

# The Phenomenon of Near-home Office and the Supported Space: Evidence from Shenzhen's Employees

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**Abstract:** At present, working near home has gradually become prominent. This paper uses a fieldwork approach to investigate the characteristics and motivations of near-home office, and introduce and evaluates the support of near-home office space in Shenzhen. Commonly, the near-home office workers have three behavioral characteristics; Activating in the community; Working flexibly; and Blending life with work. With the development of the office concept and mobile information technology, more people choose and prefer near-home office, especially during the COVID-19 pandemic. The near-home office space provides working environment and services; however, the near-home office space needs to be improved. This study indicates that near-home office may play an important role in the future, therefore more studies are required in the future focusing on this aspect.

**Keywords:** Near-home office; Telecommuting; Public spaces; Community

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## 1. Introduction

With the rapid advancements in mobile information technology, employees are trying to limit their working time in the office, thereby try to handle the things outside the office at any time and any place. Telecommuting becomes a new form of office, which is reported to increase steadily, subsequently becoming the growing subject of research<sup>[1]</sup>, especially during the special time or unusual situation such as during the COVID-19 pandemic time. In the US, it has been estimated that between February to March 2020, about a third of the labor force switched to work remotely<sup>[2]</sup>, meanwhile in Philippines, it has been reported that flexible work arrangements were adopted by over 28,000 firms due to the COVID-19 pandemic restrictions<sup>[3,4]</sup>. In China, employees having inconvenient to move outside the community due to the epidemic control policy. It can be found that many employees are telecommuting from their publish places in their community. In line with these findings, this research extends the current literature by investigating the phenomenon of near-home office (NHO).

This paper attempts to address two related issues. Firstly, to investigate the behavior of people working near home, and to determine the three characteristics of NHO and two motivations that leads to this phenomenon. Secondly, to discuss how public space in the community could support NHO, and evaluates its construction.

## 2. Measures and data

This paper uses a fieldwork approach to get a data set. Through weighted calculation of residential types, population density, and the density of potential sites in ArcGIS, 19 communities were selected for the preliminary fieldworks, and 17 representative public spaces with working conditions as shown in **Figure 1** were selected, subsequently observation, questionnaires, and semi-structured interviews of the people were conducted.



**Figure 1.** Location of study sites

A total of 121 questionnaires were distributed during April to June 2021, and 93 valid questionnaires were recovered, further 37 semi-structural interviews were conducted. The questionnaire includes personal basic information, office information, and lifestyle changes, and also consist of the use and evaluation of NHOS. The semi-structured interviews include the changes and reasons of office and lifestyle, and the reasons for choosing NHO. Among 93 surveyed employees, the ratio of male to female is about 1:1, and around 51.6% of the total employee chose a near-home office or had a near-home office experience.

**Table 1.** The features of the employees who prefer near-home working

Tape	Ratio
Monthly income (< ¥15000; ¥15000-25000; > ¥25000)	50.0%: 32.8%: 17.2%
Academic Degree (Undergraduate; Postgraduate; Doctor)	64.6%: 27.1%: 8.3%
Age (< 25; 25-35; > 35)	25.0%: 56.3%: 18.7%
Commuting Time (< 30min; 30-60min; > 1h)	14.7%: 27.1%: 58.3%
Housing Situation (Own; Rent; Others)	31.2%: 64.6%: 4.2%
Living Companion (With Children; Alone; Others)	50.0%: 22.9%: 27.1%

The data comes from the questionnaire.

**Table 1** reports the features of the employees who prefer near-home working. The average monthly income is slightly higher compared to Shenzhen (about ¥11,600), and around 68% of the employee commute for more than one hour, which is longer than the average commute time (36 minutes). Around 56.3% of the total employees are aged 25-35 years, young people who have just been employed. It is also found that most of the employees are engaged in finance, internet and design, where they usually use laptops to complete their work.

### 3. Three characteristics of NHO

There are three characteristics of NHO as described below:

(1) Activate in the community: NHO has changed the activity unit of workers. Compared to the tracks of the typical workers taking the approach of NHO and traditional office, it's found that the activity radius has been dramatically reduced from one-hour travel distance to 15-minutes travel distance with NHO, therefore the workers have more personal time. It is also found that the boundary of activity unit is nearly identical with the communities.

