These components are discussed further below.

### **03.1.1 Space**

Space Proxemics as a manifestation of micro-culture has three aspects; fixed-feature, semi fixed-feature, and Informal as discussed below.

#### **Fixed-feature space**

Fixed-feature space is one of the primary ways of organizing the activities of individuals and groups. Buildings are one expression of fixed-feature patterns, but buildings are also grouped in unique ways as well as being divided internally. (Hall, 1959)

In this case study, space arrangements which fall into "fixed feature" arrangement were not considered as a part of research criteria since it is not related to the research topic.

#### **Semi fixed-feature space**

Semi fixed-feature space is of primary importance in interpersonal communication because it can be used in many ways to convey meaning. Hall mentions two types of semi-fixed feature space: Socio-fugal spaces, socio-petal. (Hall, 1959)

#### **Informal Spaces**

Informal space is significant because it includes the distances people unconsciously maintain when they interact. Informal spatial patterns have sharp bounds and such deep if unvoiced, significance that they form an essential part of the culture. (Hall, 1959)

### 03.1.2 Distance

People have specific patterns for delimiting the distance when they interact, and this distance varies according to the nature of social interaction. There are four zones of distance called Intimate, Personal, Social, and Public.

#### **Intimate distance- 18 inches (46 cm) apart**

Lovers, children, close family members friends, and pet animals.

This type of space proximities cannot be applicable in coworking spaces as they are designed not to achieve intimate environments but in working environments.

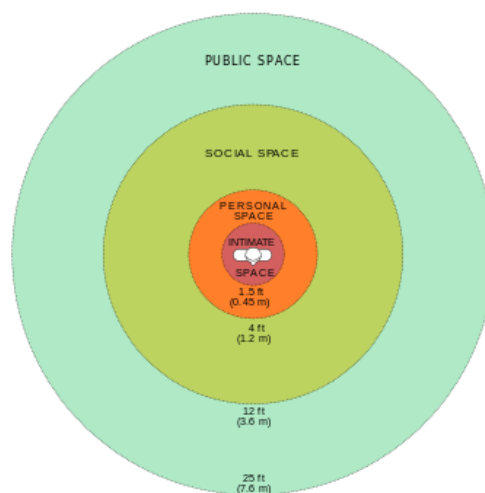


Figure 1: Intimate, Personal, Social, and Public distances  
(Source: <https://www.livescience.com>)

#### **Personal distance- 18 inches (46 cm) to 4 feet (122 cm) away**

Friends, to chat with associates, and in group discussion

‘Personal distance’ is the term initially used by Heini Hediger to designate the distance consistently separating the members of non-contact species. It might be thought of as a small protective sphere or bubble that an organism maintains between itself and others. (Hall & Hall, 1990)

### **Social Distance- from 4 to 8 feet (1.2 m - 2.4 m) away**

Strangers, newly formed groups, and new acquaintances.

The boundary line between the far phase of personal distance and the close phase of social distance marks, in the words of one subject, the 'limit of domination.' Intimate visual detail in the face is not perceived, and nobody touches or expects to touch another person unless there is some special effort. (Hall & Hall, 1990)

### **Public Distance- more than 8 feet (2.4 m) away**

Speeches, lectures, and theatre

Several significant sensory shifts occur in the transition from the personal and social distances to public distance, which is well outside the circle of involvement. (Hall & Hall, 1990)

### **03.1.3 Territory**

The territory is the geographic area that indicates ownership. The distinction is carefully made between private property, which is the territory of an individual, and public property which is the territory of the group. (Hall, 1990) Responding to territories is very important because braking territory or entering someone's territory without permission is the most uncomfortable feeling that one can have. Also, territories are not user-friendly in the perspective of gathering environments, and the five coworking core-values are against making territories.

### **03.1.4 Communal interactions in a space**

A gathering place is 'any place where people can congregate.' The definition in the dictionary for 'social gathering' is 'a gathering to promote fellowship.' (Sommer, 1967) There are two types of gathering places that can be identified in coworking places as discussed below.

### **Socio-fugal spaces**

Socio-fugal spaces mainly created in public spaces. Furniture arrangement in such public places has a distinct relationship to the degree of conversation, and seating provisions of a socio-fugal space are formally arranged in fixed rows, tend to discourage conversation. (Hall, 1959)

E.g., railway platforms

### **Socio-petal spaces**

Socio-petal spaces always tend to bring people and furniture arrangement is permanently a circular one. (Hall, 1959)

E.g., European side tables are the best example

## **03.2 Core-Values as a Measuring Meter**

For using the theory of proximity in accurately measuring the functionality of the coworking environments, the five coworking core-values shown in section 02.5 above are used as a framework. The core-values system expresses the coworking ideology in simple terms and could also be used as a standard to measure the functionalities. Moreover, it could be used in ranking the coworking environments. Hence, the five coworking core-values are used as a valuation system of the quality of coworking in the selected coworking spaces. The application is made under the 03.3.3 section of the questionnaire design.

### 03.3 Research Design

There are three domains in the spatial experience of the entire coworking process. First, the experience of coming into the coworking place, then the experience of exterior building, then into the building and coworking interior. Also, there is the meetup of coworkers who respect the five core values. There is a similarity in attitudes patterns among all of them.

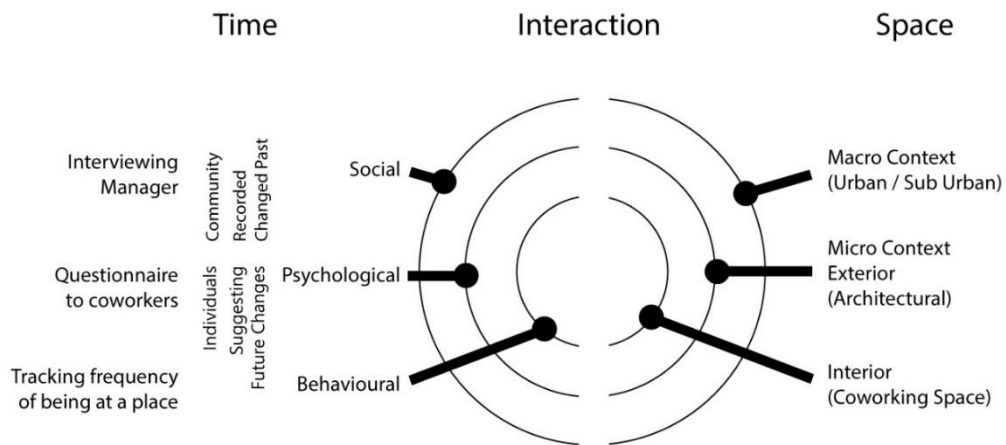


Figure 2: Identifying the Research Context

The entire process of coworking is identified as a practice of these four elements. Hence, we propose any research methodology developed for researching the subject area of coworking would use this approach.

However, the element of Layout is somewhat static comparing with the other three factors for the period in the research observations. Significant changes are not frequent, and when there are such changes, places are closed for customer coworkers for a specific period.

Hence, the other three components which have various factors associated with them along with the time were taken as the variables to observe. The Layout defines and interlinks the other three. The interrelatedness of these four is shown in the below image.

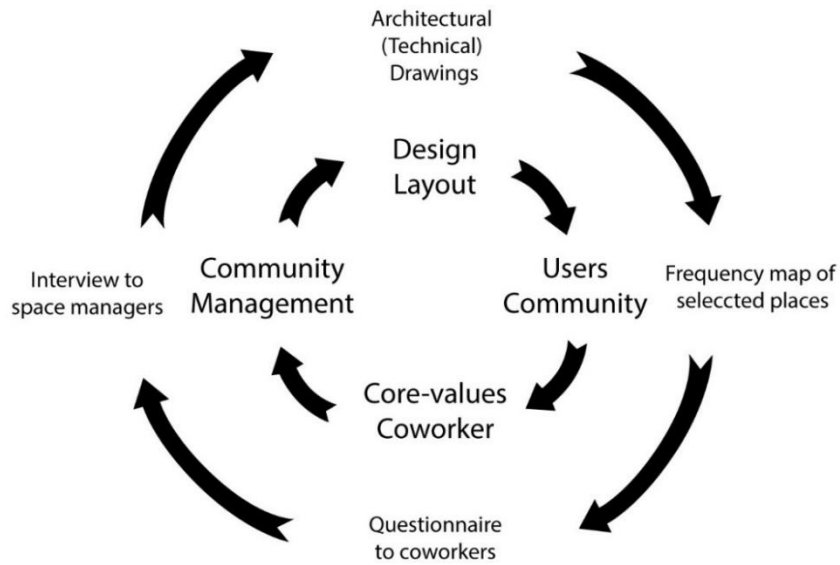


Figure 3: Coworking Process under Four Elements

Also, the below chart shows the three domains, data collecting methods related to each one of them and the traits intended to observe by each domain.

Domains	Data Collecting Method	Traits
Layout	Architectural Drawings	Theories
Community	Frequency Map	Behavioral
Coworker	Questionnaire	Psychological
Management	Interview	Social

Table 2: Coworking Process under Four Domains

### 03.3.1 Layouts

Layouts of the selected case studies were used in layout analysis stages. The analyses were done according to the theory of proximity and the extended elaboration shown in above section 03.1. Moreover, the layouts were also used in frequency mapping stages, as described in the 03.3.2 section.

### **03.3.2 Frequency maps**

The layouts were mapped by on-site observations for tracking down the frequencies related to each place of the interior. The maps were used in identifying the preferences of coworkers for different interior conditions of the coworking arrangement.

### **03.3.3 Questionnaire**

The questionnaire was designed very carefully according to academic guidelines (Vannette, 2014) such as to get the maximum reliable answer outcome from the participants. For that, the order of the questionnaire and the area of attention directed by the order were optimized several times via pilot projects before the final data collection.

When filling out the questionnaires, the researcher physically reached to each participant coworker and asked them personally to share their time and collaborate. By doing so, the reliability and confidentiality of the dataset were increased.

The reasons for the order and reasons for putting each question and their application in the analysis stage is shown below within square brackets.

*[Title and subtitle]*

## **Coworking in Sri Lanka**

Researching the impact of the interior environment on human behavior with particular reference to coworking spaces

*[Question No. 1 to 6 are for warming up the participant. Each of those questions is simple but intended to give some introspection. By going through them, the participant values himself and increases the self-confidence to answer the next novel and more rational questions.]*

1. Gender (mark only one option)

- Female
- Male
- Other:



2. Age group (mark only one option)
  - Below 24 years
  - 25 - 34 years
  - 35 - 44 years
  - 45 years or older
  
3. Level of education (mark only one option)
  - O/L, A/L
  - Diploma
  - Degree
  - Postgraduate
  - Above Postgraduate
  
4. Nature of the business (mark only one option)
  - Freelance
  - Startup
  - An employee of a company
  - Other:
  
5. The sector of the organization (mark only one option)
  - Design
  - IT
  - Business
  - Consultancy
  - Other:
  
6. Monthly income range (mark only one option)
  - less than 50,000
  - LKR 50,000 - 100,000 LKR
  - 100,000 - 200,000 LKR
  - Other:

*[Question No. 7 to 22 (except 15 and 22) are exactly planned to grasp an idea about the coworker's thinking pattern and attitudes on the five core values of coworking.]*

*[Question No. 7 gives coworker's attitudes on the core-value Sustainability]*

7. Transport method to coworking (mark only one option)
  - Personal vehicle
  - Hired cab
  - Public transport
  - Walking
  - A mix of above Methods

*[Question No. 8 gives coworker's attitudes on the core-value Openness]*

8. The comfort of diversity in the coworking community (mark only one option)

- No diversity
- Moderate
- Strong

*[Question No. 9 gives coworker's attitudes on the core-value Collaboration and Sustainability]*

9. The atmosphere and interior aesthetics of coworking space (mark only one option)

- Industrial
- Modern contemporary
- Colonial modern
- Other

*[Question No. 10 gives coworker's attitudes on the core values of Community and Accessibility]*

10. Events in coworking space (mark only one option)

- None
- Sometimes
- Often

*[Question No. 11 gives coworker's attitudes on the core values of Community and Collaboration]*

11. Working hours per week (write the answer)

- 00 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- above 40

*[Question No. 12 gives coworker's attitudes on all the five core-values]*

12. Reasons to choose a coworking place? (mark all that apply)

- Looking for a working place outside the home
- Interaction with other coworkers
- A vibrant and creative atmosphere
- Affordable accommodation
- Opportunity to network with coworkers
- Other:

*[Question No. 13 gives coworker's attitudes on the core-value Openness]*

13. Privacy preference provided by the interior (mark all that apply)

- Open layout (no partitioning)
- Half-open layout

- Closed layout

*[Question No. 14 gives coworker's attitudes on the core-value Accessibility]*

14. Other coworking experiences (mark all that apply)

- Local experiences
- International experiences

*[Question No. 15 is a transitional question among the different question types above and below]*

15. Names of the coworking spaces you have experienced in Sri Lanka

-----

*[Question No. 16 gives coworker's attitudes on the core-value Accessibility]*

16. Look for a working place outside the home (mark only one option)

No                    **1**        **2**        **3**        **4**        **5**            Yes

*[Question No. 17 gives coworker's attitudes on the core values of Community and Collaboration]*

17. Interaction with other coworkers (mark only one option)

No interaction **1**        **2**        **3**        **4**        **5**            Frequent interactions

*[Question No. 18 gives coworker's attitudes on the core values of Community and Openness]*

18. Vibrant and creative atmosphere (mark only one option)

Not vibrant    **1**        **2**        **3**        **4**        **5**            High vibrant

*[Question No. 19 gives coworker's attitudes on the core-values of Accessibility and Sustainability]*

19. Affordable accommodation (mark only one option)

Not affordable            **1**        **2**        **3**        **4**        **5**            Affordable

*[Question No. 20 gives coworker's attitudes on the core-value Openness]*

20. Seeking new jobs and challenges (mark only one option)

No opportunity **1**        **2**        **3**        **4**        **5**            Many opportunities

*[Question No. 21 gives coworker's attitudes on the core values of Collaboration and Sustainability]*

21. Opinion about the most effective coworking space

.....

*[Question No. 22 gives coworker's attitudes on all the five core-values]*

22. Suggestions in enhancing Sri Lankan coworking experience

.....

The below chart summarizes the above-shown correlations between core-values and each question of the questionnaire.

<b>Core-value</b>	<b>Correlated Question Numbers</b>
Community	10, 11, 17, 18, & 12, 22
Openness	08, 13, 18, 20, & 12, 22
Collaboration	09, 11, 17, 21, & 12, 22
Accessibility	10, 14, 16, 19, & 12, 22
Sustainability	07, 09, 19, 21, & 12, 22

*Table 3: Core-values Measured by each Question of the Questionnaire*

The question numbers 01, 02, 03, 04, 05, 06, and 15 were put in the questionnaire in creating the necessary optimum background for participants in the answering procedure. Hence, the data collected by the above questions were not taken into the analysis stages.

#### **03.3.4 Managers' interviews**

Below is the framework of questions asked from each of the coworking space managers. It was given to them in printed format in the first visit to the coworking space and interviewed in one of the last visits. They were free to talk about their experiences, stories, etc. within the framework. Interviews were done as face to face meetings, and the answers given by them were recorded as voice clips. Later, the clips were converted to written format by the author.

## **For the Management - Framework for Interview**

1. History of coworking in Sri Lanka
2. Manager's work experiences in coworking
3. Management and ownership of the coworking space
4. The history of the place - establishment and growth
5. The capacity of the place
6. Target community and their specifications
7. Services provided and not provided
8. Daily Weekly Monthly charges and packages
9. The uniqueness of brand name in practice
10. The coworker trends and patterns identified
11. Any significant characteristics of coworkers in the place
12. Any long-term regular attendees and reasons
13. Requests by coworkers and responses given to them
14. Requests by coworkers for interior layout changes
15. Events, event participation and their impact on the community
16. Any future improvements and plans (related to requests and demands)
17. Coworkers' openness about their work
18. Coworker interaction with each other
19. The Sri Lankan way of coworking related to its Western origin and base concepts
20. How the process sustains within the community or does it need outside input

### **03.4 Field Study Program**

The 02.6 section gives a list of notable coworking spaces in Sri Lanka. There are several more, and the details of some places were not published anywhere. However, the list shows the diversity and capacity of the places to select a few of them to go further for a more in-depth analysis. Selection for case studies was made in considering all the phases of the coworking activity.

Also, it is convinced that in the scope of this study, the two coworking environments selected will be representing the entire coworking community of Sri Lanka. So, the researcher was conscious in selecting places that cover the diverse ranges of crowd capacities, facilities provided, opening hours, daily-monthly charges and the characteristics of the coworking community such as their expertise, nature of the business they are involved in, etc.

Few places fulfilled the above criteria, including Kensington of Business Hubs, Hatch, Likuid Spaces, Colombo Cooperative, and Co-nnect. However, due to some of the practical problems (Management of some of the places were not agreed to provide their layout drawings and giving access to CCTV or video recordings of the environment in developing frequency maps. Mainly due to security purposes, after the 4/21 incident. By convincing the importance of the study to them, some places agreed to provide layout drawings, but none of the places which were in the list agreed to give access to their CCTV footages and at least to video recording facilities arranged by the researcher.), many options had to exclude from the list except Co-nnect and Likuid Spaces. The following reasons made the final selection of the two places.

- Both places have common coworking areas. (E.g. - Regus does not have a proper coworking area; they mainly rent out separate rooms)
- Seemed they were trying to be more faithful to the coworking concept. (E.g. - Different type of areas for different purposes like meeting spaces, private offices, and event spaces)
- More modern approach in the interiors providing vibrancy and energy. (E.g. - Business Hubs still have office desks and aluminum partitions)

All the observations related to selected case studies such as site visits, meetups, layout analyses, frequency mappings, questionnaire data collections, and interviews were done from June to July months of 2019.

