<table>
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<tr>
<th>ACADEMIC PROJECT SUBMISSION DETAILS:</th>
<th>PROJECT #: 61</th>
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<tbody>
<tr>
<td><strong>Supervisor/s:</strong></td>
<td>Frank Scrimgeour and Dr Vijay Kumar</td>
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<tr>
<td><strong>Project Title:</strong></td>
<td>Estimating the Costs of Distributed Health Services in New Zealand</td>
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<tr>
<td><strong>Field:</strong></td>
<td>Health Economics</td>
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<tr>
<td><strong>Division/School:</strong></td>
<td>WMS - School of Accounting, Finance &amp; Economics</td>
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### EXPECTED OUTCOMES:

1. The research project will assist the successful student to develop empirical research skills relevant for health economics research and policy analysis.
2. The results will be summarised in the form of a written journal article to be submitted for publication in a peer-reviewed journal.
3. The research will potentially assist policy makers to make informed decisions associated with healthcare policies.
4. A poster to be presented at a public seminar/conference.

### STUDENT TASKS:

1. Summarise and review the literature on measuring healthcare costs.
2. Format, clean, and standardise data.
3. Work with supervisors to confirm the theoretical framework and then develop and estimate an appropriate regression model.
4. Prepare a paper describing the methods and results, and commenting on the results.
5. Prepare a poster highlighting the key elements of the research.

### REQUIRED SKILLS:

1. Statistical analysis skills
2. Proficiency in using Excel in accounting, financial, or economic analyses
3. Familiarity with a statistical package, such as R or Stata
4. Good written communication skills
PROJECT ABSTRACT:

The funding of health services is an on-going challenge. These services are provided by major service providers such as hospitals and distributed services (mostly private and not for profit) that include GP, physiotherapist, dental, and other services. Understanding the cost structure of these services is important for officials and policy makers seeking to allocate scarce funds and to resolve at least some of the challenges associated with rising healthcare costs. Using basic statistical analysis and some exploratory regression models, this study investigates the relationship between healthcare costs in the public and private sectors and changes in demographic and policy variables.

The study uses the cross-sectional data available for the period 1990-2018 collected through the New Zealand Business Benchmarking Survey (NZBBS) conducted by the University of Waikato's New Zealand Business Benchmarking Unit (formerly the Management Research Centre). This is complemented by Ministry of Health data on public agencies. Most prior studies (e.g. Bhargava and Jamison, 2014; Bloom and Canning, 2009) have focused only on the aggregate public sector health costs. This study, however, focuses on costs associated with a range of health professions providing services through distributed health providers and the public sector. This is relevant not only for determining the level of health spend but also the location of that health spend.
ACADEMIC PROJECT SUBMISSION DETAILS:

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<th>Supervisor/s:</th>
<th>Ou Wang</th>
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<tbody>
<tr>
<td>Project Title:</td>
<td>Blockchain technology as a useful tool in food traceability? Using a strategic orientation approach</td>
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<tr>
<td>Field:</td>
<td>Agribusiness</td>
</tr>
<tr>
<td>Division/School:</td>
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EXPECTED OUTCOMES:

1. The student could better understand the procedure of designing a study for agribusiness strategic analysis.
2. The student could have a better understanding of knowledge about the blockchain-based food traceability system.
3. The first draft of an interview guidance for the project could be completed.
4. A list of potential interviewees for the project could be developed.

STUDENT TASKS:

1. Review and summarise academic literatures related to the blockchain-based food traceability system.
2. Review and summarise academic literatures related to the use of SWOT strategic orientation approach in agribusiness research.
3. Assist designing an interview guidance for the project.
4. Search for and develop a list about stakeholders in the New Zealand food industry who are potential interviewees for the project.

REQUIRED SKILLS:

1. Literature review experience for academic articles in agribusiness.
2. Good ability of academic English writing.

PROJECT ABSTRACT:

With the rapid surge in price of Bitcoin, blockchain technology has become a hot topic across the world. A blockchain-based system has features of decentralized, trust-less, collectively maintain, reliable database and anonymity. Researchers have indicated conceptual models to use the system in food traceability. A blockchain-based food traceability system can increase the transparency of a food chain, strengthen the information credibility, realize the real-time tracking of food products, and enhance the safety assurance of the food chain. It can well solve trust problems in traditional food traceability systems e.g. fraud, corruption, tampering and falsifying information.
Food production and exporting is a critical industry in New Zealand and a major contributor to national economy. Food traceability is vital for New Zealand’s food enterprises to reduce operating costs, increase productivity, and provide safety-assured products for final consumers. As such, there is an increased importance for stakeholders of New Zealand’s food industry to better understand the use of blockchain technology in food traceability. However, there is still a lack of empirical studies to contribute knowledge in this field, as it is still embryonic as an academic research topic.

The proposed project will address the knowledge gap and explore possible effects of the blockchain-based food traceability system on the New Zealand food industry. A SWOT analysis followed by a Strategic Orientation Round (SOR) will be conducted to recognize opportunities and treats of the use of blockchain technology in traceability systems, as well as strengths and weakness of the New Zealand food industry to deal with it. Data would be collected by face-to-face interviews among stakeholders of the New Zealand food industry. An academic article will be written based on study findings.