(2) Work flexibly: **Table 2** reports that near-home employees have various working hours. They not only work near home on weekdays, but also on weekends and holidays. In a day, they also have flexible working periods and hours with different and overlapping choices. Additionally, their behavior is various with flexible break time in different ways, such as online surfing, video games, sleep, and others. They are also free to discuss, and go out for meal before 12:00 or after 13:00 to avoid the general meal time.

(3) Blending life with work: It's found that employees often intersperse personal activities during NHO, including self-improvement, family activities, social contact, and others. Furthermore, some employees would like to work with their children or friends, and carry out family activities or social activities during their break time.

**Table 2.** The working hours of near-home employees

Working hours	Ratio
Schedule (Weekday; Weekend; Holiday)	70%: 81%: 49%
Period (morning; afternoon; evening)	44%: 94%: 40%
Time (<1h; 1-3h; 3-6h; >6h)	4%: 41%: 41%: 13%

The data comes from the questionnaire.

### 4. The motivation of NHO

#### 4.1. The development of the office concept and mobile information technology

Commuting always costs time and money, which employees often have to bear themselves for a prolong time. Additionally, due to the depressed working environment, lack of personal space, and difficulties in dealing with life affairs, thereby some employees do not like to work in the office. However, working at home leads to lack in social interactions, difficult to reconcile between the private and working environment, as well difficult to arrange work activities at home, where these are some of the challenges that are faced by employees who are working from home, which may influence their job productivity<sup>[5]</sup>. In the other hand, adding work equipment or materials in home with already limited space may not be feasible for an individual who is living with family members<sup>[6]</sup>. Working in the office or home has inevitable disadvantages in some degrees, whereas NHO may solve these problems, therefore, it becomes the choice of some employees.

Meanwhile, the mobile information technology provides powerful support for those working outside the office. The office software such as *Dingding* and *Tencent Conference* can support telecommuting in instant communication, document collaboration, office management, and cloud storage.

#### 4.2. The COVID-19 pandemic as a catalyst

After the outbreak of COVID-19 pandemic, the community taking preventive measures against an epidemic situation, and people also have generally improved their vigilance. Under the action of external and internal factors, are employees generally involve in the activities in the community during the epidemic<sup>[7]</sup>, therefore,

NHO becomes a good choice for working during this period of time.

The relaxation of the office regulation also encourages employees working near home. Due to the different situations in different places, a number of enterprises (especially Internet and financial enterprises) are forced to telecommuting to maintain their operations for self-help, while employees of these enterprises, as a recipient of this type of work become passively adapted to this change [8].

The concept of office and life has changed during the COVID-19 pandemic. Around 85% of employees start to focus more attention to their lives. They become more eager to increase their fitness, cultivate new hobbies, increase social contacts, and have a strongly family companionship in their spare time, which is in line the study of Gragnano et al., [9]. Under the constant pressure of work, the employee chooses NHO as an option to handle life affairs conveniently, further promoting work-life balance.

## 5. The NHOS: conditions and evaluation

### 5.1. Office conditions

Some public space in the community is equipped with office facilities, which can be called the near-home office space (NHOS). It has basic conditions for telecommuting, including wireless network, sockets, and other necessary equipment and materials. Some are equipped with desk lamps, printers, and conference rooms, and some coexist with stationery sales, book sales or other commerce. In addition, the working environment of NHOS is not bad compared to the office. Various and comfortable seats, which are suitable for individual work or group collaboration, and the soft light to creates a relaxing atmosphere are places in the NHOS. Therefore, the working atmosphere in NHOS not only enables employees to work efficiently, but also reduces their work pressure thereby brings them leisure. Further, NHOS generally provides services to maintain the enthusiasm and continuity of the work, by ensuring that employees do not require to take a break from work role, subsequently improve their job performance [10].

