# THE ROAD TO IMPLEMENTING SUSTAINABILITY IN RESTAURANTS

*How can restaurants in the Northern Netherlands become (more) sustainable?*

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## ABSTRACT

The food industry is shown to be one of the least sustainable economic industries. Therefore, the following question is addressed in this research: *"How can restaurants in the Northern Netherlands become (more) sustainable?"*. In collaboration with best-practice example De Pleats a qualitative method is used in the form of a case study, using semi-structured interviews. The main finding shows that restaurant holders experience a lack of time and knowledge to become (more) sustainable. This research illustrates that these barriers can be overcome by providing guidance to restaurant holders, to lessen the overwhelmingness of sustainability. Therefore, recommendations to municipalities are made to support entrepreneurs in their road to sustainability, by guiding them through the various options.

**INTRODUCTION**

Since the mid-20th century, the human-made effects on the planet have grown so dramatically, that the relatively stable Holocene state of the planet is being destabilized (Steffen et al., 2015). As this is the only state of the planet that we know for certain can support human societies, destabilization is a pressing issue. There is a shortage of natural resources, we face global warming, increasing numbers of waste and pollution, and so on (Maynard, Zandonadi, Nakano, & Botelho, 2020). The UN Sustainable Development Goals have been set as global targets for the next decade. With this, the awareness of global social and environmental issues has increased, which requires a response from different actors, such as businesses (Cantele & Cassia, 2020). The current society is expressing an increasingly high demand for eating meals away from home and restaurants have expanded their meal production significantly over the last few years (Maynard et al., 2020). Worldwide, restaurants are seen as retail's largest energy user, using almost five times more energy per square foot than any other type of commercial building (Wang, Chen, Lee, & Tsai, 2013). According to Maynard et al. (2020) the restaurant industry can still be seen as one of the least sustainable economic sectors.

Restaurants have an impact on their environment in several ways. Firstly, the products used in restaurants can have degrading effects on people and their environment (Salzberg, Gough, & Suen, 2019). Baldwin, Wilberforce, and Kabur (2010) argue that even though restaurants must purchase some disposable products for sanitary and convenience purposes, they can still do a better job of controlling and minimizing their use of (plastic) disposable products and replace them with more sustainable options. Another issue restaurants encounter is food waste. Food waste is one of the most-cited problems restaurants must deal with when trying to become (more) sustainable (Salzberg et al., 2019). Additionally, restaurants consume a significant amount of energy in their food preparation, transportation, heating, ventilation, air conditioning,

sanitation, lighting, and refrigeration purposes (Salzberg et al., 2019). In addition, restaurants need water for daily operations such as cooking, cleaning, dishwashing, and heating and cooling (NRA, 2018). These various activities take their toll on natural resources. Therefore, restaurants can influence the pressing issue of the destabilization of the world.

Businesses' acknowledgment of social and environmental responsibilities is growing; they increasingly embed these responsibilities in their strategies and management processes (Cantele & Cassia, 2020). However, existing literature identifies several barriers restaurants can perceive when implementing sustainability into their core business. Most restaurants are classified as small- and medium-sized firms (SMEs). In 2020, the Netherlands counted 28,875 restaurants, of which 99.9% (28,860 restaurants) were classified as SMEs (CBS, 2020). According to CBS (2020), a firm is classified as an SME when it employs between 0 and 250 people. SMEs are known to be constrained by numerous limitations and barriers, such as resource scarcity (Pereira & Franco, 2021). These barriers can bring difficulties in measuring the benefits or understanding the implementation of sustainability in a firm (Cantele & Cassia, 2020).

To illustrate the fact that restaurants can, however, make a change and create environmental and social value next to economic value, in this research collaboration is started with the restaurant De Pleats. Located on an old farm in the province of Friesland, in the Northern part of the Netherlands, De Pleats is a multifunctional grand café. De Pleats has a strong focus on sustainability, which is shown in multiple aspects. They received the highest label of the Green Key certification, as the first restaurant in the Northern Netherlands. Green Key companies try to reduce their environmental impact and are aware of their positions in society without compromising guest comfort (Green Key, 2017). Besides this, De Pleats is a fair-trade restaurant, they are a partner of MVO Nederland, they serve as many local products as possible

and they employ people with autism. De Pleats is used as an example to create an overview for restaurants that want to become (more) sustainable. Therefore, the question addressed in this research is: *"How can restaurants in the Northern Netherlands become (more) sustainable?"*. This research aims to identify barriers and drivers for restaurants that are becoming, or want to become more sustainable. In addition, ways to overcome these barriers are identified, which can provide a certain degree of guidance to restaurants that want to start doing business according to the Sustainable Development Goals. It can help restaurants become more sustainable and decrease their footprint on the world. This research can also help policymakers, by gaining knowledge on what restaurants need in their journey of implementing sustainability. Municipalities can use this research to push restaurants towards becoming more sustainable.

This research starts with a literature review, in which the most important concepts are defined and an overview of the existing literature on the topic of sustainable restaurants is given. Barriers and drivers to become sustainable are identified. Next, the methodology explains the approach taken in this research. This research uses qualitative research in the form of a case study, with multiple semi-structured interviews. The results section presents the findings of the various interviews. The discussion critically reviews and discusses the findings and creates an overview in which the existing literature is linked to the new findings of this research. This overview can be used by restaurants to become more sustainable and by policymakers to drive this transition forward. In addition, the discussion presents recommendations, limitations, and suggestions for further research. The conclusion summarizes the findings of this research and proposes a call for action, with final recommendations.

**THEORY**

This literature review analyzes existing literature on the road to becoming a sustainable restaurant. First, a comprehensive understanding of what it means to be a sustainable restaurant is given. Additionally, the literature on barriers and drivers for restaurants that are becoming sustainable is discussed.

**Current situation**

There are 28,875 restaurants in the Netherlands, of which roughly 3,000 are in the Northern Netherlands (CBS, 2020). The state of restaurants' focus on sustainability can be illustrated by the number of restaurants that received a Green Key certification. Only four restaurants in the Northern Netherland received this certificate, which is shockingly low compared to the 3,000 existing restaurants (Green Key, 2017). Not every sustainable restaurant owns a Green Key certificate, however, it does illustrate that there is an opportunity to become more sustainable in this area. In the Northern Netherlands, 28 hotels received a Green Key certification. This makes the question of why so little restaurants have this certificate even more interesting. The number of restaurants has grown significantly, namely 26% over the last 10 years (CBS, 2020). This implies a high number of competitors for restaurants in the Northern Netherlands. High competition can lead to aggressive price-based profit-damaging competition, in which companies compete based on their price (Chen, Mardjono, & Yang, 2020). This potentially pushes companies to choose the cheapest, possibly not most sustainable, options. The current situation in the Netherlands does not seem promising for sustainability.

