

# Employees' attitudes towards Hybrid Working – A study of Quantity Surveyors in Singapore

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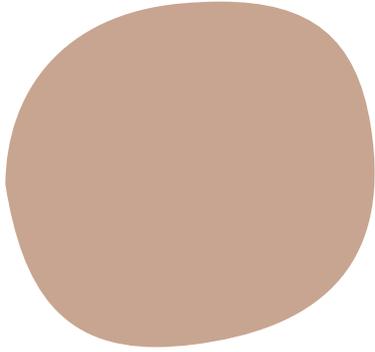
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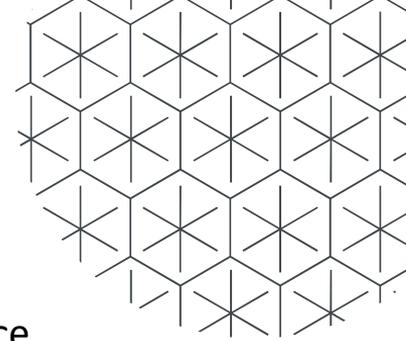
# I. Introduction



# Importance of this study

1. COVID-19 pandemic (SMM)
2. Working from Home (14 May 2021)
3. Companies prefer Hybrid Working
4. Singapore National Employers Federation (SNEF) suggestion

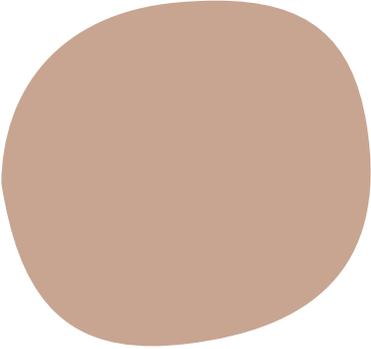
# “Hybrid Work Model”



- Combination of working remotely and physical working in office (Lenka 2021, Grzegorzczuk et al 2021)
- “Hybrid Working” similar to Working from Home (WFH)
- **Integrated Definition**  
“Employees who work partly in the physical office environment and partly remote (at home or from another workspace).”

# Research Problem

- Hybrid Working becoming more prevalent in companies
- No studies (to the best of author's knowledge) on Hybrid Working (HW) for QS in Singapore
- Bridge research gap
- Explores impact of HW on QS working in Singapore
- Objective: Investigate QS attitudes towards Hybrid Working



## **2. Literature Review on Hybrid Working**

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# Hybrid Working

- Integrated Definition  
“Employees who work partly in the physical office environment and partly remote (at home or from another workspace).”
- Dependent on nature of the job
- New norm (Raghavan et al 2021, Vyas 2022)
- Amazon, Google, Microsoft & Siemens

# Hybrid Working & WFH

## Advantages

- Time Flexibility
- Reduction in Commute Time
- Work-life balance
- Ability to retain and attract employees
- Enhance Commitment of employees
- Improvement of workflows

## Disadvantages

- Work-life balance issues
- Availability of Workspace for WFH
- Differing non-paid labour
- Technological issues
- Longer working hours
- Lack of social interaction

# Gender, Conduciveness & Productivity

- Conducive for families & Attain work-life balance (Dockery and Bawa 2018)
- No difference in work conduciveness between male and female caregiver (Danker et al 2022)
- Less conducive for female non-caregivers who WFH (Danker et al 2022)
- Males find WFH more conducive than females as females maybe the main caregiver in Africa (Sucheran and Olanrewaju 2021)

# Gender, Conduciveness & Productivity

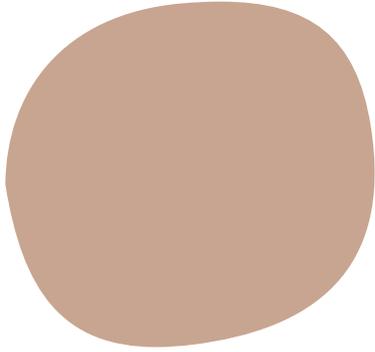
- Certain employees felt more productive (Vyas 2022)
- Ctrip 16,000 employees (Bloom et al 2015)
  - 13% increase in performance observed
  - Increased productivity within 20 - 30%
  - Economise \$2,000 per year for each WFH employee
- WFH increases productivity (Bloom et al 2015, Prasetyaningtyas et al 2021, Vyas 2022)

# Gender, Conduciveness & Productivity

- Reduced productivity in females within UK (Kitagawa et al 2021)
- Females have lower work productivity when WFH (Feng and Savani 2020)
- Male teleworkers had lower productivity (Afonso et al 2021, Nayak and Pandit 2021)
- Gender is not a significant factor for productivity (Danker et al 2022)

