

**Understanding how the Christchurch City Council Can Support Small-to-Medium
Sized Food and Beverage Businesses in Becoming More Environmentally Sustainable**

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Abstract

Small-to-medium businesses' engagement in environmental sustainability is increasingly being studied around the world due to their immense economic footprint. In Christchurch, small-to-medium enterprises (SMEs) make up 98.3% of the economy and have a significant cumulative impact on the environment. The Christchurch City Council (CCC) has set targets to half Christchurch's carbon emissions by 2030. To achieve this target, the council is interested in supporting businesses and households in adopting sustainable practices.

This study explores how the CCC can support small-to-medium-sized food and beverage businesses within Central Christchurch to become more environmentally sustainable. Semi-structured interviews were conducted with ten managers/owners of cafes, restaurants, bars, bakeries and breweries to understand from their perspective their current engagement in environmental practices, barriers to action, and how the council can support them. The interview data was thematically analysed.

Findings reveal that the main barriers these firms face are cost constraints, time constraints, low customer demand, and inefficient waste management infrastructure. The data shows that hospitality SMEs are consistently engaging in recycling waste, using recyclable takeaway packaging, and reusing materials. 70% of the participants were also interested in receiving support on a range of topics within environmental sustainability and would like to receive more information from the Council.

Based on these insights, the following support is recommended:

- Financial support through subsidies or funding
- Workshops on environmental sustainability, particularly waste minimisation, reduced energy use and accessing funding
- Public Awareness and Advertisement Campaigns

1.0 Introduction

Small-to-medium enterprises (SMEs) have a significant economic impact, making up 98.7% of New Zealand's (NZ) registered businesses (Infometrics, 2024), employing 29.3% of

workers across NZ, and creating more than 25% of national GDP (Ministry of Foreign Affairs and Trade, n.d.). However, their environmental impact is not well understood due to a lack of tracking by businesses and government, and regulations that are not targeting these businesses (Ministry for the Environment, 2025; Sustainable Business Council, n.d.).

Due to increasing global environmental awareness, there has been a greater push for environmental action (Calculli et al, 2021). To achieve environmental sustainability, it is essential that consumers, producers and the government are all involved, as shown before SME's engagement is an important part of this.

This study aims to explore Christchurch food and beverage SMEs' current environmental engagement, environmental challenges, and support mechanisms, to enable them to have greater engagement in their environmental sustainability journey. The hospitality businesses involved in this study included cafes, bars, restaurants, breweries, and bakeries. Ten semi-structured interviews with the owners/managers were conducted and thematically analysed to draw conclusions from the data. Based on the analysis, recommendations are proposed for how to further support Christchurch hospitality SMEs to achieve sustainability goals.

2.0 Background

2.1 Small and Medium-Sized Enterprise (SME)

Small-to-medium enterprises (SMEs) are defined in New Zealand (NZ) as businesses employing less than 50 workers (Ministry of Foreign Affairs and Trade, n.d.). Table 1 shows that in 2024, 46,611 of the 47,439 (98.3%) businesses in Christchurch were SMEs.

Table 1*Business Size and Number of units*

		Christchurch City	
	Business size	Business unit count	% of Business/Total Number of Businesses
Small-to-medium sized enterprises (SME)	0	31,587	66.6%
	1 to 5	8,508	17.9%
	6 to 9	2,592	5.5%
	10 to 19	2,454	5.2%
	20 to 49	1,470	3.1%
	TOTAL	46611	98.3
LARGE BUSINESSES	50 to 99	468	1.0%
	100 and over	360	0.8%
	TOTAL	828	1.8

Note. From *Regional Economic Profile, Christchurch City, Size of Business, February 2024*, Infometrics, 2024. (<https://rep.infometrics.co.nz/christchurch-city/business/size-of-businesses?compare=new-zealand>)

2.2 Existing Support Mechanisms

- The New Zealand Government, through the Energy Efficiency and Conservation Authority (EECA), assists businesses in reducing their carbon footprint to become more energy efficient. The EECA's Food and Beverage Service Pathway provides tools and resources to Hospitality Businesses to reduce their energy costs (Eeca, n.d.).

The Christchurch City Council (CCC) supports businesses in engaging in sustainable practices as well. Such as:

- Organising workshops with local entrepreneurs/businessmen to discuss sustainable and resilient designs/solutions for tackling climate change

- Assisting businesses that are involved in recycling and composting and those selling second-hand goods to reduce landfill waste
- Promoting community farming and improving food security
- Running the ‘Edible and Sustainable Garden Award’ event to encourage local food growing
- Organising campaigns such as ‘Love Food Hate Waste’ to reduce food waste (Christchurch City Council, 2021).

The Sustainable Business Network (SBN), a business organisation established in 2002 in New Zealand, guides businesses in reducing their carbon footprint. For instance, the ‘Climate Action Toolbox’ assists businesses in measuring their carbon emissions and developing an action plan to reduce them. Similarly, the ‘Workplace Guide’ focuses on reducing travel costs for businesses (Farmen, & Brown, 2024).

3.0 Literature Review

3.1 Introduction

Businesses worldwide have increasingly adapted their processes to become more environmentally friendly due to the growing awareness of production causing irreplaceable harm (Currin, 2012). Small-to-medium enterprises (SMEs) make up approximately 90% of the global economy (United Nations, n.d.) and are predicted to be responsible for 70% of global emissions and commercial waste (Onyido et al., 2015). This highlights the importance of these firms engaging in environmentally sustainable actions to reduce the negative externalities affecting the environment (Onyido et al., 2015).

There are many barriers highlighted in the literature that SMEs face when transitioning to environmentally sustainable practices such as cost or time barriers (Iqbal et al., 2025; Blackburn & Revell, 2007). However, there are also benefits such as reducing costs through the conservation of resources and potential competitive advantages (Khoja et al., 2022; Oduro, 2024). The literature also highlights the potential need for support of SMEs in transitioning to green practices in the form of inter-firm relationships and government support (Rodrigues & Franco, 2023; Ullah et al., 2021).

3.2 Actions businesses are currently taking and the importance of engagement

There are many environmentally sustainable practices that businesses are currently engaging in such as waste management including recycling, reducing waste, reducing energy consumption, and investing in energy-efficient technology (Adesua-Lincoln, 2025; Bos-Brouwers, 2010; Dissanayake et al., 2019; Ramus, 2002). This engagement is increasing over time with more than 91% of SMEs from 36 different countries found to be engaging in greening processes (Hoogendoorn et al., 2014).

SME engagement in environmentally sustainable practices is of increasing importance as their aggregate impact on the environment could be significant (Cassells & Lewis, 2011). In the United Kingdom, it was estimated that SMEs could account for approximately 80% of pollution and 60% of commercial waste (Cassells & Lewis, 2011). Similarly, it is estimated SMEs are responsible for consuming 50% of global commercial energy (Hampton et al., 2023).

