

**Proposal
of
A Study on Factors affecting the
residents in Hong Kong to consider the
use of
Smart Building Technology:
HHH Company**

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1. Introduction

Smart building Technology (SBT) is adopted by HHH and had been widely used in their portfolios in the newly built commercial buildings and some main residential buildings since 2017 in the leading status. (HHH, n.d.) Now, it is time to spread over in its portfolios especially in those residential buildings.

1.1 Background

HHH is one of the local leaders in property management company in Hong Kong. (HHH, n.d.) And with the new planning of the government, SBT is the future trend of property management. As the trend is hit overall industry, around more than 41000 buildings in HK are keen competitions. (Home Affairs Department, n.d.) If HHH can adopt this also in all its residential buildings even in those previous public housing, that really increase its influence in overall industry, even only shared 4.7% of private buildings on the industry, but HHH is one of the wholly subsidiaries of the main property developer which will be appointed to manage. (HKGBC, 2023) The revolutions of technology 4.0 had already silently on the track. SBT and smart cities are in trend of the world. (Hayes, 2023)

1.2 Research Drivers

Digitalization is a trend for all the industry. To be more competitive and keeping the leading role, the spread of the use of SBT is necessarily. (Lam, 2021) Security, cost, convenience, and reliability are the main factors to affect the spread of the use of SBT. This study will look into how these factors affecting the use of SBT.

1.2.1 Security

In Hong Kong, security and personal interests are the key topic that the citizens will concern. For the SBT, the personal information, and facial recognition will easily be disclosed to third parties which may raise the concern of lose off personal information. (The Hong Kong Institute of Housing, 2023)

1.2.2 Cost

Human cost and the raising of the salary of frontline staffs in property management. The average age of the frontline staffs is increasing, the industry is hard to find a

reasonable low prices for operations. Besides, the salary for the part-time is relatively high as compared to the fixed term contract. AS a result, lack of headcount and difficulties to hire staffs. (The Hong Kong Institute of Housing, 2023)

1.2.3 Convenient

Mobile applications are widely used nowadays. (Mekky, 2022) The easiness to use in all the applications of SBT and the convenient level is one of the main reasons to use. If the use of SBT is not user friendly which take time to use. That will increase the factor that refuse to use.

1.2.4. Reliability

Technology is streamlining the duplicate and doubt works of human. Technology can be used to have accurate result while calculating the dump and repeated numberworks. Humans can be saving time in other decisions and planning work rather than lower level of working. (The Hong Kong Institute of Housing, 2023)

1.3 Research Objective

This study is to determine and to evaluate the factors affecting the residents to use the SBT in their residential area. The research is used to investigate the various factors important to the spread of the use of SBT in the existing buildings which is not used before, resulting increase in the company brand.

1.4 Research Question

Smart home techniques is the trend in property management which is the new trend in the world. When residents choose to use an application that relate to their daily life. When accept to use the applications of SHT, residents will concern on the four main factors: (1) security issues of the use of SHT (2) costs of the use of SHT, (3) convenient or the level of user- friendly, and (4) reliability of the use of SHT. These factors have been identified in previous studies and can influence the decision of the humans to use. There will be more detailed discussion in Literature Review in Chapter 2.

The research is based on the following questions and will be answered in the research.

1. To investigate how security impacts the use intention of customer on SBT
2. To discuss the importance of costs that influence residents on the acceptance of use of SBT
3. To find out the relationship between convenience and the use intention of customer on SBT
4. To discuss the impact of reliability on the reasons to using SBT

1.5 Value of research

During the era of explosion of the industrial revolution 4.0 and the PropTech 3.0, it is an urge to catch up with the trend. This research will provide a useful and solid information about the bonce of launching the SGT. It is valued for HHH and the rest of the industry practices to study this research. It will be the next milestone of Hong Kong development to leap again in the next wave.

2. Literature review ↵

2.1 Research Focus Areas: Explanation and Discussion of Variables↵

The use of SBT had been exposing to the market. The pandemic caused a surge in demand for the contactless devices and technology. The raising use of technology as our daily life. (Mekky, 2022) Security and cost and convenience are crucial factors in use intention. Businesses should prioritize network quality, price, brand reputation, and customer service to create successful customer relationships. This helps them stay competitive.↵

2.1.1 Smart Building Technology (SBT)

SBT is not a new idea in property management which had been implemented in foreign countries for decades. It had been penetrated as innovation in property management. (Kejriwal and Mahajan, 2019) SBT is new technology that can convenient to the residents from the facial recognition by screening of the residents and staffs to reduce the risks of the unauthorized enter to the building, contactless or touchless entry and parking to the permit areas by scanning in applications or other devices, instant surveillance system, the data management for the rental or other fees, customer relationship account on ordering or reserve for the services of clubhouse and the updates news from government and the buildings, energy usage record. Besides, no more physical records of visitors record by only self-register visitors the QR codes generated by the occupants, there will be more convenient to their visitors and more secured to the occupants of the building. (HHH, n.d.)

