

Participant Information Sheet

Date Information Sheet Produced:

20 Aug 2024

Project Title

An evidence-based framework for Whole Life Cost Analysis of Residential Buildings in New Zealand

Introduction

My name is Herath Mudiyansele Samadhi Nayanathara Samarasekara, and I am pursuing a PhD at the Auckland University of Technology (AUT) within the Faculty of Design and Creative Technologies. I am conducting a research study as part of my doctoral degree requirements, and I am writing to invite you to participate in this research. This study aims to develop a comprehensive whole-life cost (WLC) framework tailored specifically for residential buildings in New Zealand. The overarching goal is to enhance cost estimation accuracy and promote long-term economic sustainability in the construction industry.

What is the purpose of this research?

This research aims to develop a comprehensive whole-life cost (WLC) framework tailored specifically for residential buildings in New Zealand. The aim is to enhance cost estimation accuracy and promote long-term economic sustainability within the construction industry. This research will engage key stakeholders, such as clients, end-users, architects, engineers (both services and structural), quantity surveyors, project managers, facility managers, and government authorities, to gather insights and expertise.

Through semi-structured interviews, participants will contribute to identifying key factors influencing WLC estimation, understanding system dynamics specific to the New Zealand context, and proposing improvements to existing frameworks. The research seeks to address New Zealand's unique geographical characteristics, including seismic resilience and adverse weather conditions.

The specific objectives of this study include:

1. Determining the specific factors and their interrelationships that impact whole-life cost estimation of residential buildings globally.
2. Establishing the system dynamics of elements that affect the accuracy of whole-life cost estimation for residential buildings in New Zealand.
3. Proposing improvements required in the current WLC framework to make it suitable for residential buildings in New Zealand.

The expected outcome is a robust WLC framework that enhances informed decision-making among stakeholders, promotes sustainable building practices, and optimizes the long-term economic performance of residential construction projects. This research's findings may be used for academic publications and presentations, contributing to the advancement of global standards in WLC assessment methodologies.

How was I identified and why am I being invited to participate in this research?

You were identified and invited to participate in this research because you are a key stakeholder in the residential construction industry in New Zealand. Your expertise and insights are invaluable to achieving the objectives of this study, which aims to develop a comprehensive whole-life cost (WLC) framework tailored specifically for residential buildings in New Zealand.

The recruitment and selection process involved identifying and mapping key stakeholders based on the stages outlined in the RIBA Plan of Work. These key stakeholders include clients, end-users, architects, structural

engineers, services engineers, civil engineers, quantity surveyors, planning/regulatory authorities, project managers, site engineers, and facility managers. You have been selected because your role and experience align with the inclusion criteria for this study, which focuses on professionals directly involved in the consultant and construction teams, as well as those involved in the management and regulatory aspects of residential building projects.

The inclusion criteria for this study are:

1. Professionals with experience in the residential construction industry in New Zealand.
2. Individuals who are involved in roles such as client, architect, engineer (services or structural), quantity surveyor, project manager, facility manager, or planning/regulatory authority.
3. Participants who comprehensively understand the cost estimation and lifecycle management of residential buildings.

You have received this Information Sheet because your expertise and role make you an ideal candidate to contribute to the development of a robust WLC framework for New Zealand residential buildings. Your participation will help enhance cost estimation accuracy, promote sustainable building practices, and optimize the long-term economic performance of residential construction projects.

How do I agree to participate in this research?

To agree to participate in this research, you will need to complete a Consent Form. If you decide to participate, please contact me at herath.samarasekara@autuni.ac.nz, and I will provide you with the Consent Form and further instructions.

Your participation in this research is voluntary (it is your choice), and whether or not you choose to participate will neither advantage nor disadvantage you. You can withdraw from the study at any time. If you choose to withdraw from the study, you will be offered the choice between having any data identifiable as belonging to you removed or allowing it to continue to be used. However, once the findings have been produced, removal of your data may not be possible.

Please do not hesitate to contact me if you have any questions or need further information about the study or the Consent Form. Thank you for considering this invitation to participate in my research. Your contributions will be highly valuable and greatly appreciated.