**A sustainable restaurant**

The United Nations Brundtland Commission defined sustainability as meeting the needs of the present without compromising the ability of future generations to meet their own needs (World

Commission on Environment and Development, 1992). To analyze the road to becoming a sustainable restaurant, the first step is defining how this sustainability definition applies to restaurants. Doğan, Nebioğlu, and Demirağ (2015) define a sustainable restaurant as new or renovated structures, designed, constructed, operated, and demolished in an environmentally friendly and energy-efficient manner. This definition of a sustainable restaurant focuses only on the environmental part of sustainability and does not take into consideration the social side of sustainability. To ensure a comprehensive definition of a sustainable restaurant, existing indicators, definitions, and checklists of sustainable restaurants are reviewed in the remaining of this chapter.

The program of the Sustainable Restaurant Association (SRA) wants to accelerate change towards an environmentally and socially friendly hospitality sector (*SRA*, 2022), aligning with the Sustainable Development Goals (2021). In this framework, besides a focus on restoring the environment, there is a focus on a change towards a socially-progressive organization, which was missing in the previously mentioned definition. The SRA uses three pillars, namely, sourcing, society, and environment. Sourcing consists of celebrating local and seasonal, serving more vegetables and better meat, sourcing fish responsibly, and supporting global farmers (*SRA*, 2022). The society pillar contains treating staff fairly, supporting the community, and feeding people well. Lastly, the category environment consists of valuing natural resources, reducing, reusing, and recycling, and wasting no food.

Second, the green restaurant management standards by Wang et al. (2013) show how green management could be applied to the food and beverage sector in Taiwan. In their research, they identify three facets: green foods, green environment and equipment, and green management and social responsibility. Green food consists of food procurement, menu planning and cooking,

and packaging for take-out. The category green environment and equipment contains the kitchen environment, the dining environment, and cleaning and post-treatment. Lastly, green management and social responsibility refer to the management policy, customer education, and corporate social responsibility.

In addition, Baldwin et al. (2010) developed a sustainability standard for restaurants and food services, in which several practices to decrease the environmental footprint are identified. To operate, restaurants need to purchase and produce food. However, there are ways to minimize the impact this has on the environment by reducing food waste. Baldwin et al. (2010) argue that when an operation implements an effective waste tracking system and takes action to reduce this waste, it can reduce the amount of food that is purchased by 7%. In addition to reducing food waste, restaurants can also make different choices in the type of products they purchase, which can reduce the environmental impact (Baldwin et al., 2010). Baldwin et al. (2010) state that this can be done by purchasing responsibly grown options, such as food with reduced fertilizer, less tillage, and seasonal and local options. To limit the environmental impact of food choices, restaurants can also decide to reduce meat purchases, since meat production is the leading source of an environmental impact compared to other foods (Gössling, Garrod, Aall, Hille & Peeters, 2011). Lastly, restaurants can increase their awareness of the distribution and transportation of the products they are using. Gössling et al. (2011) found that boat and train distributions are more efficient than using trucks or air transit.

Foodservice operations are the most intensive energy users in the commercial sector (Baldwin et al., 2011). Therefore, restaurants can limit their environmental impact by carefully managing their energy use. To achieve significant energy conservation results, restaurants must track their energy use, plan their energy use, properly maintain their energy devices, and use energy-

efficient equipment (Baldwin et al., 2010). Besides food waste, restaurants also create waste from disposable products. They can be used for sanitary and convenience, but also for takeaway options. Complete replacement with reusable options is according to Baldwin et al. (2010) neither necessary, feasible nor preferable. There are options to reduce the impact of such products, by controlling the dispensing of the products or by using preferable options such as products from recyclable or compostable materials (Baldwin et al., 2010). It can be concluded that there are many ways in which restaurants can contribute to decreasing their environmental impact. While this sounds overwhelming, this means that restaurants have considerable room to engage in management practices that will help to mitigate climate change (Gössling et al., 2011). The findings of the various frameworks, standards and indicators are summarized in the table below. If a restaurant aims to be sustainable, it needs to focus on its purchasing and procurement, the preparation of its meals and the way it deals with society.

| Purchasing & procurement | Raw materials | Local and seasonal |
| | | More vegetables |
| | | Better and less meat |
| | | Responsible menu planning |
| | | Valuing natural resources |
| | Suppliers | Sourcing responsibly |
| | | Supporting global farmers |
| | | Distribution and transportation |
| Preparation | Waste | Reduce food waste |
| | | Green packaging for take-out |
| | | Reducing other waste by reusing & recycling |
| | Resources | Managing energy use |
| | | Managing water use |
| Society | Employees | Treating staff fairly |
| | | Green management policy |
| | Community | Supporting the community |
| | | Feeding people well |
| | | Green customer education |
| | | Presentation of meals to customers |

*Table 1. Aspects of a sustainable restaurant (SRA, 2022; Wang et al., 2013; Baldwin et al., 2010; Gössling et al., 2011).*

**Drivers**

To make the transition towards sustainability, restaurants need drivers which push them to making the chances necessary. The following drivers have been found in research on restaurants. Kasim and Ismail (2012) argue that the top management is the key internal factor influencing restaurants to move towards green behavior. The intrinsic moral sense of responsibility in top management towards sustainability is found to be crucial in triggering the initiation of green management into the organizational culture (Kasim & Ismail, 2012). Kasim and Ismail (2012) also identify possible cost efficiencies as a driver towards sustainable practices. There has been some evidence that it pays to be sustainable. An example is when McDonald's first opened its energy-efficient demonstration restaurant in Bay Point, California, it used roughly 25% less energy than a regular McDonald's, saving the company up to $15,000 in energy costs (Stipanuk & Ninemeier, 1996). Another driver can be legislative in nature. Companies can engage in sustainability practices as a response to regulation (Ng, Wut, Lit, & Cheung, 2022). In addition to this, the corporate world is facing increasing environmental social pressure. This increased pressure from the society can push companies towards implementing sustainability into their operations (Ng et al., 2022).

**Barriers**

Although previously mentioned indicators and checklists exist and there are various drivers for implementing sustainable practices in restaurants, restaurants still perceive barriers. Cantele and Cassia (2020) examined the implementation of sustainability in restaurants in North Italy, in which they found various barriers for this process. For instance, restaurants can perceive environmental regulations as a bureaucratic burden and therefore experience this as a barrier for implementing sustainability (Cantele & Cassia, 2020). This is particularly true for SMEs,

as their opinions and ideas are often neglected by legal authorities, which creates a set of complicated policies that are impractical to implement for SMEs (Fassin, 2008).