2.1.2 Security

Property management is one of the value-added services that secure the property and safeguard for the buildings. It is the initial purpose of property management. And it changed to all-round services provided. (Li, 2023)

Security stands for to safeguard and protecting the buildings away from the risk of potential burglary or losses. (ProptechHK,2023) Now, it changed to the internet security, personal information security (Daniel and M. and Fadi, 2018) SBT offer a range of advanced features that help prevent unauthorized access and destruction. For example, remotely control and lock entrances with real-time security cameras to monitor entry and exit to the property. The loss of personal details is also count in the

security part during using the services. The risk of disclosure the own personal information, background, visiting history., etc. (Gillis, 2023)

2.1.3 Cost

As studied in various reviews and news, there are difficult to hire a stable full-time staff to fit the posts of the operations. The turnover rate is relatively high as compared to other industries. (Li, 2023)

SBT helps save money through monitoring and control to reduce energy usage costs, increase maintenance efficiency, and reduce repair and replacement costs. The technology's sensors can monitor the condition of equipment and alert workers when defects need to be fixed, reducing costly breakdowns and repairs. (Valle, 2023) To achieve effective energy saving results, so, it improves when the buildings in energy and cost saving. (PropTechHK,2023)

2.1.4 Convenient

In the era of viral, online became an integral part of our lives keep us connected and informed and to be proactive. (Nyberg, Shaw & Zhu, 2021). The working mode become hybrid. Humans became more acceptable to the new technology and tools in the new normal. The tools and technology became easy to use and will update frequently and become competitive. Convenient and user friendly are the keys to use the new technology. (Mekky, 2022) It is essential factor to drove potential customers to accept and to use. The interface of the easiness of the applications and technology will affect the people to use. If the customers need to spend the time to study how to use the technology, that will increase the ratio to refuse to use the application which is not cost-effective. Thus, the customer expectations of the new application of SBT are easier and easy their life led them to adapt to use the new way. (McKinsey & Company, 2020)

2.1.5 Reliability

SBT had been used in construction and property for a period of time. It is widely used in different areas of construction which provides with the detailed and perfect assumptions over the huge number of data to have the repetitive numbered calculation.

There is someone still hesitate that the reliability of the technology. Moore et al (2020) stated the reliability of the work and opportunities related to reliable data transmission. Without the Safe and proper data transmission, resource allocation, tenancy management, security, and reliability metrics would be affected. (Kharchenko *et al*, 016) Technology inverted into our daily life more than ever before since the pandemic time. In this era of industrial revolution 4.0, other technology ensuring the reliability.

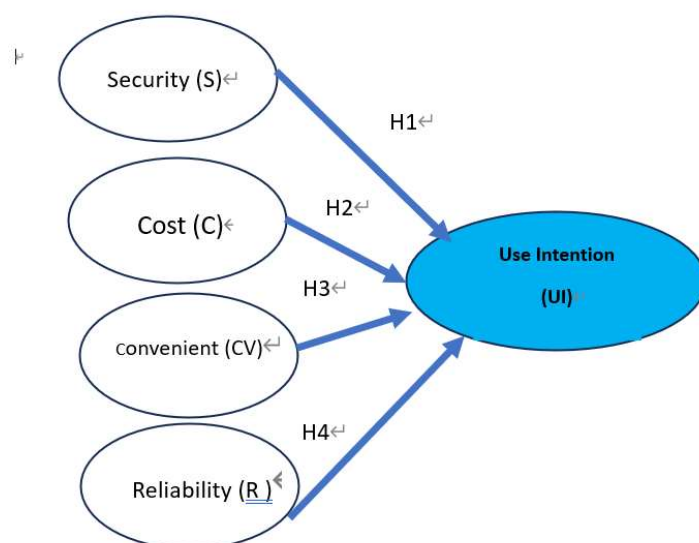
2.1.5 Use Intention

During the pandemic time, go viral is a must to save the business, especially catering and retailing industry when the economic go down. To provide better services to residents, different property management are keep using the SBT. The outbreak of pandemic has significantly impacted the property management industry. There are the needs to have radical change in the industry itself. The concept of prop tech has a demand for high-quality services at a value-added service.

2.2 Formulation of Research Framework and Hypothesis

The study analyzed how the factors of affecting the residents the usage intention on using SBT. There will be examine in security, cost, convenient and reliability. The study can help improve strategies on promotion the use of SBT and increase the brand of the company.