3.3 Benefits to SMEs for Taking Sustainable Action and Motivations

Firms engage in pro-environmental actions for several reasons. The most prominent reason for investing was to reduce costs and improve profit margins (Cassells & Lewis, 2011). Becoming environmentally sustainable also has been found to give competitive advantages within the market (Simpson et al., 2004). SMEs also tend to be community-focused due to their relatively smaller size leading to their environmental efforts often enabling beneficial community perception (Arunachalam et al, 2006). The literature also found that motivational factors are crucial in increasing environmental sustainability in firms. Things such as regulatory requirements, social commitments, customer demand, employee engagement, and receiving economic or financial benefits were all identified as motivating factors (Currin, 2012; Ramus, 2002; Rekik & Bergeron, 2017). While there is a gap between goals and actions, these motivating factors could help reduce them (Tilley, 1999).

3.4 Barriers to Engagement

The literature presents many reasons for the potential lack of engagement from SMEs (Jaramillo et al, 2018), such as insufficient resources, large upfront costs of capital or infrastructure, limited knowledge, minimal governance and leadership, lack of regulation, consumer preferences, lack of resources, and the time needed for research and development

(Jaramillo et al, 2018; McGrady & Golobic, 2023; Morioka et al, 2022). Collectively these work to reduce firms' engagement in environmental initiatives. Barriers come in many forms as they can be motivational, behavioural, production constraints, societal influences, market pressures amongst many other reasons (Boiral & Chassé, 2017; Kiefhaber et al., 2020; Tilley, 1999).

3.4.1 Internal Barriers

These are several internal barriers that were abundant within the literature:

- Financial constraints and implications of sustainable action: Taking environmental action often presents a large cost barrier for SMEs and a burden for the owner. Further, the cost-benefit viability of changes can make them difficult (Goeft et al, 2008).
- Lack of a good motivation or business case to act: It was often reported in the literature that SMEs did not believe they had a substantial impact. Or they believed that the business case for making change is not justifiable (Boiral & Chassé, 2017).
- Too much of a time cost: As day-to-day operations take up the majority of many owners' time, there is the potential for little time left over for them to consider taking environmental action (Blackburn & Revell, 2007).
- Insufficient knowledge to make changes: It was often reported that accessible information was insufficient for change, making it difficult for SMEs to do anything (Lewis et al., 2014).
- Too much risk for a small business: SMEs tend to be more risk averse (Nhantumbo et al, 2016).

3.4.2 External Barriers

Along with the internal barriers, the literature also identifies external barriers that prevent change:

- Insufficient external funding options: High costs mean outside funding or the ability to get a loan is often necessary to pay for environmental action. However, many businesses lacked access to funding options like bank loans or investments (Nhantumbo et al, 2016).
- Lack of surrounding institutions and networks for reinforcing and pressuring environmental action: A lack of business groups, networks and other supportive agencies interested in taking environmental action, often meant businesses did not

receive the resources, support, or pressure needed to make a change (Sukaryavichute et al., 2021; Kiefhaber et al., 2020).

- Not a strong or consistent enough government strategy for sustainability: Inconsistent or absent government strategies have left businesses confused, and insufficient attention on the policy stage has prevented action (Lewis et al., 2014).

These barriers show many of the key reasons why a business would choose not to be sustainable, outside of internal operations. They generally suggest that a change in the business environment could have a large impact on SMEs choosing to engage in sustainability (Dayaratne & Gunawardana, 2014).

3.5 Barriers to Engagement from the Owners

Many barriers to engagement have come from the psychological and motivational views of owners. The literature highlights how beyond the barriers facing the business, there are also many mental barriers that must be overcome to achieve environmental engagement.

One form was that many businesses had perceived barriers which are not supported by evidence, leading to some barriers that cannot be overcome but rather must be removed through individual support and education (Redmond & Walker, 2014).

Other studies found the personal attitudes of owners mattered a great deal. Many owners reported caring about climate change, but their concerns were personal and not business-related (Redmond et al., 2008). Further, they believed that the impact of their business was not significant enough to justify changing (Kiefhaber et al., 2020). The literature discusses how these personal attitudes can lead owners to attempt to deflect the responsibility of environmental engagement onto others, saying that it is on the suppliers, and customers to make a change not them (Boiral & Chassé, 2017).

The literature also argues that cultural, behavioural and identity change within businesses can have a greater and longer-lasting effect than that of technological advancements and regulatory compliance as it becomes embedded within the business's goals and the identity which defines their approach to engagement (Costa & Opore, 2025; Kraus et al., 2020; Kiefhaber et al., 2020; Lozano, 2013). This emphasises the critical role of behavioural change in achieving

environmental sustainability within businesses. Without this change, sustainability efforts of other forms could risk being ineffective in the long term (Lozano, 2013).

3.6 Support mechanisms

Lamoureux et al. (2019) in their study on the role of government support in SMEs' adoption of sustainability reveal that government support (e.g., incentives, training and consultancy services) and enforcement of existing regulations are important in driving SMEs in the United States towards a low-carbon economy. In Sweden, the government is a major driver in encouraging firms to engage in sustainable behaviour. The Swedish government is supported by local business networks and organisations that strive for sustainable practices. Many large firms global supply chains, local communities, environmental associations and employees exert pressure on Swedish businesses to commit to becoming green (Tsvetkova et al, 2020).

Inter-firm relationships is a support mechanism also significant in the literature. These are important for information sharing about potential benefits to environmentally sustainable initiatives and increase behavioural adoption (Lewis et al., 2014).

3.7 Literature Conclusion

SMEs are central in working towards sustainability, but the path forward is complex, with many benefits, barriers, motivations and support mechanisms to be considered. The literature finds, that while benefits like cost saving and increased competitiveness have been seen, there are also time, knowledge, financial and mental barriers that prevent action. Additionally, many businesses have already taken some steps like better waste management, which reflects how low-hanging fruit has already been taken. Motivational factors do show that progress is possible if the right motivators are in place. Overall, the literature shows the complex nature of the challenges towards environmental action in SMEs and the need for regional, industry and business-specific support.

4.0 Research Question

4.1 Research Topic: Small businesses: working towards sustainability in the context of climate change

4.2 Research Aim: This research aims to determine how the Christchurch City Council can support small-to-medium-sized food and beverage businesses in Christchurch to engage in

environmental practices. It is attempting to determine what, from their perspective, the main barriers and challenges to becoming more environmentally sustainable are. As well as what environmental practices they are currently engaging in, and what the local council can do to assist their efforts. This research will add to the current literature on what motivates and prohibits environmental action in SMEs and will fill a gap in the literature on environmental action for SMEs in Christchurch.

4.3 Research Questions:

What environmentally sustainable actions are hospitality SMEs currently engaging in?

What are the barriers that prevent hospitality SMEs from taking environmental actions?

How best can the Christchurch City Council support small-to-medium-sized hospitality businesses within central Christchurch to become more environmentally sustainable?