Cantele and Cassia (2020) identify the fear of overspending on environmental systems without experiencing concrete benefits as a barrier. The findings of Kasim and Ismail (2012) are in line with this, as they argue that Malaysian restaurants are not convinced that being a green restaurant will increase their revenues. They state that environmentally friendly products are on average higher in price than "non-green" products. The Malaysian restaurants are unconvinced about costs that it would save and don't want to make the initial investment. Restaurants were found to be skeptical, since the restaurant business is highly unpredictable and competitive, thus the possibility of their business closing cannot be ruled out (Kasim & Ismail, 2012). Kasim and Ismail (2012) argue that restaurants need incentives to be environmentally friendly, such as tax relief incentives or a focused advice service. Kasim (2007) identified more barriers that prevent businesses in the hospitality industry. In this research it is found that the lack of social awareness, green education and prepared environmental technology stop organizations from implementing sustainability. Besides this, Chou, Chen, and Wang (2012) state a lack of resources, knowledge and skills, uncertain outcomes, the company culture, and a lack of institutional support as barriers.

In sum, there are three categories that prevent restaurants from implementing sustainability. The first category is regulations and institutions, which contains impractical regulations and a lack of support (Chou et al., 2012; Fassin, 2008; Cantele & Cassia, 2020). Secondly, there are financial barriers, in which uncertain outcomes and high initial investments play a role (Cantele & Cassia, 2020; Kasim & Ismail, 2012). Lastly, there is a category with barriers that can be summarized as a lack of awareness, knowledge, and skills (Chou et al., 2012; Kasim, 2007).

**Context**

Context is an important factor to consider in the process of becoming a sustainable restaurant. Context is more related to the entrepreneurial process than most entrepreneurship theory acknowledges (Gaddefors & Anderson, 2017). Gaddefors and Anderson (2017) illustrate that an entrepreneur can never be isolated from the context. This research takes place in the Northern Netherlands. Businesses in the Northern Netherlands are not known for being innovative and there are relatively few frontrunners, developers, and applicators compared to the average in the Netherlands (Foorthuis & Lutz, 2017). Foorthuis and Lutz (2017) state that SMEs in the Northern Netherlands are still lagging in the valorization of innovations and, as a result, also in sustainable growth. The context of the Northern Netherland is thus expected to influence the implementation of sustainability in the restaurant sector, and possibly not in a positive way.

## METHODOLOGY

To examine how restaurants in the Northern Netherlands can become more sustainable, it is important to understand the values, belief systems, and motivations of restaurants. Therefore, a qualitative research method is performed, in the form of a sectoral case study. The stress in qualitative research is on the understanding of the social world through an examination of the interpretation of that world by its participants (Bell, Bryman, & Harley, 2018). This fits this research, as it aims to apply the process of becoming sustainable to restaurants in the Northern Netherlands. The strategy of a case study is to improve the understanding of the dynamics of a research topic in real-life settings (Yin, 2018). Case studies are used to study complex phenomena and investigate how people interact with them (Lapan, Quartaroli, & Riemer, 2012). Since sustainability can be seen as a complex concept (Metcalf & Benn, 2012), case studies are the most suiting research approach to use in this research. A case study is applied to the restaurant sector.

**Data collection**

To collect data, first secondary research and data collection is performed. Several documents provided by De Pleats have been examined to gain information on their sustainability performance, for instance their Green Key evaluation report and their report for the pioneer's project. Additionally, their website and other publications have been consulted. To gain a comprehensive understanding of the issue, multiple semi-structured interviews have been conducted. Semi-structured interviews allow for flexibility in gathering insights, while still relying on an interview guide to make sure the main themes are covered (Saunders, Lewis, & Thornhill, 2019). This use of different sources of information allows for triangulation and makes sure an unbiased view and different perspectives of the phenomenon will be considered (Reinecke, Arnold, & Palazzo, 2016). In addition, this increases the reliability of the gathered data.

First, several meetings with De Pleats were held, to gain insights on their journey in becoming a sustainable restaurant. These meetings laid the foundation for the research, because the owner of De Pleats has a lot of experience since she is in the middle of the journey of making her restaurant more sustainable. With the insights of De Pleats, summarized in field notes which are available by request, the interview guide for the interviews was created. An attempt was made to have all interviews take place at the same time of day, so that there is little variation in the circumstances of the respondents. However, due to the lack of time of the entrepreneurs this was not always possible. This might have an influence on the answers given in the interviews. Due to distance and conveniency, the interviews were all held in an online environment, namely Google Meet. All interviews were held in Dutch, the native language of the researcher and all the interviewees. In total seven interviews were held, with various organizations. An overview of the respondents can be found below.

| Case description | Date | Duration |
|---|---|---|
| ***Respondent 1.*** Consultant on making sustainable decisions, researcher in this field. Initiator of a pioneer project (Koploperproject), which focuses on sustainable strengthening of the economy by providing organizations with the knowledge, tools, and network to innovate sustainably and respond to the transition to a climate-neutral, circular, and inclusive economy. | 24-03-2022 | 47:20 |
| ***Respondent 2***. Expert working at Circulair Friesland, an organization founded by the Frisian business community working on a collaboration between business, education, and government towards circularity. Specialized in circularity and the leisure sector. | 06-04-2022 | 39:20 |
| ***Respondent 3***. Owner of a restaurant, bowling centre, conference center and cafeteria, all in one. The restaurant is in Friesland and has participated in the Koploperproject once. | 13-04-2022 | 24:35 |
| ***Respondent 4.*** Owner of the first poke bowl restaurant in Leeuwarden. They serve quick, healthy, and nutritious meals for an affordable price. | 13-04-2022 | 32:29 |
| ***Respondent 5***. Expert in the field of mobilizing and motivating entrepreneurs, consumers, governments, and the entire food chain to make the switch to sustainable agriculture, a circular economy and healthy food. | 21-04-2022 | 33:51 |
| ***Respondent 6.*** Manager of De Pleats, case of the study, a multifunctional grand café located in Burgum with a focus on sustainability. | 03-05-2022 | 18:50 |
| ***Respondent 7.*** Project leader circular economy at the municipality of Leeuwarden. Deals with entrepreneurs who implement circularly, start-ups and purchasing. Runs projects sustainable entrepreneurs, especially in the hospitality sector. | 04-05-2022 | 31:43 |

*Table 2. Information on the respondents.*

To make sure the results of this research are generalizable to different restaurants in the Northern Netherlands, in addition to De Pleats two other restaurants were interviewed. Questions were asked about what drives them to be sustainable, what barriers they perceive for becoming sustainable, the difficulties they experience, ways to overcome these difficulties, what the influence of the environment of the Northern Netherlands is, and what their general approach to sustainability is. The interview guide can be found in Appendix A. To gain a more in dept view on sustainability in the restaurant sector, four experts in this field were interviewed. Questions were asked on their knowledge of the process for restaurants of becoming sustainable and what factors influence this process. This interview guide can be found in Appendix B.