# Gender, Conduciveness & Productivity

- Positive and strong correlation between work conduciveness and productivity (Danker et al 2022)
- Lower productivity and conduciveness for male non-caregiver (Danker et al 2022)
- Deloitte reported females can better habituate and are more content when WFH (Danker et al 2022)
- Subjective (Deole et al 2021)
- WFH productivity is lower than working from office (Morikawa 2022)



# 3. Methodology



# Methods

- Non-probability snowball sampling
- Past studies: Sample grow with time and used when difficult to reach out to desired population (Sedgwick 2013)
- Primary data collection tool: Survey Questionnaires
- Study approved by Department Ethics Review Committee

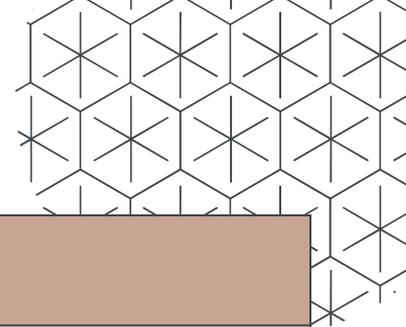
# Methods

- T-test for significance testing
- Jeffreys Awesome Statistics Package (JASP)  
(Han et al 2018, Kelter 2020, Kovari 2018, Love et al 2019)
  - Open source
  - Comprehensive statistical analysis
  - No costs involved

# Survey Questionnaire

- QS from Government & Private agencies
- 24 to 65 years old
- Demographic questions
- Hybrid Working questions (e.g. top 3 reasons for liking HW, conduciveness and productivity levels)

# 5-Point Likert Scale

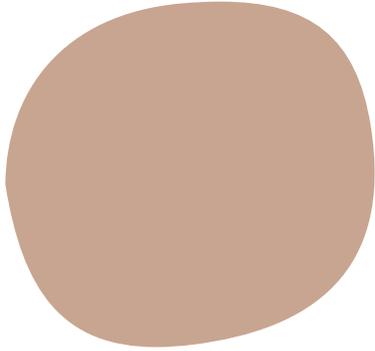


Question No.	Question
Q5g.	How conducive is your HOME working environment?
Q5h.	How conducive is your OFFICE working environment?
Q5i.	In your opinion, what is your productivity when working from HOME?
Q5j.	In your opinion, what is your productivity when working in the OFFICE?

Legend:

1 (Very uncondusive) to 5 (Very conducive)

1 (Very unproductive) to 5 (Very productive)



## 4. Findings & Discussion



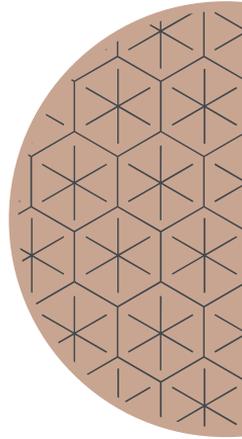
# Overview

- 43 survey results, 31 valid response
- 71% prefer “Hybrid Working” environment
- Hypothesis

Hypothesis	Description
<i>H1</i>	QS attitudes on Conduciveness is significantly affected by Gender.
<i>H2</i>	QS attitudes on Productivity is significantly affected by Gender.

# Gender & QS Attitudes

- 1) Gender and Top 3 Reasons for Liking/Disliking Hybrid Work
- 2) Gender and Conduciveness of working environment
- 3) Gender and Productivity
- 4) Average Perceived Conduciveness and Productivity





# Gender & Top 3 Reasons for Liking HW

## Females Liking HW

Factors	Frequency
Reduced Transportation Hours	14
Flexibility	7
Reduced Expenses	7
More Rest Hours	4
More Time for Family	3

## Males Liking HW

Factors	Frequency
Reduced Transportation Hours	5
Flexibility	5
Better Time Management	3
Lower Exposure to COVID-19	2
Socialising	2



# Gender & Top 3 Reasons for Disliking HW

## Females Disiking HW

Factor	Frequency
Socialising issues	6
Communication issues	4
Longer working hours	4
Transportation issues	4
Work environment issues/ Inconvenient/ Work-life balance issues	3

## Males Disiking HW

Factor	Frequency
Longer working hours	6
Work environment issues	3
Socialising issues	2
IT issues	2
Communication issues/ Work-life balance issues/ Less flexibility/ Long screen hours/ Less productive/ Too many meetings in a day/ Psychological problems/ Difficulty in managing staffs	1

# Gender and Top 3 Reasons for Liking/Disliking Hybrid Work - Analysis

- Singapore respondent appreciated reduced cost and time save on transportation  
(Consistent with Danker et al 2022)
- Advantages of WFH (i.e. time flexibility and reduced transportation hours) supports why QS likes HW  
(Afrianty et al 2022)
- Challenges for WFH (i.e. unable to unplug from work after working hours, lack of social interaction) supports QS dislikes on HW (Mathews et al 2022)
  - Australia study: 17.5% employees increased work hours for WFH (Biddle et al 2020)
  - South Africa study: 52% strongly agreed with long working hours being a disadvantage of WFH (Sucheran and Olanrewaju 2021)