In the process, several visits were made to the sites for fulfilling different aspects of the data collection. Also, in the process, the questionnaire data collections and interviews were put as the last things to accomplish, giving time to the coworkers and managers to become familiar with the researcher.

25 number of random participants from each of the two coworking contexts were participated in answering the questionnaire. And some exact details were taken from the coworking space managers about the history and plans of selected locations.

### **03.5 Data Arrangement and Presentation Techniques**

The collected data was arranged in the formats of layouts, layout frequency maps, spreadsheets (with the sorting capability), and interview texts.

- Layouts are necessarily in the format of architectural drawings
- The frequency maps are also drawings marked by indicative color palette
- The data collected from the questionnaire were arranged into graphs for accurate and efficient analysis
- The recorded voice clips of interviews with the managers were converted to text format for convenience in access.

### **03.6 Method of Analysis**

- Theoretical layout analysis shows the space planning and related optimizations were done to achieve the maximum outcome of coworking core-values.
- The frequency map based on the layout is an observable factual data set that evaluates the logical outcome gained in the previous stage.
- Graphical representation of the given answers to the questionnaire shows the tendencies/ biases/ polarities of the data set; hence, the tendencies of the mindset of the coworkers.

- Managers' interviews are used as a further evaluation (double-checking for confirmation or rejection) material to evaluate the results shown from the above three steps.

## **04 CASE STUDIES**

The two coworking environments studied in the research as cases are Co-nnect and Likuid Spaces. Both are located in the center of Colombo city and have a considerable amount of user groups for getting an adequate and worthwhile collection of data for the analysis part of the research.

### **04.1 Co-nnect**

Co-nnect coworking space provided by the Shangri-La international hotel chain is one of the well-known and rising coworking environments in Colombo, established in November 2017 and owned by Hong Kong-based Shangri-La International Hotel Management Limited.

Co-nnect is open from 8 a.m. to 8 p.m. daily and includes private offices, meeting rooms, work pods and individual work stations which can hold up to 30 coworkers for making ideal collaboration. It is an inspired alternative to working in a traditional office setting. They could be contacted via (94) 11 788 7202 or email [connect.slcb@shangri-la.com](mailto:connect.slcb@shangri-la.com). The physical address is No.1, Galle Road, Colombo 02, Sri Lanka and the web address is <https://www.co-nnect.info/>.

#### **04.1.1 Uniqueness of Co-nnect**

- High-Speed Internet Access
- Premium audio and video conferencing
- Laptop rental, wireless printing and photocopying service
- Wireless paging system to request assistance from the seat
- Interactive boards and smart boards



- Tech Relief Officer, to assist in all technical needs
- Café - The Café has specially crafted menus to facilitate meetings including hot beverages, refreshing juices, savories, and confectionaries, as well as healthy nibbles
- Discreet service which provides the ease to conduct meetings and foster the highest levels of productivity

#### **04.1.2 Spaces and functionalities**

##### **Meeting Rooms**

Co-nnect features four designed meeting rooms of varied sizes, seating up to 20 persons, which are suitable for business discussions. The meeting rooms featured elegant seating and equipped with either a 65-inch Smart Board or 100-inch Interactive Board to facilitate immersive and collaborative discussions. The rental is 2500 LKR per hour.



*Figure 4: Co-nnect - Meeting Room*

## **Work Pods**

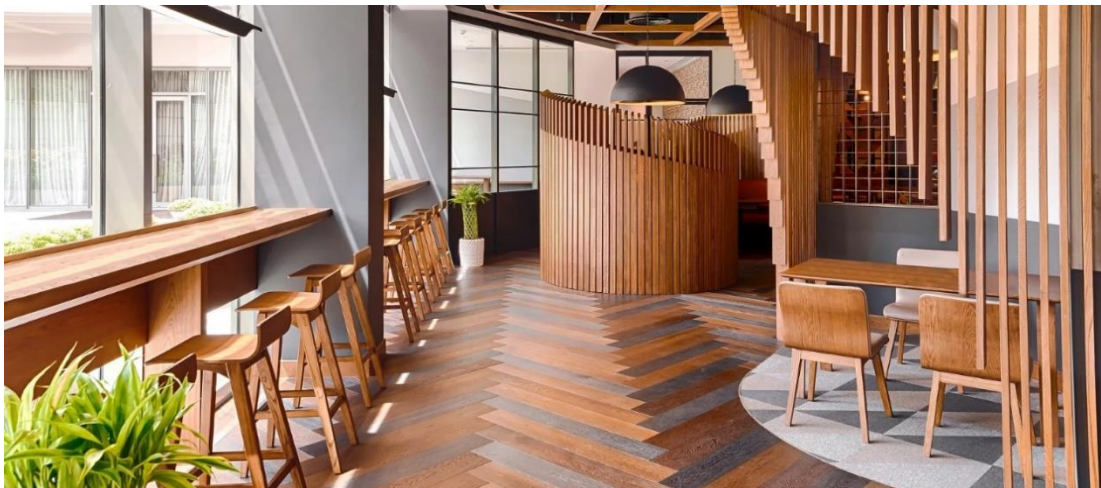
Co-nnect offers semi-private and open work pods to conduct meetings and discussions. Ergonomically designed seating, desks, and soothing lighting set the appropriate ambiance for creative thinking. The minimum rate for daily access per person is 1000 LKR.



*Figure 5: Co-nnect - Work Pod*

## **Individual Workstations**

These individual workstations look out to the garden with natural daylight offer the comfort and convenience of a coworking space. The minimum rate for daily access per person is 500 LKR.



*Figure 6: Co-nnect - Individual Workstations*

## Private Offices

The private offices with contemporary light wood furnishings and lockable cabinets are ideal for 1 to 4 person offices. They have rental packages on a weekly or monthly basis. The most exclusive thing about these offices is the benefit of having an exclusive address within the Shangri-La Hotel, Colombo. Ideal place for start-ups or project-based work. Charges vary with the facilitation provided.



*Figure 7: Co-nnect - Private Offices*

### 04.1.3 Layout analysis

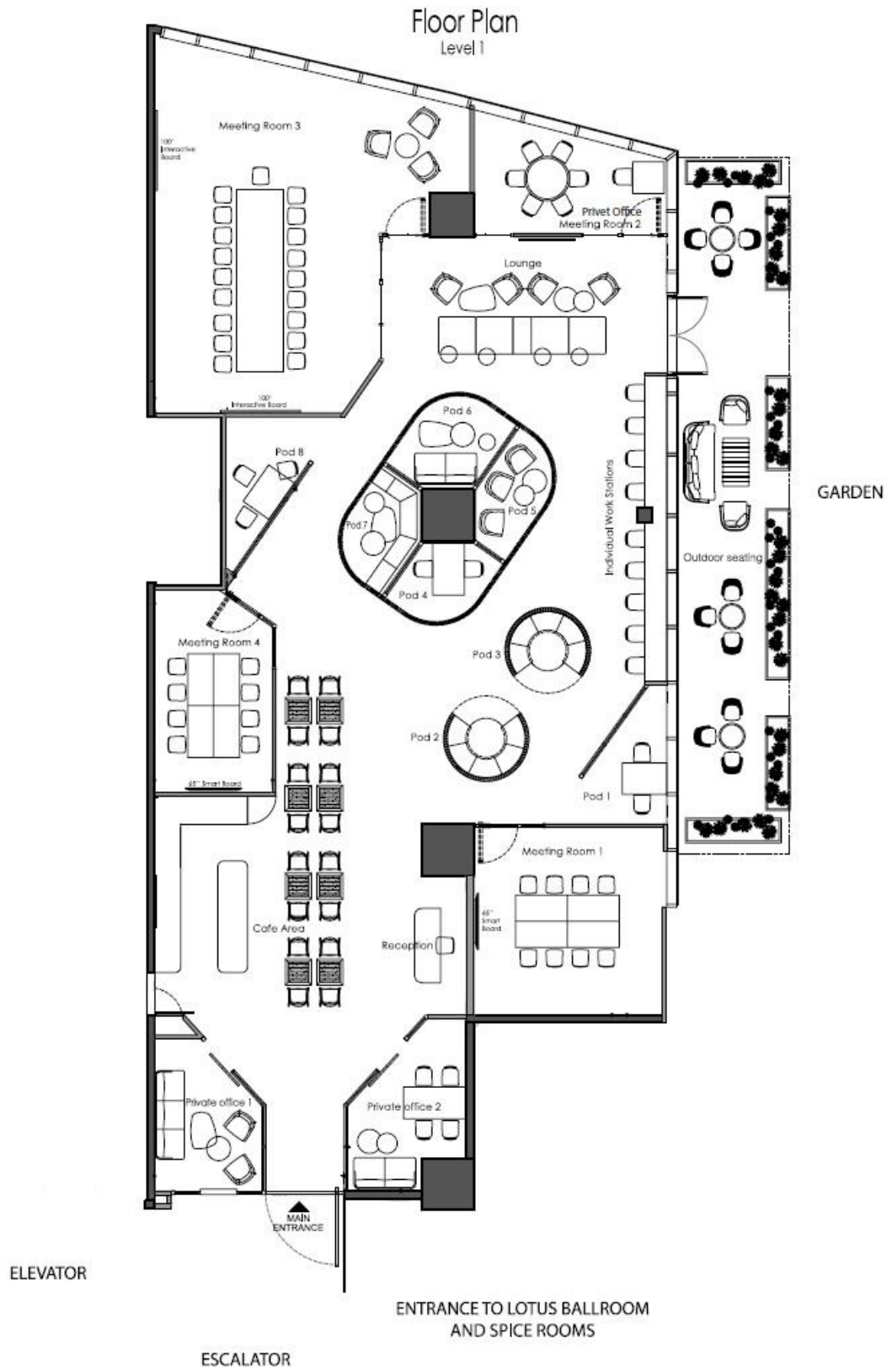
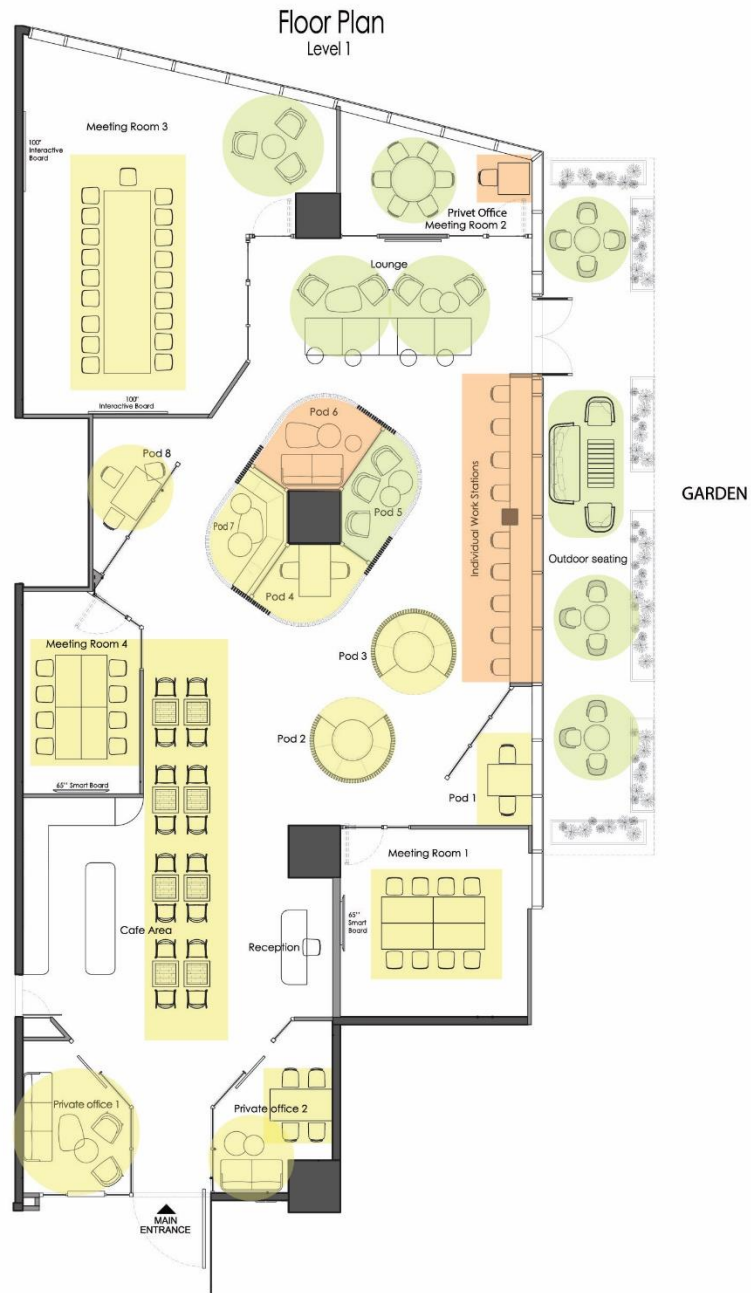


Figure 8: Co-nnect - Layout



Figure 9: Co-nnect Layout Analysis - Area Identification Map



- Socio-petal - Static Arrangement
- Socio-petal - Non-static Arrangement
- Socio-fugal (Static Arrangement)

**Shangri La – Co-nnect**  
Layout Analysis  
Space

*Figure 10: Co-nnect - Layout Analysis - Space*

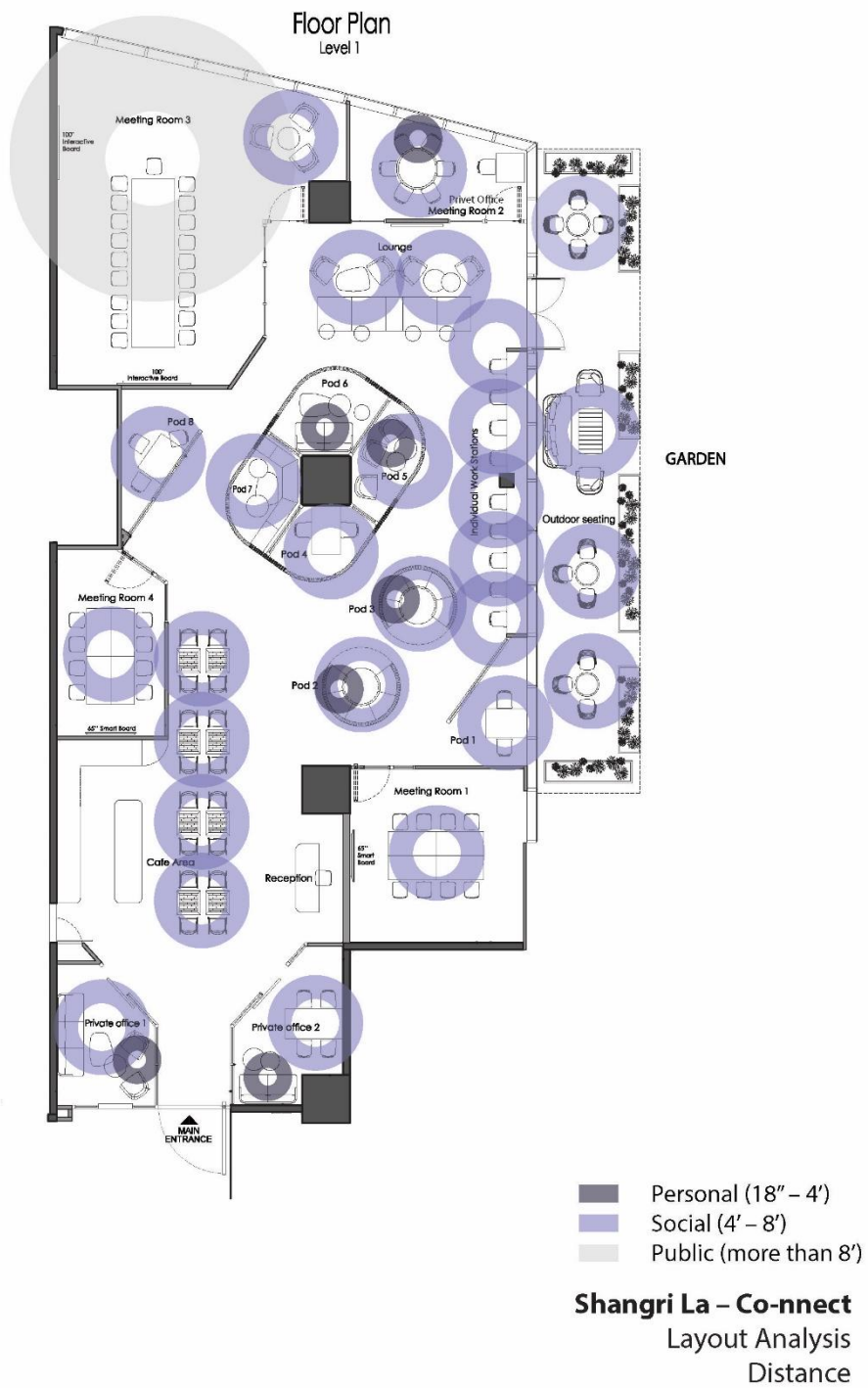


Figure 11: Co-nnect - Layout Analysis - Distance

#### **04.1.3.1 Space**

As it was discussed in section 03.1.1, space arrangement can be identified mainly under three categories discussed below.

##### **Semi fixed-feature / Socio-fugal**

**Analysis:** Socio-fugal arrangements can be used for areas to achieve high distance relationships, less interaction, and more focus on the work. It was observed that ‘Individual Workstations’ and ‘Pods’ in Co-nnect can be identified as socio-fugal due to its distance relationship to the degree of conversation and seating provisions.

**Findings:** Coworking is a concept which boosts interactions and engagements with other workers who share the same space. Nevertheless, it promotes distance relationships whenever one needs to pay a high focus on their work and fewer interactions with the others as well.