**Data analysis**

Once the interviews were conducted and recorded, the interviews were transcribed. After the transcriptions were finalized, they were coded. This wase done following a form of thematic coding, in which codes were built on the elements from the literature (Braun & Clarke, 2006). This was done iteratively; codes were created on the base of literature and literature was researched to create a more comprehensive list of codes. This allowed for new codes to arise through the data, in addition to the codes on the base of literature. With thematic coding the new gathered data builds upon the existing themes provided by the literature and applies them to this specific context, to create an overview for restaurants in the Northern Netherlands. First, initial codes were generated. After this round of initial coding, the list of codes was checked for similar codes assigned to quotations that could be merged into one. Following this merge of codes, themes were identified in the codes, to refocus the analysis and allocate all coded data to the identified themes (Braun & Clarke, 2006). This process of coding was done using Excel.

**Ethical considerations**

This research follows academic integrity standards referred to in the Code of Conduct for Research Integrity 2018, as required by the University of Groningen (KNAW et al., 2018). To address ethical concerns, all the interviewees signed a form of consent in which they agree to their data being used in this research. The ethical consent form also asks whether the interviewees agree to being recorded, which was also verbally confirmed before the recording started.

**RESULTS**

This section presents the results of this research. The first part gives a definition and overview of what a sustainable restaurant is. The second section discusses the identified barriers and

drivers the various respondents noticed. After this, proposed ways to overcome these barriers are presented and lastly the influence of the context of the Northern Netherlands is discussed.

**Definition and aspects of a sustainable restaurant**

It is complex to define what a sustainable restaurant is. To create a clear understanding of this concept, all respondents were asked how they would define sustainability and what aspects they consider part of a sustainable restaurant. The interviewees agreed that sustainability is a broad and complex concept. This is illustrated by respondent 7: *"I see sustainability as the all-encompassing concept, the path we are taking now to keep the earth alive [...]."* Considering the different aspects of a sustainable restaurant, various dimensions were mentioned, which can be found in Appendix C. The aspects can be categorized according to the three dimensions identified in the literature. The aspects that were mentioned the most are waste and purchasing. When asking what is key in becoming sustainable as a restaurant respondent 3 mentioned: *"That you know where your products come from [...]and what the route is before it reaches you."* Talking to De Pleats regarding the purchasing of their products, they mentioned: *"With suppliers, we try to get as much locally as possible."* Regarding waste, respondent 2 mentioned: *"For me, a sustainable [...] restaurant is a restaurant that no longer has any residual flow."* Multiple respondents mentioned the importance of considering all the various aspects. An overview of the findings can be found below.

| **Purchasing & procurement** | Menu planning |
| | Purchasing |
| | Transport |
| **Preparation** | Energy use |
| | Managament of location |
| | Reduce waste |
| **Society** | Communication with customers |
| | Employees |
| | Inequality |

*Table 3. Aspects of a sustainable restaurant.*

**Drivers for becoming sustainable**

The theory section identified that, to make the transition towards sustainability, restaurants need drivers to push them. Multiple respondents mentioned the difficulty of identifying the drivers of an entrepreneur, and how it depends on the entrepreneur one is talking to. The drivers of entrepreneurs can be intrinsic or extrinsic. Appendix D presents a full list of the identified drivers and example quotes. An intrinsic driver is the uncertainty of the future if entrepreneurs continue doing business in the traditional way. Respondent 4 mentioned: *"Ultimately [...] we want to ensure that the world continues to exist. And I can see that it is going very bad. If I ever have children of my own, I will have to do it for this generation."* Other intrinsic motivations can come from either the management or the employees. Respondent 1 mentioned: *"If you have [...] enthusiastic employees [...], that helps you as a manager enormously to make progress."* This same respondent highlighted: *"If the management wants it and sets a good example and creates enthusiasm for the employees, they will get their employees on board."*

Most of the identified drivers were, however, extrinsic. The interviews showed six different extrinsic drivers, namely entrepreneurs driven by the wishes of their customers, their employees, financial drivers, laws, better outcomes, or pressure from their surroundings. Respondents mentioned the financial drivers, focus on outcomes and pressure from surroundings the most. Financial drivers consisted of multiple different aspects, for instance, high gas bills were mentioned several times. All three restaurants noted that they are triggered by the rising bills, and that it forces them to do things differently. The low margins on meat compared to the high margins on vegetables were also mentioned repeatedly as a driver to serve less meat. The focus on outcomes was identified as a driver by four respondents. Respondent 2 noted that most entrepreneurs only take certain decisions once they know: *"What's in it for me?"* This is different from the financial driver, as respondent 2 illustrated: *"What's in it for*

*you is not always purely economic [...].”* The pressure from the surroundings of the entrepreneurs was mentioned most often as a driver to become more sustainable. Respondent 3 mentioned: *“You see things from other companies, and then you think, oh that's smart, maybe we should do that too.”* In this example, the pressure comes from the entrepreneur's competitors. The pressure can also come from other things, such as the realization of the state of the world. Respondent 5 noted: *“People are stimulated by seeing what is going on in the world.”*

| Intrinsic | Future |
|---|---|
| | Employees |
| | Management |
| **Extrinsic** | Customers |
| | Employees |
| | Financial |
| | Law |
| | Outcomes |

*Table 4. Drivers for becoming sustainable.*

**Barriers for becoming sustainable**

The interviews showed 14 barriers, the full list of barriers can be found in Appendix E. Three respondents (1, 2 and 4) noted that trying to become more sustainable can be very overwhelming. Respondent 4 illustrated this: *“Sometimes I think, what’s the point?”*. This barrier is closely related to the barriers lack of responsibility, and effort needed to become more sustainable. Both restaurants and experts mentioned that to become more sustainable, restaurants must make an effort. An example is the choice between purchasing local or using a wholesaler. Respondent 5 stated: *“It is not always easy to get food from the region. Using a wholesale is very easy, you can get everything there [...].”* To become more sustainable and overcome this barrier, respondent 2 mentioned: *“It just creates a bit of hassle. You have to arrange it, you have to think about it, you have to educate.”* One of the restaurants mentioned that they don’t feel very responsible for starting a change towards becoming more sustainable.