5.0 Methodology & Data Collection

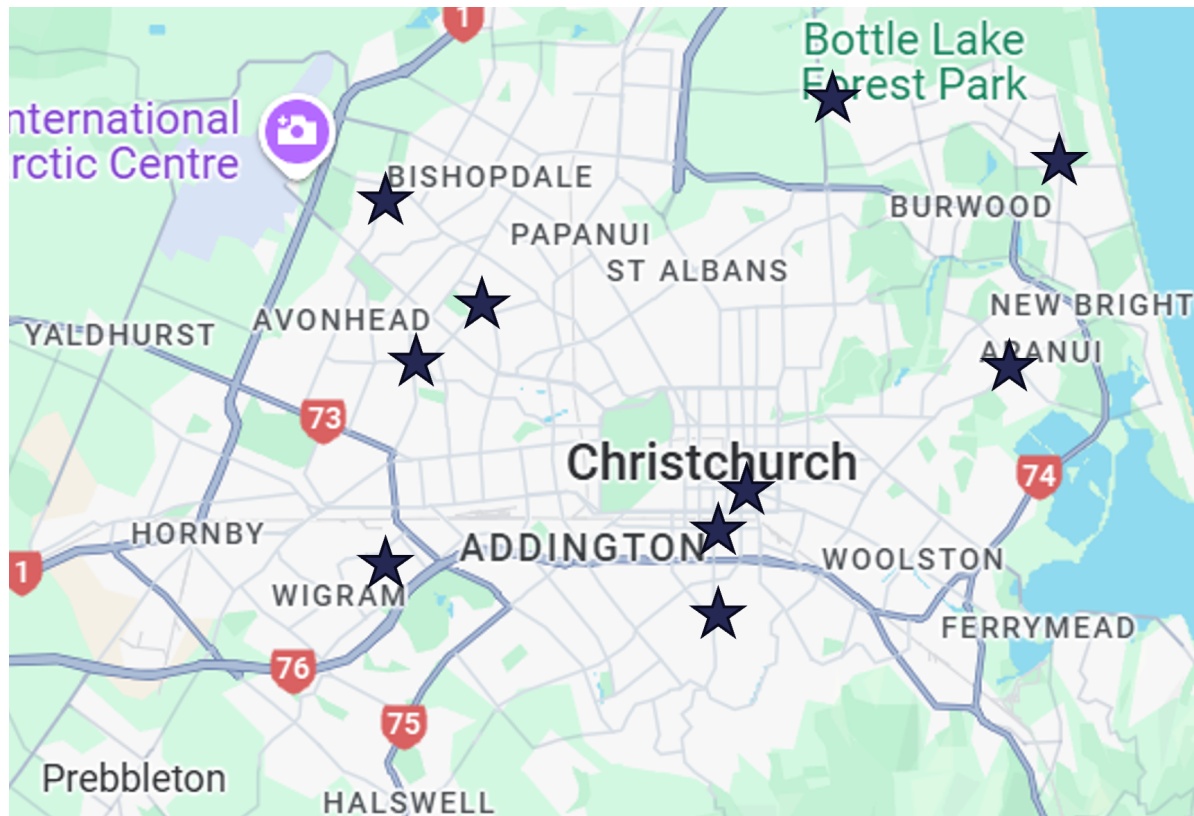
5.1 Sample Collection

The data for this study was collected through semi-structured interviews with a sample of 10 small-to-medium hospitality businesses in the Christchurch City area.

The geographical boundary of this study was within the Christchurch City Council's jurisdiction, excluding the Bank's peninsula and the Port Hills. Participants of the study were selected randomly via Google using the maps feature. The businesses were called and given a detailed explanation of the project so they could make an informed decision about their participation. If they chose to participate then a time for an interview would be organised either on the phone or through email.

Figure 1

Spread of Christchurch Businesses Interviewed in the Research



In total 61 businesses were reached contacted and 10 agreed to do interviews. This acceptance rate was lower than expected, making it necessary to call more businesses than initially anticipated. Figure 1 shows the spread of the final sample.

We purposefully aimed for a roughly even spread over 5 types of hospitality business (approximately 2 of each) between our interviewees (breweries, cafés, bars, restaurants, bakeries). This meant our search for businesses began with an initial broad search such as ‘bakeries in Christchurch’. From there, the google maps would come up. We would then randomly choose bakeries to call from the lists across the pages. This shows there is bias involved as the bakeries on the initial page on Google Maps were more likely to be selected than the 10th page. However, due to our low success rate, the randomisation greatly increased.

Prior to the commencement of each interview, the participants were given the information sheet (Appendix 1) and following this the consent form (Appendix 2) which they needed to sign before we began to ensure they were still interested. The interviews were conducted with

one researcher asking questions and two researchers transcribing the details of the interview (which was outlined in the information sheet and consent form).

5.2 Data Collection

Each interview included 27 questions and was expected to take approximately one hour, the actual lengths of the interviews varied. The semi-structured nature of the interviews meant that the question structure was not followed perfectly. Instead, the interview questions were adapted to each interview depending on the conversation occurring, so the relevant data was able to be collected.