##### **Semi fixed-feature / Socio-petal**

**Analysis:** Co-nnect used socio-petal arrangements for all types of space, such as private, semi-private, and public areas.

Socio petal space arrangements are identified in Coffee Area, Privet offices, Meeting Rooms, Pods, Lounge Area, and Outdoor Seating due to its flexible seating provisions.

**Findings:** By providing various semi fixed-feature seating provisions (socio-petal) in both private and public areas, Co-nnect could encourage workers to form and shape up interactions with others as per their desired degree of conversation.

##### **Informal**

**Analysis:** Co-nnect has not used this type of space arrangement in its interior layout.

**Findings:** Informal spaces are unique as it provides maximum possibilities to the people to work-out their own space. These kinds of spaces normally encourage people to interact with each other and push some of the social boundaries. Since this kind of space hasn’t used, it’s hard to comment on this.



#### **04.1.3.2 Distance**

Section 3.1.2 elaborates on the theoretical background of this section.

##### **Personal (18” – 4’)**

**Analysis:** As it is indicated in the above layout, ‘Personal proximity type spaces’ have been introduced in Private Offices and Pods at Co-nnect coworking environment.

**Findings:** Generally, these spaces encourage people to talk and interact with each other. However, at the same time, one might feel as if their bubble is being invaded at these spaces as well.

It could be observed in Co-nnect that circular pods which have been introduced in the middle of the pathway, have been designed and arranged in such a way that they do not seek too much attraction and attention from other people but allows one to interact only with its close coworkers comfortably. At the same time, it could be noticed that if coworkers who are not very close and maintaining a level of distance from each other, might feel uncomfortable by using these pods due to its static arrangement.

##### **Social (4’ – 8’)**

**Analysis:** Co-nnect has been able to create social distances within working and public spaces such as Private Offices, Meeting Room, Coffee Area, Pods, Individual Workstations, Lounge Area, and Outdoor Seating as it is indicated in figure 11.

**Findings:** it can be noticed that Co-nnect has achieved lots of quality spaces with “Social (4’ – 8’)” distance type which can be identified as the ideal distance level that most of the people who are coworking prefer within a working environment.

##### **Public (more than 8’)**

**Analysis:** Only possible locations which could create public distances within a coworking layout are meeting rooms.

**Findings:** As it is discussed in section 3.1.2, this distance is created to maintain the formality of interaction with the group of people.

### 04.1.4 Frequency map

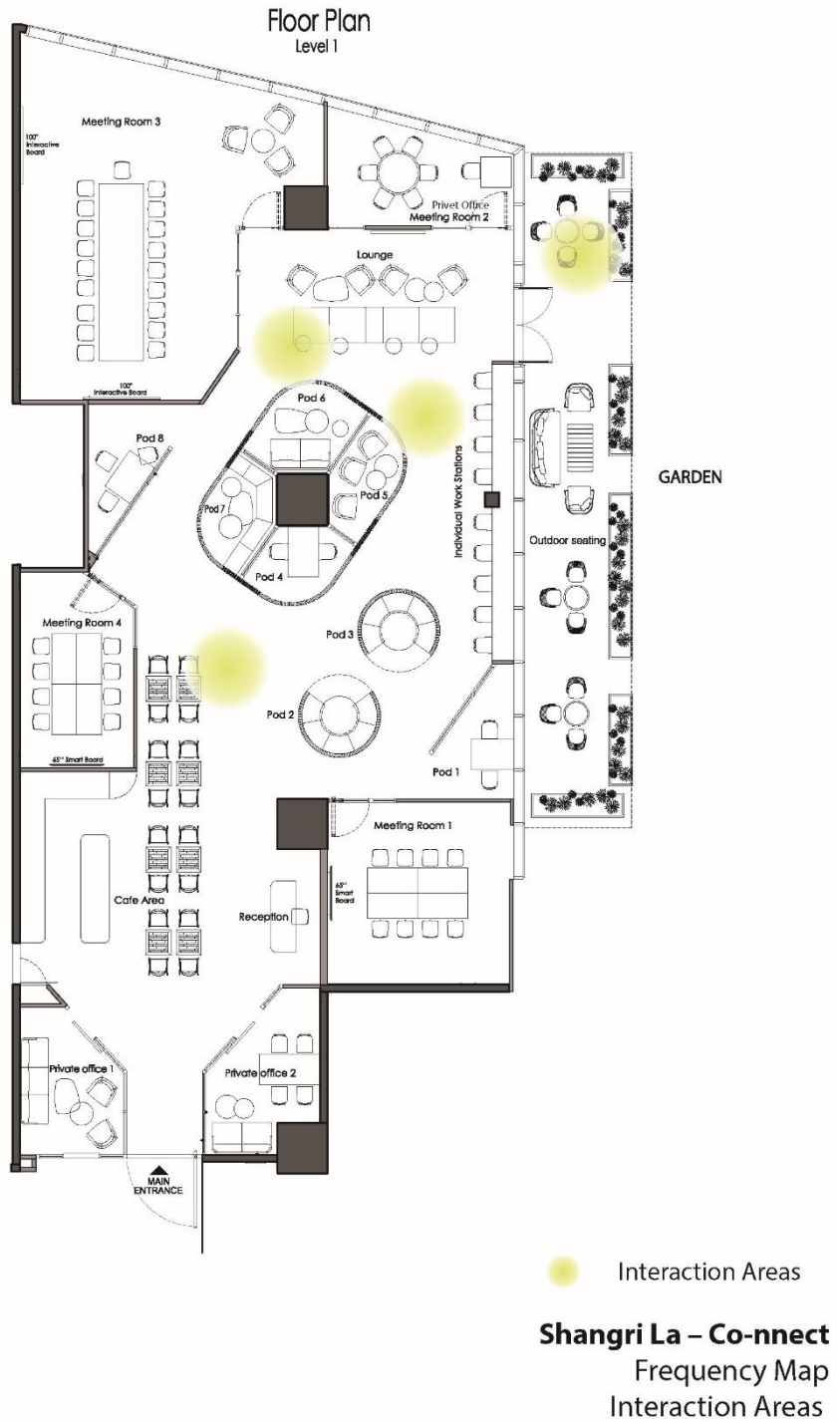


Figure 12: Co-nnect - Frequency Map - Interaction Areas



Figure 13: Co-nnect - Frequency Map - During Work Time

## Interaction Areas

**Analysis:** the areas where high frequencies of interactions were observed during an entire day are highlighted in yellow color in the above layout, figure 12.

**Findings:** It could be observed that Outdoor Seating Area, Lounge Area (two areas in the lounge), and Coffee Area are the areas where high frequencies of interactions were encouraged.

Further, it was noticed that such spaces had been articulated with natural and humanmade elements as it is described in table 4, which paved the way to take place high frequencies of interactions.

<b>Areas of high-frequency interaction (observed during an entire day)</b>	<b>Interaction stimulator elements (natural and humanmade)</b>
Outdoor seating	Natural Lighting & relaxing environment
Lounge area 1 (near to the door for outside)	Natural Lighting and flexible furniture arrangement
Lounge area 2 (near big meeting room)	flexible furniture arrangement
Café Area	Food & gathering

*Table 4: Co-nnect - Interaction Areas and Stimulations*

## During Work Hours

### Part 1: Study based on user

User Category	Mostly Occupied areas	Analysis/ Findings
Staff & regular users in private offices	Private offices	Possess the same seats as required by the nature of their occupancies.
Occasional users	Café area, Meeting rooms, or Pods	Tend to stay in safe zones rather than exploring the space. Users who are using meeting rooms have less interaction with others outside the meeting room.
Regular users	Pods, Individual workstations, Lounge area, Outdoor seating area.	Regular users are getting comfortable and familiar with the spaces. Hence, they tend to explore the spaces to pick the most suitable working environment as they wish.

Table 5: Co-nnect - User Based Analysis

### Part 2: Study based on space

Space	Analysis	Findings
Pods	Not fully exposed or fully enclosed to the outsiders and provide some degree of privacy to the users	Most regular users prefer to use the pods that they can focus on their work peacefully and at the same time feel they are connected with the outer space
Individual Workstations	Many interactions were taking place within these areas, even though the seating facility falls into socio – fugal fixed category discouraging the interaction by nature	A set of regular users tend to possess the same workstations as they have become close to each other. It shows that human behavior has a significant impact on the interior environment, even though the interior controlled and limited the interactions; it could be converted into a very interactive space.
Lounge Area	This space was expected to be highly active, but it was observed that interactions and usage of this area are lesser than the expected outcome	This space falls into a non-static furniture arrangement. The lounge area has become a formal seating arrangement as the users cannot re-arrange the space as they wish
Outdoor Seating	Coworkers use this area regularly, but not occupied throughout the day. occupied within the intervals of the coworkers as a smoking area or relaxing area	

Table 6: Co-nnect - Space-Based Analysis

### 04.1.5 Dataset of the questionnaire

Timestamp	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11
2019/07/07 9:29:18 AM	M	35 - 44 Y	Postgraduate	Employee	Business	100k - 200k	Personal V.	Moderate	MC	None	abv 40
2019/07/07 9:29:18 AM	F	35 - 44 Y	Postgraduate	Employee	Insurance	Other	Hired cab	Moderate	MC	None	10 - 20
2019/07/07 9:48:33 AM	M	25 - 34 Y	Degree	Startup	IT	Other	Personal V.	Moderate	CM	None	20 - 30
2019/07/07 10:09:23 AM	M	25 - 34 Y	Degree	Startup	IT	50k - 100k	Public T.	Strong	MC	Sometimes	abv 40
2019/07/07 10:19:48 AM	M	25 - 34 Y	Postgraduate	Startup	IT	50k - 100k	Mix	Strong	Ind	Often	abv 40
2019/07/07 10:23:21 AM	M	abv 45 Y	O/L, A/L	Startup	Travel Comp.	100k - 200k	Personal V.	Strong	MC	None	30 - 40
2019/07/07 10:32:31 AM	F	25 - 34 Y	Degree	Freelance	IT	100k - 200k	Mix	Moderate	MC	None	20 - 30
2019/07/07 10:36:06 AM	F	25 - 34 Y	Postgraduate	Employee	Consultancy	50k - 100k	Mix	Strong	MC	Often	30 - 40
2019/07/07 10:41:53 AM	M	abv 45 Y	O/L, A/L	Local Agent	Consultancy	Other	Personal V.	Moderate	Ind	Sometimes	20 - 30
2019/07/07 10:44:07 AM	M	25 - 34 Y	Diploma	Freelance	Consultancy	100k - 200k	Mix	Moderate	Ind	Sometimes	20 - 30
2019/07/07 10:47:02 AM	F	25 - 34 Y	Postgraduate	Startup	Design	Other	Hired cab	Strong	MC	Often	10 - 20
2019/07/07 10:51:49 AM	M	25 - 34 Y	Degree	Employee	IT	50k - 100k	Public T.	Moderate	CM	Sometimes	30 - 40
2019/07/07 10:55:26 AM	F	abv 45 Y	Degree	Comp. MD	Consultancy	Other	Hired cab	Strong	Other	None	abv 40
2019/07/07 11:02:05 AM	M	25 - 34 Y	Postgraduate	Startup	IT	less than 50k	Personal V.	Moderate	MC	Sometimes	20 - 30
2019/07/07 11:06:10 AM	M	35 - 44 Y	Degree	Startup	IT	50k - 100k	Personal V.	Strong	MC	Often	abv 40
2019/07/07 11:11:41 AM	M	25 - 34 Y	Diploma	Startup	Consultancy	100k - 200k	Mix	Moderate	MC	Sometimes	20 - 30
2019/07/07 11:18:34 AM	F	25 - 34 Y	Postgraduate	Startup	Design	100k - 200k	Personal V.	Moderate	MC	Sometimes	20 - 30
2019/07/07 11:22:46 AM	M	25 - 34 Y	Abv Postgrad	Startup	IT	100k - 200k	Personal V.	Moderate	MC	None	30 - 40
2019/07/10 3:46:17 PM	F	25 - 34 Y	Degree	Startup	Design	50k - 100k	Hired cab	Moderate	Ind	Sometimes	00 - 10
2019/07/10 3:54:35 PM	M	35 - 44 Y	Degree	Business	A combination	Other	Personal V.	Moderate	Other	None	abv 40
2019/07/10 4:35:06 PM	M	abv 45 Y	Diploma	Freelance	Music industry	Other	Walking	Strong	MC	None	00 - 10
2019/07/10 4:53:05 PM	M	35 - 44 Y	Postgraduate	Freelance	Hospitality	100k - 200k	Personal V.	Strong	CM	None	30 - 40
2019/07/20 11:26:11 AM	M	25 - 34 Y	Degree	Startup	Design	50k - 100k	Hired cab	Moderate	Ind	Sometimes	00 - 10
2019/07/20 11:29:37 AM	M	abv 45 Y	Diploma	Freelance	Entertainment	Other	Mix	Strong	MC	None	00 - 10
2019/07/20 11:33:37 AM	M	35 - 44 Y	Degree	Comp. Owner	Investor	Other	Personal V.	Moderate	Other	None	abv 40

Figure 14: Co-nnect - Dataset of Questionnaire (1/2)

Q12	Q13	Q14	Q16	Q17	Q18	Q19	Q20	Q21
All	Half	I	4	5	4	3	3	
1;5	Half,Closed	I	5	5	3	4	1	Not too loud, bright, enough power sockets, flexibility, clean & comfortable.
3	Open	I	1	3	4	5	3	As a startup cost for rent is a high burden. When cost is managed, better growth.
1;2;5	Half	L	4	2	3	2	5	Availability of refreshments, Privacy, Internet
5	Open	L	5	5	4	5	5	Not found the most effective space in Sri Lanka yet. One of the best is Connect.
2;3;5	Half	L	4	4	5	5	3	Open space layout without restrictions
1	Half,Closed	L	5	3	3	3	3	Efficiency and effectiveness progressed drastically, when working in CW spaces.
3	Half	L	4	5	4	4	3	
4	Closed	L	5	2	4	3	3	
3	Open	L	4	4	4	4	4	
All	Half	L,I	5	5	4	3	5	
1;2;3;5	Open;Half	L	4	3	4	4	4	It actually helps to think creatively & work effectively.
Business Need	Half	I	4	1	4	3	1	
1;5	Open	L	4	4	3	3	4	
1;2;3;4;5	Open;Half	L	5	5	5	5	4	Connect is the best out of all due to atmosphere, facilities, staff and pricing
3;5	Open	L,I	4	4	5	5	3	Dojo - Bali, Betahaus - Berlin. Open, Inclusive, Ergonomic, Good + Free Coffee
1;2;3	Open;Half	L	5	4	4	3	2	Workable interior space, Good Collaboration, Affordability
3;5	Open;Closed	L	3	4	5	3	5	CW spaces should have something special that encourage startups/ freelancers.
1;3	Half;Closed	L,I	5	4	5	4	4	Connect - Should be having everything under one roof.
3	Closed	L	1	1	5	3	1	
3	Half	I	1	1	5	5	1	
1	Half	I	4	2	5	5	3	Not experienced too much in Sri lanka
1;3	Half;Closed	L,I	5	4	5	4	4	Connect; Should be having everything under one roof.
3	Half	L,I	1	1	5	5	1	
For Meetings	Closed	L,I	1	1	3	1	1	

Figure 15: Co-nnect - Dataset of Questionnaire (2/2)

### 04.1.6 Questionnaire analysis

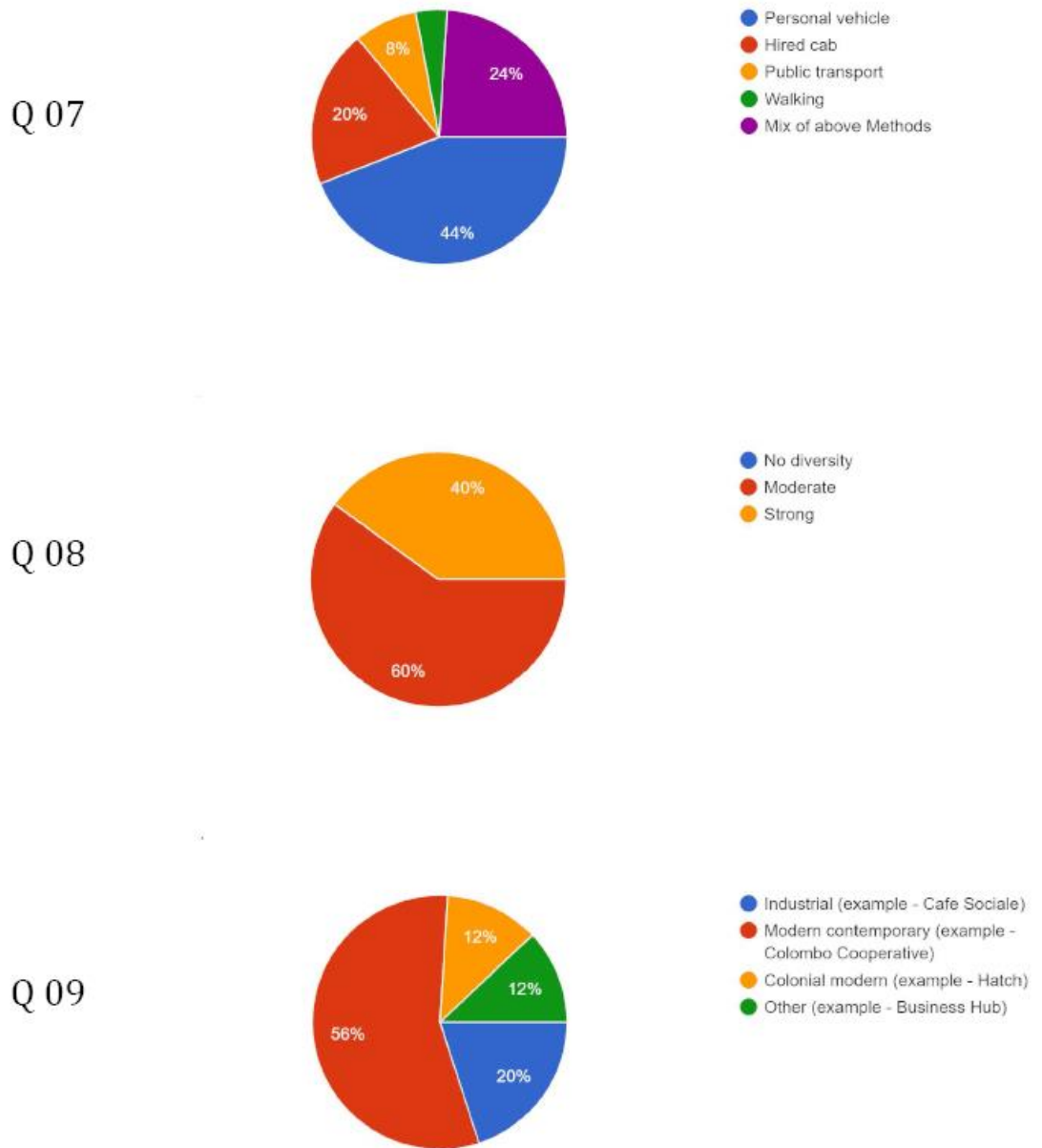
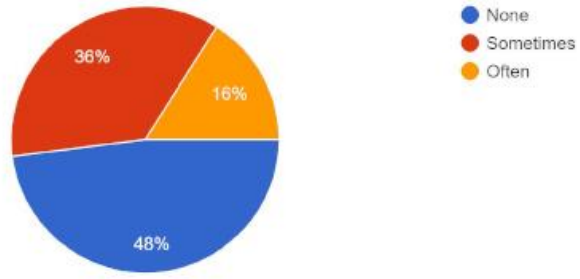