Figure 2.1 Research framework



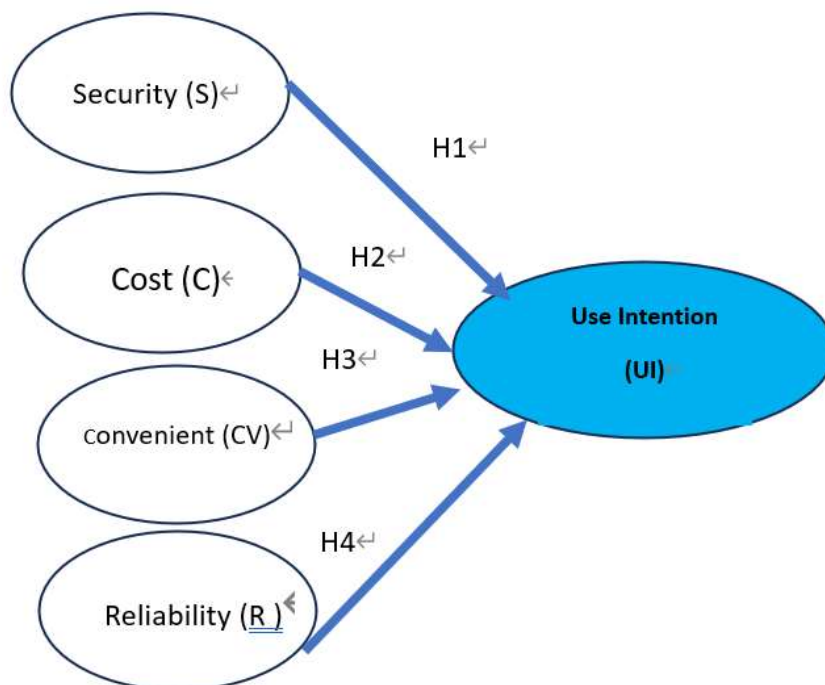
3.1 Research method

In academic research, quantitative used numeric data and qualitative by opinions and experiences are both used. Collect quantitative data to identify hypotheses to be tested in subsequent rounds of data collection and idea analysis to validate theory. (Walsh et al, 2015) Wolstenholme (1999) mentioned an in-depth exploration of ideas and experiences will be allowed in qualitative research. The study employed a survey strategy whereby standardized data could be collected from a large number of respondents and easily compared. (Saunders et al., 2019)

3.2 Research framework

The research structure of the intent of use considers factors such as security, cost, convenience, reliability in Fig 3.2. The findings provide valuable insights for businesses looking to improve and increase usage intentions to enhance their operations.

Figure 3.2: A research framework affecting the use intention of SHT



3.3 Research hypotheses

H1: A positive relationship exists between security and use intention for SBT in buildings

H2: A positive relationship exists between Cost and use intention for SBT in buildings.

H3: A positive relationship exists between convenience and use intention for SBT in buildings

H4: A positive relationship exists between reliability and use intention for SBT in buildings

3.4 Research Design

Mixed methods of quantitative research will use in this study. Quantitative approach allows analytical and predictive power using Statistical Analysis. (Creswell, et al, 2003)

3.4.1 Coding of Variables

The variable will be presented by nature and being coded and grouped.

Nature of Variables	Independent Variables (IV)	Dependent Variables (DV)
1	S- Security	UI-Use Intention
2	C -Cost	
3	CV - Convenient	
4	R - Reliability	

3.4.2 Questionnaire design

A detailed questionnaire to gauge resident's preferences and intent to use the SBT. The precise responses will be present through specific statements by 7-point Likert scale (Joshi at el., 2015)

30 questions in the survey by 7-point scale and in a closed-end questions can be used. Primary data collection through the questionnaire set in Google form is most effective method. Academic journals, news articles, market research and other online sources and reports can be the collection of secondary data.

3.4.3 Target population

The survey will collect from the residents who live in residents' buildings in Hong Kong where managed by the property management companies. All genders, up to 18 years old, and all employment and income levels are welcome to the survey. Google form will be used.

3.4.4 Sample method

There is random sampling (called snowball) and non-random sampling. Kelley et al. (2003) stated random sampling is often used in quantitative research because the population has an equal chance of being selected. This study will conduct an online survey through social networks to eliminate Hong Kong residents' prejudice against Protech.

3.4.5 Sample size

Morse (2000) stated there is an equation for calculating the number of samples. This sample survey uses the total population of Hong Kong as a sample, and a total of 150 questionnaires are distributed. All online surveys were targeted at all groups aged 16 to 80 years old, regardless of gender and building of residence. The sampling method is purposive sampling, and the results of this survey can provide reference for individual and organizational decision-making.

