

**Promoting effectiveness of “working from home”: Findings from Hong Kong working population under COVID-19**

Journal:	<i>Asian Education and Development Studies</i>
Manuscript ID	AEDS-06-2020-0139.R1
Manuscript Type:	Research Paper
Keywords:	Working from Home (WFH), Work-Family Balance, Role Theory, WFH Effectiveness, WFH Preference, COVID-19

SCHOLARONE™  
Manuscripts

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

## Promoting Effectiveness of “Working From Home”: Findings from Hong Kong Working Population under COVID-19

### **Structured Abstract**

**Purpose** - Working-from-home (WFH) practice has been adopted by many companies of a variety of industries in a diverse manner; however, it is not until the recent outbreak of the COVID-19 pandemic WFH gains worldwide popularity. With so many different views out there and based on work-family balance theory, this study aims to find out the factors which affect peoples’ WFH effectiveness and whether they want the extended WFH practice when the pandemic crisis is over.

**Design/methodology/approach** - This paper adopted an online survey approach, by posting questionnaire on the university website and different social media channels to collect views from full-time Hong Kong workers who have WFH experience during the coronavirus outbreak. A total of 1,976 effective responses were collected for data analysis.

**Findings** – Our findings show that WFH effectiveness is improved by personal and family well-being but reduced by environmental and resource constraint. When workers are experiencing higher WFH effectiveness, they have a higher preference for WFH even after the pandemic; the female workers preferred to WFH for twice per week, while the male workers more often preferred WFH once per week. Finally, workers from the management level and the self-employed demonstrated a lower preference for WFH, compared to the frontline and middle-grade workers.

**Originality/Value** - This paper fulfils to provide a timely reflection on workers' post-pandemic WFH preference, the factors affecting their WFH effectiveness, and the demographic differences inducing to the differentiated preferences.

Working from home (WFH) has drawn an outpouring media attention amidst the spread of COVID-19. To work from home or not is the most talked about question at workplaces lately. With so many different views out there, this study aims at collecting the views from workers themselves on their WFH experience. Does WFH help achieve work-family balance? What factors affect WFH effectiveness? Do people want the extended WFH practice when the pandemic crisis is over? Based on a survey on 1,976 working people in Hong Kong, results and implications are presented in this paper. Our results show that WFH effectiveness is improved by the personal and family well-being but reduced by environmental and resource constraint. When workers are experiencing higher WFH effectiveness, they have a higher preference on WFH arrangement even after the pandemic, and this preference is higher among female workers and frontline and middle-grade workers.

**Keywords: Working from Home (WFH), Work-Family Balance, Role Theory, WFH Effectiveness, WFH Preference, COVID-19**

## Introduction

Working-from-home (WFH), which is also known as home office, telework, telecommuting and flexible/agile work arrangement allows employees a certain extent of flexibility to complete their job duties at a location other than the office (e.g. home). According to the International Labour Department, WFH can be regularly based at home, highly mobile in several locations, or just occasionally working outside office. Employees may work fully or occasionally a number of days from home with the same benefits of those who work in traditional office settings; alternatively, employees may work as 'independent contractors' who receive no benefits nor equipment sponsorship (International Labour Department, 2011). Since WFH have been implemented in a variety of ways (i.e. fully work from home, intermittently work from home a number of days per week, and shifting duty rosters with colleagues) and can behave blended with other flexible work arrangements (FWAs) (e.g.

flexible working hours, splitting job duties among colleagues), WFH is a complex organizational model which is agile and distinctive in different countries, regions and industries. Despite the various models of WFH arrangement, this research focuses on the purely working from home arrangement because this is the practice that has been widely practiced world-wide during the COVID-19 pandemic. During COVID-19, WFH is suddenly being widely practiced world-wide. With many workers experienced WFH for several months since the pandemic, the goal of this study is to examine how WFH is being perceived by workers in Hong Kong. Specifically, this study aims at identifying factors that affect an individual's WFH effectiveness, and, investigating whether workers prefer to continue the WFH practice when the pandemic is over.

### **Work-from-home (WFH) and the pandemic COVID-19**

In the high time of maintaining social distancing during COVID-19, many countries have imposed various degrees of work-from-home (WFH) policies to minimize virus contraction among colleagues. In the US, 34.1% of around 8000 survey participants in Brynjolfsson et al. (2020) have switched to home office and 37% of American jobs, according to Dingel and Neiman (2020), can be conducted at home (e.g. finance, corporate management, professional and scientific services). However, Dingel and Neiman (2020) pointed out that jobs like agriculture, hospitality and retail are unlikely possible to be completed at home. In fact, Baker (2020) found that 75% American workers (usually in healthcare, manufacturing, retail and food catering) cannot work at home while only 25% (usually in technology, computer, management, administration, finance and engineering) can do so. Companies which were hit hard by the isolation or failed to adapt to WFH arrangement were forced to shut down, layoff, or put employees on furlough. Brynjolfsson et al. (2020) estimated that 16 million Americans are hence out of work; worse still, Kahn, Lange and Wiezer (2020) concluded that job vacancies have contracted in all sectors except nursing and food-selling retail. In China, Zhang

et al. (2020) observed a slightly higher rate of WFH – 38% have worked from home. That said, 25% also ceased working. This brought huge physiological and mental impact on people in both countries. Unlike the statutory isolation imposed by the Chinese government, Zhong (2020) noted that the neighbouring Japan only set up a Telework Comprehensive Portal Site which offers citizens information and discussion platform that WFH is purely voluntary. Compared to US, China and Japan, much stricter policies have been in place in Belgium. According to de Becker (2020), the Belgium Ministerial decree on March 18, 2020 stipulated that all non-essential jobs (i.e. jobs other than ministers, hospitals, elderly homes, universities, media, police and military forces, courts and tribunals, legal professions and food-sellers) shall either switch to home office or maintain 1.5m distancing between staff. Violators are forced to shut down. Different extent of isolation policies (which ultimately led to the emergent adaptation of WFH in companies) may be due to various factors. Dingel and Neiman (2020) found a positive correlation between a country's income level and the number of jobs that can be completed at home. While Mexico and Turkey have less than 25% WFH-able job share, Sweden and the UK have more than 40%. In short, the wealthier a country, the more likely WFH can take place in it.

### **Work-from-home (WFH) pros and cons**

In replacement of or blending with the traditional office setting, work-from-home (WFH) arrangement has been highly praised for some benefits and criticized for some shortcomings. Martin and MacDonnell (2012) found that WFH helps boost productivity, retain employees, and enhance their commitment and performance. Other benefits include emission reduction (due to reduction in commute), office cost reduction and work-family balance (Guyot & Sawhill, April 6 2020), increased efficiency and lower burnout risk (Baert et al. 2020), positive influence on the speed and quality of the development of new products (Coenen & Kok, 2014). That said, Baert et al. (2020) also found that WFH employees worried about weakening

1  
2  
3 colleague relationship and diminishing promotion opportunities or negative career  
4  
5 development (Guyot & Sawhill, April 6 2020; Maruyama & Tietze, 2012). This sets against the  
6  
7 general belief that career advancement (often in the form of job promotion and increments)  
8  
9 is dependent on strong colleague/supervisor recommendations. When employees WFH, it is  
10  
11 unclear, to their mind, how they can display their commitment, competence and performance  
12  
13 without face-to-face interactions. Due to the distinctive natures, highly-paid professional  
14  
15 occupations (such as the aforementioned technology and management jobs) are more likely  
16  
17 WFH-able (Guyot & Sawhill, April 6 2020; Saltiel, 2020); due to the age stratification, 60-69  
18  
19 year old workers in the UK are usually in the front-line and prone to risks (Glynn, 2020) that  
20  
21 Ichino et al. (March 25, 2020) proposed sending the older workforce to work at home while  
22  
23 attracting the younger cohort (20-49 years old) to voluntarily resume work to sustain economy.  
24  
25 Some vulnerable groups like the young, the least educated and minorities (Bell & Blanchflower,  
26  
27 2020) or working mothers (Alon et al. 2020) probably work in industries which does not allow  
28  
29 WFH, inducing to dissatisfaction over the 'telework divide' (Mahler, 2012). Telework divide is  
30  
31 a term which describes the widening opportunity gap between people whose job nature  
32  
33 allowing WFH and those who'se not. Since a universal WFH plan which is applicable to every  
34  
35 industry sector may not be feasible, granting more jobs freedom to WFH will inevitably erode  
36  
37 the existing injustice that some frontline employees are left with little to no choices at all.  
38  
39  
40  
41  
42  
43 Apart from the worries over promotion, colleague relation and vulnerable groups, some  
44  
45 research pinpointed the potential problem of many companies being unprepared for handling  
46  
47 WFH cybersecurity and data protection (Ahmad, 2020; Belzunegui-Eraso & Erro-Garcés, 2020;  
48  
49 Martins, 2020). For example, many employees working from home connect to domestic  
50  
51 broadband network, but the security of data encryption and spam filtering may not be on par  
52  
53 with that of company servers. Both employers and employees worry about information  
54  
55 leakage, especially those in the commercial and public service sectors. Security also concerns  
56  
57 safety issues since they employees are not working in the employers' premises (Erikson, 2020);  
58  
59  
60

in other words, employees' safety measures can hardly be monitored unless being surveilled-

Last but not least, Weinert, Maier and Laumer (2015) pointed out that WFH employees may experience 'telework exhaustion' related to information, autonomy and isolation. Employees need to stand by and handle ad hoc duties; meanwhile, they may lack sufficient support such as instruction, feedback and social interaction. These problems should be carefully solved in order to ensure effective WFH practice.