Figure 16: Co-nnect - Questionnaire Analysis (1/3)



Q 10



Q 11

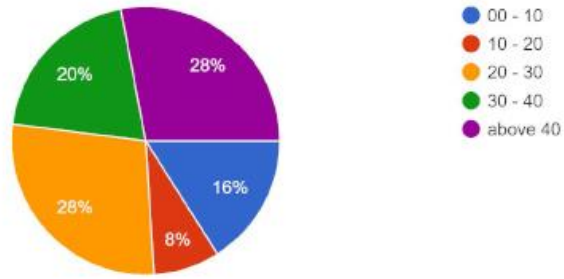
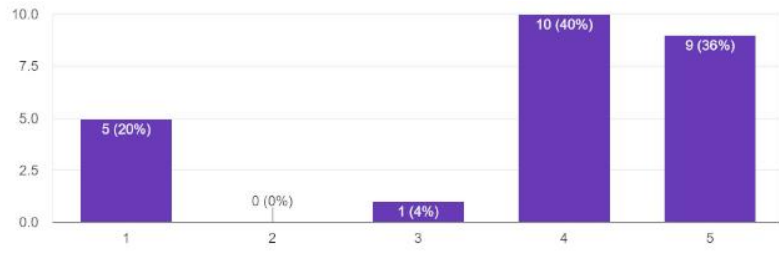
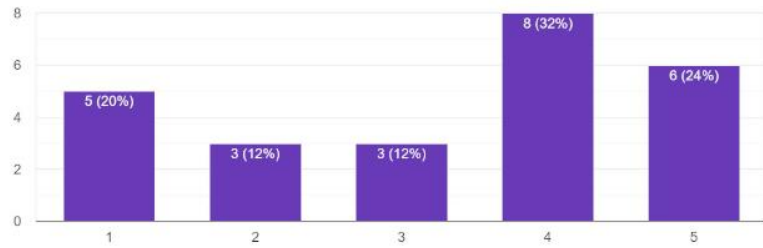


Figure 17: Co-nnect - Questionnaire Analysis (1/3)

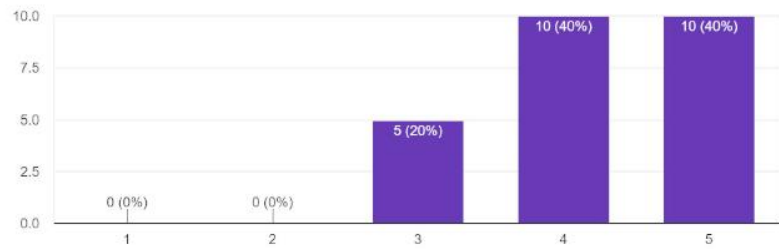
Q 16



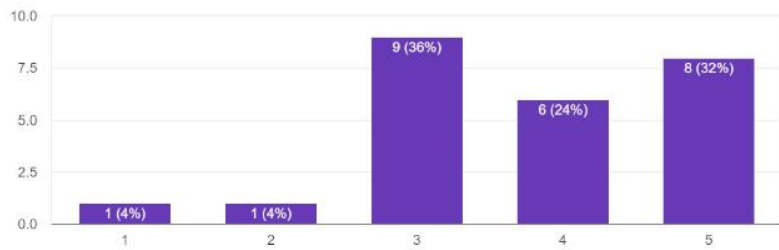
Q 17



Q 18



Q 19



Q 20

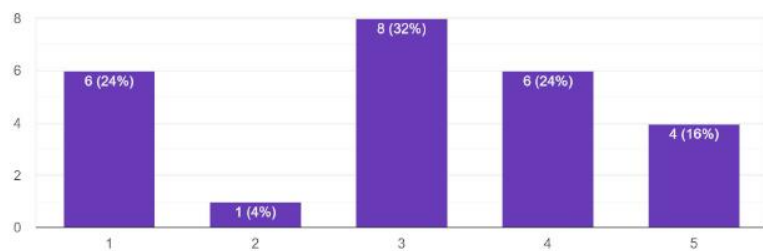


Figure 18: Co-nnect - Questionnaire Analysis (2/3)

Answers given to the questionnaire by coworkers of the Co-nnect coworking space are shown above in the format of charts for the convenience of readability and analysis. According to the answers given for Q 07 – 11 as shown in figure 16 & 17, the coworkers are modest in their preferences except choosing a transport method to the coworking space (Q 08) and events in the coworking space (Q 11). As seen in figure 16 & 17, the dominant color for the pie charts of those two questions are blue, which indicates the non-agreement to coworking core-values. It shows that the user group tendency of Co-nnect is more individualistic than group orientating.

According to figure 18, all the bar charts are denser towards the right-hand side, which indicates the interest in core-values. The most deviated charts to this observation are for Q 17 and Q 20. Also, it asserts the finding of the above pie charts by showing their individuality as in Q 17 and their job security by no interest to participate in challenges and new opportunities.

Figure 19 below shows the results for Q 13 – 15, and it asserts the above finding back again by the preference for half-open and closed layouts and the reasons for choosing the place.

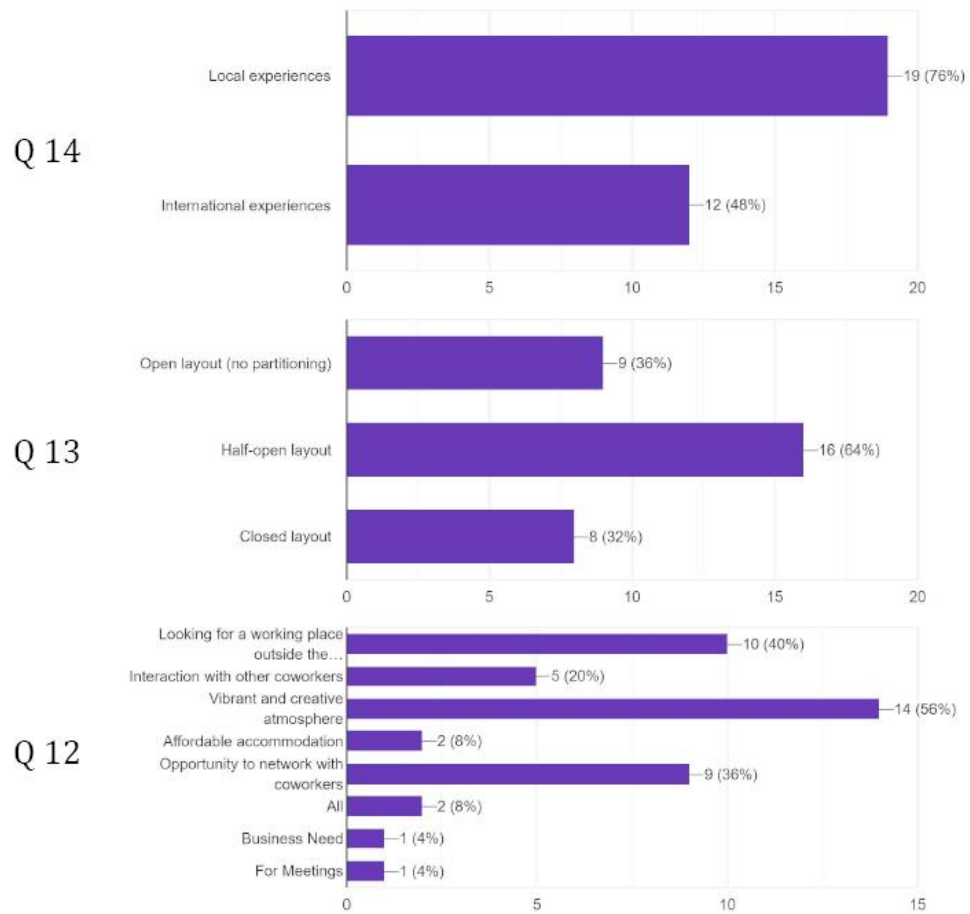


Figure 19: Co-nnect - Questionnaire Analysis (3/3)

#### 04.1.7 Manager’s interview

##### 1. History of coworking in Sri Lanka

*I think most of Sri Lankan coworking areas are not true to the coworking concept. Most of them are renting out office spaces. They do not have a serving facility, have basic office furniture, etc.*

2. Manager's work experiences in coworking

*Not as a manager, but as a user, I have experienced the coworking concept.*

3. Management and ownership of the coworking space

*Shangri-La (Global), Shangri-La (Sri Lanka), and under hotel management.*

4. History of the place – establishment and growth

*I heard that this interior area was supposed to be a bar or restaurant, and later management decide to make this space as a coworking space. In the beginning, it was quiet. Hotel Lobby is on the 2nd floor, and this is on the 1st floor. So, most people who come to the hotel did not know about the space. And then the marketing team did a marketing plan and took many approaches to market space through Facebook and hotel official channels. We host some guest speaker events and that given good exposure. At the same time, the sales team also did many promotions and promote hotel partners also.*

*I think after January or February it became more popular and we got more members joining. Also, we have an excellent offer of 500 LKR.*

*After the terror attack, the hotel closed around one month. After reopening, we expected low attendance, but the coworkers of private offices came right after we opened. Few members had to work in different coworking spaces during the closed time, and they also came back as soon as we opened.*

5. The capacity of the place

*30*

6. Target Community and their specifications

*Meeting rooms for companies and foreigners (they book the meeting room while they are here for business trips)*

*Pods for Students*

*Also, IT, Consultant, Design professionals. (So far, the majority are local people. Foreigners only book the meeting rooms.)*

7. Services provided and not provided

*Fastest Wi-Fi in Sri Lanka, Coffee shop, IT support, printers, projectors, phone lines, smoking Area. Moreover, outside food is not allowed.*

8. Daily Weekly Monthly Charges and packages

*Refer section 04.1.2*

9. The uniqueness of their brand name in practice

*Best interior, furniture of the region.*

*Food and beverage – good quality*

*Service is excellent – as we are a hospitality brand. We are trying to maintain the hotel standards here also.*

10. The coworkers' trends and patterns identified

*In general, people prefer sunlight. So, people tend to work/ stay near to the garden view area. Pods are also popular as they are half-open spaces. It is about the mood they are having.*

11. Any significant characteristics of a coworker in the space

*Some people prefer to work along, and some like to work together, and they do not mind collaboration.*

12. Any long-term regular attendance and reasons

*Price, space, Emotional attachment with space, they do have a good sense of design and good taste*

13. Request by coworkers and responses given to them

*Permission to bring outside food – no*

*More food options – the room menu was introduced*

*Gym facilities – hotel gym membership with a convenient package was introduced*

14. Request from coworkers for interior changes

*Office users asked for covering of clear glasses, and we covered with sandblasted stickers which gave the privacy, but it is not entirely covered.*

15. Events, event participation and their impact on the community

*We make partnerships with companies to do the events, and we host the space. It is a useful marketing tool. And people get to know each other more.*

16. Any further improvements and plans (related to request and demands)

*Prices will be increased shortly. And, not many physical changes as we have opened recently.*

17. Coworkers openness about their work

*Yes, they are open to each other. They tend to share their experiences. However, again, it depends on people's personalities and the nature of the business.*

18. Coworkers interaction with each other

*It is good. They are like neighbors.*

19. The Sri Lankan way of coworking related to its western origin and base concept

*I'm not too sure about Sri Lankan culture. I feel it is more like Chinese culture. The working mode is changing generally in the world. Earlier everyone was working in offices, but now it has got changed. Now, people are more self-controlled, and more people are doing startups.*

20. How the process sustains within the community or does it need outside input

*I think it is doing ok and no need to change it for now.*

#### **04.1.8 Concluding Co-nnect**

As Co-nnect is still new to the market, they are still penetrating to the needs of the Sri Lankan coworking community. The lowest promotional prize range they provided was one strategy among several others to attract more crowds.

Their facilities are indeed unique and better than almost all the places, but some seating arrangements such as circular pods at Co-nnect seemed a little uncomfortable for some users as it makes one sits very close to another. Therefore, it would have been better if these types of seating arrangements were introduced in such a way that it does not affect other coworkers' personal territory.



## **04.2 Likuid Spaces**

Likuid Spaces is the coworking space managed by Likuid Ventures (Pvt) Ltd. Established in 2014 by Shuib Yusoof and with the time the place got very well-known among the Colombo based working youth with its backing for the successful projects such as ROAR Media Company. Likuid maintains its philosophy fuelled by a concept named as 3 "C" represented by Community, Collaboration, and Creativity.

The place is equipped with 55 seats, a 12-seater and 5-seater meeting rooms, private office rooms, a well-equipped pantry, and a stellar rooftop event space. The registered user count of the space is over 1,000 and mentions as the 'Tribe' among the community. Their contact details are (0094) 776 083 621 or by email [life@likuidspaces.com](mailto:life@likuidspaces.com) and the location is No.5, Charles Place, Colombo 03, Sri Lanka while the virtual location could be accessed by <http://www.likuidspaces.com/>.

### **04.2.1 Uniqueness of Likuid Spaces**

- Unlimited Wi-Fi
- 24/7 access
- Company signage display
- CCTV Security & Guard
- Panty and the kitchen with free Coffee/Tea & Weekly Fruit
- Coworking with a community of like-minded people
- Uniquely curated & fully equipped workspace with sound and video recording equipment, printer, scanner, photocopier, computers, single/dual monitors, a library, skype room, and personal lockers
- Regular events to learn & network
- Special discounts and services through the Likuid Network such as free print/scan/ copy facilities up to 100 pages per month per desk
- One of the very few pet-friendly coworking spaces in Colombo

## 04.2.2 Spaces and functionalities

### Dedicated Offices

Recently renovated 6-seater private rooms which give the ownership of the space to an agreed period with 24/7 access to space with all the facilities and benefits. The package starts from 27,500 LKR per month.



*Figure 20: Likuid Spaces - Dedicated Office*

### Meeting Space

The Likuid Board Room is one of the largest coworking meeting rooms in the city. It is also well equipped. The 14 to 20-seater Board Room has an ongoing history that has brought life to some of the country's hi-tech companies such as Apple TV, Chromecast, PS4, Oculus Rifts, Projector, Bose Surround Sound and Flip chart.



*Figure 21: Likuid Spaces - Meeting Space*

## The Lobby

The vibrant, energetic lobby is in the process from Monday to Friday, from 7 am to 7 pm. It is closed on Saturdays and Sundays. However, being a part of the tribe access to all features of the space are provided. The charges start from 1500 LKR per day.



Figure 22: Likuid Spaces - Lobby

## Event Space

Likuid's roof is a dynamic networking space that boasts over 2,000 sqft, equipped with ample open space, meeting room, projector, outdoor speakers, BBQ grill and movable furniture, used by the tribe for game and movie nights, BBQs and community events. Also rented for 30,000 LKR per day events to like-minded people.



