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Cawangan Perak

ISCU 2025

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Embracing Construction Revolution 4.0 (CR4.0): Transforming Malaysia's Built Environment

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WELCOME SPEECH FROM THE CHAIRMAN

RISM 17th International Surveying Conference for Undergraduates (ISCU 2025)

بسم الله الرحمن الرحيم السلام

عليكم ورحمة الله وبركاته

Greetings to all,

It is with great pleasure that I welcome you to the 17th RISM International Surveying Conference for Undergraduates (ISCU 2025), themed “*Embracing Construction Revolution 4.0: Transforming Malaysia’s Built Environment.*” On behalf of the Royal Institution of Surveyors Malaysia (RISM), I also wish to express our sincere appreciation to Universiti Teknologi MARA (UiTM), Perak Campus, for graciously hosting this significant event.

As we navigate the era of the Fourth Industrial Revolution (IR4.0)—or in our context, Construction Revolution 4.0 (CR4.0)—we are witnessing transformative advancements across the global construction sector. Technologies such as Building Information Modelling (BIM), the Internet of Things (IoT), artificial intelligence (AI), robotics, big data analytics, and cloud computing are redefining the way we build, manage, and interact with our built environment. For Malaysia, embracing CR4.0 is a strategic imperative to achieve our socio-economic and environmental goals.

This conference serves as a vital platform to unite surveying undergraduates from various disciplines, fostering critical dialogue on industry challenges, enhancing professional networking, and preparing a new generation of talent for the rapidly evolving construction landscape. It is also an opportunity for employers to engage with and inspire our future professionals.

I would like to extend my heartfelt thanks to all industry speakers, paper presenters, judges, and participants for their time, contributions, and support in making ISCU 2025 a success. I also commend the organising committee for curating a meaningful and dynamic conference experience.

May the knowledge gained, connections formed, and ideas exchanged during this event inspire all participants to lead and innovate in their future endeavours.

Wishing everyone a productive and memorable conference.

Prof. Ts Sr Dr. Adi Irfan Bin Che Ani'

Chairman, Universities' Partnering Committee

RISM Session 2024/2025

May 2025

WELCOME SPEECH FROM CO-CHAIRMAN

RISM 17th International Surveying Conference for Undergraduates (ISCU 2025)

Bismillahirrahmanirrahim.

السلام عليكم ورحمة الله وبركاته and greetings to all.

It is my great pleasure to welcome everyone to the 17th International Surveyor Conference for Undergraduates (ISCU 2025), proudly hosted by Universiti Teknologi MARA (UiTM) Perak Branch in collaboration with the Royal Institution of Surveyors Malaysia (RISM). This event is a meaningful platform for students in the built environment to share ideas, showcase innovations, and build professional networks. We are honoured by your presence and enthusiastic participation, with 135 accepted papers and 78 poster presentations this year.

UiTM Perak, home to the College of Built Environment, has long been a hub for academic excellence in architecture, planning, and surveying. Our commitment remains strong in nurturing competent graduates who meet industry demands and contribute to nation-building.

While you're here, we invite you to experience the heritage and culture of Perak Tengah from the architectural richness of Rumah Kutai to the historical towns of Pasir Salak, Bota, and Kampung Gajah.

To all presenters and winners, congratulations on your achievements. Let your work today be a catalyst for future success and academic growth. We hope this conference will inspire you to explore new ideas, foster collaboration, and make lasting memories.

My deepest thanks to the Royal Institution of Surveyors Malaysia (RISM) and the organising committee for making this event a success.

We hope your experience here will be rewarding and unforgettable.

Thank you. Selamat datang dan selamat berjaya.

Associates Professor Dr. Nur Hisham Ibrahim, *PMP*

Co-Chairman, Universities' Partnering Committee

RISM Session 2024/2025

May 2025

WELCOME SPEECH FROM THE PROJECT DIRECTOR

RISM 17th International Surveying Conference for Undergraduates 2025

Alhamdulillah, all praise to Allah S.W.T. for His guidance and blessings in making the RISM 17th International Surveying Conference for Undergraduates (ISCU) 2025 a reality.

It is with great honour and gratitude that I welcome all participants, guests, academicians, and industry professionals to this prestigious event, proudly organized under the Royal Institution of Surveyors Malaysia (RISM). This 17th edition of ISCU stands as a proud testament to our collective dedication toward academic excellence, professional collaboration, and youth empowerment in the field of surveying.