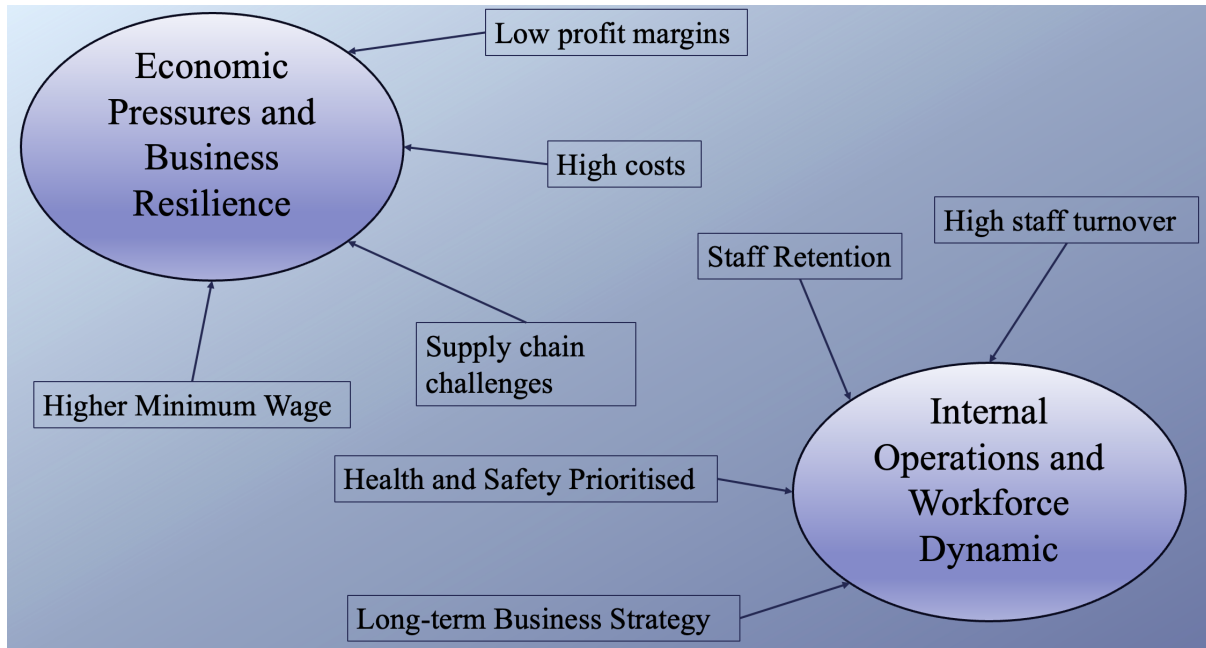
5.3 Analysis method

The data was then analysed using the Braun and Clarke method (Braun & Clarke, 2006). This has 6 stages, firstly the researchers get familiarised with and summarise the data, and then initial codes are generated through attaching labels/names to segments of data. Next initial themes are made which show the overarching ideas and synthesise the coded data. Following this, the themes are reviewed and refined to ensure they are telling the story of the data, and then they are formally defined and named for the write-up.

The data gathered was rich and complex. Many codes were developed, and 9 final themes were generated. These were data-driven themes as they were generated based on the codes identified from the data. However, there were theory-driven practices involved as we were interested in ensuring that the themes enabled us to answer our intended research questions (Braun & Clarke, 2006). Figure 2 shows how a few of the codes from the data generated the themes.

Figure 2

Example of the Relationship Between Themes and Codes in the Data



6.0 Results

Table 2

Description of the themes, codes and example quotes

Theme	Description	Codes	Example Quotes
Economic Pressures and Business Resilience	This theme captures how current economic pressures from rising costs reduce profit margins and how this affects these businesses.	1) Increase in the minimum wage 2) Rise in the cost of raw materials 3) Low profit margins	1) “The costs – the living wage and minimum wage going up” 2) “Can’t put the prices up by the same percentage as suppliers of raw materials” 3) “Can’t justify it when our profit margin is

			only this much each year”
Perceived Customer Expectations and Business Responses	This incorporates the employer and employee’s perspective of their customers' demand, what influences it, and how their business can capture more of this demand.	1) Customer price sensitivity 2) Behaviour embedded in people	1) “Customers want everything at a cheap price” 2) “Personally, I don’t think people are too concerned unless they see it on the news, or in an article”
Internal Operations and Workforce Dynamics	This theme includes how different businesses have different internal operation structures and the changes in employment within this industry.	1) Staff retention 2) Health and safety prioritised	1) “Have to have a pathway forward for staff retention. Otherwise, more money to train new staff” 2) “At work, constantly remind yourself of health and safety practices”
Current Sustainability Practices and Environmental Awareness	This theme explains the current practices businesses are undertaking to be environmentally sustainable and	1) Use of recyclable &/or biodegradable packaging	1) “Our burger wraps are biodegradable and co and compostable” 2) “We use containers rather than cling wrap”

	their awareness around pathways of environmental degradation.	2) Reuse of storage materials	
Aspirations and Motivations for Environmental Improvement	This explains the motivations behind these firms in taking environmental action and any actions they would like to take in the future.	1) Aspirations to further reduce waste 2) Interest in green investment	1) “Constantly doing this to reduce waste and impact as much as possible – over the years, we have tried to do more and more” 2) “I have thought about solar panels, most of the roof is a big deck for the apartment above – could put a solar up there”
Recognised benefits of environmentally sustainable actions	This theme outlines the benefits businesses identified from taking environmental actions for their business or more broadly	1) Cost-effective environmental initiative 2) Humanity benefits	1) “We recycle, it's good for business and good for the environment.” 2) “Can appreciate the greater benefit to humanity”
Barriers to Environmental Action of SMEs	This theme explains the different barriers preventing these businesses from taking action to become more environmentally sustainable.	1) External barriers 2) Local recycling infrastructure	1) “One of the challenges for us is that we lease the building, so we need consent from landlords. And who is going to take that cost?” 2) “The city in general needs to improve its ability to recycle”
Support Mechanisms for Businesses to Transition to Environmentally Sustainable Practices	This theme includes recommendations made by firms that would support businesses in becoming more	1) Interest in subsidy/funding	1) “Big flat roof on this building, if the council put a subsidy on solar panels, we would look at it”

	environmentally sustainable.	2) Need to reach a broader audience	2) “Generate some sort of impact when initiative is taken. If you don’t go out of your way, only reach the people that are already aware. Not creating general change on the public”
Influence of Local Planning and Regulatory Processes	This theme recognises any impacts on participants due to local planning and infrastructure as well as regulatory burdens.	1) Lack of council consultation 2) Regulatory burden	1) “No consultation by the council about timeframes” 2) “Business is people and people is business. Less laws and regulations”

6.1 Economic Pressures and Business Resilience

This theme captures the economic challenges hospitality SMEs face, including high operational costs due to the increased prices of raw materials, rising wage rates, increasing energy prices, rent payments, rates, and taxes, along with compliance, legislative, and regulatory costs. Collectively, these cost pressures work to reduce profit margins, therefore, keeping these as low as possible for these businesses is essential.

“The tighter the economy, the more people focus on their real needs as our business does”

Many participants expressed the difficulty in passing some of these costs onto customers through prices due to the risk of losing them to other lower-priced firms (more price competitive). This meant that many have experienced their profit margins reducing and all the firms agree that profitability is essential for the success of a business, and therefore it is prioritised, one interviewee said:

“The business is not worth anything if it doesn’t make profit”

Participants also noted that SMEs are hit hardest during economic downturns and that larger businesses have more power including negotiating power.

6.1.1 Supply Chain Influences

Most of the businesses source locally supplied goods rather than imported goods. Due to a range of reasons such as cost-effectiveness, environmental benefits, supporting local businesses, and as a marketing tool, amongst other reasons. However, there was an emphasis that this needs to make economic sense (low costs) and the necessity that these suppliers keep up with the demand of the business. This has caused some of the firms to change suppliers if the smaller local firm is at productive capacity and cannot keep up with the production required to supply this business.

The firms also expressed that they have limited storage onsite and wanted to always serve fresh produce therefore needing regular deliveries up to six times a week of fresh produce.

Some of the participants raised the issue of large volumes of packaging from suppliers. This they described as challenging due to the frequent orders, but they have been working with their suppliers to improve.