Figure 23: Likuid Spaces - Event Space

### 04.2.3 Layout analysis

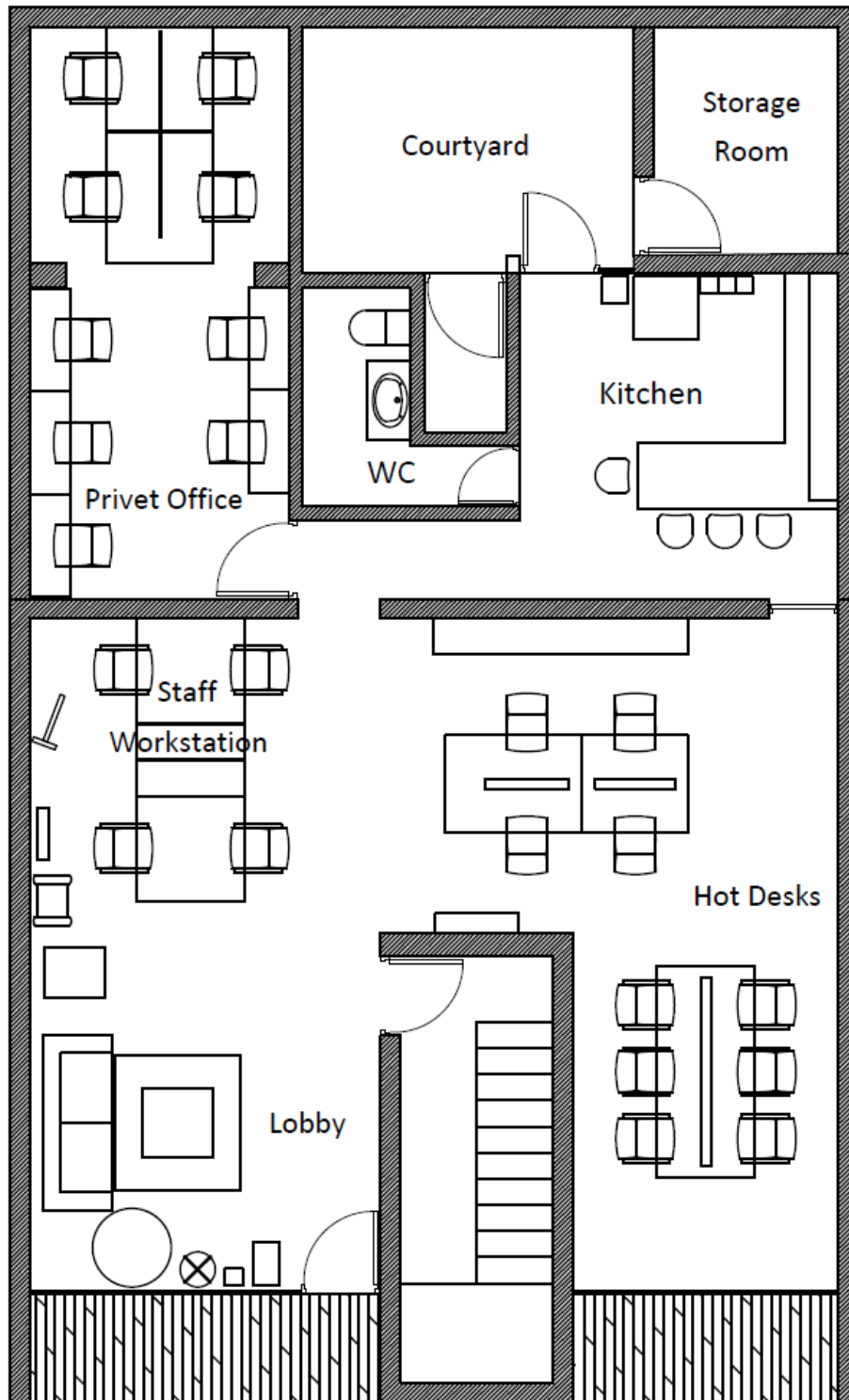


Figure 24: Likuid Spaces - Ground floor Layout

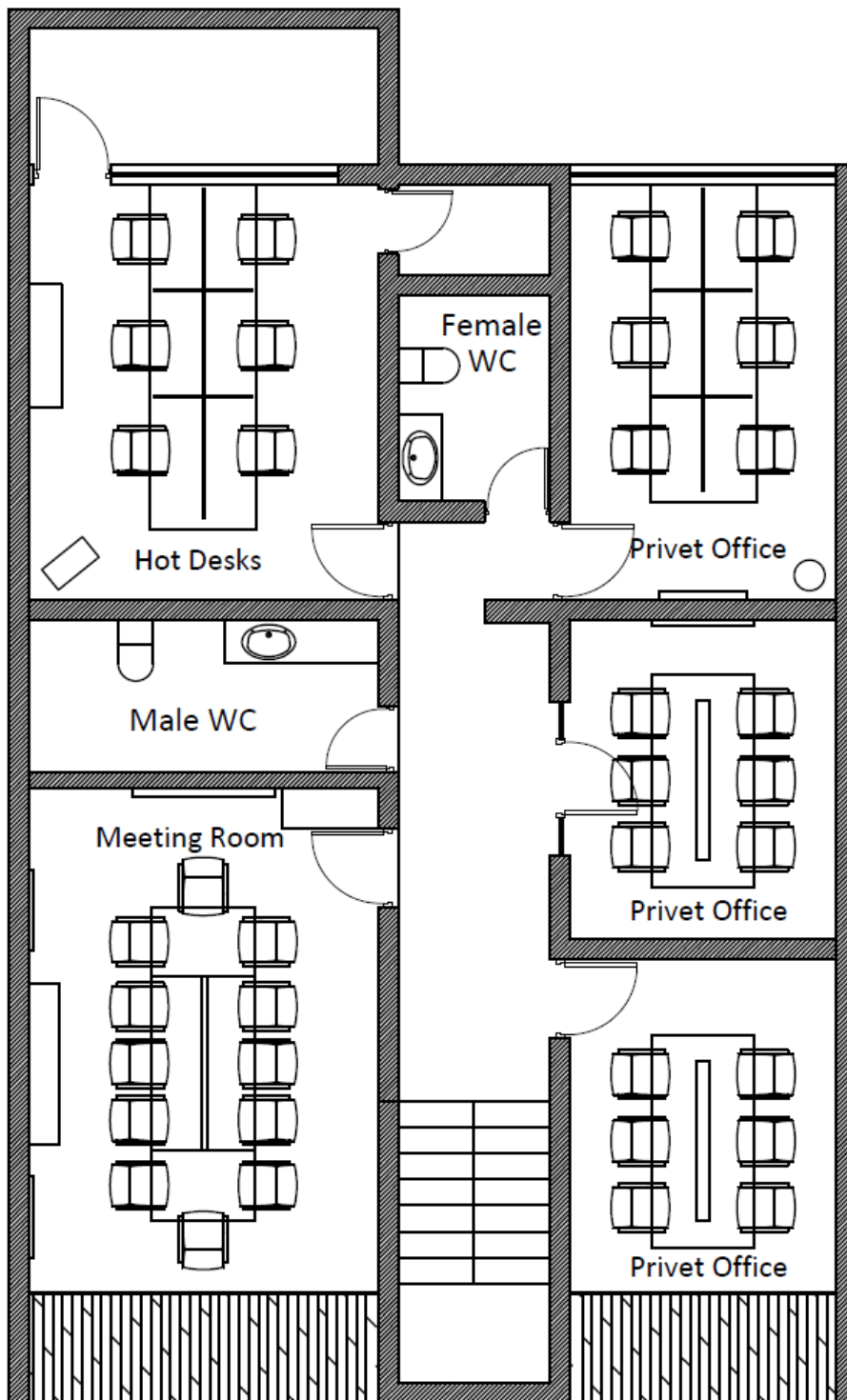


Figure 25: Likuid Spaces - First floor Layout

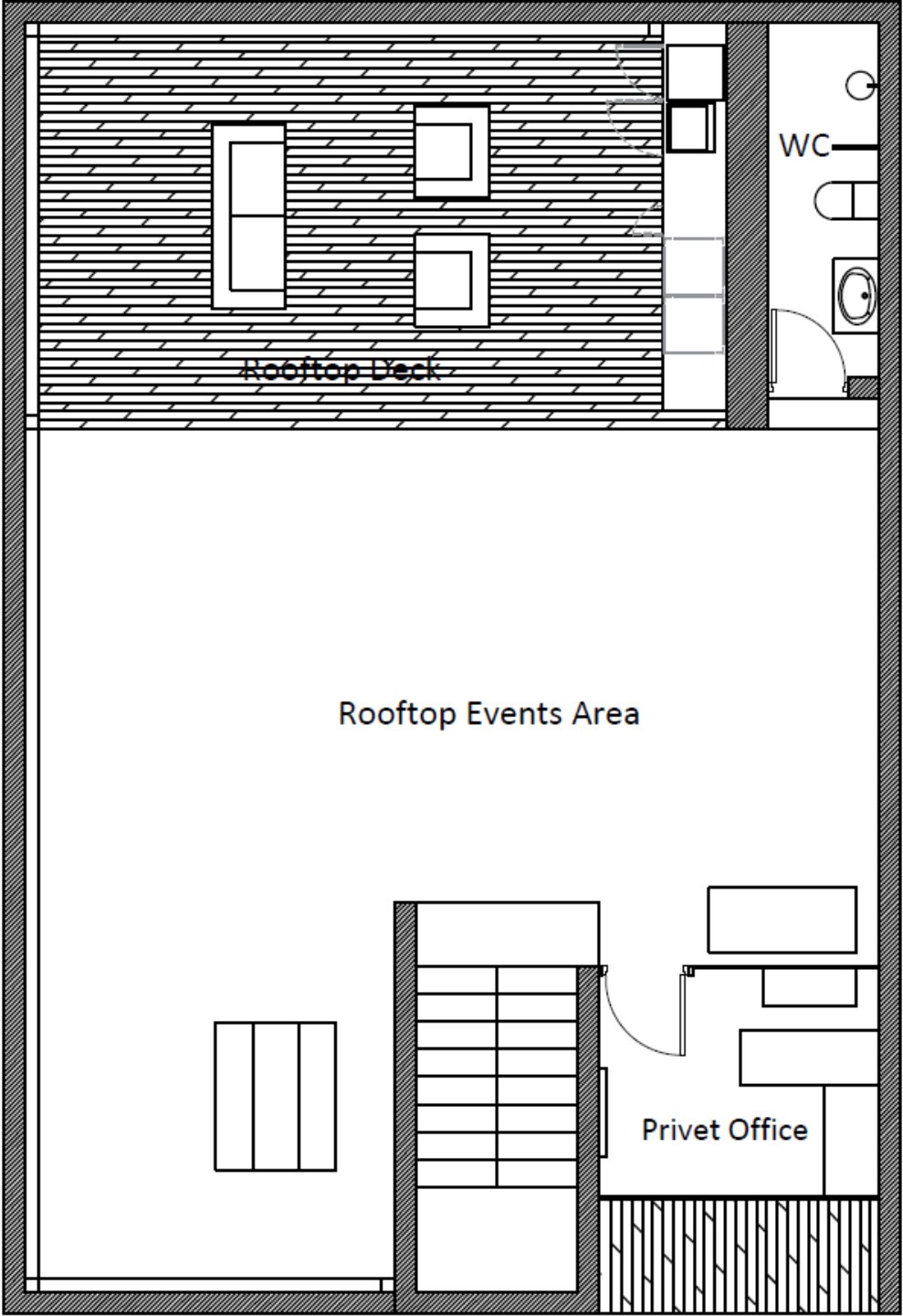
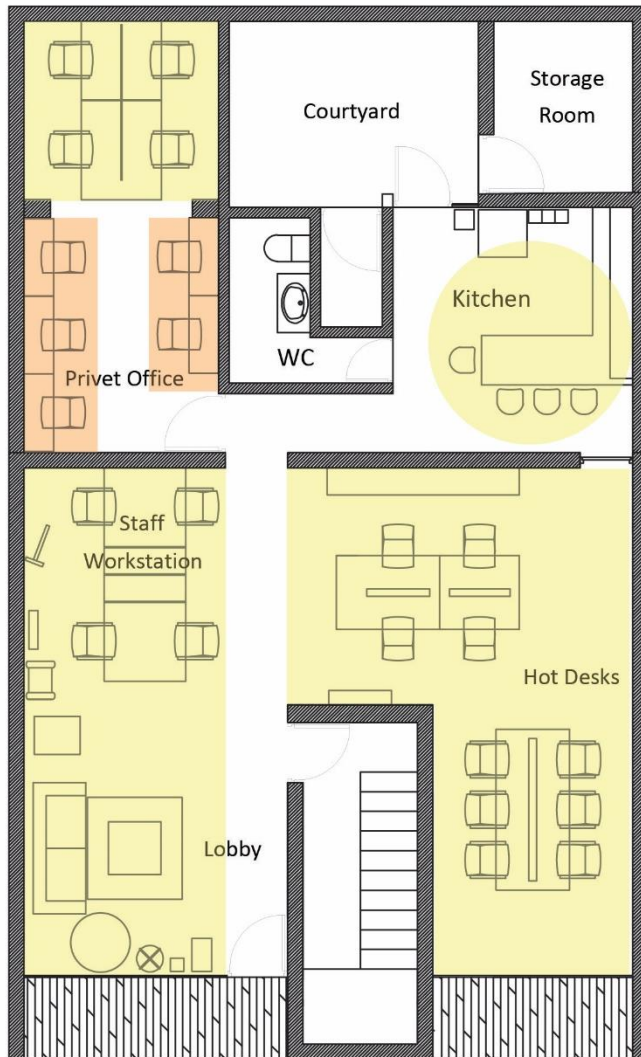


Figure 26: Likuid Spaces - Rooftop Layout



Figure 27: Likuid Spaces - Layout Analysis - Area Identification Map

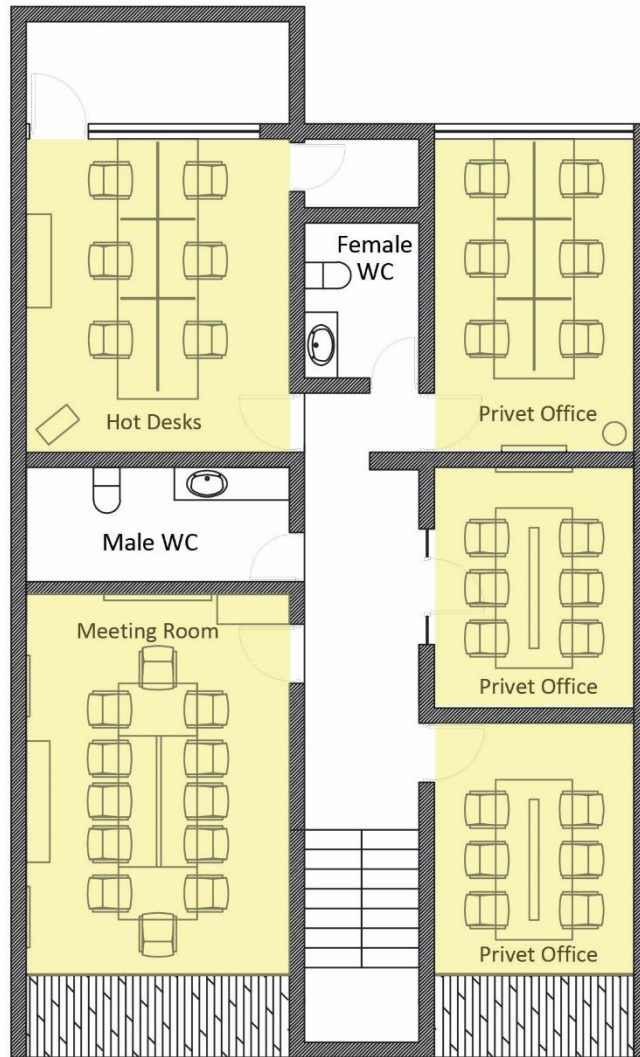


- Socio-petal - Static Arrangement
- Socio-petal - Non-static Arrangement
- Socio-fugal (Static Arrangement)

**Likuid Spaces - Ground Floor**  
 Layout Analysis  
 Space

Figure 28: Likuid Spaces - Layout Analysis - Space. Ground F.

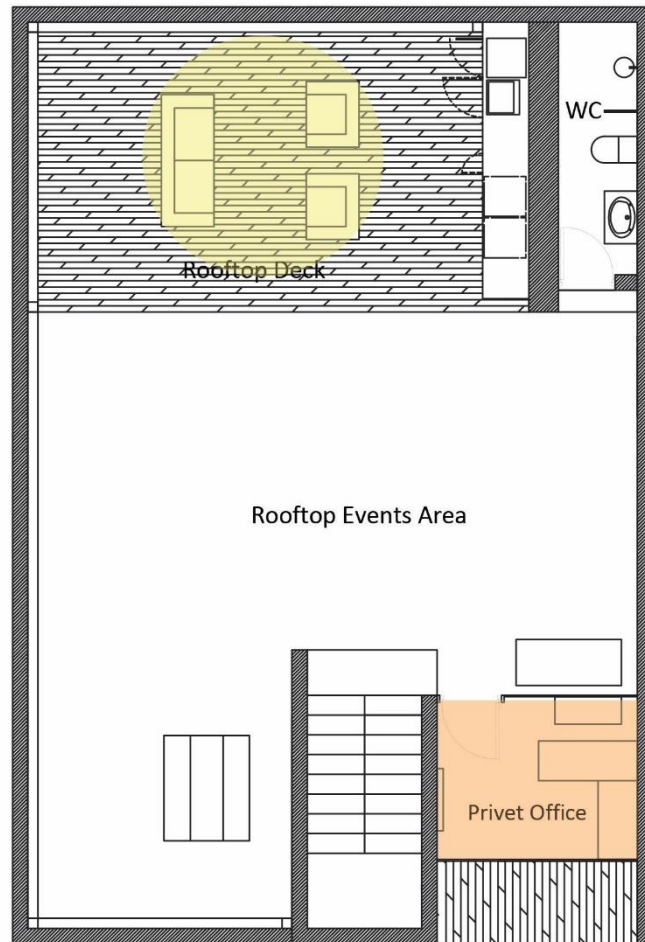




- Socio-petal - Static Arrangement
- Socio-petal - Non-static Arrangement
- Socio-fugal (Static Arrangement)

**Likuid Spaces - 1st Floor**  
Layout Analysis  
Space

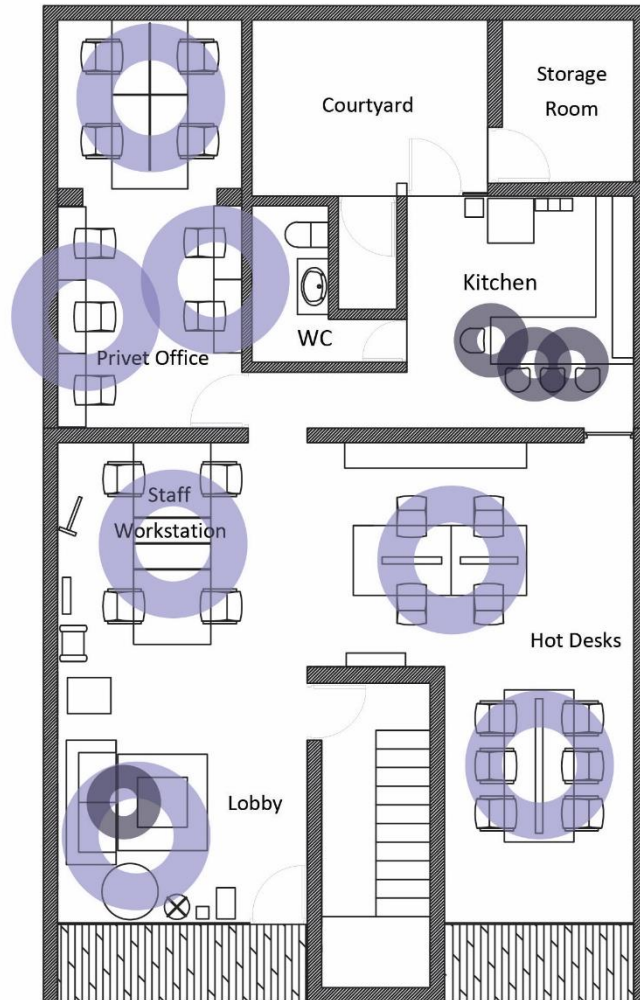
Figure 29: Likuid Spaces - Layout Analysis - Space. 1st F.