# Gender & Conduciveness of working environment

- Conduciveness of home is not significantly different from office at a 5% level of significance for both genders

Gender	Hypothesis (H1)	p-value (one tailed t-test)
<i>Female</i>	Conduciveness of home is significantly different from office at 5% level of significance	0.135
<i>Male</i>		0.827

# Gender and Productivity

- Productivity of home is not significantly different from office at a 5% level of significance for both genders

Gender	Hypothesis (H2)	p-value
<i>Female</i>	Productivity of home is significantly different from office at 5% level of significance	0.158
<i>Male</i>		0.792

# Average Perceived Conduciveness & Productivity

- Female QS perceived their homes to be more conducive and productive than their offices
- Female productivity for WFH is statistically different from males at p-value, 0.04
- Within same gender, no statistically significant difference found between the 2 environments for the 2 factors

Gender	Average Conduciveness (Home)	Average Conduciveness (Office)	Average Productivity (Home)	Average Productivity (Office)
Female	4.05	3.75	4.10	3.80
Male	3.55	3.91	3.64	3.91
p-value	0.06	0.71	0.04	0.58

# Gender and QS Attitudes (Points 2, 3 and 4) - Analysis

- Statistically insignificant data was observed for conduciveness amongst gender (Our findings)
- Contrary to Sucheran and Olanrewaju (2021)
  - Males WFH (as compared to office) were conducive as they are not the main caregivers
- No difference in work conduciveness observed between both gender caregivers when WFH (Danker et al 2022)

# Gender and QS Attitudes (Points 2, 3 and 4) - Analysis

- Statistically insignificant results when comparing within same gender on productivity (Our findings)
- WFH increase productivity (Prasetyaningtyas et al 2021 and Vyas 2022)
- Effects of remote working on productivity, satisfaction and health were insignificant for gender (Danker et al 2022)

# Gender and QS Attitudes (Points 2, 3 and 4) - Analysis

- **Female productivity** found to be **statistically higher** when **WFH** than **working in office** (our findings)
- Consistent with findings where lower productivity for male teleworkers (Afonso et al 2021)
- Contrary with findings where males WFH better achieve desired productivity than females and female teleworkers that are single have least productivity (Nayak and Pandit 2021)
- WFH is highly dependent on the employee's task (Vyas 2022)
- Findings are subjective to individual factors



# **Sector Analysis**

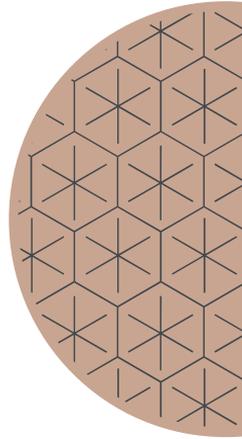
# Sector Analysis - Private Sector

Factor	Environment	Hypothesis	p-value
Conduciveness	Home	Perceived conduciveness of home for females is significantly higher than males at a 5% level of significance.	<b>0.048</b>
	Office	Perceived conduciveness of office for females is significantly higher than males at a 5% level of significance.	0.649
Productivity	Home	Perceived productivity of home for females is significantly higher than males at 5% level of significance	<b>0.032</b>
	Office	Perceived productivity of office for females is significantly higher than males at 5% level of significance	0.558

- **Private** Sector Gender and Home Conduciveness & Productivity had **significant** results (t-test)
- Government Sector results were not applicable due to small sample size obtained
- Private Sector One Tailed T-test
  - Females have significantly higher conduciveness score than males when WFH (p-value = 0.048)
  - Females productivity are significantly higher than males when WFH (p-value = 0.032)

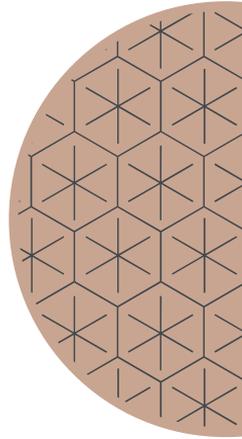
# Analysis - Private Sector

- Female in private sector had higher conduciveness and productivity when WFH were **significant** (our findings)
- Contrary to other literature
  - South Africa (Sucheran and Olanrewaju 2021)
    - Males find WFH more conducive than females
  - Feng and Savani (2020)
    - Females WFH are likely to have lower productivity
- Consistent with other literature
  - Singapore (Danker et al 2022)
    - Male non-caregivers find WFH significantly less conducive and productive than females
    - Non-caregivers have significantly higher conduciveness when engaged in WFH as compared to caregivers