I extend my heartfelt appreciation to RISM for its unwavering support, to the hardworking ISCU 2025 Organising Committee, and to all 16 partnering universities across Malaysia for their commitment and contributions. Your efforts have shaped this conference into a dynamic platform for knowledge exchange, innovation, and professional growth.

To the academicians and practitioners present, your insights are invaluable in bridging the gap between academic theory and real-world practice. To our undergraduate participants, your passion, curiosity, and commitment are the very foundation of our future. May this conference not only deepen your academic journey but also ignite a spirit of leadership, integrity, and sustainable thinking.

Let this gathering serve as more than an academic milestone. May it foster lifelong networks, inspire transformative ideas, and chart new directions in our shared professional journey.

Wishing everyone a rewarding and inspiring conference experience.

Sr Dr. Nurul Fadzila Zahari

Project Director

RISM 17th ISCU 2025

WOMEN IN REAL ESTATE: RISK PROFILING IN THE WORKPLACE

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ABSTRACT

This study explores the hazards and risks faced by women in Malaysia's real estate industry (WIRE) and identifies the department most affected. Women in this field encounter challenges such as work-related stress, safety hazards, and environmental discomfort, which influence their performance and career progression. The research aims to assess these risks and propose measures to enhance workplace conditions. A mixed-methods approach was adopted, combining quantitative surveys and semi-structure interviews to collect primary data, supported by secondary data analysis. 50 respondents from various real estate departments participated, and the data were analyzed using descriptive and correlation analysis via SPSS. The findings indicate that health hazards, including stress and harassment, and safety risks, such as slips and falls, significantly impact WIREs. Environmental hazards, such as thermal discomfort, were identified as moderate risks. Property management and valuation departments were found to have the highest risks, although correlation between hazards and departments was weak. This study highlights the urgent need for targeted interventions to mitigate risks, such as improved safety protocols, supportive workplace policies, and enhanced risk management practices. By addressing these hazards, organizations can create a safer and more equitable work environment, promoting employee well-being and productivity. The research provides valuable insights for policymakers and industry stakeholders to better support women in real estate. Future studies should focus on risk mitigation strategies and their long-term implications for women's career development.

Keywords: Women in Real Estate (WIRE), Workplace Hazards, Risk Management, Occupational Safety, Gender Challenges.

I. INTRODUCTION

Women in Real Estate (WIRE) actively participate in diverse roles, including executives, property managers, agents, and market researchers. However, they face significant challenges, such as the glass wall and glass ceiling, indicating their undervaluation in comparison to men. The theory of job demand and resource categorizes work attributes into work demand and resources; job demand encompasses factors requiring constant physical or psychological effort, leading to stress in the work environment.

Women juggle multiple roles, such as mother, wife, and daughter, which can elevate stress levels in the real estate industry. Their ability to explore opportunities is often limited due to these additional responsibilities. The workplace inherently entails risks; unmanaged risks can lead to adverse outcomes, including accidents.

A safe and healthy work environment is essential, as it not only reduces workplace tension and conflict but also boosts employee retention, job performance, and productivity. Additionally, insufficient support can hinder individuals with mental health challenges from enjoying and excelling in their work, highlighting the need for improved workplace structures.

A. Research Background

An article by The Star Online (2013) underscores women's proficiency in learning and their ability to enhance their intellect effectively, making them advantageous in various job settings. They exhibit qualities such as observance, adaptability, and structure, facilitating their contributions to professional realms. Despite facing challenges like

gender inequality and sexual harassment, which hinder their progression in careers, women's achievements are recognized nationally. However, a disparity remains evident in their commercial real estate sector, where women are less likely than men to attain high-level executive roles, such as CEO or COO. Yet, notable women have successfully ascended to prominent positions in this field.

In 2012, a study by the University of Florida analyzed workforce diversity, emphasizing the necessity of a diverse work environment that aligns with market evolutions. It outlined the benefits of diversity while addressing management challenges and offering strategies for effective diversity management. Hyslop (2011) focused on career obstacles faced by women in Sweden's commercial real estate industry. A survey of eighteen women, including eleven executives, highlighted persistent gender disparities in managerial roles despite organizational efforts to foster gender equity. The findings reveal that foundational processes to address these disparities remain prevalent in the Swedish real estate sector, pointing to an ongoing need for progress.

B. Problem Statements.

While gender inclusion has gained traction in many sectors, the Malaysian real estate industry continues to lag in fully integrating women into decision-making and high-risk functions. There is a critical gap in understanding the distinct risks women face and the systemic factors influencing these experiences.