- Socio-petal - Static Arrangement
- Socio-petal - Non-static Arrangement
- Socio-fugal (Static Arrangement)

**Likuid Spaces - Roof Top**  
Layout Analysis  
Space

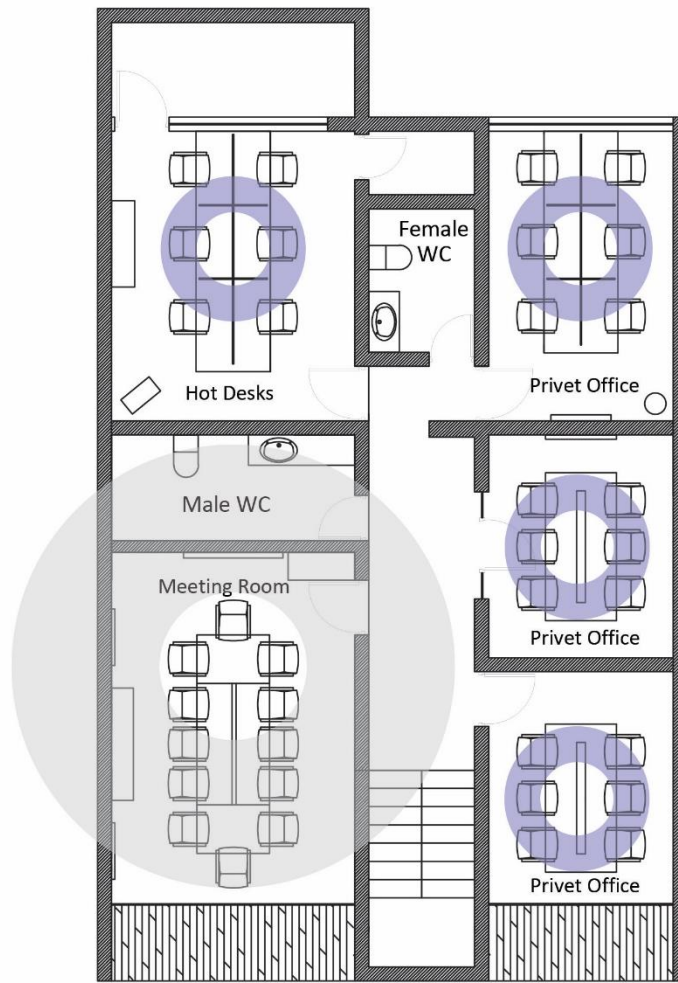
*Figure 30: Likuid Spaces - Layout Analysis - Space. Roof Top*



- Personal (18" – 4')
- Social (4' – 8')
- Public (more than 8')

**Likuid Spaces - Ground Floor**  
 Layout Analysis  
 Distance

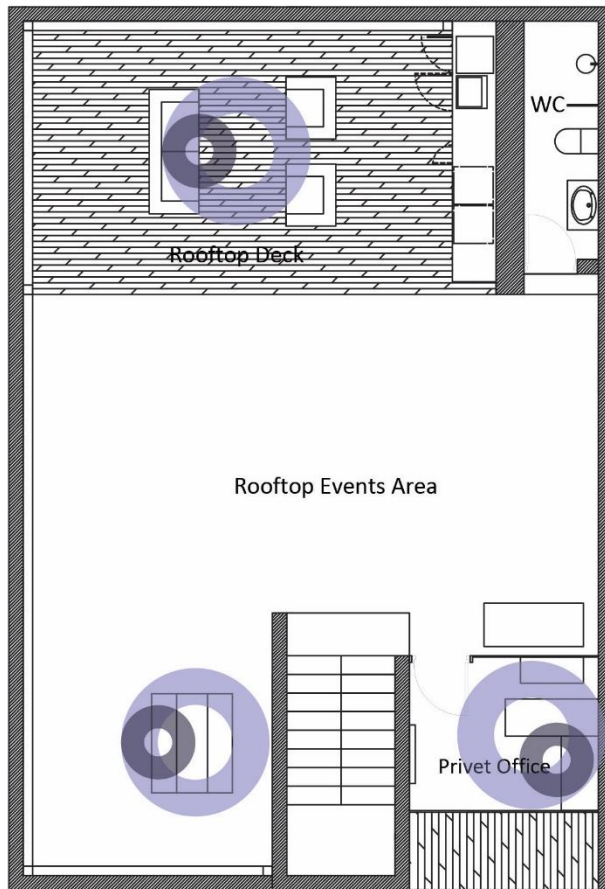
Figure 31: Likuid Spaces - Layout Analysis - Distance, Ground F.



- Personal (18" – 4')
- Social (4' – 8')
- Public (more than 8')

**Likuid Spaces - 1st Floor**  
 Layout Analysis  
 Distance

Figure 32: Likuid Spaces - Layout Analysis - Distance, 1st F.



- Personal (18" – 4')
- Social (4' – 8')
- Public (more than 8')

**Likuid Spaces - Roof Top**  
 Layout Analysis  
 Distance

*Figure 33: Likuid Spaces - Layout Analysis - Distance, Roof T.*

#### **04.2.3.1 Space**

As it was discussed in section 03.1.1, space arrangement can be identified mainly under three categories discussed below.

##### **Semi fixed-feature / Socio-fugal**

**Analysis:** Socio-fugal arrangements can be used for coworking areas to achieve high distance relationships, less interaction, and more focus on the work. It was observed that except for one private office; the rest of the areas fall into this type of space arrangement.

**Findings:** Coworking is a concept which boosts interactions and engagements with other workers who are sharing the same space. Nevertheless, it promotes distance relationships whenever one needs to pay a high focus on their work and fewer interactions with the others as well. However, it was noticed that Likuid had not introduced a variety of space arrangements as the spaces have lost the balance in terms of proportion and flexibility.

##### **Semi fixed-feature / Socio-petal**

**Analysis:** Socio-Petal arrangements have not been considered when arranging spaces in Likuid.

**Findings:** By providing various Semi fixed-feature seating provisions (Socio-petal) it would have been able to generate interactions between the coworkers as per their desired degree of conversation. It was noticed that due to the lack of Socio-petal arrangements, there are not many flexible spaces where coworkers can interact easily with each other.

##### **Informal**

**Analysis:** Similar to Co-nnect, Likuid also has not used this type of space arrangement in its interior layout.

**Findings:** Informal spaces are unique as it provides maximum possibilities to the people to work-out their own space. These kinds of spaces encourage people to interact

with each other and push some of the social boundaries. Since this kind of space hasn't used, it's hard to comment on this.

#### **04.2.3.2 Distance**

Section 3.1.2 elaborates on the theoretical background of this section.

##### **Personal (18" – 4')**

**Analysis:** As it is indicated in the above layout, 'Personal proximity type spaces' have been introduced at Lounge Area & Kitchen at Likuid coworking environments. It was observed that Likuid has not considered different types of furniture arrangements which would have been useful to achieve personal and flexible spaces when designing the spaces.

**Findings:** Not having adequate flexible and personal spaces within a coworking area will lead to less close relationships with coworkers.

##### **Social (4' – 8')**

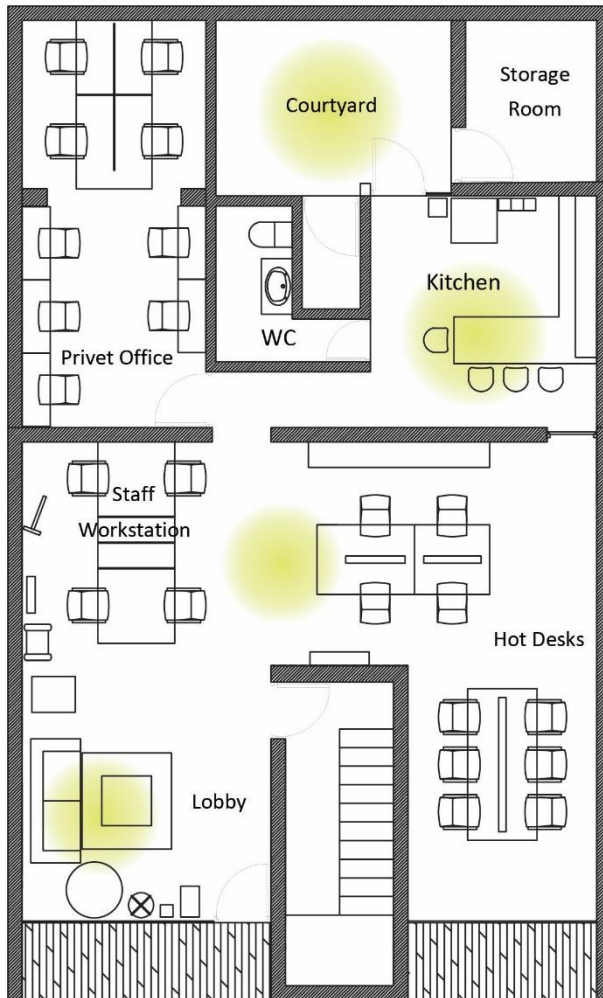
**Analysis:** As it is indicated in figure 31-33, it can be observed that Likuid has been able to create social distances within working and public spaces such as Lounge Area, Reception/ Staff Hot Desks, Private Office & Outdoor/ Events Space

**Findings:** Same as Co-nnect, Likuid has also achieved lots of quality spaces with "Social (4' – 8')" distance type which can be identified as the ideal distance level that most of the people who are coworking prefer within a working environment.

##### **Public (more than 8')**

**Analysis:** Only possible locations that could have been able to create public distances within Likuid coworking layout are meeting rooms.

**Findings:** As it is discussed in section 03.1.2, this distance is created to maintain the formality of interaction with the group of people.

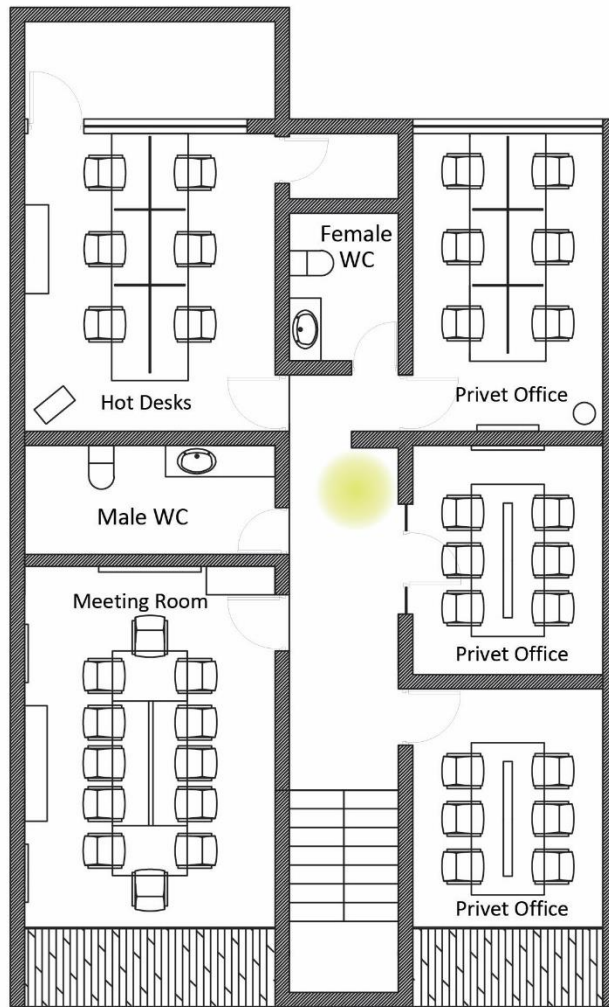


 Interaction Areas

**Likuid Spaces - Ground Floor**  
 Frequency Map  
 Interaction Areas

Figure 34: Likuid Spaces - Frequency Map - Interaction Areas, Ground F.





● Interaction Areas

**Likuid Spaces - Ground Floor**  
 Frequency Map  
 Interaction Areas

Figure 35: Likuid Spaces - Frequency Map - Interaction Areas, 1st F.

#### 4.2.4 Frequency maps

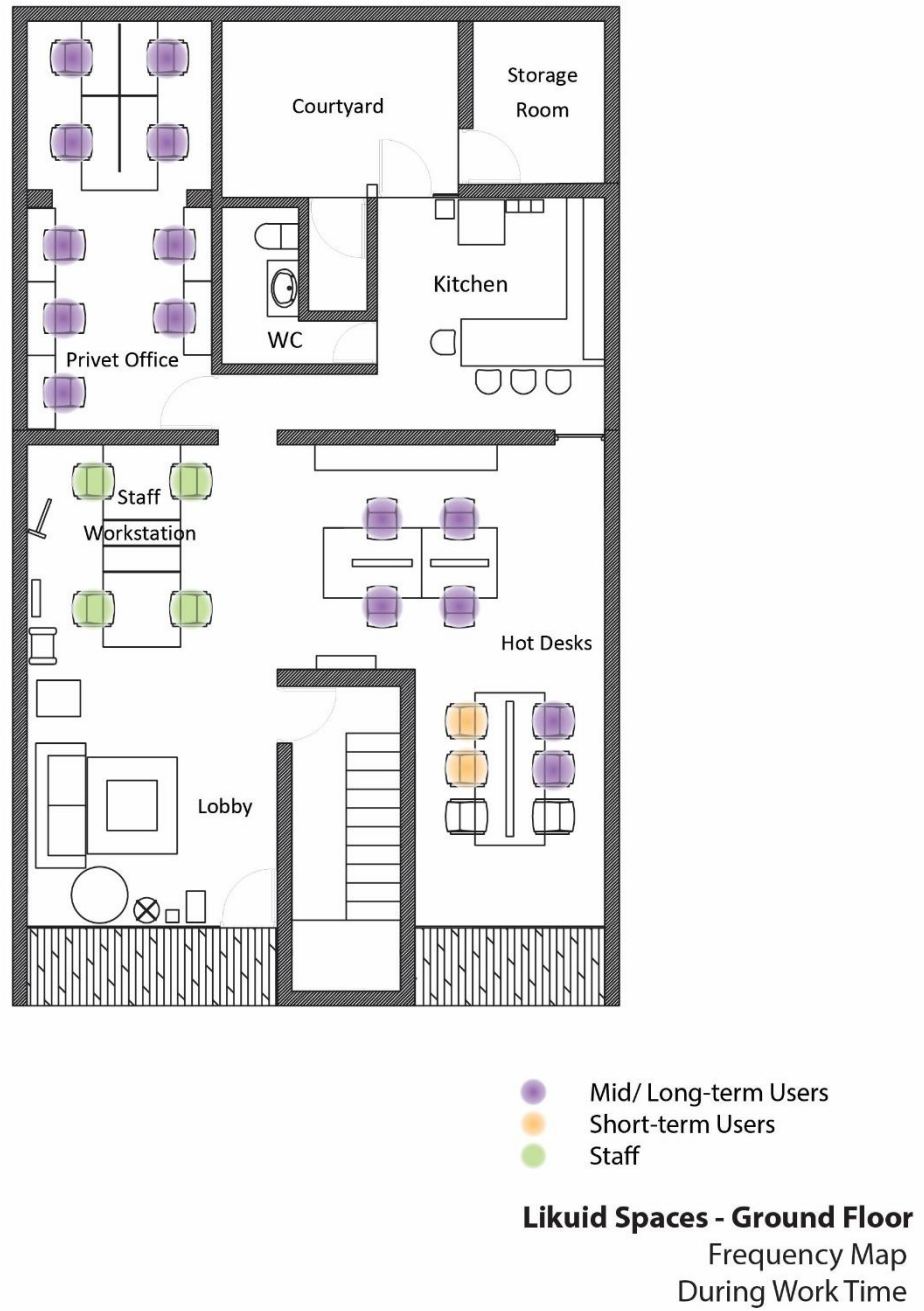
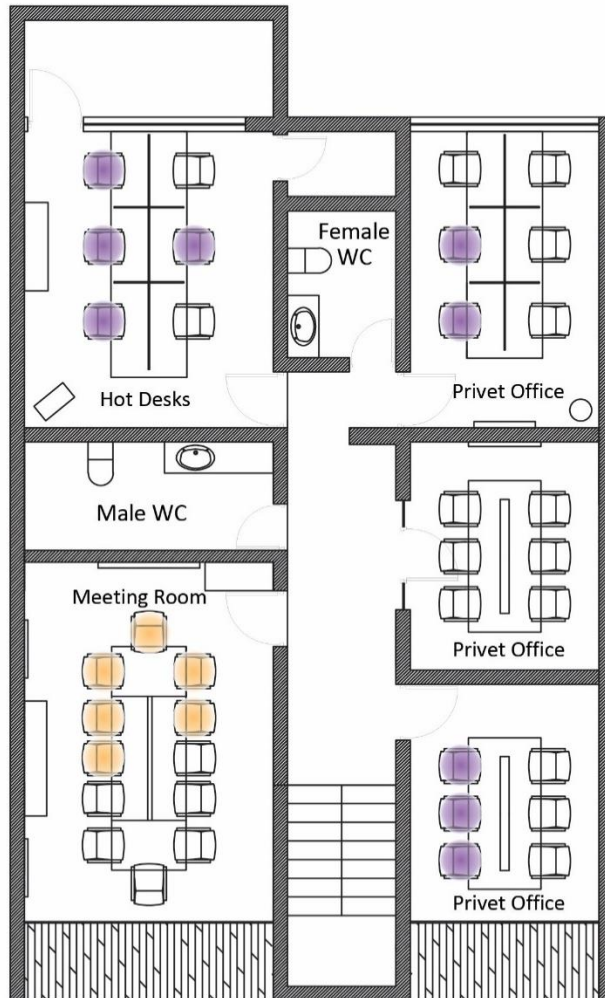


Figure 36: Likuid Spaces - Frequency Map - During Work Time, Ground F.