In terms of supply chain resilience, several businesses said that with the wars happening around the globe, climate change impacts, and COVID-19 they have needed to adapt and create a more flexible supply chain. These have caused some raw materials to no longer be available via importing and have further encouraged firms to source local goods. When asked about preparation for climate impacts, one business responded:

“The thought is there, we haven’t actually looked into it. But it’s why we try to source locally – eventually things will get too expensive to import in and it supports lots of farmers in NZ”

6.2 Perceived Customer Expectations and Business Responses

This theme investigates how hospitality SMEs interpret and respond to consumer’s dynamic expectations and preferences, and how these businesses adapt to aim to capture this demand. Participants emphasised that consumer satisfaction is a priority as it directly influences customer growth and profitability. A significant proportion of these businesses believe their

customers are mostly indifferent to the firm's environmental performance and do not expect customers to change their behaviours with increased sustainability initiatives. Instead, they mostly believe that customers prioritise the quality of the food, beverages and service, and lower prices:

"Customers want everything at a cheap price"

Some participants contrasted this view believing their customers would be greatly supportive of this.

Some participants expressed there is a generational element to the environmental concern of customers. One firm found that the younger generations expressed greater environmental concern, contrasting with another that found customers aged 30-50 showed greater concern:

"Divided, a lot of young people don't appear to care – 18-20s. 60s onwards less concerned. There's a band in the middle 30-50s that appear very aware and more discerning and they have more spending power to buy electric cars and solar panels."

The data also showed that community demographics play a part in the support for such initiatives. One interviewee explained that their business is in a higher socioeconomic neighbourhood and would receive support for environmental efforts. In contrast, another firm explained that they are in a lower demographic area and would experience less engagement from the local community. All the businesses emphasised that the local community is an integral part of their business operations and focus. These small businesses not only support their local community, but the local community makes up most of their demand, causing this group's preferences to be the most important to them.

They also believe that behaviours that are embedded in customers and customers' preferences will need to change for them to be able to become more sustainable. This is consistent with customer satisfaction being a priority, if these businesses engage in environmentally sustainable initiatives they are interested in seeing customer support and engagement. However, this had a range of responses with some businesses believing their customers do care while others disagreed, one saying that:

“When we changed to paper straws and cardboard knives, we had quite a few comments on Facebook. Less than 10% of people were supportive, most people don't care”

With this, from many of the participant's perspectives, there is currently no market advantage from environmental initiatives, however, as highlighted above there are many that have experienced green demand.

6.3 Internal Operations and Workforce Dynamics

Consistently in the data, there was an emphasis that these businesses struggle with staff turnover due to the fast-paced industry and many employees not viewing their role as part of their long-term career goals. This caused many firms to spend large quantities of time training new staff. In contrast, several firms specified they have high staff retention, particularly for this industry.

The data showed a clear trend that staff satisfaction and well-being are very important to these firms, and many noted they pay their staff more than the minimum wage for this reason.

Interestingly, several of the firms had an employee dedicated to marketing for the business, due to them finding this to be linked with their business's growth. In comparison, only one firm had a marketing employee dedicated to environmental sustainability and this firm has been around for 30 years and owns another associated business.

Notably, participants who mentioned that they were selling their business were much less interested in further capital or green investments.

The analysis of the data also showed that each business had differing internal operations that greatly varied between types of food and beverage services. In particular, a few businesses stated they have experienced steady and sustained business growth allowing them to expand their businesses and create long-term business strategies. In comparison, many of the other

businesses are in a contractionary phase where they are more focused on short-term business plans rather than forward planning:

“Not much point thinking that much down the track when we need to think about the next few months and years. There’s a significant focus on next week, next month, next 6 months”

However, it was consistent in the data that all the firms are prioritising improving efficiencies and business performance.

6.4 Current Sustainability Practices and Environmental Awareness

The hospitality SMEs identified many environmentally sustainable aspects of their production processes. Recycling and sorting waste was the most common initiative in the data followed by using reusable containers for food storage, and recyclable or biodegradable packaging. However, the environmental action in the data greatly varied where for some participants this was the most they did, with a couple mentioning that they lacked the knowledge:

“I don’t have the knowledge, not my speciality. I would have to go looking. I would want to do something that’s relevant to Christchurch”

In contrast, the firm with the highest engagement had two solar arrays, a hybrid vehicle, is plastic-free and engages their customers in this initiative. However, it is important to note this firm is also experiencing the greatest economic growth and expansion identified in the sample.

The data also revealed that many of the firms engage in environmental initiatives that make economic sense and have had positive flow-on effects on the environment, such as:

“We cut recycling down by 50% I am a tight ass - make my own sauces[...] we used to have 7 recycling bins, we have 2 recycling bins now, save recycling and money[...] cost saver”

The local reuse of waste and byproducts was common within our sample where many firms have farmers picking up their food waste to feed stock.

Investment in energy-efficient appliances was also common as firms look to reduce energy costs:

“Power consumption. Most equipment is electric. We did have gas. No longer have gas as it wasn’t compliant”

All the firms were aware of climate change, however, only a small proportion believed it would impact their business. These firms also believed it would mainly impact them through their supply chain. Consistent with this, only a couple of participants had heard about the Christchurch City Council emissions targets, and none were able to state what they are. Similarly, the New Zealand Emission Trading Scheme (NZ ETS) was abstract to many of these firms where they expressed confusion and little understanding.

6.5 Aspirations and Motivations for Environmental Improvement

Many participants discussed that their motivations and engagement in environmental initiatives were due to personal values and experiences. Some sharing they had seen environmental degradation causing them to care more, one saying that they were upset with the challenges ahead, one participant took the job at the business due to the firm’s environmental engagement, and others prioritising other factors of their business.

There were many aspirations businesses had for future environmental initiatives. The most consistent goals in the data include further reductions in waste and efficiently disposing of green waste and recyclable materials.

“Constantly doing this to reduce waste and impact as much as possible – over years we have tried to do more and more”

Green investment in the form of solar panels was something many of them declared interest in. However, many expressed that they are currently not in the position for an investment that has a large initial cost and a delayed return:

“Need a pretty immediate return”

As mentioned in 6.1, participants aspire to reduce wastage from their supply chains where possible.

The participants were supportive of universal action believing this will have the greatest impact and enable them to do more than what they currently are. Many participants felt as though if not everyone was engaging in becoming environmentally sustainable what's the point of them engaging:

“I can change how I do things but I can't change 100 people that I come into contact with every day. 99 people not doing anything, what's the point in me doing anything?”

6.6 Benefits Businesses Recognised

Predominantly the participants believed that engagement in environmentally sustainable initiatives has benefits associated with it however they were mostly benefits to society rather than their businesses:

“I can see the benefit to humanity”

Participants also mentioned that it improves the image of a business and engages different generations that may value these initiatives differently. Also mentioning it as a possible marketing tool:

“Image is key in terms of awareness of people and youngsters these days. It's important to be seen as doing what you can [...] push it out regularly as its good for marketing, because of that there's a knock-on effect to business longevity rather than doing things cheap all the time”

Many participants also believed that there are cost savings associated with environmental initiatives over time, however, firms found that green investments such as electric vehicles come with a large upfront cost that causes a barrier. One environmental initiative they believe reduces costs rather immediately is the reuse of materials:

“Every time you use something twice you take 50% off the next time”

They also believe that it benefits the business to recycle as it decreases the amount of storage required which is something that many identified as being limited in their small business.