This study aims to explore the connection between hazards, risks, and departmental work in the Malaysian RE sector, and their influence on company performance, particularly, regarding the challenges faced by women in real estate (WIREs). While some firms advocate for flexible work schedules to enhance work-life balance, many struggle to implement these practices effectively, with executive roles often negatively impacting family life due to demanding hours and frequent travel, perpetuating existing organizational challenges.

C. Research Questions

Many individuals within the RES community nowadays recognize the significance of WIRE's contribution. Regrettably, hazards and risks are also affecting WIREs in the work process and progress in this industry. Hence, the research will pursue the following lines of inquiry:

- (i) What are the hazards and risks faced by women in real estate industry?
- (ii) Which work department faced highest hazards for WIREs?

D. Research Objectives

This study aimed to address the following research objectives:

- (i) To identify hazards and risks faced by women in real estate industry.
- (ii) To clarify the highest risk faced by women in real estate industry across different departments.

E. Scope of the Study

The aim of this study is to identify the hazards and risks faced by women in real estate industry. It is also aimed to clarify the highest risk faced by women in real estate across different departments. The scope of this study is limited to woman in real estate industry around Malaysia both in government sectors and non-government sectors, and in every division in real estate departments.

F. Significance of the Study

The study explored the hazards and risks faced by women in the real estate industry, identifying the highest risks across various departments. Its findings aim to benefit women throughout the industry, from top-tier to lower-tier management, by fostering a better work environment. This research establishes a new paradigm for understanding challenges in the corporate and real estate sectors and encourages more women to engage in this field. Additionally, the study seeks to analyze strategies that can enhance professional practices for women, leading to a more intelligent work process and improved industry conditions.

II. LITERATURE REVIEW

A literature review is a summary of research on a specific subject. It is important to focus the review to gather relevant studies. It analyzes accessible scientific literature, measures research quality, and outlines research status using a clear method (Bettencourt & Kaur, 2011 & Brandt et al. , 2013).

III. RESEARCH METHODOLOGY

There are several research methods that will be used by the researcher to obtain information and data related to the study. Furthermore, the information and data in this study are obtained by using qualitative method, quantitative

method and analyzed by using descriptive analysis, HIRARC form and correlation analysis.

a) Research Flowchart

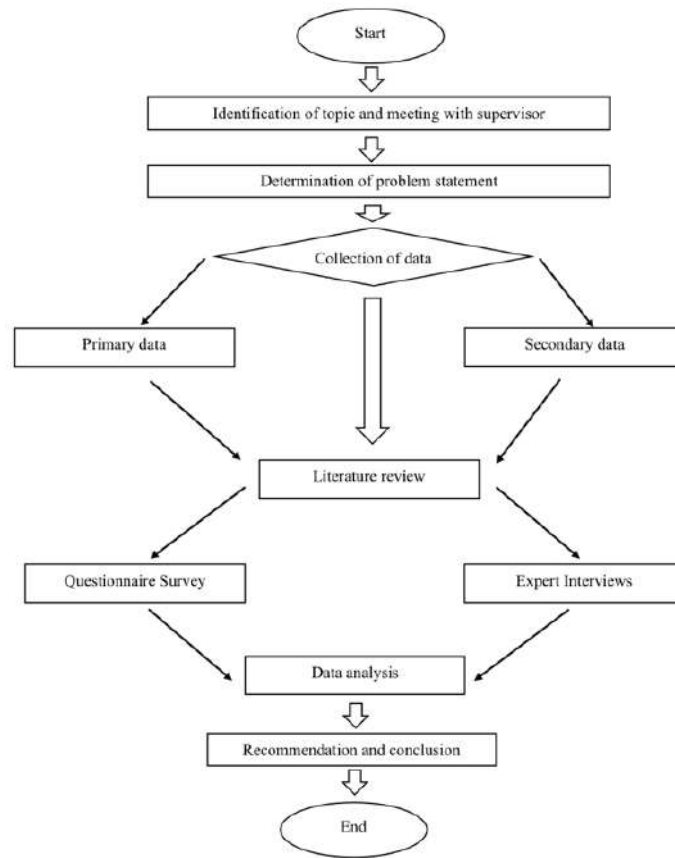


Figure 2.0 Research Flow Chart (Researcher, 2025)

b) Data Collection

A collection of data and information is done to help achieve the research objectives and explain more about the research more in-depth. The collection of data is using primary and secondary data. For primary data, it is done through quantitative study which is by using the questionnaire survey and interview to achieve objectives of the study and the survey was then distributed to the targeted population by using random sampling method. As for secondary data, researcher used existing information to learn more about the topics and share the details in the literature review.