3.5 Data Analysis Procedures

SPSS will be used to analyze the questionnaire data to see whether factors, security, cost, convenience, reliability affect use intention. Saleh and Sardar (2021) stated marketing strategies and customer satisfaction can be improved by linear regression as it measures the relationship between variables. Participants provided basic information and reliability was tested using Cronbach's Alpha. (Frost, n.d.)

3.6 Ethical considerations

The participant of this research is provided informed consent and being informed of their right to withdraw at any time. Information will be treated as anonymous. After six months will be destroyed after six months and the all data is stored securely beforehand. Participants can contact Google directly if there are concerns about ethics.

3.7 Pre-test

The pre-test of questionnaire is crucial to identify the effectiveness and the reliability of the questionnaire. And the adjustments and improvement should be carried out to ensure participants understand and to carry out in comfortable and honest. Pilot testing allows the verification on the reliability and accuracy of the questionnaire before distributing final to participants.

3.8 Research schedule

During the research period from November to April, the research will be guided by the mentor in the use of literature, research methods and established goals. Pre-testing will take place in late December and the survey will be conducted in January. The results will be discussed in Chapters 4 and 5 using statistical tools. Finally, conclusion and suggestions are made for HHH.

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Appendix

APPLICATION FOR ETHICAL APPROVAL

RESEARCH STUDENTS

This form is to be completed by the student within **SIX** months for full-time students and **TWELVE** months for part time students, after the commencement of the research degree or following progression to Part Two of your course.

Once complete, submit this form via the **MyTSD Doctoral College Portal** at (<https://mytsd.uwtsd.ac.uk>).

This document is also available in Welsh.

RESEARCH STAFF ONLY

All communications relating to this application during its processing must be in writing and emailed to pgresearch@uwtsd.ac.uk, with the title 'Ethical Approval' followed by your name.

STUDENTS ON UNDERGRADUATE OR TAUGHT MASTERS PROGRAMMES should submit this form (and receive the outcome) via systems explained to you by the supervisor/module leader.

In order for research to result in benefit and minimise risk of harm, it must be conducted ethically. A researcher may not be covered by the University's insurance if ethical approval has not been obtained prior to commencement.

The University follows the OECD Frascati manual definition of research activity: "creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications". As such this covers activities undertaken by members of staff, postgraduate research students, and both taught postgraduate and undergraduate students working on dissertations/projects.

The individual undertaking the research activity is known as the "principal researcher".

Ethical approval is not required for routine audits, performance reviews, quality assurance studies, testing within normal educational requirements, and literary or artistic criticism.

Please read the notes for guidance before completing ALL sections of the form.

This form must be completed and approved prior to undertaking any research activity. Please see Checklist for details of process for different categories of application.

SECTION A: About You (Principal Researcher)

1	Full Name:	Kwok Wai Kam			
2	Tick all boxes that apply:	Member of staff:	☐	Honorary research fellow:	☐
	Undergraduate Student:	☒	Taught Postgraduate Student:	☐	Postgraduate Research Student:
3	Institute/Academic Discipline/Centre:	The Hong Kong Management Association			
4	Campus:				
5	E-mail address:	kamikwok@gmail.com / 2227330@student.uwtsd.ac.uk			
6	Contact Telephone Number:	+852 98207174			
For students:					

7	Student Number:	2227330
8	Programme of Study:	Master of Business Administration,
9	Director of Studies/Supervisor:	Dr Joe Leung

SECTION B: Approval for Research Activity

1	Has the research activity received approval in principle? (please check the Guidance Notes as to the appropriate approval process for different levels of research by different categories of individual)	YES	☒	NO	☐
		Date			
2	If Yes , please indicate source of approval (and date where known). <i>Approval in principle must be obtained from the relevant source prior to seeking ethical approval</i>	Research Degrees Committee	☒		
		Institute Research Committee	☐		
		Other (write in)	☐		

SECTION C: Internal and External Ethical Guidance Materials

Please list the core ethical guidance documents that have been referred to during the completion of this form (including any discipline-specific codes of research ethics, location-specific codes of research ethics, and also any specific ethical guidance relating to the proposed methodology). Please tick to confirm that your research proposal adheres to these codes and guidelines. You may add rows to this table if needed.		
1	UWTSD Research Ethics & Integrity Code of Practice	☐
2	UWTSD Research Data Management Policy	☒
3	[List any other relevant documents here]	☐

SECTION D: External Collaborative Research Activity

If there are external collaborators then you should gain consent from the contact persons to share their personal data with the university. If there are no external collaborators then leave this section blank and continue to section E.