Businesses that were engaging in environmental initiatives also mentioned that this has transferred into their personal lives, increasing their environmental awareness and action.

6.7 Barriers to Environmental Action of SMEs

There are many barriers identified that SMEs face in the adoption of environmental actions. The most significant barrier identified across the dataset was costs. This included the cost of environmental actions but mostly included costs related to business operations as mentioned above (theme 1). One business stated:

“It’s the financial side businesses are facing. The costs. The living wage and minimum wage going up, increase in the cost of food, even coffee importing is quite high - whether its environment or about transport it’s quite high”

Time was also a barrier identified with a few participants sharing the amount of time they spend working per week, none being short of 48 hours. One mentioned:

“We never think about it every week. At the end of the night, I am so exhausted and just want to go home. I don’t have the time”

Another point a participant made is the relationship between time and money where hospitality SMEs are more profitable when they experience greater demand from customers, and therefore, have less time due to having to work more hours:

“Time and money are limiting factors in every decision we make. Takes time to look at the decision-making process, go through the options, evaluate them and then make the right decision. And then having enough money at the same time to make decisions. To make money you’re working your ass off and super busy and having both at the same time is rare”

Along with this one highlighted that the more time they have, the more they engage in environmental aspects.

The Christchurch recycling infrastructure was identified as a barrier for many of these firms, as they were interested in improving their waste disposal by effectively recycling and disposing of food waste. For example, a business said:

“Events have cups that can be recycled, but you have to put them in the red bin as they can’t be recycled. Processing plant in Christchurch means you have to put them in the red bin. It doesn’t make sense”

Most of these firms lease their building and shared that they have limited control over the premises for what they can change or include. For many of them, this has created an external barrier to green investment such as solar arrays:

“One of the challenges for us is that we lease the building, so we need consent from the landlord. And who is going to take that cost? We are not in a position for solar panels but would like to. They’re energy-efficient”

6.8 Support Mechanisms for businesses to transition to environmentally sustainable actions

There are different support mechanisms drawn from the data or explicitly mentioned by the interviewees. To begin, many identified that if they were to receive funding or offered a subsidy to invest in green technology such as solar panels these firms would be interested due to cost being their primary barrier. 70% of participants also expressed interest in attending a workshop on certain environmental initiatives if it was at a suitable time, day, and did not cost them.

Many firms shared that environmentally sustainable initiatives and goals are not portrayed to the public in an accessible way where the public is not required to search for them, one saying:

“[...]Generate some sort of impact when initiative is taken. If you don’t go out of your way, only reach the people that are already aware. Not creating a general change on the public”

This suggests that increasing awareness would create a greater public movement towards these practices. Consistently, they believed greater advertisement via television or articles would further encourage and engage the public.

Another recommendation from the data is for there to be a more concrete plan laid out for how the city is going to achieve the emissions reduction targets in place, one saying:

“Certain government make these goals but don’t actually put a plan in place about how to achieve them... No plan in place, the goal is often not achievable. Reduce emissions by 50% in a growing city...”

A couple of participants suggested that environmental regulation would cause all businesses to have to engage. This they believed would reduce the effect of competition from other firms that are not engaging that customers could substitute to due to potentially lower prices. However, it is important to note that many firms expressed frustration with the amount of regulation and the associated costs so this option would potentially be unsupported.

6.9 Influence of Local Planning and Regulatory Processes

Several firms expressed that their business struggled with recent local spending initiatives for the development and construction of certain infrastructure that has been linked to declining profits. These groups want greater communication and consultation prior to the commencement of the project and during the project’s development so that they are aware of the timeframes for which their business will potentially be impacted. They said they were mostly affected by customers being unable to travel to their businesses due to the

development of cycleways and other roadworks, and this extending for long periods of time. Businesses also shared that the burden of compliance, legislative and regulatory costs is increasing and therefore, reducing profit margins further. One business saying that:

“Compliance impinges on profitability”

While these businesses agree many of the regulations are put in place for the right reasons and agree with these, they believe that less would improve their business's performance:

“Business is people and people is business. Less laws and regulations”

7.0 Discussion

Consistent with the literature, the results from the analysis show that hospitality SMEs are becoming increasingly aware of environmental degradation and the processes contributing to this issue (Gadenne et al., 2008). However, there is a clear consensus in the data that the firms are facing challenging economic conditions and are not currently able to engage in environmental initiatives. This is not because they do not want to, but rather because they feel they do not have the capacity to do so, due to limited finances, time and/or knowledge.

Many of the firms were motivated to make a change and had begun including environmental practices in their daily production processes. This ranged in the data from smaller scale (e.g. recycling) to larger scale (e.g. green investments). Interestingly, many firms were unsure whether recycling counted as an environmentally sustainable initiative. Considering it a part of their daily processes, showing that once initiatives are implemented as daily operations, they are embedded into practice. Participants explained that repetition makes up hospitality workers' days so implementing this could have positive effects.

7.1 Barriers

The barriers that participants identified as significant were consistent with the findings in the literature. These included the comparatively higher cost of sustainable actions, their limited time, and potential gaps in their knowledge (Boiral & Chassé, 2017; Lewis et al., 2014; Nhantumbo et al, 2016; Redmond & Walker, 2014). The most consistent barrier identified in

the data being that their businesses make relatively lower profit margins due to higher costs and lower demand.

The Consumer Price Index (CPI) published recently reveals that NZ is currently facing an annual inflation rate of 2.5% (StatsNZ, 2025). This has increased since the previous quarter, meaning costs for goods used in firms' production processes will have increased.

Interestingly, rent had the highest annual inflation increase out of the goods measured in the CPI Index (StatsNZ, 2025) and most of our sample identified this as another significant contributor to costs.

These firms expressed difficulty in passing costs onto consumers, for fear of losing them and further reducing their profits, which is consistent with the literature (Redmond et al., 2008). This is significant as profitability has been proven to be the best indicator of financial investments by SMEs (Jayeola, 2015) and may be used to explain the reasoning behind the small amount of green investment within the sample. The literature also identified a positive relationship between the increase in firm size and an increase in investments (Hoogendoorn et al., 2014). This is consistent with our findings where the smaller-sized businesses had fewer investments, and the firm with the highest number of employees (38 distributed across 5 venues) had the highest.

This shows that for SMEs to further engage in environmental initiatives, it is important for the benefits of these initiatives to outweigh the costs. This is consistent with another study following a similar methodology which found that businesses viewed the environmental changes required as not having a sufficient cost-benefit ratio (Redmond & Walker, 2014). While some literature found that improved environmental sustainability has a positive relationship with financial performance (Clemens, 2006), some contrasted this with findings from similar qualitative studies to ours where participants believed net profits will not be affected by these changes (Redmond & Walker, 2014). This highlights the potential need for a comprehensive assessment of the costs and benefits.