What will happen in this research?

Your participation in this research will involve contributing your expertise and insights through semi-structured interviews. The purpose of these interviews is to gather detailed information on the factors influencing whole-life cost (WLC) estimation, the system dynamics specific to the New Zealand context, and potential improvements to existing WLC frameworks for residential buildings.

Here is what the project involves and what you will need to do:

1. **Scheduling the Interview:** Once you agree to participate, we will schedule a convenient time for the interview. The interview will be conducted using Microsoft Teams, so you can participate from any location with internet access.
2. **Duration of the Interview:** Each interview is expected to last approximately 45-60 minutes. I will ensure that the time is used efficiently and respectfully.
3. **Interview Topics:** During the interview, you will be asked questions about your experience and insights related to:
 - Specific factors and their interrelationships impact WLC estimation of residential buildings globally.
 - System dynamics of elements that affect the accuracy of WLC estimation in New Zealand.
 - Improvements are needed in the current WLC framework to make it suitable for New Zealand residential buildings.
4. **Confidentiality and Data Use:** All information you provide will be kept confidential and used solely for the purposes of this research. Your identity will be deidentified in all publications and presentations resulting from this research. Data will be stored securely and only accessed by my supervising team and me.

This study will not involve a control group, as it focuses solely on gathering qualitative insights from key stakeholders in the construction industry.

What are the discomforts and risks?

Participating in this research involves minimal discomfort and risks. However, it is important to outline any potential issues so that you are fully informed:

1. **Time Commitment:** The interview will take approximately 45-60 minutes. While I will do my best to accommodate your schedule and make the process as convenient as possible, this time commitment may be a minor inconvenience.
2. **Privacy and Confidentiality:** Although every effort will be made to protect your privacy and keep your responses confidential, discussing your professional experiences and insights may cause discomfort. Rest assured that all information you provide will be deidentified and securely stored. Only myself and my supervising team will have access to the data.
3. **Technical Issues:** As the interviews will be conducted using Microsoft Teams, there is a slight risk of technical issues such as poor internet connection or software malfunctions. We will provide support to resolve any technical difficulties promptly.

No significant physical or psychological risks are associated with participating in this study. Your participation is entirely voluntary, and you can withdraw at any time without any negative consequences.

If you have any concerns or need further information about potential discomforts or risks, please get in touch with me. Thank you for considering this invitation to participate in my research. Your contributions will be highly valuable and greatly appreciated.

How will these discomforts and risks be alleviated?

To alleviate the minimal discomforts and risks associated with participating in this research, several measures have been put in place:

1. **Time Management:** We understand that your time is valuable. The interview will be scheduled at a time that is convenient for you, and we will ensure that it is conducted efficiently. The expected duration is [45-60 minutes, and we will stick to this timeframe to respect your schedule.
2. **Privacy and Confidentiality:** Your privacy is paramount to us. All information you provide will be kept confidential and deidentified in all research outputs. Data will be securely stored and only accessible to my supervising team and me. If discussing certain topics causes discomfort, you can skip any questions or terminate the interview at any time.
3. **Technical Support:** To mitigate potential technical issues during the Microsoft Teams interview, we will provide technical support to help resolve any connectivity or software problems promptly. We will also conduct a brief test call before the interview to ensure everything works smoothly.

What are the benefits?

Participating in this research offers several benefits, both for you as a participant and for the broader construction industry in New Zealand:

1. **Contribution to Knowledge:** Your insights and expertise will contribute to developing a comprehensive whole-life cost (WLC) framework tailored specifically for residential buildings in New Zealand. This framework aims to enhance cost estimation accuracy and promote long-term economic sustainability in the construction industry.
2. **Professional Impact:** By participating, you will have the opportunity to share your professional experiences and influence the creation of a robust tool that could improve decision-making processes, promote sustainable building practices, and optimise economic performance in residential construction projects.
3. **Enhanced Industry Standards:** This study's findings aim to contribute to global standards in WLC assessment methodologies. Your participation helps set benchmarks and improve practices that could benefit the entire construction industry in New Zealand.
4. **Personal Development:** Participating in research can be a valuable learning experience, offering new perspectives and insights that could be applied in your professional practice.