### **Work-from-home (WFH) suggestions by extant research**

In Baert et al. (2020), 85% of the Flemish Belgium participants believed that WFH will persist in the post pandemic era; Guyot and Sawhill (April 6, 2020) also predicted that WFH will continue as the home working habit has been established. In order to facilitate WFH, Gálvez, Martínez and Pérez (2012) warned that mutual trust must exist between employers and WFH employees to avoid conflicts and that companies must have the organizational commitment to sustain WFH (Hunton & Norman, 2010). Instead of a full-swing of WFH arrangement, Coenen and Kok (2014) found that basic face-to-face contact is necessary to remediate the disadvantages mentioned above. Therefore, learned from the success in Australian, Bosua et al. (2012) suggested a hybrid-work arrangement which requires employees to work one to two days from home each week. Based on trust, employers and employees would reach agreement on individual and team deliverables, as well as the provision of IT equipment. Bosua et al. (2012) believed the hybrid model empowers the employees by giving them control over their work and families, an undisturbed work environment, work-life balance and a positive vibe. This hybrid-model was also recommended by Sewell and Taskin (2015) and Vega, Anderson and Kaplan (2015), in which the latter spot better job performance, satisfaction and creation among 180 US Government employees who work from home on an average of 2.13 days per week. Finally, del Rio-Chanona et al. (2020) proposed a Remote Work Index (RWI) calculating the likelihood of remote working based on 740 occupations listed on

1  
2  
3 [the O\\*NET work activity list. An RWI close to 1 indicates high remoteness while an RWI close](#)  
4 [to 0 means low remoteness.](#) Employers can utilize [the index](#) to decide how likely a job can be  
5  
6  
7 done at home.  
8  
9

### 12 **Work-Family Balance and the effectiveness of WFH**

14 Work-family balance is defined as “accomplishment of role-related expectations that are  
15 negotiated and shared between an individual and his or her role-related partners in the work  
16 and family domains” (Grzywacz and Carlson, 2007, p.458). Helping workers to improve their  
17 work-life balance or work-family balance is increasingly viewed as a centric benefit from the  
18 successful implementation of WFH practice. The work-family balance theory has received a  
19 lot of attention from the Human Resources literature, with ample potential benefits proposed  
20 or identified such as helping to attract and retain talents (US Department of Labor 1999),  
21 enhancing organizational commitment and job satisfaction (Allen et al. 2000; Aryee et al.,  
22 2005; Carlson, Grzywacz and Zivnuska, 2009), reducing turnover intention (Allen et al., 2000),  
23 improving individual health and well-being (Frone, 2000; Grzywacz and Bass, 2003), reducing  
24 sickness absence (Jansen et al. 2006), fostering greater organizational citizenship behaviour  
25 (Bragger et al. 2005), and improving employee performance (Allen et al. 2000; Kossek and  
26 Ozeki, 1999). Regardless of the abundant benefits reported, WFH has yet to be a common  
27 option for employees as a way to improve work-family balance. One of the possible reasons  
28 is that employers worry about employee’s performance if allowing them to WFH, especially  
29 in the Asian context which emphasizes on the traditional physical attendance (Fung, 2019). As  
30 such, this study explores the factors that contribute to work effectiveness when WFH.  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53

### 54 **Factors Affecting WFH Effectiveness**

56 Referring to the work-family balance theory (Carlson et al. 2009) and role theory (Grzywacz  
57 and Carlson, 2007), the option of WFH will likely reduce an individual’s role [conflict-strain](#) in  
58  
59  
60



performing different roles in a more flexible manner. Hence, WFH will reasonably result in several personal and family well-being related benefits. Nonetheless, WFH also comes with various problems as reported in recent studies, such as the limited office-supplies, restricted access to company's internal files, reduced communication quality, etc. Three broad themes of factors were identified to affect WFH effectiveness, a summary of which is provided in Table

1. Accordingly, this study hypothesizes that:

*Hypothesis 1: Personal and family well-being is positively related to WFH effectiveness.*

*Hypothesis 2: Environmental constraint is negatively related to WFH effectiveness.*

*Hypothesis 3: Resource constraint is negatively related to WFH effectiveness.*

**[insert Table 1 here]**

### ***Work-from-home (WFH) pre-pandemic policies***

Although work-from-home (WFH) is no stranger to some commonwealth countries like the UK, Australia and Canada, and some Scandinavian countries like the Netherlands and Finland, it is still a novel concept to many countries and cities. Take Hong Kong as an example – back in the late 1990s, the Planning Department already conducted a survey enquiring people's willingness to adopt WFH practice. However, less than 10% preferred WFH (Study on the Propensity for Office Decentralisation and the Formulation of an Office Land Development Strategy (OLDS)) and only 0.3% companies adopted the said practice (Second Survey to Ascertain the Parameters for Forecasting Employment Distribution (SAPFED II)). Baruch and Yuen (2000) found negative reception of WFH in terms of both company and self-interests. In HK2030 study, Planning Department (2002) concluded that clients back then had no confidence in home business. Since then, Hong Kong government has not publicized any WFH

1  
2  
3 related surveys or guidelines. The closest information is the 'Five-day work week' and  
4  
5 'Flexitime' leaflets released by the Labour Department (2017) which promote five-day work  
6  
7 week and FlexiTime (i.e. flexible working hours). By adopting five-day work week, employees  
8  
9 work five days and take two days leave per week. Employers and employees can decide on  
10  
11 taking leaves on weekdays or weekends, depending on the corporates' operation need. On  
12  
13 top of this, under the FlexiTime suggestion, employers can set up a core working hours and  
14  
15 let employees flexibly work on the non-core hours as long as the total number of work hours  
16  
17 remain the same. Although Hong Kong employers and employees are now familiar with five-  
18  
19 day work week and FlexiTime, moving the workplace to home is still a novel concept. Recent  
20  
21 surveys summarised Hong Kong people's concerns over WFH, such as technostress (Leung  
22  
23 2016; Recruit May 29, 2020) and limited access to internal resources (Fastlane April 29, 2020),  
24  
25 work--family conflict (Leung 2016) and particularly the interruptions from children (Recruit  
26  
27 May 29, 2020), lower productivity (Choi March 26, 2020; Morgan McKinley 2020; Randstad  
28  
29 2020; Recruit May 29, 2020), as well as being less respected (Chan July 4, 2020) due to the  
30  
31 bad impression of non-commitment (Fung 2019) and mistrust (Recruit May 29, 2020).