1	Institution	
2	Contact person name	
3	Contact person e-mail address	
4	Is your research externally funded?	YES ☐ NO ☐
5	Are you in receipt of a KESS scholarship?	YES ☐ NO ☐
6	Are you specifically employed to undertake this research in either a	Voluntary ☐ YES ☐ NO ☐
7	paid or voluntary capacity?	Employed ☐ YES ☐ NO ☐
8	Is the research being undertaken within an existing UWTSD ~~Attrafa~~ Professional Learning Partnership (APLP)?	If YES then the permission question below does not need to be answered. YES ☐ NO ☐

9	Has permission to undertake the research has been provided by the partner organisation?	(If YES attach copy) If NO the application cannot continue	YES	☐	NO	☐
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Where research activity is carried out in collaboration with an external organisation

10	Does this organisation have its own ethics approval system?	YES	☐	NO	☐
If <u>Yes</u> , please attach a copy of any final approval (or interim approval) from the organisation (this may be a copy of an email if appropriate).					

SECTION E: Details of Research Activity

1	Indicative title:	A Study on Factors affecting the residents in Hong Kong to consider the use of Smart Building Technology: HHH Company		
2	Proposed start date:	Nov 2023	Proposed end date:	Apr 2024
3	Introduction to the Research (maximum 300 words per section) Ensure that you write for a <u>Non-Specialist Audience</u> when outlining your response to the points below: <i>Purpose of Research Activity</i> <i>Proposed Research Question</i> <i>Aims of Research Activity</i> <i>Objectives of Research Activity</i> Demonstrate, briefly, how <u>Existing Research</u> has informed the proposed activity and <u>explain</u> <i>What the research activity will add to the body of knowledge</i> <i>How it addresses an area of importance.</i>			
3	Purpose of Research Activity To know the factors of the residents in HK accept to use Smart Building Technology (this box should expand as you type)			
4	Research Question 1. To investigate how security impacts the use intention of customer on SBT 2. To discuss the importance of costs that influence residents on the acceptance of use of SBT 3. To find out the relationship between convenience and the use intention of customer on SBT 4. To discuss the impact of reliability on the reasons to using SBT (this box should expand as you type)			
5	Aims of Research Activity To determine the factors that affecting the residents in HK to use Smart Building Technology (this box should expand as you type)			
6	Objectives of Research Activity To increase the use of SBT over the buildings and to improve the services over the <u>industry</u>			

	(this box should expand as you type) ⁴²
6 ⁴²	Proposed methods (maximum 600 words)⁴² Provide a <u>brief summary</u> of all the methods that may be used in the research activity, making it clear what specific techniques may be used. If methods other than those listed in this section are deemed appropriate later, additional ethical approval for those methods will be needed. You do not need to justify the methods <u>here</u> , but should instead describe how you intend to collect the data necessary for you to complete your project. ⁴²
7 ⁴²	Please refer to the proposal ⁴² (this box should expand as you type) ⁴²
8 ⁴²	Location of research activity⁴² Identify all locations where research activity will take place. ⁴²
9 ⁴²	HK ⁴² (this box should expand as you type) ⁴²
10 ⁴²	Research activity outside of the UK⁴² If research activity will take place overseas, you are responsible for ensuring that local ethical considerations are complied with and that the relevant permissions are sought. Specify any local guidelines (e.g. from local professional associations/learned societies/universities) that exist and whether these involve any ethical stipulations beyond those usual in the UK (provide details of any licenses or permissions required). Also specify whether there are any specific ethical issues raised by the local context in which the research activity is taking place, for example, <u>particular cultural</u> and/or legal sensitivities or vulnerabilities of participants. If you live in the country where you will do the <u>research</u> then please state this. ⁴²
11 ⁴²	The Hong Kong Management Association ⁴² (this box should expand as you type) ⁴²

10 ⁴²	Use of documentation not in the public domain: Are any documents NOT publicly available? ⁴²	NO ⁴² ☐	YES ⁴² ☐
11 ⁴²	If <u>Yes</u> , please provide details here of how you will gain access to specific documentation that is not in the public domain and that this is in accordance with the current data protection law of the country in question and that of England and Wales. ⁴² (this box should expand as you type) ⁴²		

12 ⁴²	Does your research relate to one or more of the seven aims of the Well-being of Future Generations (Wales) Act 2015? ⁴²	YES ⁴² ☐	NO ⁴² ☐
13 ⁴²	A prosperous Wales ⁴²	☐	☐
14 ⁴²	A resilient Wales ⁴²	☐	☐
15 ⁴²	A healthier Wales ⁴²	☐	☐
16 ⁴²	A more equal Wales ⁴²	☐	☐
17 ⁴²	A Wales of cohesive communities ⁴²	☐	☐
18 ⁴²	A Wales of vibrant culture and thriving Welsh language ⁴²	☐	☐