i. Questionnaire

A questionnaire will be conducted via google form to achieve research objectives which is to identify the hazards and risks faced by women in real estate and to clarify the highest risk faced by women in real estate across different departments. The survey will be distributed to the selected respondents which are WIREs according to different division in the real estate departments (valuation, property management, estate agents and etc) both in government sectors and non-government sectors by using random sampling technique. The questionnaire consists of closed ended questions with scale answers. The survey questionnaire will be divided into three sections. The survey questionnaire will be separated into three sections which is:

Section A: Respondents background

Section B: Health Hazards

Section C: Safety Hazards

Section D: Environmental Hazards

Table 3.2 Likert scale to measure questions in section B, C and D (Researcher, 2025)

Scale	1	2	3	4	5
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Description	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
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ii. Expert Interviews

The question will be asked in the semi-structured interview is based on an interview schedule that has twenty-two questions and suitable questions regarding this research is going to be delivered in a set of order. On the interview involving women in real estate, the main questions will be about what the hazards is and risks they faced in the work process, does those women aware that they faced hazards and risk in their work process also whether they agree that female are exposed to unique hazards and risks.

The other sub questions are about regarding health hazards (work stress, sexual harassment, reproductive hazards) face by women in the industry, not to forget the method use to handle all challenges in their professional practice. The interview session with the women in real estate industry are estimated about two weeks to be done. After getting all the data for interview, the data is transcribed in Microsoft Word which usually use by qualitative researcher to analyze the data.

c) **Population and Sampling**

This research adopts a quantitative approach using structured surveys to collect primary data from 150 and 3 female professionals in the Malaysian real estate sector for using the expert interviews for qualitative approach. Respondents were selected via purposive sampling, focusing on diverse roles including valuation, property management, and agency.

d) **Data Analysis**

Researcher will use SPSS software to analyze the information obtain gathered from the questionnaire. The data will then be analyzed by using descriptive analysis, correlation analysis and multiple regression analysis.

i. *Descriptive Analysis*

Table 3.3 Mean range of likert scale (Intisar Turki, 2021)

Mean Scores	Interpretation
4.51 – 5.00	Very High
3.51 – 4.50	High
2.51 – 3.50	Moderate
1.51 – 2.50	Low
1.00 – 1.50	Very Low

In this study, the research will be using descriptive analysis which is mean. The reason why researcher use mean is because it provides a measure of central tendency, offering an average value that represents the response. Based on the table 3.3, mean range from 1.00 until 1.50 are very low, mean range within 1.51 until 2.50 are low. Furthermore, mean range within 2.50 until 3.50 are moderate while mean score of 3.51 until 4.50 are high and those above are very high.

ii. *Correlation Analysis*

Table 3.4 Guidance of correlation coefficient interpretation (Frisky Ridwan, 2018)

Value of Correlation Coefficient	Relationship Interpretation
0.000 – 0.199	Very Weak
0.200 – 0.399	Weak
0.400 – 0.599	Moderate
0.600 – 0.799	Strong
0.800 – 1.000	Very Strong

Researcher have been using this method to see if the independent variable (health hazards, safety hazards and environmental hazards). A relationship with dependent variable which is the work department (valuation, property management, estate agency). A high correlation indicates a strong relationship while low correlation indicates that the variables are not related.

IV. CONCLUSION

The study concludes that women in Malaysian real estate face compounded risks shaped by both organizational structures and cultural expectations. To improve inclusivity:

- 1) Firms should implement structured mentorship programs.

- 2) Gender-sensitive HR policies must be mainstreamed.
- 3) Further research should adopt longitudinal approaches to track career outcomes over time.