Entrepreneurs are often very busy and have little time to spare. The barriers lack of time and lack of knowledge were mentioned repeatedly throughout all the interviews. Asking the restaurants what steps they would take next in their journey towards becoming more sustainable, all of them replied something along the lines of: *"I still have to look into that."* Respondent 7 noted from her experience with entrepreneurs: *"The entrepreneurs want to, but it costs money, and it takes time, and they don't know well enough what to do and where to start."* Regarding the lack of time respondent 4 stated: *"I think we can really grow a lot in that regard, but I don't have enough time to really delve into it."* Additionally, there is a financial barrier, as becoming more sustainable is usually accompanied by an initial investment or using more expensive products. Respondent 4 talked about using more sustainable and recyclable disposables and noted: *"Price-quality ratio is an obstacle; sustainable products are sometimes twice as expensive."* Also, the Covid-19 pandemic was mentioned, as the hospitality sector in the Netherlands suffered a lot from the regulations regarding this pandemic. De Pleats talked about initial investments combined with the Covid-19 pandemic: *"It is such a big investment, whether that will be possible after Covid-19, I don't know exactly."*

Two closely related barriers are lack of availability, and support from the municipality. Currently in the Netherlands, entrepreneurs perceive a scarcity of certain things. As an example, respondent 1 noted: *"Grid capacity [...] is a major bottleneck now. In addition, there is a lack of availability of installers."* Something that is mentioned in every interview is the situation regarding the collection of waste. The respondent (7) from the municipality mentioned that it is difficult for them to do something about this: *"As a municipality, we don't deal with industrial waste, companies can choose who they want to come pick this up."* One of the restaurants (respondent 4), located in the city centre of Leeuwarden, noted: *"In the center, we only have one container, it's not that we have a separate green bin that is emptied every week. They do*

*have it, a green bin, but then you must pay a lot for it, and they don't pick it up very often. It just stinks and a lot of flies come to it.”* Regarding the way the municipality stimulates the entrepreneurs to become more sustainable respondent 4 stated: *“I think they do too little here in the municipality, here in Leeuwarden, to encourage that.”* As there are little to no laws about this, respondent 7 mentioned: *"Because it is not mandatory, the municipality can't do much about it, we can inspire, but that's where it ends."*

Lastly, there is the perceived barrier of the demand of the customers. One aspect of this is the portions served in the restaurants. Respondent 1 mentioned a tradeoff: *“So then you always have the battle between your hospitality on the one hand, not offering too small portions [...]. But at the same time, you don't want too large portions, because then you'll have a lot of food waste."* Another aspect is the idea that guests don't see the need for sustainability. Respondent 3 stated: *“People just want good food with us. I never really hear from my customers about [sustainability].”* The last aspect of the barrier of the demand of the customers is the perception that their guests prefer meat over vegetarian options. Respondent 7 mentioned: *“There is a very strong perception among restaurants that they should serve enough meat because then customers are happy.”* This is confirmed by respondent 4, who noted: *“People often come in and say, well, I don't need that, just give me meat.”* In this barrier there is an ongoing tradeoff, which is illustrated by a saying of respondent 4: *“To what extent if I support something, my target group also supports it.”*

Concluding, the following six barriers were mentioned the most. The lack of availability and lack of support from the municipality, seemed prominent, especially the situation regarding waste collection. Additionally, sustainability is perceived as very overwhelming and restaurant holders experience a lack of time, knowledge, and financial resources.

**Proposed solutions to overcome barriers**

The various respondents proposed multiple solutions for the identified barriers, Appendix F presents a full list. These solutions have been categorized according to the actor who can execute them. The first proposed solutions are actions that can be performed by the entrepreneurs themself. Three respondents mentioned that to become sustainable, it is important to collaborate with others. Respondent 2 mentioned that entrepreneurs can overcome the barriers lack of time, lack of knowledge and the overwhelmingness of sustainability by collaborating with each other and with other parties. Another solution for the entrepreneurs is to motivate and inspire each other. Respondent 5 noted: *"Let the frontrunners be an inspiration to others, then it will also come from people who speak the language […]."* She mentioned that this way, entrepreneurs are showing that it works, in an accessible way. This corresponds with the driver mentioned by respondent 3, who stated that: *"You see a lot of companies around you that are going to do it, and then you think yes, we have to take our social responsibility."*

The next proposed solutions can be executed by the municipality or other institutions from the government. Five respondents mentioned that the municipality could give financial support. In some ways, they are already doing this. Respondent 1 mentioned: *"There are a lot of possibilities for that. But often the companies do not know the channels, there are all kinds of institutions, from banks to […] subsidies, tax regulations and so on."* Besides financial support, the municipality can also provide guidance. Respondent 4 mentioned: *"It could be a good thing from the municipality that they appoint someone and say, this person is responsible for the hospitality industry and will ensure that there are pillars of sustainability in which they can support you."* Respondent 7 mentioned that it is indeed the role of the municipality to help and facilitate entrepreneurs in their journey towards sustainability. However, as entrepreneurs are not always aware of this opportunity, the respondent acknowledged: *"Maybe we should*

*organize that better, they should know what we have to offer."* Lastly, the municipality can implement regulations that force entrepreneurs to become more sustainable. Respondent 7 mentioned that she thinks more regulations are needed to move forward. Respondent 4 was a bit more skeptical towards more regulations, she stated: *"Laws and regulations are good, but it depends, if there are new rules, there must be a good alternative."*

Besides this, there are several solutions which can be executed by either the municipality or other parties. Entrepreneurs often lack guidance in the journey to becoming more sustainable. This could be provided by the municipality, but other parties could also play a role in providing the guidance needed. Respondent 3 mentioned that the Koninklijke Horeca Nederland could play a role in this. Six out of the seven interviewees mentioned that providing guidance from someone outside of the municipality would be helpful. Two respondents proposed educating entrepreneurs to drive them towards becoming more sustainable. Respondent 5 suggested: *"Educating chefs, giving masterclasses to existing restaurants."* This way chefs and restaurants can learn how to create a high-quality menu using more sustainable products. Respondent 2 proposed: *"If you could show that a vegetarian menu is cheaper than a meat menu. […] In terms of sustainability gains, in terms of impact, but also in terms of profit."* The provided information would trigger the financial driver of entrepreneurs.