32  
33  
34  
35  
36  
37 Multinational incorporates like Adidas were chosen by the Labour Department (2009) as  
38  
39 exemplars to share their WFH management decision based on individual employee's reason,  
40  
41 department, work type, service years, maturity and self-discipline; Adidas also shared the use  
42  
43 of Key Performance Indicators (KPI) to monitor the output based on schedule, progress and  
44  
45 instructions, and provided WFH employees with secure laptops to avoid information leakage.  
46  
47 Besides, HSBC and Sanofi are two more companies which stories exemplified that their  
48  
49 employees can apply for and discuss with supervisors their options of WFH (e.g. work from  
50  
51 home or job sharing by two or more people) (Labour Department, 2015). Having said that, we  
52  
53 argue that Hong Kong government has yet officially endorsed WFH.  
54  
55  
56  
57  
58  
59  
60

1  
2  
3 Japan is similar to Hong Kong that WFH was briefly mentioned under the aspect of 'family  
4  
5 friendliness' of their Work-life Balance Charter ("Shigoto to seikatsu no chouwa (waaku raifu  
6  
7 baransu) kenshou") (Japan Institute for Labour Policy and Training, 2013), while Taiwan made  
8  
9 no mention of any WFH policies except flexible work hours in the Article 30 of the Labour  
10  
11 Standards Act (Ministry of Labor Republic of China(Taiwan), 2018). Taking one step forward is  
12  
13 the non-statutory guidelines set up by Singapore – the Tripartite Standards specified that,  
14  
15 under the [\(Singapore\)](#) Flexible Work Arrangements (FWA), employers can adjust three types  
16  
17 of arrangements (i.e. Flexi-load (full/part-time), Flexi-time (staggered/compressed hours) and  
18  
19 Flexi-place). In view of Flexi-place which is equivalent to remote/home office, employers can  
20  
21 refer to the [Singapore](#) FWA templates to discuss with employees the number of work hours,  
22  
23 tasks, communicative tools, expenditures, appraisal parameters, monitor frequency and take-  
24  
25 home resources etc. (Tripartite Alliance for Fair and Progressive Employment Practices, n.d.).  
26  
27 Still, WFH agreement is not protected by law in Singapore. Ireland government officially made  
28  
29 WFH an essential feature of its Smarter Travel 2007 initiative which aims at reducing or  
30  
31 eliminating the daily commute to workplace and the pollution. However, as Hynes (2014) and  
32  
33 Hynes (2016) criticized, WFH has not been received well not because of the lack of official  
34  
35 endorsement but for the official failure in legitimatizing the benefits and introducing the  
36  
37 seamless incorporation of WFH. WFH is much better received in Australia where statutory law  
38  
39 guarantees the legitimacy of WFH, though coming with great restrictions. According to the  
40  
41 Fair Work Ombusman (n.d.), under the [\(Australia\)](#) Fair Works Act – Flexible Work  
42  
43 Arrangements (FWA), individuals who are parents, caregivers, disabled, aged 55 or above,  
44  
45 victims of domestic violence and caregivers of family members are eligible to request WFH,  
46  
47 after which the employers are bound to reach an agreement on the work hours, work patterns  
48  
49 and work locations in 21 days. However, employees other than the said categories are not  
50  
51 entitled to such request power. Their counterparts in the UK, the Netherlands and Canada can  
52  
53 apply for WFH if so they wish. The UK Government stipulates that employees, regardless of  
54  
55  
56  
57  
58  
59  
60

1  
2  
3 background, can write to request for Flexible Work in terms of Working from Home and their  
4  
5 employers must write back to reach an agreement within three months. Employees reserve  
6  
7 the right to lodge complaints to the Employment Tribunals (Gov.uk, n.d.). A similar practice is  
8  
9 guaranteed in Canada that, under the Canada Labour Code, employees can freely write to  
10  
11 request changes on working locations and the employers must reply with an approval or  
12  
13 denial. Employees can also appeal cases to the Canadian Industrial Relations Board  
14  
15 (Government of Canada, December 12 2019). Better yet, since 2016, employees in the  
16  
17 Netherlands can resort to the Flexible Working Hours Act to request changes on their working  
18  
19 locations, upon which their employers must agree unless business interests will be threatened  
20  
21 (Loyens & Loeff, December 14 2015). Ultimately, Finland is one of the most WFH-friendly  
22  
23 countries that, under the New Working Hours Act effective in 2020, employees can decide at  
24  
25 least half of the working hours and the corresponding work locations on their own (Nevalainen  
26  
27 & Toivonen, October 25 2019).  
28  
29  
30  
31  
32  
33

#### 34 **WFH Effectiveness and Post-Pandemic WFH Preference**

35  
36 Many governments announced various levels of isolation measures in wake of the coronavirus  
37  
38 outbreak, which encouraged employers to allow employees to work from home. This large-  
39  
40 scale “WFH trial run” allows both employees and employers to experience both the pros and  
41  
42 cons brought by WFH. This is hypothesized that individuals who achieved better WFH  
43  
44 effectiveness will more likely desire an extension of WFH option as a normal job practice. Not  
45  
46 only would they require an option of WFH, but also a longer duration of WFH per week, when  
47  
48 the COVID-19 pandemic is over. Hence,  
49  
50  
51  
52  
53

54 *Hypothesis 4: WFH effectiveness is positively related to post-pandemic WFH preference.*  
55  
56  
57  
58  
59  
60

1  
2  
3 According to Maruyama and Tietze (2012), female teleworkers exceptionally benefited from  
4 WFH in which they can cope with caring responsibilities at home. For family-oriented female  
5  
6  
7  
8 workers, they may face role strains-conflicts resulting from the different roles that they play  
9  
10 (e.g., a mother at home versus a supervisor at work) according to the role theory (Grzywacz  
11  
12 and Carlson, 2007). To reduce the role strainsconflicts, an individual may try to achieve work-  
13  
14 family balance by engaging in ongoing, flexible role-related negotiations (e.g. discussion with  
15  
16 the company about flexible work arrangement). As such, we assumed that female workers are  
17  
18 more likely to have a greater WFH preference than their male colleagues when the COVID-19  
19  
20 pandemic is over. Hence we hypothesize that:  
21  
22

23  
24  
25  
26 *Hypothesis 5: Females hold a greater post-pandemic WFH preference than their male*  
27  
28 *counterparts.*

29  
30  
31  
32 **[insert Figure 1 here.]**  
33  
34  
35  
36  
37  
38

## 39 **Methodology**

### 40 ***Sample and procedure***

41  
42 An online survey questionnaire was developed and posted on university website to collect  
43  
44 views from full-time Hong Kong workers who have WFH experience during the coronavirus  
45  
46 outbreak. Invitation to join the survey was extended to the public via different social media  
47  
48 channels. Data collection was done between 8 Apr 2020 and 26 April 2020. A total of 2,573  
49  
50 questionnaires were collected, with 1,976 (i.e., 76.8%) effective responses for data analysis.  
51  
52 All these respondents indicated that they had a full-time job at the time they completed the  
53  
54 survey and had WFH experience during the COVID-19 pandemic.  
55  
56  
57  
58  
59  
60

### **Measures**

Question items were developed based on a review on a wide range of literature (e.g., academic papers, industry reports, newspaper commentaries, etc.). Hence, question items are not sourced from factors reported in Table 1, which only summarizes a selected number of studies. All measures in this study used a five-point Likert scale where 1 = “strongly disagree” and 5 = “strongly agree”, unless otherwise indicated. The composite measures for each variable were the average of all items of the construct, except for “Resource constraint”, which composite score was the sum of its items (i.e., this is a formative scale).

**Personal and Family Well-being** was measured by a six-item scale that captures various benefits of WFH. **WFH Effectiveness** was assessed by a three-item scale that describes various work efficiency and effectiveness conditions. For items of these two constructs, respondents were asked to indicate their agreement to each of the statements about WFH benefits, compared to working at office.

**Environmental Constraint** was assessed by a five-item scale that captures the commonly known challenges of WFH. For these two constraint factors, respondents were asked “as compared to working at office, do you find the following a challenge when WFH?”. Items were initially scored as 1 = “Yes”; 2 = “No”; 3 = “Neutral”. To match the other 5-point scale measures in this study, these items were recorded to 5-point scale as 1.5 = “No”; 3 = “Neutral”; and 4.5 = “Yes”.

**Resource Constraint** was measured by a two-item formative scale (not reflective scale), hence the composite score of this scale was the sum of the two items but not their average.

Before testing our hypotheses, we conducted exploratory factor analysis (EFA) to see whether the underlying factor structure matches our theoretical model as shown in Figure 1. In this study, we test two models as shown in Figure 1. There are four variables in Model 1, namely personal and family well-being, environmental constraint, resource constraint, and WFH effectiveness, while there are three variables in Model 2, namely WFH Effectiveness (this is the same as in Model 1), Gender, and WFH preference. Since Gender is a Categorical variable and WFH preference is a single-item measured variable, we conducted EFA employing principal component analysis by using Varimax rotation (Gerbing & Anderson, 1988) on the above-mentioned measure items of the four variables in the Model 1. scales were assessed using exploratory factor analysis employing principal component analysis (Gerbing & Anderson, 1988). As a result, A four-factor solution with eigenvalues exceeding 1 resulted. The suitability of this approach was supported by a sufficiently high KMO value of .89 and a statistically significant Bartlett's result. The four-factor structure matched our theoretical models as presented in Figure 1, which means that all variables loaded substantially on their relevant components. Varimax rotation was then used to interpret these results, and the rotated solution, summarized in Table 2, reveals all variables loaded substantially on their relevant components. Loadings on other components in no case exceeded .38, indicating that the measurement procedures used were sufficiently discriminating. Table 2 shows the results of this EFA. We used unweighted index to calculate the four variables' scores.