18	A globally responsible Wales	☐	☒
19	If YES to any of the above, please give details		

SECTION F: Scope of Research Activity

	Will the research activity include	YES	NO
1	Use of a questionnaire or similar research instrument?	☒	☐
2	Use of interviews?	☒	☐
3	Use of focus groups?	☐	☒
4	Use of participant diaries?	☐	☒
5	Use of video or audio recording?	☐	☒
6	Use of computer-generated log files?	☐	☒
7	Participant observation with their knowledge?	☐	☒
8	Participant observation without their knowledge?	☐	☒
9	Access to personal or confidential information without the participants' specific consent?	☐	☒
10	Administration of any questions, test stimuli, presentation that may be experienced as physically, mentally or emotionally harmful / offensive?	☐	☒
11	Performance of any acts which may cause embarrassment or affect self-esteem?	☐	☒
12	Investigation of participants involved in illegal activities?	☐	☒
13	Use of procedures that involve deception?	☐	☒
14	Administration of any substance, agent or placebo?	☐	☒
15	Working with live vertebrate animals?	☐	☒
16	Procedures that may have a negative impact on the environment?	☐	☒
17	Other primary data collection methods. Please indicate the type of data collection method(s) below.	☐	☒
	Details of any other primary data collection method:		

If NO to every question, then the research activity is (ethically) low risk and may be exempt from some of the following sections (please refer to Guidance Notes).

If YES to any question, then no research activity should be undertaken until full ethical approval has been obtained.

SECTION G: Intended Participants

If there are no participants then do not complete this section, but go directly to section H.

Who are the intended participants?		
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	YES	NO
1 Students or staff at the University?	☐	☒
2 Adults (over the age of 18 and competent to give consent)?	☒	☐
3 Vulnerable adults?	☒	☐
4 Children and Young People under the age of 18? (Consent from Parent, Carer or Guardian will be required)	☒	☐
5 Prisoners?	☐	☒
6 Young offenders?	☐	☒
7 Those who could be considered to have a particularly dependent relationship with the investigator or a gatekeeper?	☐	☒
8 People engaged in illegal activities?	☐	☒
9 Others. Please indicate the participants below, and specifically any group who may be unable to give consent.	☐	☐
Details of any other participant groups: (this box should expand as you type)		

Participant numbers and source Provide an estimate of the expected number of participants. How will you identify participants and how will they be recruited?	
10 How many participants are expected?	150 (this box should expand as you type)
11 Who will the participants be?	Relatives, friends and colleagues (this box should expand as you type)
12 How will you identify the participants?	No need to record the name of any of the participants. (this box should expand as you type)

	YES	NO	N/A
13 Will you describe the main research procedures to participants in advance, so that they are informed about what to expect?	☒	☐	☐
14 Will you tell participants that their participation is voluntary?	☒	☐	☐
15 Will you obtain written consent for participation?	☒	☐	☐
16 Will you explain to participants that refusal to participate in the research will not affect their treatment or education (if relevant)?	☐	☐	☒
17 If the research is observational, will you ask participants for their consent to being observed?	☐	☐	☒
18 Will you tell participants that they may withdraw from the research at any time and for any reason?	☐	☐	☒
19 With questionnaires, will you give participants the option of omitting questions they do not want to answer?	☒	☐	☐
20 Will you tell participants that their data will be treated with full confidentiality and that, if published, it will not be identifiable as theirs?	☐	☐	☒

21	Will you debrief participants at the end of their participation, in a way appropriate to the type of research undertaken?	☐	☐	☒
22	If NO to any of above questions, please give an explanation			
	 (this box should expand as you type)			
Information for participants:		YES	NO	N/A
24	Will participants be paid?	☐	☒	☐
25	Is specialist electrical or other equipment to be used with participants?	☐	☒	☐
26	Are there any financial or other interests to the investigator or University arising from this study?	☐	☒	☐
27	Will the research activity involve deliberately misleading participants in any way, or the partial or full concealment of the specific study aims?	☐	☒	☐
28	If YES to any question, please provide full details			
	 (this box should expand as you type)			