# Analysis

- No research conducted on caregiving in this study
- Higher conduciveness level of females WFH may be because no caregiving duties are required at home
- Lower conduciveness and productivity in males may be due to factors such as Internet connectivity and noise levels (Sucheran and Olanrewaju 2021)



# Conclusion

- Surveyed QS in Singapore prefer Hybrid Working
- Working from Home benefits (e.g. reduced transportation hours, flexibility and reduced expenses)
- Drawbacks (e.g. longer working hours, socialising and communication issues)
- No significant difference when comparing within same gender in home and office environment
- Women perceive home to be conducive and productive than men at 5% significance level
- Results were consistent with some past studies

# Conclusion

- Limitations
  - Low sample size for government sector
  - Small amount of data
  - Not representative of all QS professionals in SG
  - Time
- Results provide deep insights
  - Allow better employers understanding on QS employees
  - To better retain talents in built environment industry
- Moving ahead, companies may consider Hybrid Work Model
  - Reaps benefit of WFH and working from office

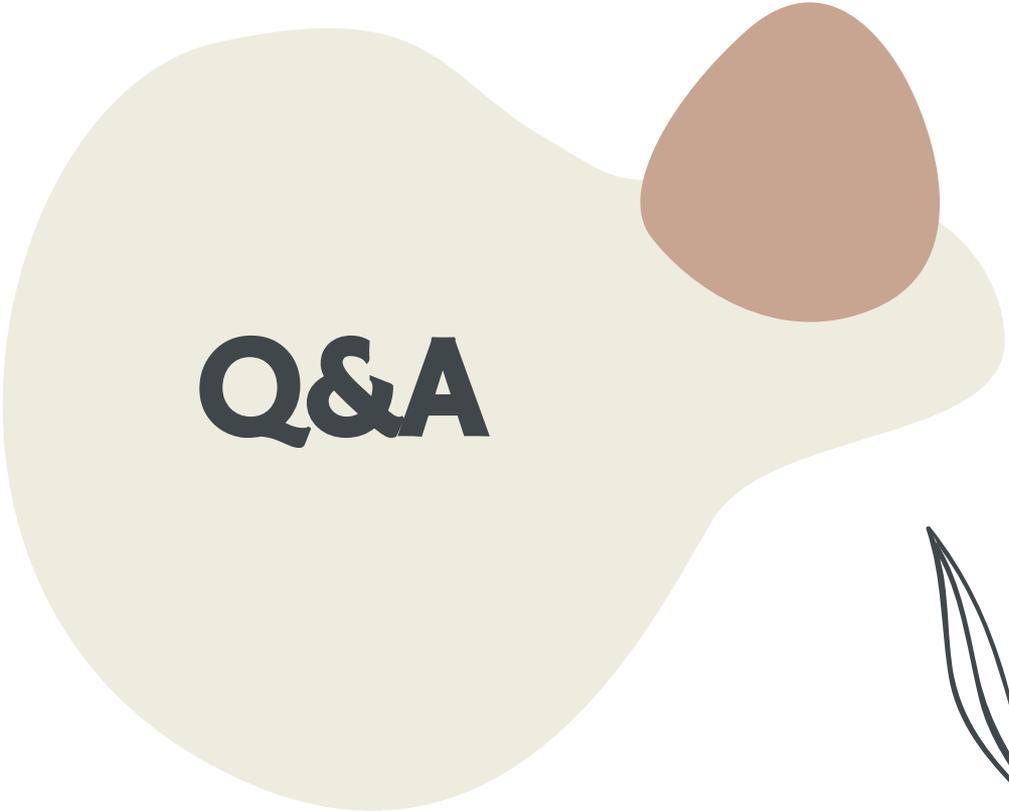
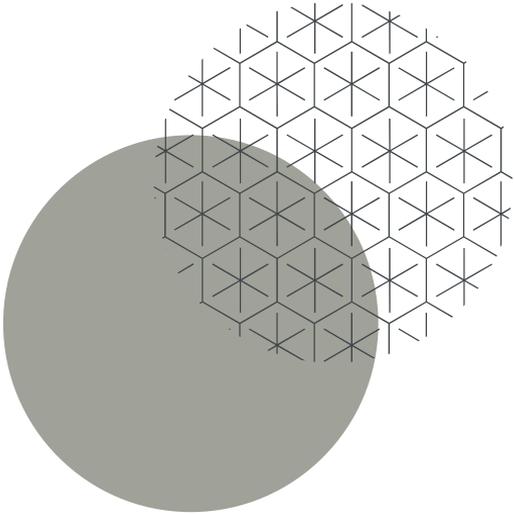
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# Thank You!

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# Q&A



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