[insert Table 2 here.]

Respondents were asked to indicate their **gender** by selecting 1 = "Male" and 2 = "Female".

Another dependent variable in this study is **WFH Preference**, which was assessed by asking the respondents "when the current coronavirus crisis is over, would you still want to continue

working from home?" Choice options include 1 = "No"; 2 = "Yes, once a week"; 3 = "Yes, twice a week"; and 4 = "Yes, 3 days or more a week".

**Control variables** include gender (except in conceptual model 2), age, marital status, residential status (living alone or with others), and, job position. These variables were included in data analysis to reduce spurious effects owing to the potential influence of demographic characteristics.

Descriptive statistics are provided in Table 3, the general demographic characteristics of respondents are presented in Table 4, and, inter-construct correlations of key variables are provided in Table 5.

[insert Table 3 here.]

[insert Table 4 here.]

[insert Table 5 here.]

## Results

What factors impact the effectiveness of WFH? Regression analysis was performed to test H1 to H3 in this study (Table 6). Results revealed that a total of 37 percent of variance of WFH effectiveness was explained by the three independent variables, namely, personal and family well-being (H1), environmental constraint (H2) and resource constraint (H3). Specifically, personal and family well-being shows greatest positive effect ( $\beta = .48, p < .01$ ) on WFH effectiveness, followed by moderate negative effect by environmental constraint ( $\beta = -.18, p < .01$ ), and a small but statistically significant effect by resource constrain ( $\beta = -.03, p < .01$ ). Hence, all H1 to H3 are supported. Moderated regression analysis was performed for each of the control variables (i.e., gender, age, marital status, job position and residential status) to explore the potential moderation effect but no statistically significant result was identified.



Such results suggest that the relationships between all the three independent variables (IVs) and WFH effectiveness are robust, regardless of different demographic characteristics.

While many of the working people were either forced or encouraged to WFH, is the WFH practice still preferred by the working class even after the pandemic? Table 7 shows the breakdown of preference indicated by the respondents. A majority of respondents (35.6%) indicated that they prefer to continue to WFH twice a week, followed by 29.7% who want to WFH once a week. Only 16.3% respondents indicated a post-pandemic WFH preference of 3 days or more a week. Among the WFH options, 18.4% respondents indicated that they do not want to continue the WFH arrangement after the pandemic. In a word, majority of Hong Kong workers (65.3%) preferred to WFH one to two days per week.

[insert Table 6 here.]

[insert Table 7 here.]

Who would have a greater preference of WFH when the current COVID-19 pandemic is over?

Another regression analysis was performed to explore the effects of WFH effectiveness and gender on WFH preference. As shown in Table 8, when the three IVs (i.e., personal and family well-being, environmental constrain, and, resource constraint) of WFH effectiveness were controlled for analysis, WFH effectiveness (H4) and gender (H5) together explains 3 percent of variance, with the whole model explains 29.5 percent of variance in post-pandemic WFH preference. A greater positive effect of WFH effectiveness was observed ( $\beta = .24, p < .01$ ) on WFH preference, compared to gender difference ( $\beta = .08, p < .05$ ). To further explore the effect of gender on post-pandemic WFH preference, independent sample t-test was performed.

Results show that there was a significant difference in the scores for male ( $M = 2.43, SD = .99$ ) and female ( $M = 2.53, SD = .96$ );  $t(1974) = -2.00, p = .046$ . These results suggest that female

workers slightly more often preferred to WFH for 2 days per week, while the male workers slightly more often preferred to WFH for one day per week. Hence, H4 and H5 are supported.

[insert Table 8 here.]

### ***Post-hoc analyses***

As identified from the regression analysis results in Table 8, age regressed negatively on WFH preference ( $\beta = -.08, p < .01$ ), meaning that younger age group has a higher preference to WFH when compared to the older age group. Another interesting finding is that workers from the management level and the self-employed demonstrated a lower preference to WFH, compared to the frontline and middle grade workers. Such observation is supported by the significant difference in the scores for “frontline and middle grade” group ( $M = 2.52, SD = .96$ ) and “management and self-employed” group ( $M = 2.30, SD = 1.07$ );  $t(1965) = 2.96, p = .003$ .

### **Conclusion and Implications**

Based on the data collected from 1,976 Hong Kong working people, we conclude that WFH effectiveness is improved by the personal and family well-being, as a benefit of WFH. However, environmental constraint and resource constraint would reduce the effectiveness of WFH. Furthermore, when workers are experiencing higher WFH effectiveness, they have a higher preference on WFH arrangement even after the pandemic. Such preference is also higher among female workers, as compared to their male colleagues. Frontline and middle grade workers also showed higher preference to WFH compared to the management level workers and self-employed people. These findings have implications for both researchers and managers.

### ***Implications for researchers***

1  
2  
3 Research findings are consistent with the Work-family balance theory and role theory, which  
4 suggest that achieving work-family balance would help reduce the role ~~conflict~~~~strain~~ and  
5 improve well-being, which then enhances job performance. In this study, personal and family  
6 well-being was found to enhance the effectiveness of WFH. These findings contribute to the  
7 Work-family balance and role theory literature by providing empirical evidence of the benefits  
8 of WFH (as a way to achieve work-family balance and reduce role ~~strain~~~~conflict~~) and its  
9 positive effect on WFH effectiveness. WFH arrangement allows an individual quickly switch  
10 between different roles (the role at work versus that in family), workers can therefore fulfil  
11 their different role-related expectations relatively easier and quicker than working at office.  
12 The convenience in role-switching not only improves personal and family well-being, but also  
13 found to improve WFH effectiveness in this study.

14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30 Another contribution to the literature is the gender effect on post-pandemic WFH preference.  
31 Consistent with Maruyama and Tietze's (2012) study, which found that female teleworkers  
32 exceptionally benefited from WFH in which they can cope with caring responsibilities at home,  
33 the present study also shows that female showed a higher preference to WFH than male did.  
34 Specifically, female workers showed a greater preference to WFH for 2 days a week, while  
35 male workers are slightly more inclined to WFH for 1 day per week. Such findings shed light  
36 on the characteristics of Asian society that female is more family-oriented than male, even  
37 with a lot of female participating in the workforce in the modern society today.

### 38 39 40 41 42 43 44 45 46 47 48 49 50 ***Implications for managers***

51  
52 The literature suggest that it is important for an organization to design and implement work-  
53 family balance strategies, as a way to attract and retain talents (Martin and MacDonnell 2012).  
54 Our findings showed that an individual who perceives greater personal and family well-being  
55  
56  
57  
58  
59  
60

1  
2  
3 as a result of WFH would have higher WFH effectiveness, which in turn, increases post-  
4  
5 pandemic WFH preference.  
6  
7  
8  
9

10 Although management and self-employed persons showed lower preference to WFH after the  
11  
12 COVID-19 crisis, managers are suggested to note the trend of having WFH as a HR strategy to  
13  
14 attract and retain talents. Specifically, this is observed from this study that female and younger  
15  
16 workers have a higher preference for WFH. Hence, having WFH as an option, in particular  
17  
18 allowing a worker to WFH from 1 to 2 days per week, should be helpful for a company to  
19  
20 attract and retain female or younger generation workers.  
21  
22  
23  
24

25 Our findings also confirmed that this is important for a company to provide hardware and  
26  
27 software support to workers to improve their WFH effectiveness. Examples include providing  
28  
29 cash allowance for purchasing IT equipment or office supplies; lending out IT equipment to  
30  
31 employers when they are WFH; strengthening IT software and network support; using  
32  
33 software that facilitates communications among colleagues; improving accessibility to  
34  
35 internal network drives via secured online platforms, etc. Such findings echo those reported  
36  
37 in previous studies about the difficulties of WFH in Hong Kong context (e.g., Fastlane April 29,  
38  
39 2020; Leung 2016; Recruit May 29, 2020).  
40  
41  
42  
43  
44

45 It is surprising to find that managers and self-employed less preferred WFH, compared to the  
46  
47 frontline and middle-grade workers. Mistrust has been identified as one of the key factors  
48  
49 that discourages WFH practices' implementation (Recruit May 29, 2020); therefore, it is  
50  
51 important for the HR department to do something to strategically change the mind-set of the  
52  
53 senior management and get their support on the implementation of WFH arrangement, as a  
54  
55 way to promote work-family balance of employees. Referring to Gálvez, Martínez and Pérez  
56  
57  
58  
59  
60

(2012), organizing activities to build mutual trust between senior management and their subordinates would also help facilitate the implementation of WFH practice.