Lastly, two interviewees mentioned that besides entrepreneurs motivating each other and the municipality trying to motivate the entrepreneurs, there are also other parties that could motivate entrepreneurs. Respondent 5 noted: *"There is a catering association, which […] organizes all kinds of inspirational meetings to show how things can be done differently and why you should do that."* Initiatives like this focus on driving entrepreneurs to become more sustainable by inspiring them.

| Actor | Proposed solution |
|---|---|
| **Entrepreneur** | Collaboration |
| | Motivating each other |
| | Research |
| **Municipality** | Financial support |
| | Guidance |
| | Regulations |
| | Motivating |
| **Others/municipality** | Education |
| | Guidance |
| | Motivating |

*Table 5. Proposed solutions for overcoming barriers.*

**Influence of the Northern Netherlands context**

Lastly the respondents were asked about their opinion on the influence of the Northern Netherlands context on the journey to becoming more sustainable, the complete list can be found in Appendix G. A positive influence was mentioned in three different ways. Specifically, about the Frisian culture, respondent 2 mentioned: *"Frisians are quite proud. If something is local, it would catch on more quickly with a Frisian than with someone from the Randstad."* Besides this, it is mentioned that in the North, people are becoming more aware of the need for sustainability, which provides opportunities. Additionally, there are some initiatives working on making local and regional purchasing possible in the Northern Netherlands. Most of the comments about the context in the Northern Netherlands were, however, negative. It is mentioned by five respondents that there is a lack of example cases in the area. Respondent 3 mentioned that: *"I do not know a lot of companies in the area that are really very sustainable."* The Frisian culture could be of a negative influence for the sustainability in restaurants. According to the respondents Frisians tend to be stubborn and conservative, respondent 2 illustrated this by saying: *"The Frisians are very stubborn. What he doesn't know, he doesn't eat."* The respondents link this conservativeness with a higher demand for meat. Lastly respondent 2 mentioned that there is less volume in the Northern part of the Netherlands, compared to other parts of the Netherlands.

**DISCUSSION**

As identified in, the restaurant industry can be seen as one of the least sustainable economic sectors (Maynard et al., 2020). Therefore, the aim of this research is to identify barriers and drivers for restaurants that are becoming or want to become more sustainable. With this, ways to overcome these barriers were identified which can provide a certain degree of guidance to restaurants that want to become more sustainable. Policy makers, municipalities and other institutions can use this research to push restaurants towards becoming more sustainable. This aim was accomplished by performing qualitative research in the form of a case study. Multiple semi-structured interviews were conducted to collect primary data.

From the existing literature three categories of a sustainable restaurant emerged (SRA, 2022; Wang et al., 2013; Baldwin et al., 2010; Gössling et al., 2011). Adding the findings of the interviews to these categories, the following overview of a sustainable restaurant is created. Within purchasing and procurement, there are four sub-categories. A sustainable restaurant should responsibly plan their menu, using as much local and seasonal products, more vegetables and better and less meat. Additionally, the restaurant should source responsibly, value natural resources and consider the way their products are distributed and transported. Regarding the preparation category, reducing waste is the most prominent part. Besides this the packaging used for take-out should be as green as possible and the energy and water use should be closely managed. Lastly, for the society category, the focus of a restaurant should be on treating staff fairly, supporting the community by for instance feeding them well, educating one's customers and presenting one's meals carefully.
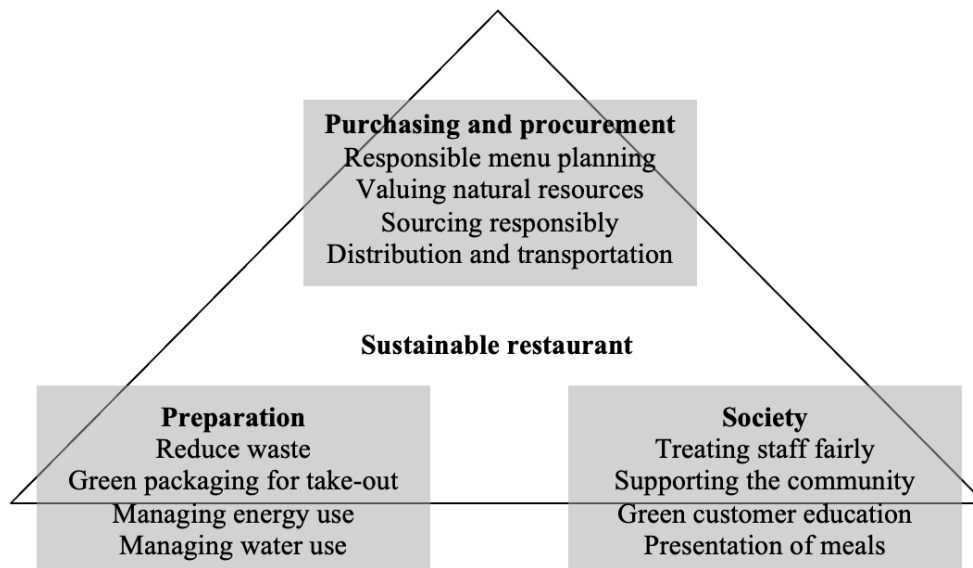
*Figure 1. Dimensions of a sustainable restaurant*

To become sustainable, it is found that entrepreneurs can have various drivers. From the literature four drivers came forward, namely the intrinsic moral sense of responsibility in top management, possible cost efficiencies, regulations, or increased pressure from the society (Kasim & Ismail, 2012; Stipanuk & Ninemeier, 1996; Ng et al., 2022). From the interviews eight drivers emerged, four of which matched the motivations found in the literature. The four new motivations found were a strong concern about the future, an intrinsic moral sense of responsibility in the employees, demand from the customers or a focus on outcomes other than financial outcomes. For municipalities and other parties to push restaurants towards sustainability it is important to touch upon one or more of these drivers.