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REFERENCES

- Assessment and Risk Control (HIRARC). Preface, Retrieved from <https://www.dosh.gov.my/index.php/legislation/guidelines/hirarc-2/1846-01-identification-risk-assessment-and-risk-control-hirarc-2008/file> on 22 May 2023
- Abdullah, R., Hashim, N., & Wong, S. (2021). Gender representation in Malaysia's property sector. *Journal of Real Estate Development*, 19(2), 45-49.
- Aven, T., & Renn, O. (2009). *Risk management and governance: Concepts, guidelines, and applications*. Springer
- Budhwar, P.S., Saini, D.S., & Bhatnagar, J. (2005). Woman in management in the new economic environment: The case of India. *Asia Pacific Business Review*, 11(2), 179-193. <https://doi.org/10.1080/1360238042000291188>.
- Beck, U. (1992). *Risk society: Towards a new modernity* (Vol.17). sage.
- Beck, U. (2018). *Ecological politics in an age of risk*. John Wiley
- Cheng, B., Wei, Y., Li, H., Huang, J., & Chen, H. (2023). Science Mapping the Knowledge Domain of Construction Workers' Safety Behavior. *Buildings*, 13(6), 1365.
- Clarke, H.M. (2022). #Metoo or #Hetoo? A moderated mediation model of gender differences in perceptions of sexual harassment. *Archives of sexual behavior*, 51(6), 3105-3120.
- Dang, H.A.H., & Nguyen, C.V. (2021). Gender inequality during the COVID-19 pandemic: Income, expenditure, savings, and job loss. *World development*, 140, 105296.
- Department of Occupational Safety and Health, Industry Code of Practice for Safe Working in an Confined Space, ministry of Human Resource Malaysia, 2010 (ICOP, 2010), Malaysia (1994). Occupational Safety and Health Act 1994. Retrieved on 11 November 2024 from <https://www.dosh.gov.my/index.php/legislation/acts-legislation/23-02-occupational-safety-and-health-act-1994-act-514/file>
- Dresden, B. E., Dresden, A.Y., Ridge, R.D., & Yamawaki, N. (2018). No girls allowed: Women in male-dominated majors experience increased gender harassment and bias. *Psychological reports*, 121(3), 459-474.
- Dessler, G., & Varrkey, B. (2005). *Human Resource Management*, 15e. Pearson Education
- Eurostat. (2014). *Eurostat-OECD Methodological Guide for Developing Producer Price Indices for Services Second Edition*. OECD Publishing.
- Fan, G. Z., Huszár, Z. R. & Zhang, W. (2013). The relationships between real estate price and expected financial asset risk and return: Theory and empirical evidence. *The Journal of Real Estate Finance and Economics*, 46(4), 568-595.
- Hunt, V., Prince, S., Dixon-Fyle, S., & Yee, L. (2018). Delivering through diversity.
- Hyslop Thorsson, M. (2011). Women in Real Estate: A Swedish study of barriers and opportunities.
- International Labour Organization (ILO). (2018). Reducing occupational risks for enhanced productivity. Retrieved from <https://ilostat.ilo.org/topics/women>.
- Intisar, T. (2021). *Using Likert scales for descriptive statistical analysis*. Statistical Research Guide.
- Khor, S. C., Sanmargaraja, S., & Wai, S. H. (2020). Male perspectives on female performance in the real estate industry of Malaysia. *International Journal of Social Science Research*, 2(2), 23-31.
- Mokhtar, A., & Raj, A (2022). Workplace bias and risk in Malaysian firms. *Asian Management Review*, 34 (1), 101-115.
- Muazzam, A., Qayyum, R., & Cheng, J. (2016). Exploring workplace sexual harassment in different industries: A qualitative approach. *Journal of Organizational Behavior Research*, 5(3), 23-45.
- Perryman, A. A., Fernando, G. D., & Tripathy, A. (2016). Do gender differences persist? An examination of gender diversity on firm performance, risk, and executive compensation. *Journal of business research*, 69(2), 579-586.
- Statista.com. (2024). Labor force participation statistics in Malaysia. Retrieved from <https://www.statista.com/statistics/621260/labor-force-participation-rate-in-malaysia>.
- Tan, C., & Lim, H., (2020). Women in the boardroom: A real estate perspective. *Built Environment Journal*, 11(3), 72-85.
- The Economic Planning Unit Prime Minister's Department. (2009). Ninth Malaysia Plan (2006-2010) Retrieved from <http://www.epu.gov.my/en/ninth-malaysia-plan-2006-2010>.
- The Economic Planning Unit Prime Minister's Department. (2010) Tenth Malaysia Plan (2011-2015) Retrieved from <http://www.epu.gov.my/en/tenth-malaysia-plan-10th-mp>.
- The Star Online (2013). Retrieved from The Star Online: <http://www.thestar.com.my/News/Nation/2012/10/05/55-of-women-expected-to-be-in-workforce-by-2015.aspx>.

Yusof, N., Ismail, S., & Ahmad, K. (2023). IR4.0 and gender equality: Case studies from Malaysia. *Construction Tech Journal*, 5(1), 23-29.



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