NHOS also provides convenient conditions for employees to switch the roles of work and life, which meets the needs of the employees to combine work and life. Most of the NHOS is located in the commercial center of a residential area or on the first floor of a residential building. Because of its good location and accessibility, it is very convenient for employees to get from home to NHOS, which can change the idea of home life to NHO in a short time. Meanwhile, there are many restaurants and shopping shops near the NHOS, additionally variety of formats are within the space, including books, drinks sales, children's amusement, and others. This commerce cooperates with each other and function to help employees to complete the transformation of working and living life, such as online meeting, catering, parenting, and others.

### 5.2. Evaluation of the NHOS

This paper further evaluates the NHOS in Shenzhen from the following four aspects:

- (1) The quantity: The NHOS facilities are unevenly distributed in Shenzhen, where mostly concentrating in Futian, Luohu, Southern Nanshan, and Central Longhua. Around 90.4% of the total interviewees think that the quantity of the NHOS does not meet the needs, further hoping more NHOS will be constructed or design.
- (2) The location: Around 46% of the total interviewees can reach the NHOS by walking, and the proportion of arriving the NHOS within 15 minutes is around 61% of the total interviewees. The distance and convenient transportation have become the two most important indicators of choosing the suitable NHOS location. Around 88% of the total interviewees are relatively satisfied with the location of the NHOS.
- (3) Working conditions: More than 75% of the NHOS provides wireless network, socket, and shared charger, and about 20% provides conference rooms, printers or desk lamps. Additionally, this research makes a quantitative analysis of the demand for employees, and the score of each index is shown in **Table 3**. The

reports demonstrated that the employees have a high demand for wireless network, socket, and privacy, and also have demand for office environment and space services. Around 70% of the total interviewees are satisfied with the NHOS. In short, the office conditions currently provided by the NHOS basically match the needs of the employee to work, however still need further improvement.

(4) Types of commerce: There are generally 2 to 6 types of commerce in NHOS, and most of them focus on beverage sales or book sales, and few of them are integrated with yoga, cinemas, telephone service, and other formats. People generally hope that there are drinks, books, and light meals, and a few people want to have light sports, social activities, and other functions in the NHOS facilities

**Table 3.** Importance of different office conditions

Tape	Scores	Total Points
Facilities (WIFI; Jack; Printer; Discussion room)	4.45: 4.69: 2.48: 2.52	3.54
Environment (Privacy; Beam; Working atmosphere)	4.57: 3.99: 4.00	4.19
Services (Price; Humanization; Attitude)	3.84: 3.86: 3.94	3.88

The data comes from the questionnaire. Assign very important: To 5; Relatively important: To 4; Important: To 3; Less important: To 2; and Unimportant: To 1.

## 6. Conclusion

### 6.1. Research summary

NHO is a mode of office with the development and modification of the office concept and mobile information technology to a new stage, which has become a common office form during the COVID-19 pandemic. The NHO employee basically has three characteristics; Activating in the community; Working flexibly; and Blending life with work. In addition, NHOS is the public space in the community that provides working environment and services. It can make employees' work and life become closely integrated and easily converted, and this NHOS system should be standardized in the future to further meet the needs of employees.

This study reveals the social phenomenon of NHO, however, this study has some limitation; (1) Focuses on revealing this phenomenon, but lacks the analysis of theories and mathematical models; (2) The survey sample size is small; (3) Adopts self-evaluation, and the interviewees may have recall errors about their own behaviors, therefore, it would be worthwhile to collect data from different sources to reduce the bias, and establish mathematical models to make a correlation analysis of the variables that affect the NHO in further research.

### 6.2. Relevant suggestions

The activity habits of employees can be translated into the basis of community space planning and allocation; therefore, the community planning can match the needs of the employees<sup>[10]</sup>. With the aiming to improve the NHO facilities, the suggestions are as follows; (1) It should be considered the number of NHOS into the elasticity indices the community life circle, where appropriate incentives should be adopted to encourage commerce in the community to provide working space; (2) Improve the walking contact between NHOS, apartments, and public facilities, which can form a harmonious relationship to create a more accessible community; and (3) The activity habits of employees should be considered, as a guide in the design of public space to be more humanized.

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## Disclosure statement

The author declares no conflict of interest.

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