### ***Limitations and future research***

Our study, like any other, is not without limitations. Firstly, the scales for measuring each of the concepts were developed based on their logicity and results of exploratory factor analysis, which lends support to scale discriminant and convergent validity. Scale reliability of each scale was also checked, and the respective Cronbach's alpha passed the recommended threshold of 0.70. However, it would be better for future studies to adopt well-developed scales to key concepts like "well-being" or "work-family balance" to examine its potential effects on WFH effectiveness.

Secondly, in addition to WFH effectiveness, more variables shall be investigated in future studies about the potential benefits of WFH. Organizational level benefits of WFH has received very little attention in the literature which should be explored in future studies. Findings of such should help promote WFH and other work-family balance practice among managers, so as to seek their support on the implementation of such HR policies.

Thirdly, the findings of this study show the clear voices of employees that they prefer to have the WFH option even after the pandemic. However, this is equally clear that the senior management takes the opposite stand. It is therefore critically important for future research to investigate for the ways to deal with the worries of the senior management. Common examples of worries about WFH include lower productivity (Choi March 26, 2020; Morgan McKinley 2020; Randstad 2020; Recruit May 29, 2020), bad impression of non-commitment (Fung 2019), lack of IT support (Erikson, 2020), etc. All these require further investigation to offer practical solutions that facilitate WFH arrangement.

1  
2  
3  
4  
5 Finally, the cross-sectional design limits the ability to draw firm conclusions on the causal  
6  
7 relationships studied. Is it possible that WFH effectiveness will be diminished with a longer  
8  
9 WFH duration per week? Or, would it be strengthened as an employee gained a certain period  
10  
11 of WFH experience? Would WFH preference be changed after an individual is promoted to a  
12  
13 more senior position? What is the optimal WFH duration for the best job performance? Future  
14  
15 study using a longitudinal research design may offer insights to the above questions and  
16  
17 provide further theoretical and practical suggestions for effective implementation of WFH  
18  
19 policies.  
20  
21  
22  
23  
24  
25

## 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60

### References

- Ahmad, T. (2020). Corona virus (Covid-19) pandemic and work from home: Challenges of cybercrimes and cybersecurity. SSRN. Doi: 10.2139/ssrn.3568830
- Alon, T.M., Doepke, M., Olmstead-Rumsey, J., & Tertilt, M. (Working paper) The impact of Covid-19 on gender equality. *NBER Working Paper Series 26947*.  
<https://www.nber.org/papers/w26947>
- Allen, T. D., Herst, D. E. L., Bruck, C. S., & Sutton, M. (2000). Consequences Associated with Work-to-Family Conflict: A Review and Agenda for Future Research. *Journal of Occupational Health Psychology*, 5, 278-308.
- Aryee, S., Srinivas, E. S., & Tan, H. H. (2005). Rhythms of Life: Antecedents and Outcomes of Work-Family Balance in Employed Parents. *Journal of Applied Psychology*, 90, 132–46.

- 1  
2  
3 Baert, S., Lippens, L., Moens, E., Sterkens, P., & Weytjens, J. (working paper). The COVID-19  
4 crisis and telework: A research survey on experiences, expectations and hopes.  
5  
6 Ghent University. [http://wps-feb.ugent.be/Papers/wp\\_20\\_996.pdf](http://wps-feb.ugent.be/Papers/wp_20_996.pdf)  
7  
8  
9  
10 Baker, M.G. (in press) Who cannot work from home? Characterizing occupations facing  
11 increased risk during the COVID-19 pandemic using 2018 BLS data. *MedRxiv*.  
12 <https://www.medrxiv.org/content/10.1101/2020.03.21.20031336v2.full.pdf>  
13  
14  
15  
16 Baruch, Y., & Yuen, Y.K.J. (2000). Inclination to opt for teleworking: A comparative analysis  
17 of United Kingdom versus Hong Kong employees. *International Journal of*  
18 *Manpower* 21(7), 521-539.  
19  
20  
21  
22  
23 Bell, D.N.F., & Blanchflower, D.G. (2020). US and UK labour markets before and during the  
24 Covid-19 crash. *National Institute Economic Review* 252. Doi: 10.1017/nie.2020.14  
25  
26  
27  
28 Belzunegui-Eraso, A., & Erro-Garcés, A. (2020). Teleworking in the context of the Covid-19  
29 crisis. *Sustainability* 12(9), 3662. Doi: 10.3390/su12093662  
30  
31  
32  
33 Bosua, R., Gloet, M., Kurnia, S., Mendoza, A., & Yong, J. (2012). Telework, productivity and  
34 wellbeing. Institute for a Broadband-Enabled Society.  
35  
36 <http://hdl.voced.edu.au/10707/235059>  
37  
38  
39 Bragger, J. D., Rodriguez-Srednicki, O., Kutcher, E. J., Indovino, L., & Rosner, E. (2005).  
40 Work-family conflict, work-family culture, and organizational citizenship behavior  
41 among teachers. *Journal of Business and Psychology*, 20, 303-324.  
42  
43  
44  
45 Brynjolfsson, E., Horton, J., Ozimek, A., Rock, D., Sharma, G., & Ye, H.-Y.T. (2020). COVID-19  
46 and remote work: An early look at US data. <http://hdl.voced.edu.au/10707/537312>  
47  
48  
49  
50 Carlson, D. S., Grazywacz, J. G. & Zivnuska, S. (2009). Is Work-Family Balance more than  
51 Conflict and Enrichment? *Human Relations*, 62(10), 1459 – 1486.  
52  
53  
54  
55 [Chan, S. \(April 7, 2020\). How engaged are your work-from-home employees? Human](https://www.humanresourcesonline.net/how-engaged-are-your-work-from-home-employees)  
56 [Resources Online. Net. https://www.humanresourcesonline.net/how-engaged-are-](https://www.humanresourcesonline.net/how-engaged-are-your-work-from-home-employees)  
57 [your-work-from-home-employees](https://www.humanresourcesonline.net/how-engaged-are-your-work-from-home-employees)  
58  
59  
60

- 1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60
- Chen, W., & McDonald, S. (2014). Do networked workers have more control? The implications of teamwork, telework, ICTs, and social capital for job decision latitude. *American Behavioral Scientist*, 59(4), 492-507.
- [Choi, W. \(March 26, 2020\). Working from Home is the key to combatting COVID-19 according to a new survey by KOS International. KOS. https://www.kos-intl.com/blog/2020/03/working-from-home-is-the-key-to-combatting-covid-19-according-to-a-new-survey-by-kos-international](https://www.kos-intl.com/blog/2020/03/working-from-home-is-the-key-to-combatting-covid-19-according-to-a-new-survey-by-kos-international)
- Coenen, M., & Kok, R.A.W. (2014). Workplace flexibility and new product development performance: The role of telework and flexible work schedules. *European Management Journal* 32(4), 564-576. Doi: 10.1016/j.emj.2013.12.003
- Dingel, J.I., & Neiman, B. (Working paper). How many jobs can be done at home? NBER Working Paper Series 26948. <https://www.nber.org/papers/w26948>
- Erikson, M. (2020). COVID-19 and labour law: Estonia. *Italian Labour Law E-Journal* 1(13). Doi: 0.6092/issn.1561-8048/10788
- Fair Work Ombudsman. (n.d.). Flexible working arrangements. <https://www.fairwork.gov.au/employee-entitlements/flexibility-in-the-workplace/flexible-working-arrangements>
- Fastlane. (April 29, 2020). Infographic: Work from home Hong Kong survey COVID-19. Fastlane. <https://fastlanepro.hk/work-from-home-hong-kong-infographic/>
- Fonner, K.L., & Roloff, M. E. (2010). Why teleworkers are more satisfied with their jobs than are office-based workers: When less contact is beneficial. *Journal of Applied Communication Research* 38(4), 336-361. Doi: 10.1080/00909882.2010.513998
- Frone. M. R. (2000). Work-family conflict and employee psychiatric disorders: The National Comorbidity Survey. *Journal of Applied Psychology*, 85, 888-895.