- Mid/ Long-term Users
- Short-term Users
- Staff

**Likuid Spaces - 1st Floor**  
 Frequency Map  
 During Work Time

*Figure 37: Likuid Spaces - Frequency Map - During Work Time, 1st F.*

## Interaction Areas

**Analysis:** the areas where high frequencies of interactions were observed during an entire day are highlighted in yellow color in the above layout in figure 34 & 35.

**Findings:** It could be observed that the Lobby, Hot desk area, Kitchen, courtyard near water filter in 1<sup>st</sup>-floor areas are the spaces where high frequencies of interactions were encouraged.

Further, it was noticed that such spaces had been articulated with natural and humanmade elements as it is described in table 7, which paved the way to take place high frequencies of interactions.

Areas of high-frequency interaction (observed during an entire day)	Interaction stimulator elements (natural and humanmade)
Lobby	Natural Lighting & Comfortable seating
Hot desk area	Cheerful host. Personality
Kitchen	Food & gathering
Courtyard	Natural lighting
Near Water filter	Circulation pattern

*Table 7: Likuid Spaces - Interaction Areas and Stimulations*

## During Work Hours

### Part 1: Study based on the user

User Category	Mostly Occupied Areas	Analysis/ Findings
Staff & regular users in private offices	Private offices	Possess the same seats as required by the nature of their occupancies.
Occasional users	Lobby area, Hot desk area	Tend to stay in safe zones rather than exploring the space. Who are using meeting rooms have less interaction with others outside the meeting room
Regular users	Hot desk area, Lounge area, and Kitchen	Regular users are getting comfortable and familiar with the spaces. Hence, they tend to explore the spaces to pick the most suitable working environment as they wish.

*Table 8: Likuid Spaces - User Based Analysis*

## Part 2: Study based on the space

Space	Analysis	Findings
Outdoor/ Event Space	Any activity could not be observed since no events were happening during the period of study time.	
Hot Desks	There were many interactions taking place within these areas.	A set of regular users tend to possess the same workstations as they have become close to each other. This shows human behavior has a major impact on the interior environment, even though the interior controlled and limited the interactions, it could be converted into a very interactive space.
Lounge Area	The lounge area of Likuid was expected to be highly active, but it was observed that Interactions and usage of this area were lesser than the expected.	Fix seating arrangement near to staff area.
Kitchen	Coworkers used this area very often, but it is not occupied throughout the day. Only occupied in intervals since most of the coworkers used this area as a lunch area or relaxing area when they need a break.	Everyone used the kitchen as their lunch area every day. Having lunch in the kitchen has become a regular activity of most of the coworkers and was noticed that spaces such as kitchens could bring people together though it is smaller compared to all the other big spaces. This defines people's activity patterns have an impact on their behavior and spaces.

*Table 9: Likuid Spaces – Space-Based Analysis*

### 04.2.5 Dataset of the questionnaire

Timestamp	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11
2019/07/23 3:57:02 PM	F	blw 24 Y	O/L , A/L	Employee	Business	less than 50k	Mix	Strong	MC	Sometimes	30 - 40
2019/07/23 3:58:16 PM	M	25 - 34 Y	Diploma	Startup	IT	50k - 100k	Hired cab	Strong	CM	Sometimes	30 - 40
2019/07/23 3:59:24 PM	M	25 - 34 Y	Diploma	Startup	IT	50k - 100k	Public T.	Moderate	Ind	Sometimes	30 - 40
2019/07/23 4:02:33 PM	M	25 - 34 Y	Degree	Startup	Design	100k - 200k	Personal V.	Moderate	MC	Often	30 - 40
2019/07/23 4:04:11 PM	M	25 - 34 Y	O/L , A/L	Freelance	Media, Design	50k - 100k	Hired cab	Strong	Ind	Sometimes	30 - 40
2019/07/23 4:12:52 PM	M	25 - 34 Y	Postgraduate	Employee	Media		Personal V.	Strong	Other	Often	abv 40
2019/07/23 4:14:56 PM	F	25 - 34 Y	Postgraduate	Startup	Management		Personal V.	Strong	MC	Often	abv 40
2019/07/23 4:16:28 PM	F	25 - 34 Y	Degree	Startup	Business	100k - 200k	Mix	Moderate	MC	Sometimes	30 - 40
2019/07/23 4:18:04 PM	M	25 - 34 Y	Degree	Startup	Entertainment	50k - 100k	Mix	Strong	Other	Sometimes	20 - 30
2019/07/23 4:25:08 PM	F	blw 24 Y	Diploma	Employee	Consultancy	less than 50k	Mix	Moderate	MC	Often	abv 40
2019/07/23 5:05:52 PM	F	blw 24 Y	Diploma	Employee	Consultancy	less than 50k	Public T.	Strong	MC	Sometimes	30 - 40
2019/07/23 5:09:22 PM	F	25 - 34 Y	Abv Postgrad	Employee	Consultancy	100k - 200k	Hired cab	Moderate	MC	Sometimes	abv 40
2019/07/23 5:12:49 PM	F	blw 24 Y	Diploma	Employee	Consultancy	less than 50k	Mix	Moderate	MC	Often	abv 40
2019/07/23 5:15:48 PM	F	blw 24 Y	Diploma	Employee	Consultancy	less than 50k	Mix	Moderate	MC	Often	abv 40
2019/07/23 5:19:05 PM	F	blw 24 Y	Degree	Startup	Consultancy	50k - 100k	Personal V.	Strong	Other	Often	abv 40
2019/07/23 5:21:09 PM	F	25 - 34 Y	Diploma	Startup	Consultancy	50k - 100k	Hired cab	Moderate	MC	Often	abv 40
2019/07/25 10:52:36 AM	M	25 - 34 Y	O/L , A/L	Startup	IT		Personal V.	Strong	MC	Often	abv 40
2019/07/25 10:54:20 AM	M	25 - 34 Y	Postgraduate	Employee	IT		Personal V.	Strong	MC	Sometimes	abv 40
2019/07/25 11:01:12 AM	M	35 - 44 Y	Diploma	Established	IT		Personal V.	Moderate	MC	Sometimes	30 - 40
2019/07/26 11:52:20 AM	M	abv 45 Y	Diploma	Employee	Apparel	100k - 200k	Personal V.	Moderate	CM	Often	abv 40
2019/07/26 11:54:42 AM	M	25 - 34 Y	Degree	Employee	Apparel	100k - 200k	Personal V.	Moderate	CM	Sometimes	abv 40
2019/07/26 12:05:05 PM	F	25 - 34 Y	Degree	Employee	Design	50k - 100k	Public T.	Moderate	CM	Often	30 - 40
2019/07/26 12:05:20 PM	F	25 - 34 Y	Degree	Employee	Design	50k - 100k	Public T.	Moderate	CM	Often	30 - 40
2019/07/26 12:31:36 PM	F	25 - 34 Y	Degree	Employee	IT	100k - 200k	Mix	Moderate	Ind	Often	abv 40
2019/07/26 12:58:24 PM	M	25 - 34 Y	Postgraduate	Employee	Trade	50k - 100k	Hired cab	Moderate	Ind	Often	abv 40

Figure 38: Likuid Spaces - Dataset of Questionnaire (1/2)

Q12	Q13	Q14	Q16	Q17	Q18	Q19	Q20	Q21
1;2;5	Open	L	4	5	5	5	5	
1;2;3;5	Half	L	5	5	4	5	3	
3	Half	L	5	5	5	5	5	
1;3;5	Open	L	2	3	4	2	3	Good atmosphere with plenty of light, good internet and coffee.
1	Open	L	5	3	5	3	3	
2	Open	L	5	5	5	4	4	
4	Open	L	5	5	5	1	3	
1;2;3;5	Open;Half	L	4	4	4	3	4	
2	Half	L	3	5	3	4	4	
3	Closed	L	3	5	5	3	1	Unlimited wifi, Parking, Free coffee, tea & water, 24x7 Flexibility
4	Half	L	1	4	4	4	3	A friendly place where it's way comfortable to work.
4	Half	L	1	3	3	4	1	Fun, energetic and great opportunity to meet new people.
3	Closed	L	3	5	5	3	1	Friendly host, Free snacks & fruits, Members monthly events
3	Closed	L	3	5	5	3	1	Free snacks & drinks, Unlimited Wifi, Executive desk & chair, Parking
5	Closed	L,I	4	4	4	4	4	Great interactions, always learning new things from those around
2	Closed	L	5	5	5	5	1	Fun and vibrant
1;2;3;4;5	Open;Half;Closed	L	5	5	5	5	3	
2;3;4;5	Half;Closed	I	1	4	4	4	3	
1;4;5	Closed	L,I	5	3	4	5	3	I like Likuid Spaces environment.
1	Closed	I	3	4	4	4	1	
4	Closed	L	4	3	4	4	3	This is the first experience @ a co-working spaces.
3;4;5	Closed	L	4	3	4	4	3	CW spaces help creative thinking. Comfortable, effective than normal.
3;4;5	Closed	L	4	3	4	4	3	CW spaces help creative thinking. Comfortable, effective than normal.
1;3	Open	L	4	2	4	4	4	Can engage with my tasks very efficiently.
1;2;5	Open;Half	L	4	4	3	3	3	Productivity, Comfort, Flexible hours, Interactive members, Creativity in CW

Figure 39: Likuid Spaces - Dataset of Questionnaire (2/2)

## 04.2.6 Questionnaire analysis

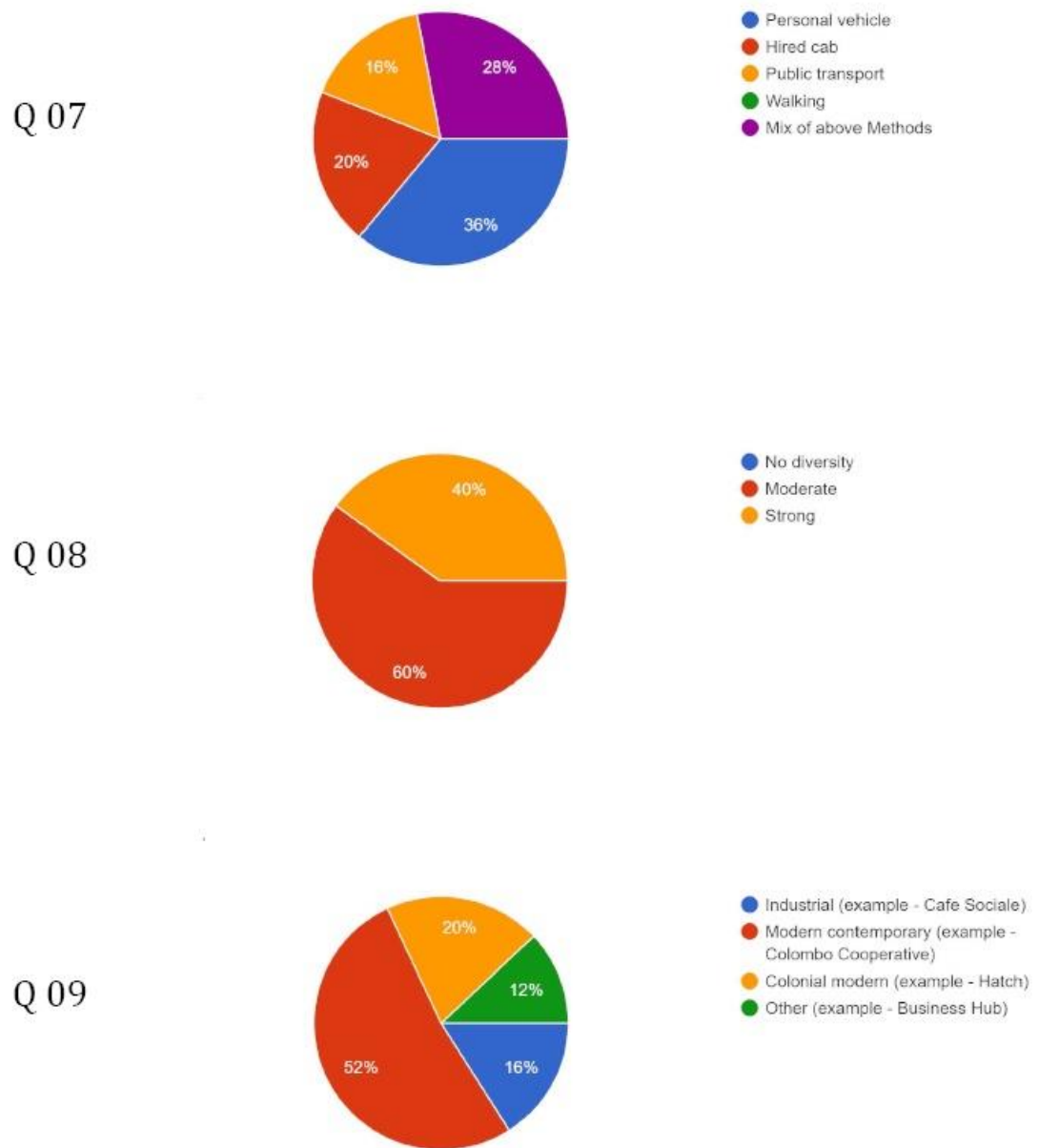


Figure 40: Likuid Spaces - Questionnaire Analysis (1/3)



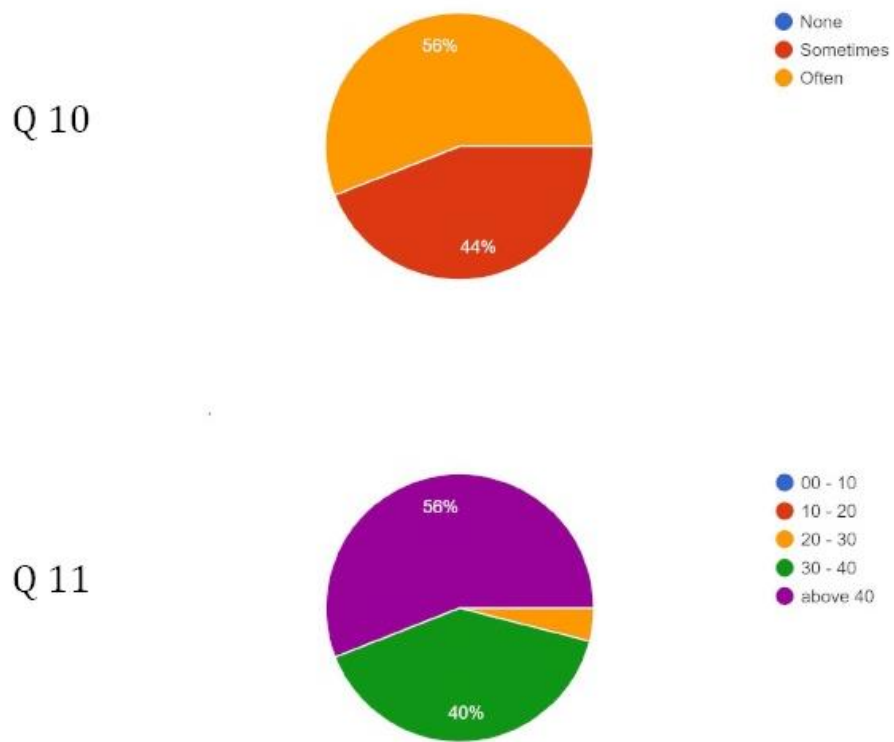
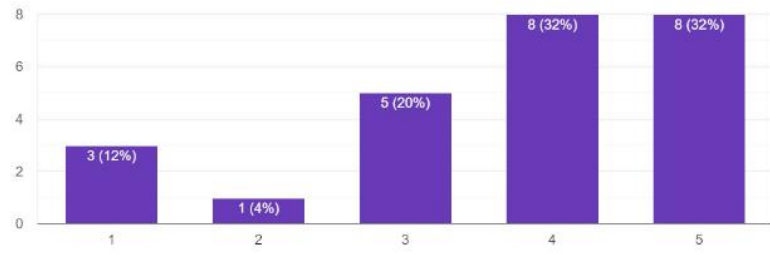
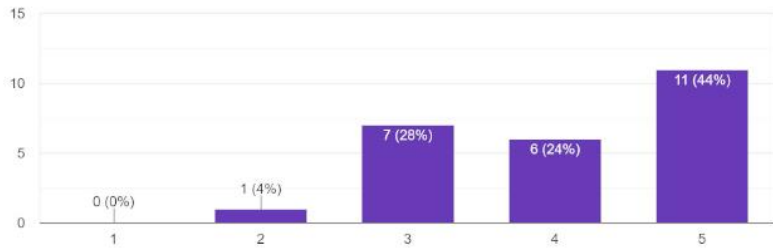