Time was a significant barrier for firms throughout the data. However, there were also contrasting views where many firms said that they could make time to engage in environmentally sustainable initiatives as they had made time to meet with us. Other studies have found that when these initiatives are legally required SMEs will find the time (Redmond

& Walker, 2014). This means even though this is a barrier, if it was compulsory the businesses would find the time. Another important message from the data, was that during the times when these hospitality SMEs were the most profitable, they also had the least amount of time available to do things outside of work as they had to be at work to serve the larger amounts of customers.

Knowledge was also a barrier identified for some businesses but again there were contrasting views to this. While all were aware of environmental degradation, some were less sure of where to begin in becoming more sustainable, highlighting the potential need for increased education and awareness around business sustainability.

7.2 Benefits

There were several benefits that the participants identified from engaging in environmental sustainability such as marketing tools, societal benefits, future cost savings of resource efficiency, and the reduced need for storage capacity, which are very consistent with the literature (Rodrigues & Franco, 2023; Oduro, 2024). This is highlighted further through the data as participants discussed that anything that benefits their business is a priority, meaning they are likely to engage in actions with a beneficial business case. Due to most of these businesses focusing on customer and staff satisfaction these benefits are more likely to be economic and social, however, there were a few that also prioritised environmental performance.

Interestingly, many firms did not see their engagement in environmental sustainability as benefiting their business and exclusively saw it as benefiting humanity/society. This again may mean further information is needed that supports the uptake of environmental engagement in improving business performance.

Initiatives with the lowest costs to implement also were the most adopted amongst the sample, such as investments in reusable containers. This is a good example of a cost-effective environmental initiative that businesses can easily implement and is consistent with other research stating businesses are more likely to engage in environmental action that increases profits (Battisti & Perry, 2011; Cassells & Lewis, 2011). This further shows the balance between economic, environmental, and social benefits that businesses consider when making

decisions. Shown through the data, these also tend to be weighed differently depending on how the business is performing, with business survival being the priority.

Another important notion from the data is a positive relationship between increasing spending power (disposable income) and increasing environmental initiatives. However, income has proven to have a complex relationship in the literature, some agreeing it's a positive relationship (Dinda, 2005; Sirag et al., 2017), and some contrasting with findings showing more spending power leads to less engagement (Qadri et al., 2025). This could lead to further research in Christchurch to identify whether this is a positive or negative relationship.

7.3 Support

The firms in the sample identified many ways for further support. Financial support was the most significant mechanism in the data. Particularly if action is required when the market has not returned to a more stable equilibrium, as these firms currently feel as though they do not have the disposable revenue to engage due to their identified economic position.

Our interview questions asked firms whether they would be interested in attending workshops on different mechanisms of environmental sustainability. 70% of our sample said they would be interested in this and many different topics, the most supported one being waste minimisation, then energy management and accessing funding.

The only hospitality type that had much inter-firm engagement was breweries that all mentioned that this community is tight-knit and has many informal meetings. However, none of the other firms mentioned having any inter-firm engagement, support, or knowledge sharing. This is something that the literature has found to be beneficial in the uptake of sustainable initiatives and the council could look to enhance (Lewis et al., 2014).

Increased advertising of environmental issues and targets by local or national government was something firms identified that should be improved. This is to enable firms with more accessible information and to ensure it reaches all levels of engagement. This also highlights the need for more awareness campaigns around what businesses should do, the urgency of the problem as the 2030 target draws nearer, and where they can receive support. This is all to increase transparency and spread knowledge within the population. Along with this, outlining

a plan of how Christchurch is going to achieve its emission reduction targets by 2030 so that firms understand their role within this.

Firms also mentioned that having more recycling bins or more frequent disposal would increase the effectiveness of their recycling, along with better overall recycling infrastructure.

8.0 Recommendations

Based on the analysis, we recommend:

1. The first is workshops on environmental issues and actions businesses can take that are effectively advertised through frequently used media such as the radio or television.
2. Secondly, we recommend potential financial assistance through green subsidies or funding to support these firms in the transition.
3. We recommend increasing awareness campaigns on environmental issues and the types of actions as solutions as well as advertisement. This is to increase the accessibility of this information to all members of the public without people needing to go out of their way

9.0 Limitations

A limitation of this research is the sample size. This was due to the time constraint of the research and firms being uninterested in participating in the interview (10/61). However, depending on the qualitative data attained through interviews, data saturation is most commonly reached between 9 and 17 interviews (Hennink & Kaiser, 2021). This we believe we achieved, however, each firm did add valuable data to our research so there is potential that with a broader sample size, more information could have been attained. This means that the sample is likely not entirely representative of all Christchurch hospitality SMEs.

The selection of businesses also was a limitation in this research through both the method of collection and the businesses that agreed to participate. Due to our discovery of businesses being through searching key words and using Google Maps, there was a bias associated with what businesses were closest to the beginning being and likely to be chosen. There was also

selection bias as we chose what businesses to conduct the interviews with. However, this was reduced through the low acceptance rate. The businesses who agreed also presented a bias through the ones accepting either wanting to talk about their strong environmental engagement, the council or struggles that the business is facing. 90% of the interviewees were men and had outgoing personalities. One thing we also noticed is the way we worded the project on the phone greatly impacted who accepted. When we described it more as ‘what your challenges are’ over ‘what your business is doing to become more environmentally sustainable’ we got a greater acceptance rate.

Qualitative data also has limitations, as interviews only record the opinions of businesses and we did not challenge them on their ideas. Alongside this the study does not corroborate the claims made, so there is no guarantee that the opinions shared are fair or accurate. Lastly, thematic analysis is interpretive rather than objective. So, if other researchers attempted to analyse the data, they may have different conclusions than this research team.

10.0 Next Steps for Research

For future research, it would be useful to repeat interviews with a larger sample, in a different industry, or in different areas to see if results remain consistent or if changes occur. It may also be helpful to find a more randomised way to create a sample, though this will likely always be limited by businesses' willingness to participate in interviews.

Finally, further research on cost-benefit analysis is recommended to show, using quantitative data, either the cost-effectiveness and timeframe of environmental engagement or to better understand the cost inefficiencies which require financial support for businesses. A cost-benefit analysis would also enable SMEs and support networks (other firms, banks and government) to spread insights into whether the costs exceed the benefits and if the firms require financial support.

11.0 Conclusion

This study reveals that economic costs, low-profit margins, businesses renting the building, inefficient local waste management infrastructure, limited time, and delayed return on

investment are the main barriers identified in this research that prevent small-to-medium-sized food and beverage businesses from engaging in sustainable initiatives. Despite these challenges, these businesses have a lot of care for the environment. Many plan to reduce their energy usage by investing in energy-efficient appliances, reducing waste production, minimising packaging in supply chains, reducing water wastage and usage, improving green waste systems, and being involved in composting and recycling.