In their journey, entrepreneurs perceive certain barriers. Three categories of barriers emerged from the literature, namely regulations and institutions, financial barriers, and lastly a lack of awareness, knowledge, and skills (Chou et al., 2012; Fassin, 2008; Cantele & Cassia, 2020; Kasim & Ismail, 2012; Kasim, 2007). The interviews added several barriers to this list. The main thing missing from the three categories is the barrier lack of availability. In the Northern

Netherlands there is a shortage of installers, and the net is overloaded. Besides this, entrepreneurs experience a certain conservativeness in their customers, which leads to them not wanting to change their menu. The most mentioned barriers are a lack of knowledge and time, which is very closely related to the barrier on the amount of information being overwhelming. To overcome these most prominent barriers, the matching solution could be providing guidance. Restaurants need more guidance and support, as most of them are willing to change but miss a certain degree of practical information and guidance. Restaurants are overwhelmed by all the options regarding sustainability. Providing guidance can be done by the municipality but also by other parties, such as the pioneer's project initiated by one of the respondents. Another way to overcome some of the barriers is providing subsidies or other financial incentives to entrepreneurs. This fixes part of the financial barrier and could therefore drive entrepreneurs to becoming more sustainable. An overview of the findings can be found in the model below.
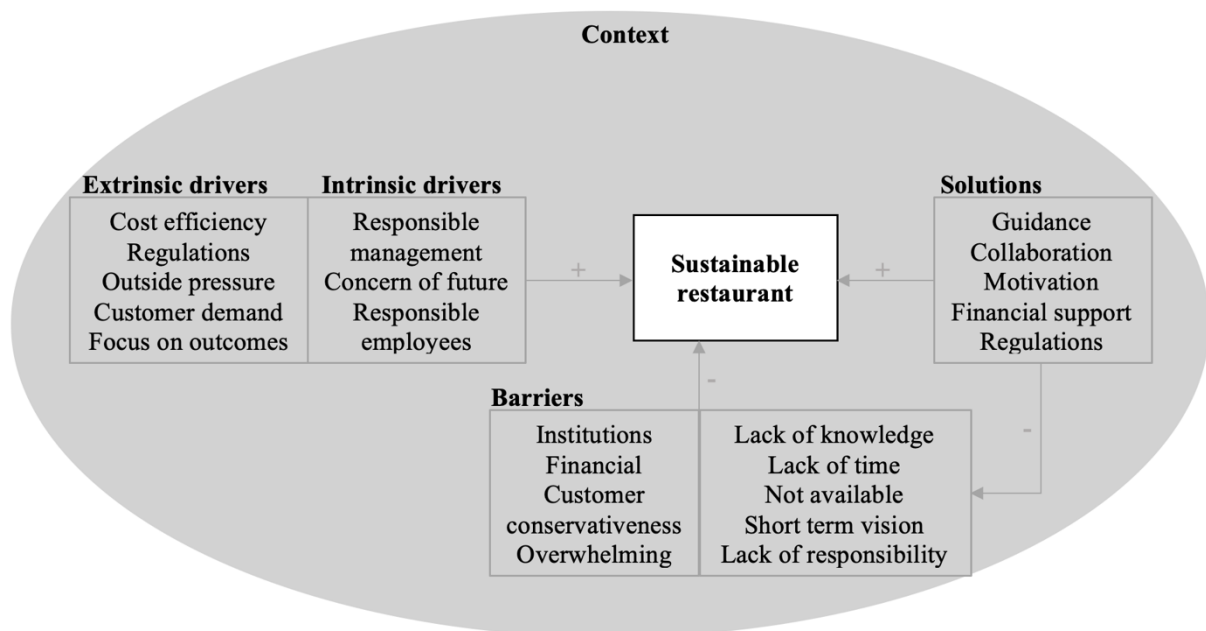


*Figure 2. Conceptual model of influences on sustainable restaurant.*

There are some notable conclusions to be made from the results of this research. First, from the interview with the municipality, it emerged that they believe they have organized everything well when it comes to helping entrepreneurs to become more sustainable. It is true that they provide guidance, set up consultations and try to help entrepreneurs as good as possible. However, a part of the restaurant holders in the Northern Netherlands doesn't know about the possibility to ask the municipality for help. The restaurant holders interviewed were very overwhelmed by the amount of information, options, and choices regarding sustainability. Therefore, a gap has been identified between what the municipality offers and can offer, and what entrepreneurs experience in terms of help from the municipality.

Next, a problem regarding the collection of waste has been identified. For the waste of households, the municipality oversees the way it is separated and collected. However, the municipality is not overseeing the way the waste of companies is collected. This poses several problems. First it means that when there is a street with several companies operating, they can all choose to work with a different waste collector. Several trucks from different waste collectors could drive through the same street on the same days, which is not optimal. In addition, all entrepreneurs can decide to what extent they separate their waste, if at all. It is more expensive for companies to have their green waste collected separately. Also, the waste collectors don't pick it up very often. These are things that cause companies to choose not to separate their waste.

Another notable finding is about law and regulations. Overall, the interviewees noted that we need more so that entrepreneurs are forced to become more sustainable. However, it will make sustainability a must, rather than a positive thing initiated by the entrepreneurs themselves. Additionally, regarding regulations, alternatives need to be available. For example, when

companies are not allowed to use plastic anymore, it is important that alternative options are available for them to choose.

**Implications**

This research has several implications for restaurant holders. First, for entrepreneurs it is useful to know that they can reach out to their municipality since they are willing to help. Together they can think of new ways for becoming more sustainable and connect different parties to each other. Regarding these collaborations, it has been found that collaborations amongst restaurant holders can help overcome the perceived barriers. Therefore, it can be helpful for restaurant holders to reach out to others and see what can be done together. In addition, this research has some implications for municipalities, governments, and policy makers. Since restaurant holders and possibly other entrepreneurs are not completely aware of the possibilities for support from the government, communication is an import recommendation. The municipalities as well as the companies would gain from communicating possible options for guidance, support, or partnerships more clearly. The municipality has a key position in bringing together different parties. For instance, a restaurant owner who wants to get rid of his orange peels and an entrepreneur who can make soap or other products from it.

Additionally, as is found in this research, education can be a tool to overcome barriers perceived by entrepreneurs to become more sustainable. Therefore, it is proposed that municipalities educate their residents and businesses in their municipality about the options on sustainability. Regarding the waste collecting situation, municipalities could take the lead and negotiate with the various waste collectors to ensure that inefficiencies are avoided. In any case, it would be beneficial if the separation of waste was made more attractive, since restaurant owners want to, but are not encouraged and helped.

**Limitations and future research**

This research is set in a specific context, namely the Northern part of the Netherlands. This made it possible to create a clear and detailed overview of this situation. It also means that the results of this study may be less applicable in a different setting. Therefore, performing similar research in a different setting is a suggestion for future research. As this research is done by one researcher, there is a greater risk of a biased research. This research used semi-structured interviews. With this a risk of influencing the responses of the respondents arises. If the researcher reacts very enthusiastically or with aversion to a certain answer, this can influence the answer the respondents give. Another suggestion for future research is performing research in which an understandable, specific, and practical overview is given of what a sustainable restaurant is. A lot of indicators and checklists exist, however, an understandable and complete picture of all the different aspects that are part of a sustainable restaurant seems to be missing. Since the description of a sustainable restaurant given in this research is only focused on the responses of seven respondents, more research is needed.