Figure 41: Likuid Spaces - Questionnaire Analysis (1/3)

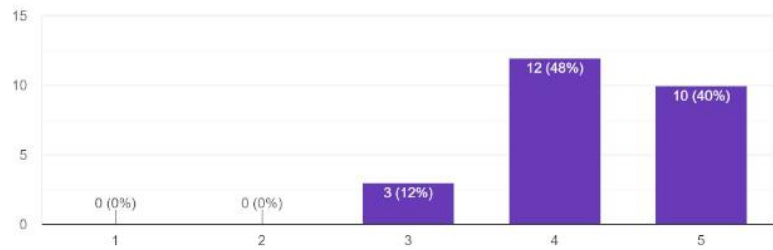
Q 16



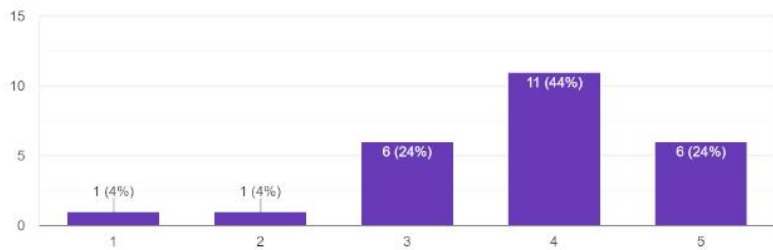
Q 17



Q 18



Q 19



Q 20

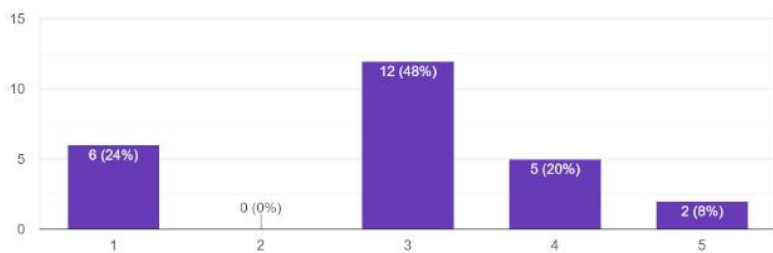


Figure 42: Likuid Spaces - Questionnaire Analysis (2/3)

Answers given to the questionnaire by coworkers of the Likuid Space coworking community are shown above in the format of charts for the convenience of readability and analysis. According to the answers given for Q 07 – 11, as shown in figure 40 & 41, the coworkers are very well focused on the coworking core-values. The pie charts only give a chance to blue color in Q 07. Moreover, especially in Q 11 and Q 12, the pie charts show the colors of opposite end to blue and hence indicates a high tendency towards the core concepts of coworking.

The observation is proved back again by the results of Q 16 – 20, as shown by the bar charts which are denser towards the right-hand side. The only exception is Q 20, which covers almost 50% of the participants indicating the lack of openness among the coworkers. It is also seen in the preference for closed layouts in Q 14, as seen in figure 43.

The workers' reasons for choosing the place are almost the same and does not exceed the given reason list. Also, it shows the similarities in the mindset of the coworkers of the Likuid space.

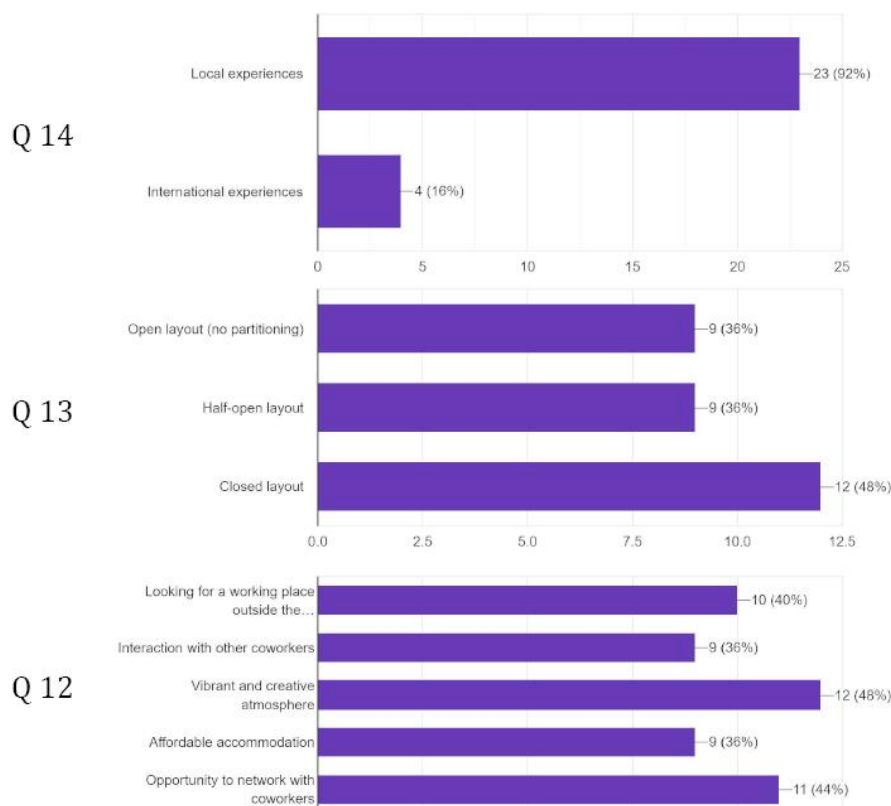


Figure 43: Likuid Spaces - Questionnaire Analysis (3/3)

#### 04.2.7 Manager's interview

##### 1. History of coworking in Sri Lanka

*I'm not exactly sure, but I know the first one is the Business Hub of Michel Munasighe. And I think Likuid is the second one.*

##### 2. Manager's work experiences in coworking

*Some in my country, Hungary. But not as a manager and only as a user.*

##### 3. Management and ownership of the coworking space

*The owner is Shuib Yusoof. He is an entrepreneur. Likuid's mother company is Likuid ventures, and Likuid Spaces is part of it.*

##### 4. History of the place – establishment and growth

*He opened this as his passionate project. He was also in the middle of the startup thing, and he was investing. He wanted to expand his network*

*Likuid, at first, was just an office space. He had his own company at that time, and he used this as his office. Then he eventually started the coworking spaces. But in the beginning, he did not have management or the time to function it. So, I (Linda) came in 2018 February and build up the coworking community along with proper membership plan, events, and community vibe, etc. Likuid spaces had influences from Singapore coworking spaces.*

*Our first tenant was Roar Media. They started with 5 people here, and now they have grown up to a big company with around 100 employees.*

##### 5. The capacity of the place

*55 persons*

##### 6. Target Community and their specifications

*Freelancers, Individual entrepreneurs, Media people, Graphic designers, startup (but a bit expensive for local startups), employees who are working remotely, Working professionals. More focusing for Local startups during the events. However, we do not say no to anyone.*

7. Services provided and not provided

*Wi-Fi, Coffee, Tea, Filtered Water, Kitchen Facility, Serving, Complimentary food.*

*Depending on the package; printing and scanning facilities.*

*Access or discount to the monthly events for the members.*

8. Daily Weekly Monthly Charges and packages

*Refer section 04.2.2*

9. The uniqueness of their brand name in practice

*Likuid is a bit more child. It is a lifestyle company. We have a holistic view of life, and how we incorporate it in life is our practice. Lately, in the events, we are more focusing on educational stuff. And also, we limit the number of events focusing on the quality of the individual events. Also, art and music events to promote local artists.*

*It is just more about the lifestyle.*

*Regarding the interior space of the Likuid, it is unique in privacy.*

10. The coworkers' trends and patterns identified

*Everyone is different, and everyone minds their own business. It is a friendly community, but everyone has their privacy.*

11. Any significant characteristics of a coworker in the space

*A company of 3-4 members still on daily basis rather than going into a package. It is mainly because of its flexibility. They do not work 5 days a week, so it is easy for them.*

12. Any long-term regular attendance and reasons

*Flexibility as in the above case.*

13. Request by coworkers and responses given to them

*Almost all of them have different requests from time to time. From changes in packages, hot desking, membership to customizations for time zone differences. We are trying to be flexible and trying to understand the circumstances.*

14. Request from coworkers for interior changes

*Yes. Such as extra dining tables as existing cannot accommodate many people*

15. Events, event participation and their impact on the community

*Community members can join any event. We do social media promotions but do not want to see as more commercial but more community wise. Events itself works as a marketing tool. We host lots of free events (educational, complimentary) too.*

16. Any further improvements and plans (related to request and demands)

*Rooftop – furnishing/ café/ AC area/ Kitchen/ Landscape*

*Lobby – need to be improved, phone booths*

17. Coworkers openness about their work

*Up to now, it was OK. I have not had a problem yet.*

18. Coworkers interaction with each other

*Fairly ok and they are friends with each other now. There was a person who complained too much. Sometimes people forget that they came to a coworking space and try to treat it as their own office.*

19. The Sri Lankan way of coworking related to its western origin and base concepts

*There are differences. Here in Sri Lanka people are less open to the whole concept. They pretend, but they are not many outgoing people than a Western country. Here in SL, people haven't made much attempt to go for an event or a workshop after work. I am not saying it is right or wrong. Because it is a different culture.*

20. How the process sustains within the community or does it need outside input

*Nothing will stay the same as its original concept. It needs to be adapted to the world and changes continually. Right now, it is a trend.*

*I think in Sri Lanka it is no point building 20 odd coworking spaces to the same audience and it is time to break it down to focus audiences and groups.*

*Within the Likuid network, we are thinking to connect with other coworking spaces, creating kind of a networking system, and we should have events together, we can share events information, etc.*

#### **04.2.8 Concluding Likuid Spaces**

The community of Likuid space was more faithful to the coworking concepts as seen from the results of the questionnaire. Their focus on events and the portfolio of success stories are evidencing in that sense.

However, some negative points were noted, such as that non-static socio-petal spaces were not included in their coworking place, which would have been played a significant role in bringing people together.

The manager also admits that there are some changes to be done in adapting to the changing market.

## **05 DISCUSSION AND CONCLUSION**

### **05.1 Discussion**

As it was discussed in the previous case studies chapter, ‘Co-nnect’ and ‘Likuid Spaces’ are well-known successful coworking places that are facilitating the new demands of coworking culture in Colombo city.

#### **05.1.1 Layout analysis**

Layout analysis was conducted by preparing layout maps in terms of space, distance, and territory, which were based on Dr. Hall’s Theory of Proximity (Proxemics) as it was discussed in section 03.1. As an overall comment, it was identified that the findings of both case studies in terms of space, distance, and territory which helped to understand Layout Domain, are similar. Moreover, it was noted that Dr. Hall’s Theory of proximity had been applied in both case studies intentionally or unintentionally as both coworking places have been able to provide and facilitate productive coworking spaces.

However, there were some cases that some of the theories related to Dr. Hall’s theory of proximity had not been applied to the layouts. It would have been more productive and successful if such factors were considered by the designers when the interior layouts were being designed.

One of the significant findings made is that no informal spaces had been included in both Co-nnect and Likuid interior layouts which could have given more interesting content to discuss further.

Space arrangements in terms of personal and social seemed similar in both cases. Also, the atmosphere and layout of meeting rooms that fall into public spaces type in both cases seemed similar in terms of distance variable which derived from the theory of proximity as both meeting rooms had formal furniture arrangements. However, it would have been more effective if these meeting rooms were designed with the



considerations of other distance types that come under the distance variable as it helps to create a space that goes well with the coworking concept.

### **05.1.2 Frequency map**

When it comes to the frequency maps, It was identified that Natural and manmade elements such as natural lighting, relaxing environments, and flexible furniture arrangements had an impact on coworkers' interactions since most of the areas where high frequencies of interactions were observed during an entire day were outdoor seating and lounge areas as it is indicated in table 4 and 7.

Moreover, by studying the above tables, it was noted that not only the interior environment including natural and humanmade elements has an impact on areas which are encouraging coworkers to interact but also food and personality of the users play a crucial part when it comes to social gathering as well.

Moreover, it was observed that in both places, regular coworkers tend to demarcate their territories by possessing the same spot again and again, even though the coworking concept does not encourage that. Also, it was evident as humans, people unconsciously tend to demarcate their area where they will feel safe, secure and comfortable even though, the interior environment is not encouraging the users to create their territories within the coworking space.

### **05.1.3 Questionnaire**

As was discussed under section 03.3.3, the questioner was generated by considering the five core values of coworking which derived from the literature review.

#### **Community**

The finding of both cases in respect to community indicated both Co-nnect and Likuid has been able to attract various people from various social backgrounds who are willing to go with the coworking concept by providing decent atmospheres.

## **Openness**

Results from both cases show that the coworking community at both Co-nnect and Likuid coworking places are quite open and like to be transparent, expansive, liberal, and inclusive in both moral and economic perspectives.

## **Collaboration**

As per the finding, most of the coworkers who are visiting both cases like to interact and collaborate and grow as a team.

## **Accessibility**

When findings of both cases were compared, it was noted that Co-nnect coworkers had more exposure to foreign coworking spaces. Moreover, the findings showed that Most of the users in both cases prefer to work outside of the home and think coworking places are affordable as they can gain access to necessary infrastructure for their work without having substantial initial investments and work peacefully without engaging with their private lives at home.

## **Sustainability**

It could be noticed that the findings of both cases expressed that, by providing clean, flexible, supportive, friendly and more organized coworking spaces coworkers can be encouraged to come to such places and use the resources effectively while sharing their insights.

### **05.1.4 Manager's interview**

Managers' insights on coworking give a general idea of their perceptions and insights on the coworking concept. It was noted that both managers are working as managers at a coworking for the first time in their lives. However, both have other background qualifications to be qualified for this post.

In the case of Co-nnect, answer for question 04 is quite significant as it described the regular users and users of private officers of Co-nnect started coming back when Co-nnect was re-opened after 04/21 incident at Shangri-La hotel. Their return to the Co-

nnect right after the attack expresses that the regular users have developed a sense of belongingness with space.

Both Managers had identified that; people tend to gather or work near natural sunlight, and some people tend to work alone, whereas some prefer to collaborate with others. Hence it expressed that the interior environment is not the only factor that has an impact on human behavior in terms of interactions, but also personalities and nature of the business have an impact on interactions as well.

Further, both managers confirmed that some spaces were changed, and some facilities were introduced as per a few users' requirements. This proves the circular process which was discussed in the theoretical framework under section 03.3 and figure 3.

## **05.2 Conclusion**

Through-out the human evolution, humans always have been evolved and adapted to their surroundings. With the evolution of the human mind, it is noted that people tend to spend more time in interiors rather than outdoors. Accordingly, the impacts that the interior environment can do to humans' behavior are significant.

When it comes to coworking spaces; they are different in terms of environment & culture when they are compared with a regular office. Coworking is a new concept that was started and evolved in western countries. It is a part of the 'sharing economy concept' which was based on 'sharing underutilized assets' such as spaces, knowledge, services for monetary or non-monetary benefits. The coworking concept developed gradually under the umbrella of sharing economy, as a result of various requirements that were requested by the users in terms of facilities and interior.

Collaborative areas are the key in coworking spaces which can bring people together to interact and collaborate. However, in the pilot survey, it was identified that most of the coworking places in Sri Lanka have more fixed rentable spaces such as private offices where they can maintain a fixed income mode while having very few collaborative areas. Hence, the research suggests to coworking management to identify and understand the coworking concept by its core.

When the Sri Lankan context was being examined, it was noticed that still Sri Lankan coworking community has not been adapted to this coworking concept, and Sri Lankans need to be aware of how this concept works and benefits their Career. As an Asian country, Sri Lanka is more of a family-oriented culture compared to the Western culture where people are independent and prefer to work on their own. So coworking management needs to identify and address cultural differentiations carefully and try to adapt to the Sri Lankan context more sensibly.

Moreover, the user or the coworker is differentiating from the regular office-worker as the way coworker thinks and behaves aligning with the coworking concept. Nonetheless, it is not always the same. Still, most of the coworkers in Sri Lanka are not fully open to the idea of knowledge sharing and collaborating. As it is a gradual process, it will require some time to accept this ideology within society.

This is where the interior environment can come to the picture to help the coworker to get used to the coworking concept. Interior environments of the coworking spaces should reflect and empower its concept to the user. Coworking spaces should design by considering the interconnection of the interior environment and human behavior rather than just trying to fulfill the functions. Interior should be designed in such a way that it encourages interaction within the space. When it comes to furniture arrangement, it needs to be flexible and comfortable so that the user has the opportunity to form their own spaces within the coworking space. It is advisable to create clusters within the interior environment with the consideration of circulation patterns, Lighting, and interior aesthetics.

This research was limited to two coworking spaces within the Colombo city limits to examine the impact on the interior environment of human behavior. There are few more coworking spaces with different scales outside the city limits and within the city limits such as Hatch and Business Hub, which can be considered as different challenging cases. Therefore, it would be beneficial if such places were examined to get a border understanding of coworking in Sri Lanka.

Further, another substantial research area that was found during this research is the 'co-living' concept which is now being practiced at few places in down south and Jaffna, Sri Lanka.

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