- 1  
2  
3 Fung, M. (2019). Making the case for flexible and agile working in Hong Kong's legal  
4 industry. *Women in Law Hong Kong*. [https://www.wilhk.com/flexible-and-agile-](https://www.wilhk.com/flexible-and-agile-working)  
5  
6 working  
7  
8  
9  
10 Gálvez, A., Martínez, M.J., Pérez, C. (2012). Telework and work-life balance: Some  
11 dimensions for organisational change. *Journal of Workplace Rights* 16(3-4), 273-  
12 297. Doi: 10.2190/WR.16.3-4.b  
13  
14  
15  
16 Gerbing, D. W., & Anderson, J. C. (1988). An updated paradigm for scale development  
17 incorporating unidimensionality and its assessment. *Journal of Marketing Research*,  
18 25(May): 186–192.  
19  
20  
21  
22  
23 Glynn, J.R. (2020). Protecting workers aged 60–69 years from COVID-19. *Lancet Infect Dis*  
24 2020. Doi: 10.1016/S1473-3099(20)30311-X  
25  
26  
27  
28 Gov.uk. (n.d.). Flexible working. <https://www.gov.uk/flexible-working>  
29  
30  
31 Government of Canada. (December 12, 2019). Flexible work arrangements.  
32 [https://www.canada.ca/en/employment-social-development/services/labour-](https://www.canada.ca/en/employment-social-development/services/labour-standards/reports/flexible-work-arrangements.html)  
33 standards/reports/flexible-work-arrangements.html  
34  
35  
36  
37 Grzywacz, J. G., & Bass, B. L. (2003). Work, Family, and mental health: Testing different  
38 models of work-family fit. *Journal of Marriage and Family*, 65, 248-261.  
39  
40  
41 Grzywacz, J. G., & Carlson, D. S. (2007). Conceptualizing Work-Family Balance: Implications  
42 for Practice and Research. *Advances in Developing Human Resources*, 9(4), 455-471.  
43  
44  
45  
46  
47  
48 Guyot, K., & Sawhill, I.V. (April 6, 2020). Telecommuting will likely continue long after the  
49 pandemic. Brookings. Retrieved from: [https://www.brookings.edu/blog/up-](https://www.brookings.edu/blog/up-front/2020/04/06/telecommuting-will-likely-continue-long-after-the-pandemic/)  
50 front/2020/04/06/telecommuting-will-likely-continue-long-after-the-pandemic/  
51  
52  
53  
54 Hunton, J.E., & Norman, C.S. (2010). The impact of alternative telework arrangements on  
55 organizational commitment: Insights from a longitudinal field experiment. *Journal*  
56 of *Information Systems* 24(1), 67-90. Doi: 10.2308/jis.2010.24.1.67  
57  
58  
59  
60

1  
2  
3 Hynes, M. (2014). Telework isn't working: A policy review. *The Economic and Social Review*  
4  
5 45(4), 579-602.  
6

7 Hynes, M. (2016). Developing (tele)work? A multi-level sociotechnical perspective of  
8  
9 telework in Ireland. *Research in Transportation Economics* 57, 21-31. Doi:  
10  
11 10.1016/j.retrec.2016.06.008  
12  
13

14 Ichino, A., Calzolari, G., Mattozzi, A., Rustichini, A., Zanella, G., & Anelli, M. (March 25,  
15  
16 2020) Transition steps to stop COVID-19 without killing the world economy. CEPR  
17  
18 Policy Portal. [https://voxeu.org/article/transition-steps-stop-covid-19-without-](https://voxeu.org/article/transition-steps-stop-covid-19-without-killing-world-economy)  
19  
20 [killing-world-economy](https://voxeu.org/article/transition-steps-stop-covid-19-without-killing-world-economy)  
21  
22

23 International Labour Organization. (March 15, 2011). Telework. Retrieved from  
24  
25 [https://www.iloencyclopaedia.org/part-xvii-65263/office-and-retail-](https://www.iloencyclopaedia.org/part-xvii-65263/office-and-retail-trades/item/648-telework)  
26  
27 [trades/item/648-telework](https://www.iloencyclopaedia.org/part-xvii-65263/office-and-retail-trades/item/648-telework)  
28  
29

30 Jansen, N. W., H., Kant, I. J., van Amelsvoort, L. G. P. M., Kristensen, T. S., Swaen. G. M. H.,  
31  
32 & Nijuis. F. J. N. (2006). Work-family conflict as a risk factor for sickness absence.  
33  
34 *Journal of Occupational and Environmental Medicine*, 63, 488-494  
35  
36

37 Japan Institute for Labour Policy and Training. (2013). Progress on policies on work-life  
38  
39 balance in Japan and the current status thereof. Labour Situation in Japan and its  
40  
41 Analysis: Detailed Exposition 2012/2013.  
42  
43 <https://www.jil.go.jp/english/ljsj/detailed/2012-2013/chapter2.pdf>  
44  
45

46 Kahn, L.B., Lange, F., & Wiezer, D.G. (2020). Labor demand in the time of Covid-19:  
47  
48 Evidence from vacancy postings and UI claims. *NBER Working Paper Series* 27061.  
49  
50 <https://www.nber.org/papers/w27061>  
51  
52

53 Kossek, E. E., & Ozeki, C. (1999). Bridging the work-family policy and productivity gap: A  
54  
55 literature review. *Community Work & Family*, 2. 139-149.  
56  
57  
58  
59  
60

- 1  
2  
3 Labour Department. (2009). Good people management and family-friendly employment  
4 practices. Retrieved from  
5  
6  
7 <https://www.labour.gov.hk/eng/public/wcp/FamilyCasebook.pdf>  
8  
9  
10 Labour Department. (2015). Friendly employment practices for mature persons and  
11 families.  
12  
13 [https://www.labour.gov.hk/eng/public/Friendly\\_Employment\\_Practices\\_for\\_Matur](https://www.labour.gov.hk/eng/public/Friendly_Employment_Practices_for_Mature_Persons_and_Families_ENG.pdf)  
14 [e\\_Persons\\_and\\_Families\\_ENG.pdf](https://www.labour.gov.hk/eng/public/Friendly_Employment_Practices_for_Mature_Persons_and_Families_ENG.pdf)  
15  
16  
17  
18 Labour Department. (2017). Family-friendly Employment Practices. Retrieved from  
19  
20 <https://www.gov.hk/en/residents/employment/recruitment/familyfriendly.htm>  
21  
22  
23 [Leung, L. \(2016\). ICT Use at Home and Telecommuting Practices in Hong Kong.](#)  
24  
25 [http://www.com.cuhk.edu.hk/images/content\\_people/publication/louis-articles-](http://www.com.cuhk.edu.hk/images/content_people/publication/louis-articles-2016-ICT.pdf)  
26 [2016-ICT.pdf](http://www.com.cuhk.edu.hk/images/content_people/publication/louis-articles-2016-ICT.pdf)  
27  
28  
29  
30 Loyens & Loeff. (December 14, 2015). New Dutch flexible work legislation.  
31  
32 [https://www.lexology.com/library/detail.aspx?g=59e9aaf0-5542-42d5-a2ed-](https://www.lexology.com/library/detail.aspx?g=59e9aaf0-5542-42d5-a2ed-15dd287a8cbd)  
33 [15dd287a8cbd](https://www.lexology.com/library/detail.aspx?g=59e9aaf0-5542-42d5-a2ed-15dd287a8cbd)  
34  
35  
36  
37 Mahler, J. (2012). The telework divide: Managerial and personnel challenges of telework.  
38  
39 Review of Public Personnel Administration 32(4), 407-418. Doi:  
40  
41 10.1177/0734371X12458127  
42  
43  
44 Maruyama, T., & Tietze, S. (2012). From anxiety to assurance: Concerns and outcomes of  
45 telework. *Personnel Review* 41(4), 450-469. Doi: 10.1108/00483481211229375  
46  
47  
48 Martin, H.B., & MacDonnell, R. (2012). Is telework effective for organizations? A  
49  
50 meta-analysis of empirical research on perceptions of telework and organizational  
51  
52 outcomes. *Management Research Review* 35(7), 602-616. Doi:  
53  
54 10.1108/01409171211238820  
55  
56  
57 Martins, D.C. (2020). COVID-19 and labour law: Portugal. *Italian Labour Law E-Journal* 1(13).  
58  
59 Doi: 10.6092/issn.1561-8048/10801  
60

1  
2  
3 [Mercer. \(n.d.\). Prevailing from Coronavirus \(COVID-19\): Coronavirus response survey](https://www.mercer.com.hk/our-thinking/healthy-people-healthy-business/prevailing-from-covid19.html)  
4  
5 [results. https://www.mercer.com.hk/our-thinking/healthy-people-healthy-](https://www.mercer.com.hk/our-thinking/healthy-people-healthy-)  
6  
7 [business/prevailing-from-covid19.html](https://www.mercer.com.hk/our-thinking/healthy-people-healthy-business/prevailing-from-covid19.html)  
8  
9