SECTION H: Anticipated Risks

Outline any anticipated risks that may adversely affect any of the participants, the researchers and/or the University, and the steps that will be taken to address them.	
If you have completed a full risk assessment (for example as required by a laboratory, or external research collaborator) you may append that to this form.	
1	Full risk assessment completed and appended?
	Yes ☐ No ☒
2	Risks to participants: For example: sector-specific health & safety, emotional distress, financial disclosure, physical harm, transfer of personal data, sensitive organisational information
	Risk to participants: N/A (this box should expand as you type)
	How you will mitigate the risk to participants: N/A (this box should expand as you type)
3	If research activity may include sensitive, embarrassing or upsetting topics (e.g. sexual activity, drug use) or issues likely to disclose information requiring further action (e.g. criminal activity), give details of the procedures to deal with these issues, including any support/advice (e.g. helpline numbers) to be offered to participants. Note that where applicable, consent procedures should make it clear that if something potentially or actually illegal is discovered in the course of a project, it may need to be disclosed to the proper authorities
	N/A (this box should expand as you type)
4	Risks to the investigator: For example: personal health & safety, physical harm, emotional distress, risk of accusation of harm/impropriety, conflict of interest
	Risk to the investigator: N/A (this box should expand as you type)
	How you will mitigate the risk to the investigator: N/A (this box should expand as you type)

	(this box should expand as you type) ⁴¹	
5 ⁴¹	University/institutional risks⁴¹ For example: adverse publicity, financial loss, data protection ⁴¹	
	Risk to the University: ⁴¹ N/A ⁴¹ (this box should expand as you type) ⁴¹	How you will mitigate the risk to the University: ⁴¹ N/A ⁴¹ (this box should expand as you type) ⁴¹
6 ⁴¹	Environmental risks⁴¹ For example: accidental spillage of pollutants, damage to local ecosystems ⁴¹	
	Risk to the environment: ⁴¹ N/A ⁴¹ (this box should expand as you type) ⁴¹	How you will mitigate the risk to environment: ⁴¹ N/A ⁴¹ (this box should expand as you type) ⁴¹
Disclosure and Barring Service⁴¹		
	If the research activity involves children or vulnerable adults, a Disclosure and Barring Service (DBS) certificate must be obtained before any contact with such participants. ⁴¹	YES ⁴¹ NO ⁴¹ N/A ⁴¹
7 ⁴¹	Does your research require you to hold a current DBS Certificate? ⁴¹	☐ YES ☒ NO ☐ N/A
8 ⁴¹	If YES, please give the certificate number. If the certificate number is not available please write "Pending"; in this case any ethical approval will be subject to providing the appropriate certificate number. ⁴¹	

SECTION I: Feedback, Consent and Confidentiality⁴¹

1 ⁴¹	Feedback⁴¹ What de-briefing and feedback will be provided to participants, how will this be done and when? ⁴¹
	Just request them to fill and return the questionnaire if they want. ⁴¹ (this box should expand as you type) ⁴¹
2 ⁴¹	Informed consent⁴¹ Describe the arrangements to inform potential participants, before providing consent, of what is involved in participating. Describe the arrangements for participants to provide full consent before data collection begins. If gaining consent in this way is inappropriate, explain how consent will be obtained and recorded in accordance with prevailing data protection legislation. ⁴¹
	N/A ⁴¹ (this box should expand as you type) ⁴¹
3 ⁴¹	Confidentiality / Anonymity⁴¹ Set out how anonymity of participants and confidentiality will be ensured in any outputs. If anonymity is not being offered, explain why this is the case. ⁴¹
	All participants are <u>anonymous</u> ⁴¹ (this box should expand as you type) ⁴¹

SECTION J: Data Protection and Storage⁴¹

	Does the research activity involve personal data (as defined by the General Data Protection Regulation 2016 "GDPR" and the Data Protection Act 2018 "DPA")? ⁴¹	YES ⁴¹ NO ⁴¹
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1	"Personal data" means any information relating to an identified or identifiable natural person ('data subject'). An identifiable natural person is one who can be identified, directly or indirectly, <u>in particular</u> by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person. Any video or audio recordings of participants <u>is considered to be personal data</u> .	☐	☒
If YES, provide a description of the data and explain why this data needs to be collected:			
2	(this box should expand as you type)		
Does it involve special category data (as defined by the GDPR)?		YES	NO
3	"Special category data" means sensitive personal data consisting of information as to the data subjects' – (a) racial or ethnic origin, (b) political opinions, (c) religious beliefs or other beliefs of a similar nature, (d) membership of a trade union (within the meaning of the Trade Union and Labour Relations (Consolidation) Act 1992), (e) physical or mental health or condition, (f) sexual life, (g) genetics, (h) biometric data (as used for ID purposes).	☐	☒
If YES, provide a description of the special category data and explain why this data needs to be collected:			
4	(this box should expand as you type)		
Will data from the research activity (collected data, drafts of the thesis, or materials for publication) be stored in any of the following ways?		YES	NO
5	Manual files (i.e. in paper form)?	☐	☒
6	University computers?	☐	☒
7	Private company computers?	☐	☒
8	Home or other personal computers?	☐	☒
9	Laptop computers/ CDs/ Portable disk-drives/ memory sticks?	☐	☒
10	"Cloud" storage or websites?	☐	☒
11	Other – specify:	☐	☒
12	For all stored data, explain the measures in place to ensure the security of the data collected, data confidentiality, including details of backup procedures, password protection, encryption, anonymisation and pseudonymisation:		
(this box should expand as you type)			
Data Protection			
Will the research activity involve any of the following activities?		YES	NO
13	Electronic transfer of data in any form?	☐	☒