Based on these findings, this study recommends: (1) financial support, (2) Easily accessible workshops/training (online and in-person) for business owners and their employees and (3) the intensification of public awareness campaigns around the issue, solutions, and tools for customers and businesses. The limitations of the study have been acknowledged along with the next steps for other researchers. Overall, the findings of this study are largely consistent with the literature, however, some of the problems highlighted in the interviews demonstrate how the Christchurch context and the current economic climate have influenced businesses in ways not seen in previous studies.

12.0 Author Statement

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Appendices

Appendix 1

School of Earth Environment
Phone: +64 3 369 2026 (extn 92026)
Email: earthandenvironment@canterbury.ac.nz
24/03/25

How best can the Christchurch City Council support small-to-medium-sized hospitality businesses within central Christchurch to become more environmentally sustainable?

Information Sheet for participants

Kia ora

You are invited to participate in a research study on how best the Christchurch City Council can support small-medium sized hospitality businesses within central Christchurch to reduce their carbon footprint. This study is being conducted by Erykah Newport, Jesse Greaves, & Vinesh Sadaful from the University of Canterbury | Te Whare Wānanga o Waitaha (UC). The study is being carried out as a requirement for GEOG402-Sustainable & Resilient Cities.

What is the purpose of this research?

This research aims to determine how the council can support small-to-medium-sized hospitality businesses in engaging in environmental practices. We are interested in finding out from their perspective what are the barriers and challenges to becoming more environmentally sustainable, what they are currently engaging in, and what local council can do to assist these efforts. The information from this study will help to inform local council decision-making around the services and support provided for smaller and medium-sized hospitality businesses.

Why have you received this invitation?

You are invited to participate in this research because we obtained your contact information from publicly available sources.

Your participation is voluntary (your choice). If you decide not to participate, there are no consequences. Your decision will not affect your relationship with me, the University of Canterbury, any member of the research team, or the Christchurch City Council.

What is involved in participating?

If you choose to take part in this research, you will participate in an interview. This interview will take place face-to-face and we will contact you to arrange a suitable time and location. The interview will involve the research team introducing ourselves, answering any questions you have, and confirming your consent to participate. Then, we will begin the interview and will ask you questions about your businesses engagement in environmental sustainability and any barriers your business has faced in this process. We estimate the interview will take around 45-60 minutes.

Will the interview be recorded?

With your permission, the interview will be audio-recorded using Microsoft Team's audio-recording feature. The recording will be used to create a written transcript of the interview, which we will analyse as part of the

research. One of us in the research team will transcribe (type out all the words said during) the interview. If you choose to review a copy of the interview transcript, we will provide this to you within 5 business days of the interview. We will ask you to provide any amendments or additions via email within 1 week.

Are there any benefits from taking part in this research?

The benefit of taking part in this interview is that the information provided will improve the understanding of small-to-medium-sized hospitality businesses regarding environmental issues.

Are there any risks involved in this research?

We are not aware of any risks to participants in the research.

What if you change your mind during or after the study?

You are free to withdraw at any time. To do this, please let us know either during the interview or after the interview has finished. We will remove any information you have provided up to that point from the data set if it is still possible. Once data analysis has commenced, the removal of your influence on the results will not be possible. However, you always own the data, and can ask for it to be deleted at any point.

What will happen to the information you provide?

We will transfer the audio recording to a password-protected file on the University of Canterbury computer network and then delete this from the recording device as soon as practical. All data will be confidential. To ensure your identity is not known to anyone outside the research team, we will keep your signed consent form in a file separate from your interview transcript. If you choose not to be identified/to keep your identity confidential, your name will be changed to a pseudonym (a fake name)/a code number whenever it appears in the transcript and anywhere else. We will store the file that links your real name and your pseudonym/code number individually on a password-protected, secure device.

All study data will be stored in password-protected files on the University of Canterbury's computer network or stored in lockable cabinets in lockable offices.

All data will be destroyed after completion of the study/publication of study findings. We will be responsible for making sure that only members of the research team use your data for the purposes mentioned in this information sheet.

Will the results of the study be published?

The results of this research will be published in a research report. This thesis will be published and available to the general public through the University of Canterbury Geography Community Engagement Repository. Results may be published in peer-reviewed, academic journals. Results will also be presented during conferences or seminars to wider professional and academic communities. You will not be identifiable in any publication. A summary of results will be sent to all participants who request a copy.

Who can you contact if you have any questions or concerns?

If you have any questions about the research, please contact:

Jesse Greaves: jfa106@uclive.ac.nz

Erykah Newport: ene39@uclive.ac.nz

Vinesh Sadaful: vsa62@uclive.ac.nz

This study has been reviewed and approved by the University of Canterbury Human Research Ethics Committee (HREC). If you have a complaint about this research, please contact the Chair of the HREC at human-ethics@canterbury.ac.nz.

What happens next?

Please review the consent form. If you would like to participate, please sign and return the consent form to by hand to the researchers.

Ngā mihi,
Erykah, Jesse, Vinesh



School of Earth Environment
Phone: +64 3 369 2026 (extn 92026)
Email: earthandenvironment@canterbury.ac.nz
24/03/25
HREC Ref: [Provided by HREC when study approved]

How best can the Christchurch City Council support small-to-medium-sized hospitality businesses within central Christchurch to become more environmentally sustainable?

Consent Form for Participants

Tick each statement that you agree with:

- ☐ I have been given a full explanation of this project and have had the opportunity to ask questions.
- ☐ I understand what is required of me if I agree to take part in the research.
- ☐ I understand that participation is voluntary and I may withdraw at any time without consequences. Withdrawal of participation will also include the withdrawal of any information I have provided should this remain possible.
- ☐ I understand that any information or opinions I provide will be kept confidential to the researchers. I understand that any published or reported results will not identify me, my employer, or organisation.
- ☐ I understand that this report is a public document and will be available through the UC Website.
- ☐ I understand that all data collected for the study will be kept in locked and secure facilities and/or in password protected electronic form. I understand the data will be destroyed at the end of the project.
- ☐ I agree to being audio recorded. I understand how this recording will be stored and used
- ☐ I understand that I can contact the researcher Jesse Greaves (+64 204777702), Vinesh Sadful (+64 225157439), Erykah Newport (+64 220201134) for further information. If I have any complaints, I can contact the Chair of the University of Canterbury Human Research Ethics Committee, Private Bag 4800, Christchurch, (email: human-ethics@canterbury.ac.nz).
- ☐ I would like a summary of the results of the project.
- ☐ I consent to my contact information being kept and used by researchers to contact me about future, related research opportunities.
- ☐ By signing below, I agree to participate in this research project.

Name: _____ Signed: _____ Date: _____