10 Ming Pao Finance. (May 20, 2020). Sun Life Survey: 80% employees feel happier for  
11  
12 meeting supervisors less often (in Chinese).  
13  
14 <https://www.mpfinance.com/fin/instantf2.php?node=1589959795709&issue=2020>  
15  
16 0520  
17

18 Ministry of Labor Republic of China(Taiwan). (2018). Normal working hours.  
19  
20  
21 <https://english.mol.gov.tw/6386/6394/6397/6399/6477/>  
22

23 [Morgan McKinley. \(2020\). Covid-19 impact survey: Hong Kong, Shanghai & Singapore.](https://go.morganmckinley.com/rs/416-MPU-256/images/IMPACT%20of%20COVID-19%20-%20Results%20-%20MMK%20HK%20SH%20SG.pdf)  
24  
25 <https://go.morganmckinley.com/rs/416-MPU->  
26  
27 [256/images/IMPACT%20of%20COVID-](https://go.morganmckinley.com/rs/416-MPU-256/images/IMPACT%20of%20COVID-)  
28  
29 [19%20-%20Results%20-%20MMK%20HK%20SH%20SG.pdf](https://go.morganmckinley.com/rs/416-MPU-256/images/IMPACT%20of%20COVID-19%20-%20Results%20-%20MMK%20HK%20SH%20SG.pdf)  
30  
31

32 Nevalainen, P., & Toivonen, S. (October 25, 2019). Finland's updated Working Hours Act  
33  
34 takes effect 1 January 2020. [https://ally-law.com/finlands-updated-working-hours-](https://ally-law.com/finlands-updated-working-hours-act-takes-effect-1-january-2020/)  
35  
36 [act-takes-effect-1-january-2020/](https://ally-law.com/finlands-updated-working-hours-act-takes-effect-1-january-2020/)  
37  
38

39 [Planning Department. \(2002\). Working paper no. 14: Studies on home office activities in](https://www.pland.gov.hk/pland_en/p_study/comp_s/hk2030/eng/wpapers/pdf/workingPaper_14.pdf)  
40  
41 [Hong Kong.](https://www.pland.gov.hk/pland_en/p_study/comp_s/hk2030/eng/wpapers/pdf/)  
42  
43 [https://www.pland.gov.hk/pland\\_en/p\\_study/comp\\_s/hk2030/eng/wpapers/pdf/](https://www.pland.gov.hk/pland_en/p_study/comp_s/hk2030/eng/wpapers/pdf/)  
44  
45 [workingPaper\\_14.pdf](https://www.pland.gov.hk/pland_en/p_study/comp_s/hk2030/eng/wpapers/pdf/workingPaper_14.pdf)  
46  
47

48 [Randstad. \(2020\). Covid-19: Employer pulse survey on business sentiment & workforce](https://www.randstad.com.hk/workforce-insights/randstad-hong-kong-covid-19-employer-pulse-survey-report.pdf)  
49  
50 [management. https://www.randstad.com.hk/workforce-insights/randstad-hong-](https://www.randstad.com.hk/workforce-insights/randstad-hong-)  
51  
52 [kong-covid-19-employer-pulse-survey-report.pdf](https://www.randstad.com.hk/workforce-insights/randstad-hong-kong-covid-19-employer-pulse-survey-report.pdf)  
53  
54

55 Recruit. (May 29, 2020). Recruit online survey: 70% worked from home while half  
56  
57 expressed insufficient support. (in Chinese).  
58  
59 <https://www.recruit.com.hk/article/recruit%E7%B6%B2%E4%B8%8A%E8%AA%BF%>  
60

E6%9F%A5-

7%E6%88%90%E4%BA%BA%E6%9B%BE%E5%9C%A8%E5%AE%B6%E5%B7%A5%E4

%BD%9C-%E8%BF%91%E5%8D%8A%E7%A8%B1%E6%94%AF%E6%8F%B4%E4%B8

%8D%E8%B6%B3/40700

del Rio-Chanona, R.M., Mealy, P., Pichler, A., Lafond, F., & Farmer, J.D. (working paper)

Supply and demand shocks in the COVID-19 pandemic: An industry and occupation perspective. *Covid Economics* 6, 65-103.

<https://cepr.org/sites/default/files/news/CovidEconomics6.pdf>

Saltiel, F. (2020). Who Can Work From Home in Developing Countries?

[http://econweb.umd.edu/~saltiel/files/wfh\\_mostrecent.pdf](http://econweb.umd.edu/~saltiel/files/wfh_mostrecent.pdf)

Sardeshmukh, S.R., Sharma, D., & Golden, T.D. (2012). Impact of telework on exhaustion and job engagement: A job demands and job resources model. *New Technology, Work and Employment* 27(3), 193-207.

Sewell, G., & Taskin, L. (2015). Out of sight, out of mind in a new world of work? Autonomy, control, and spatiotemporal scaling in telework. *Organization Studies* 36(11), 1507-1529. Doi: 10.1177/0170840615593587

The Standard. (May 20, 2020). Working from home a favored choice, survey says.

<https://www.thestandard.com.hk/breaking-news/section/2/147654/Working-from-home-a-favored-choice,-survey-says>

Tripartite Alliance for Fair and Progressive Employment Practices. (n.d.). Telecommuting:

How to determine the suitability of telecommuting and implement it in your organisation. <https://www.tal.sg/tafep/employment-practices/work-life-harmony/fwaf/types/telecommuting>

US Department of Labor. (1999). *Futurework: Trends and challenges for work in the 21st century*. Washington, DC: US Department of Labor.

- 1  
2  
3 Valmohammadi, C. (2012). Investigating the perceptions of Iranian employees on  
4 teleworking. *Industrial and commercial Training* 44(4), 236-241. Doi:  
5 10.1108/00197851211231513.  
6  
7  
8  
9  
10 Vega, R.P., Anderson, A.J., & Kaplan, S.A. (2015). A within-person examination of the effects  
11 of telework. *Journal of Business and Psychology* 30, 313–323. Doi: 10.1007/s10869-  
12 014-9359-4  
13  
14  
15  
16 Weinert, C., Maier, C., & Laumer, S. (2015). Why are teleworkers stressed? An empirical  
17 analysis of  
18 the causes of telework-enabled stress. In: O. Thomas & F. Teuteberg (Eds) *Proceedings der*  
19 *12 Internationalen Tagung Wirtschaftsinformatik (WI 2015)*, 1407-1421.  
20  
21 <http://www.wi2015.uni-osnabrueck.de/Files/WI2015-D-14-00335.pdf>  
22  
23  
24  
25  
26  
27  
28 Zhang, S.X., Wang, Y.-F., Rauch, A., & Wei, F. (2020). Unprecedented disruption of lives and  
29 work: Health, distress and life satisfaction of working adults in China one month  
30 into the COVID-19 outbreak. *Psychiatry Research* 288, 112958. Doi:  
31 10.1016/j.psychres.2020.112958  
32  
33  
34  
35  
36  
37 Zhong, Q. (2020) COVID-19 and labour law: Japan. *Italian Labour Law E-Journal* 1(13). Doi:  
38 0.6092/issn.1561-8048/10795  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

**Table 1. Three Themes of Factors Contributing to WFH Effectiveness**

Study	Context (Industry)	Sample size	Contributing factors
Baruch and Yuen (2000)	Hong Kong and UK (small companies)	36 Hong Kong and 38 UK	<ul style="list-style-type: none"> <li>• Flexible working hours (A)</li> </ul>
Chen and McDonald (2014)	US (Networked workers)	703	<ul style="list-style-type: none"> <li>• Perceived benefits of <u>ICT Information and Communication Technology</u> (C)</li> </ul>
Choi (2020)	Hong Kong	300	<ul style="list-style-type: none"> <li>• Dedicated workspace (B)</li> <li>• Take a break (A)</li> <li>• Cyber security (C)</li> </ul>
Fastlane (2020)	Hong Kong (SMEs)	200	<ul style="list-style-type: none"> <li>• Access to internal documents and communication tools (C)</li> </ul>
Fonner and Roloff (2010)	No mention	192	<ul style="list-style-type: none"> <li>• Less work-life conflict (A)</li> </ul>
Maruyama and Tietze (2012)	UK (British Telecommunications PLC)	394	<ul style="list-style-type: none"> <li>• Females more likely find WFH beneficial to caring responsibilities (A)</li> </ul>
Recruit (2020)	Hong Kong	313	<ul style="list-style-type: none"> <li>• Companies provide laptops and software (C)</li> <li>• Companies allow remote desktop control (C)</li> </ul>
Sardeshmukh et al. (2012)	US (Supply chain management company)	417	<ul style="list-style-type: none"> <li>• Clear job description (B)</li> <li>• Clear communication (B)</li> <li>• Feedback (B)</li> </ul>
Sun Life Hong Kong (2020)	Hong Kong	810	<ul style="list-style-type: none"> <li>• Regular communication (B)</li> <li>• Online gathering (B)</li> </ul>
Valmohammadi (2012)	Iran (28 state owned organisations)	190	<ul style="list-style-type: none"> <li>• IT infrastructure (C)</li> </ul>
Weinert et al. (2015)	No mention	310	<ul style="list-style-type: none"> <li>• Information undersupply (B)</li> <li>• Autonomy (A)</li> </ul>