14	Sharing of data with others at the University outside of the immediate research team? ⁴²	☐	☐
15	Sharing of data with other organisations? ⁴²	☐	☐
16	Export of data outside the UK or importing of data from outside the UK? ⁴²	☐	☐
17	Use of personal addresses, postcodes, faxes, emails or telephone numbers? ⁴²	☐	☐
18	Publication of data that might allow identification of individuals? ⁴²	☐	☐
19	Use of data management system? ⁴²	☐	☐
20	Data archiving? ⁴²	☐	☐
21	If YES to any question, please provide full details, explaining how this will be conducted in accordance with the GDPR and Data Protection Act (2018) (and any international equivalents, where appropriate): ⁴²		
	⁴² Not using GDPR and will obey under Law in Hong Kong ⁴² ⁴² (this box should expand as you type) ⁴²		
22	List all who will have access to the data generated by the research activity: ⁴²		
	⁴² Only I will access to the data. ⁴² ⁴² (this box should expand as you type) ⁴²		
23	List who will have control of, and act as custodian(s) for, data generated by the research activity: ⁴²		
	⁴² I will be the one. ⁴² ⁴² (this box should expand as you type) ⁴²		
24	Give details of data storage arrangements, including security measures in place to protect the data, where data will be stored, how long for, and in what form. Will data be archived – if so how and if not why not. ⁴²		
	⁴² I will using my own computer during the process and will delete the data after the finalise of the result of the MBA. ⁴² ⁴² (this box should expand as you type) ⁴²		
25	Please indicate if your data will be stored in the UWTS Research Data Repository (see https://researchdata.uwtsd.ac.uk/). If so please explain. (Most relevant to academic staff) ⁴²		
	⁴² N/A ⁴² ⁴² (this box should expand as you type) ⁴²		
26	Confirm that you have read the UWTS guidance on data management (see https://www.uwtsd.ac.uk/library/research-data-management/) ⁴²	YES ⁴²	☐
27	Confirm that you are aware that you need to keep all data until after your research has completed or the end of your funding ⁴²	YES ⁴²	☐

SECTION K: Declaration

The information which I have provided is correct and complete to the best of my knowledge. I have attempted to identify any risks and issues related to the research activity and acknowledge my obligations and the rights of the participants. In submitting this application I hereby confirm that I undertake to ensure that the above named research activity will meet the University's Research Ethics and Integrity Code of Practice which is published on the website: https://www.uwtsd.ac.uk/research/research-ethics/		
1	Signature of applicant:	Kwok Wai Kam Date: 18 /12/2023

For STUDENT Submissions:

2	Director of Studies/Supervisor:	Dr. Joe Leung	Date:
3	Signature:		

For STAFF Submissions:

4	Academic Director/ Assistant Dean:		Date:
5	Signature:		

Checklist: Please complete the checklist below to ensure that you have completed the form according to the guidelines and attached any required documentation:

☐	I have read the guidance notes supplied before completing the form.
☐	I have completed ALL RELEVANT sections of the form in full.
☐	I confirm that the research activity has received approval in principle.
☐	I have attached a copy of final/interim approval from external organisation (where appropriate).
☐	I have attached a full risk assessment (where appropriate) ONLY TICK IF YOU HAVE ATTACHED A FULL RISK ASSESSMENT
☐	I understand that it is my responsibility to ensure that the <u>above named</u> research activity will meet the University's Research Ethics and Integrity Code of Practice.
☐	I understand that before commencing data collection all documents aimed at respondents (including information sheets, consent forms, questionnaires, interview schedules etc.) must be confirmed by the DoS/Supervisor, module tutor or Academic Director.

RESEARCH STUDENTS ONLY

Once complete, submit this form via the **MyTSD Doctoral College Portal** at (<https://mytsd.uwtsd.ac.uk>).

RESEARCH STAFF ONLY

All communications relating to this application during its processing must be in writing and emailed to pgresearch@uwtsd.ac.uk, with the title 'Ethical Approval' followed by your name.

STUDENTS ON UNDERGRADUATE OR TAUGHT MASTER'S PROGRAMMES should submit this form (and receive the outcome) via systems explained to you by the supervisor/module leader.