This research is part of my PhD study at Auckland University of Technology (AUT) and will assist me in obtaining this qualification. The outcomes of this study will be used for academic publications and presentations, further contributing to the body of knowledge in the field of construction management.

How will my privacy be protected?

Protecting your privacy and ensuring confidentiality are paramount in this research study. Here's how your privacy will be safeguarded:

1. **Confidentiality of Data:** All information collected during the interviews will be strictly confidential. Only myself, as the researcher, and my supervising team will have access to the raw data. Any personal identifiers (such as your name, contact details, and specific project details) will be securely stored separately from the interview data. These identifiers will be used solely for the purpose of scheduling and communication related to the study.
2. **Identification of Participants:** To further protect your privacy, all data used in any publications or presentations resulting from this research will be presented using a coding system. Your name and other identifying information will not be included in any reports or academic outputs. Instead, pseudonyms or general descriptors may illustrate points made during the study.
3. **Opportunity to be identified by name to acknowledge your professional contributions:** Confidentiality of your responses will be strictly maintained throughout the study. However, we also offer you the opportunity to be identified by name to acknowledge your professional contributions to this research. If you choose to be identified, your name and professional details may be mentioned in the study's publications and presentations. **Please indicate your preference on the Consent Form.**
4. **Secure Storage:** Data collected during the interviews will be stored securely on cloud storage with encryption. Only authorised personnel (myself and my supervising team) will have access to this data.

What are the costs of participating in this research?

Participating in this research involves minimal costs, primarily in terms of your time:

1. **Time Commitment:** The main cost of participating in this research is the time spent during the interview. Each interview is expected to last approximately 45-60 minutes. I understand your time is valuable, and we will ensure the interview is conducted efficiently and respectfully.
2. **No Financial Costs:** There are no financial costs associated with participating in this research. You will not be required to pay any fees or incur any expenses related to your involvement.
3. **Other Considerations:** There are no other anticipated costs, such as travel or materials. The interview will be conducted remotely using Microsoft Teams so that you can participate from the comfort of your location.

What opportunity do I have to consider this invitation?

You have one month to consider this invitation. This timeframe allows you ample opportunity to review the Information Sheet, ask any questions, and decide whether you wish to participate in the research.

During this period, please take the time to carefully read through the details provided, consider your availability for the interview, and assess any potential impacts on your schedule. If you decide to participate or have any queries during this time, you can contact me. I am here to provide further information and support as needed.

Will I receive feedback on the results of this research?

Yes, you will receive feedback on the results of this research. Participants will be provided with a summary of the findings, typically in a one or two-page document that outlines key insights and conclusions. After completing data analysis and the final report, I will concisely summarise the research findings, highlighting key themes and implications derived from participant contributions. If you have provided your contact details and expressed interest in receiving feedback, I will send the summary directly to you via email. A URL to access the summary online will be provided if the research is conducted without revealing identities. The summary of findings will be made available within a reasonable timeframe after data analysis and report writing, which will be communicated to participants early in the research process.

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should first be notified to the Project Supervisor.

Dr. Mahesh Babu Purushothaman

Mahesh.babu@aut.ac.nz

+(64) 9 921 9666 Ext. 5805

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTECH, ethics@aut.ac.nz, (+649) 921 9999 ext 6038.

Whom do I contact for further information about this research?

Please keep this Information Sheet and a copy of the Consent Form for future reference. You are also able to contact the research team as follows:

Researcher Contact Details:

Herath Mudiyansele Samadhi Nayanathara Samarasekara

Herath.samarasekara@autuni.ac.nz

+(64) 21 0845 1003

Project Supervisor Contact Details:

Dr. Mahesh Babu Purushothaman

Mahesh.babu@aut.ac.nz

+(64) 9 921 9666 Ext. 5805

Dr. Funmilayo Egun Rotimi

Funmilayo.egun.rotimi@aut.ac.nz