*Note: A: Well-being factor; B: Environmental factor; C: Office resource factor*

Table 2. Reliability and Factor Analyses for Main Constructs

Items	Cronbach's Alpha	Item-to-Total Correlation
<b>Personal &amp; Family Well-being</b>	0.89	
Reduce work stress		0.67
Get more time to rest		0.85
Get more time to exercise		0.77
Improve work-life balance		0.80
Bring a better quality of life		0.84
Maintain a better relationship with family members		0.66
<b>Environmental Constraint</b>	0.75	
Lack of working space at home		0.59
Can't communicate timely with colleagues		0.57
Easily disturbed by family members, children or others who live together during work		0.85
Easily distracted by household chores during work		0.83
<b>Resource Constraint*</b>	0.67	
Lack of office hardware		0.82
Lack of office software		0.84
<b>WFH Effectiveness</b>	0.81	
Achieve better concentration		0.85
Improve work efficiency		0.84
Get more time to work		0.65

\*This is a formative, instead of a reflective, scale. Its Cronbach's alpha is for reporting purpose only.



Table 3. Descriptive Statistics

Variables	Minimum	Maximum	Mean	Std. Deviation
<b>Control variables</b>				
Gender	1	2	1.68	0.47
Age	1	7	3.56	1.01
Marital status	1	3	1.46	0.53
Residential Status	1	6	3.47	1.00
Job Position	1	5	1.63	0.78
<b>Independent Variables</b>				
Well-being	1.00	5.00	3.55	0.84
Environmental Constraint	1.50	4.50	3.41	1.00
Resource Constraint	3.00	9.00	7.08	2.29
<b>Dependent Variables</b>				
Work Efficiency	1.00	5.00	3.06	0.86
Work From Home Preference	1	4	2.50	0.97

Table 4. Demographic Information of Respondents

Items	Count	Percentage
<b>Gender</b>		
Male	638	32.3%
Female	1338	67.7%
<b>Age</b>		
Below 18	5	0.3%
18 – 25	238	12.0%
26 – 35	789	39.9%
36 – 45	629	31.8%
46 – 55	229	11.6%
56 – 65	77	3.9%
66 or above	9	0.5%
<b>Marital Status</b>		
Single	1099	55.6%
Married	850	43.0%
Single parent	27	1.4%
<b>Job Position</b>		
Frontline or basic level	1010	51.1%
Middle grade	769	38.9%
Management	122	6.2%
Self-employed	66	3.3%
Others	9	0.5%
<b>Residential Status</b>		
Alone	87	4.4%
With friends	32	1.6%
With family	1151	58.2%
With spouse but no children	279	14.1%
With spouse, children and/or family member(s)	421	21.3%
Others	6	0.3%
<b>Company Type</b>		
Government	214	10.8%
Public bodies including hospitals and schools	527	26.7%
Private enterprise	802	40.6%
Small and medium enterprises	325	16.4%
Self-employed	69	3.5%
Others	39	2.0%

Table 5. Correlation Matrix

	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Gender	1.68	0.47	1.00									
2. Age	3.56	1.01	-.07**	1.00								
3. Marital Status	1.46	0.53	-.06**	.43**	1.00							
4. Residential Status	3.47	1.00	-0.04	.27**	.61**	1.00						
5. Job Position	1.63	0.78	-.07**	.21**	.16**	.08**	1.00					
6. Personal & Family Well-being	3.55	0.84	0.01	-0.04	-0.02	0.02	-0.03	1.00				
7. Environmental Constraint	3.41	1.00	-0.03	0.03	0.03	.09**	-0.04	-.35**	1.00			
8. Resource Constraint	7.08	2.29	0.03	-0.01	-.07**	-0.04	-.09**	-.16**	.44**	1.00		
9. WFH Efficiency	3.06	0.86	-0.01	-.05*	-.05*	-.07**	-0.01	.56**	-.41**	-.25**	1.00	
10. WFH Preference	2.50	0.97	.05*	-.10**	-0.02	-0.00	-0.02	.49**	-.30**	-.20**	.44**	1.00

n= 1,976, \* $p < .05$ , \*\* $p < .01$  (2-tailed)

Table 6. Regression Results for WFH Effectiveness

	Model 1	Model 2
<b>Constant</b>	3.37 (0.12)	2.44 (0.14)
<b>Control Variables</b>		
Gender	-0.03 (0.04)	-0.04 (0.03)
Age	-0.03 (0.02)	-0.01 (0.02)
Marital status	0.00 (0.05)	-0.01 (0.04)
Residential Status	-0.05 (0.03)*	-0.05 (0.02)*
Job Position	-0.00 (0.03)	-0.01 (0.02)
<b>Independent Variables</b>		
Well-being		0.48 (0.02)**
Environmental Constraint		-0.18 (0.02)**
Resource Constraint		-0.03 (0.01)**
<b>Adjusted R<sup>2</sup></b>	0.00	0.37
<b>F</b>	2.15	147.16
<b><math>\Delta F</math> sig</b>	0.06	0.00

Note: Unstandardized coefficients are shown with standard errors in parentheses.  
n= 1,976, \* $p < .05$ , \*\* $p < .01$  (2-tailed).

**Table 7. Post-Pandemic WFH Preference (n=1976)**

<b>Question: When the current coronavirus crisis is over, would you still want to continue working from home?</b>	<b>Count</b>	<b>Percentage</b>
No	364	18.4%
Yes, once a week	587	29.7%
Yes, twice a week	703	35.6%
Yes, 3 days or more a week	322	16.3%

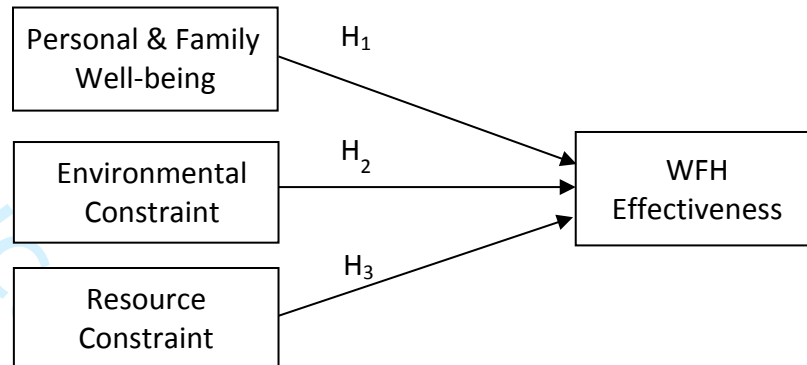
Table 8. Regression Results for WFH Preference

	Model 1	Model 2
<b>Constant</b>	1.56 (0.16)	0.83 (0.18)
<b>Control Variables</b>		
Age	-0.08 (0.02)**	-0.08 (0.02)**
Marital status	0.04 (0.05)	0.04 (0.05)
Residential Status	0.01 (0.02)	0.02 (0.02)
Job Position	-0.00 (0.03)	0.00 (0.02)
Well-being	0.50 (0.02)**	0.38 (0.03)**
Environmental Constraint	-0.11 (0.02)**	-0.06 (0.02)**
Resource Constraint	-0.04 (0.01)**	-0.03 (0.01)**
<b>Independent Variables</b>		
Gender		0.08 (0.04)*
Work Efficiency		0.24 (0.03)**
<b>Adjusted R<sup>2</sup></b>	0.27	0.30
<b>F</b>	103.13	93.01
<b><math>\Delta F</math> sig</b>	0.00	0.00

Note: Unstandardized coefficients are shown with standard errors in parentheses.  
n= 1,976, \* $p < .05$ , \*\* $p < .01$  (2-tailed).

**Figure 1. Conceptual models of this study**

**Model 1:**



**Model 2:**