## CONCLUSION

Restaurants have a long way to go regarding sustainability, their industry can still be seen as one of the least sustainable economic sectors. This research shows that, amongst other things, restaurant holders experience a lack of time and knowledge, which keeps them from becoming more sustainable. The findings of this research illustrate that these barriers can be overcome by municipalities or other parties, when they provide guidance, support, and education to restaurants. In conclusion, to overcome identified barriers and strengthen drivers of restaurants in the Northern Netherlands, it is suggested that the restaurants are provided with guidance, education, possible financial support, and supportive regulations. This can be a start to lessen the overwhelmingness of sustainability for restaurant holders in the Northern Netherlands.

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**APPENDICES**

**Appendix A – Interview Guide Restaurants**

| **A sustainable restaurant** |
|---|
| <ul><li>How would you define sustainability?</li><li>How would you define a sustainable restaurant?<ul><li>What aspects are in this definition of a sustainable restaurant?</li></ul></li><li>To what degree do you consider your restaurant to be sustainable?</li><li>Are you working on becoming more sustainable?</li></ul> |
| **Aspects to a sustainable restaurant** |
| <ul><li>Do you buy your raw materials local and seasonal?<ul><li>Do you know where your products are produced?</li><li>Do you know how they are transported?</li></ul></li><li>Do you make specific choices about which products you use?<ul><li>Meat, vegetables, fish etc.</li></ul></li><li>What factors do you consider when planning your menu?</li><li>How do you handle your waste?<ul><li>Food, disposables, others.</li></ul></li><li>Are you aware of your energy use?<ul><li>What do you do to manage your energy use?</li></ul></li><li>Are you aware of your water use?<ul><li>What do you do to manage your water use?</li></ul></li><li>Do you consider yourself to be a fair employer?<ul><li>Why (not)?</li><li>What do you do to be a fair employer?</li></ul></li><li>Do you have anything implemented to educate your customers about the right choices?<ul><li>Why (not)?</li><li>What?</li></ul></li><li>How do you present your different meals to your customer?</li><li>Is there any nudging towards specific choices going on?</li></ul> |
| *Drivers* |
| <ul><li>What drove you to become more sustainable?</li><li>Do you consider yourself, independent of your organization, as a sustainable person?<ul><li>Why (not)?</li></ul></li><li>Were cost considerations part of the choice in becoming sustainable?<ul><li>Why (not)?</li></ul></li><li>Were regulations a driver to become more sustainable?<ul><li>Why (not)?</li></ul></li><li>Did you feel pressure from your environment to become more sustainable?<ul><li>How?</li></ul></li></ul> |
| *Barriers* |
| <ul><li>What are barriers you experienced in the process of becoming more sustainable?</li><li>Do you consider costs/financial means to be a barrier?<ul><li>In what sense?</li></ul></li><li>Do you encounter regulations by the government about sustainability?<ul><li>What regulations?</li><li>How do you experience those?</li></ul></li></ul> |

- Do you think regulations towards sustainability are a good thing?
  - Why (not)?
- Do you consider a lack of knowledge on sustainability to be a barrier for becoming sustainable?
- Are you aware of the things you can still do to become more sustainable?

*The context*

- How do you consider your environment to influence your journey of becoming more sustainable?

## Appendix B – Interview Guide Experts

**A sustainable restaurant**

- How would you define sustainability?
- How would you define a sustainable restaurant?
  - What aspects are in this definition of a sustainable restaurant?

*Drivers*

- What motivations do you think entrepreneurs have to become more sustainable?
  - What factors enhance this motivation?
  - Can this be influenced?
- Do you think cost considerations are part of the choice in becoming sustainable?
  - Why (not)?
- Do you think regulations are of influence in becoming more sustainable?
  - Why (not)?
- Do you think pressure from the environment is a driver to become more sustainable?
  - How?

*Barriers*

- What are barriers you think restaurants experience in the process of becoming more sustainable?
- Do you think costs and financial means are a barrier?
  - In what sense?
- Do you think regulations towards sustainability are a good thing?
  - Why (not)?
- Do you consider a lack of knowledge on sustainability to be a barrier for becoming sustainable?
- What do you think can be done to overcome these various barriers?
  - Education, regulations, campaigns?

*The context*

- Do you consider the Northern Netherlands environment to be supportive for becoming more sustainable?
- Do you think there is a lack of frontrunners or pioneers or examples in the Northern Netherlands context?

**Appendix C – Dimensions of a sustainable restaurant as mentioned by respondents**

| Example quotes | 1st order themes | 2nd order themes |
|---|---|---|
| "With energy transitions to a circular economy." (R1) | Energy use | **Preparation** |
| "How do you deal with the building you are in." (R5) | Management of location | |
| "In addition, sustainability has many more aspects. How do you deal with everything you have left over as food residues, can you get that back in the food system." (R5) | Reduce waste | |
| "Then there is also a lot of communication involved. How do you communicate with your customers about this?" (R1) | Communication with customers | **Society** |
| "You are working with local people, you may be hiring people with a distance to the labor market." (R2) | Employees | |
| "As long as the inequality in the world is so high, and 1% in the world have as much as 50% of the rest of the population, that's just unsustainable." (R1) | Inequality | |
| "We offer a lot of vegetarian and vegan options, because that is the future after all." (R4) | Menu planning | **Purchasing and procurement** |
| "With suppliers, we try to get as much locally as possible. In addition, two wholesalers." (R6) | Purchasing | |
| "That you know where your products come from and what is done with them and what the route is before it reaches you." (R1) | Transport | |

**Appendix D – Drivers for becoming sustainable as mentioned by respondents**

| Example quotes | 1st order themes | 2nd order themes |
|---|---|---|
| "If I ever have children of my own, you will of course have to do it for the next generation." (R4) | Future | **Intrinsic** |
| "If you have a number of enthusiastic employees who want to put their shoulders to the wheel, that of course helps you as a manager enormously to make progress." (R1) | Employees | |
| "If the management wants it, and sets a good example and creates enthusiasm for the employees, you will also get your employees on board." (R1) | Management | |
| "If at some point restaurants try to do things differently with their food, by paying attention to more vegetables and things like that, they notice that there is simply more demand for them." (R5) | Customers | **Extrinsic** |
| "Well maybe that just makes my employees really happy, or maybe it gives me more customers or a better image." (R1) | Employees | |
| "With the current energy bill, it is mainly due to financial incentives." (R7) | Financial | |
| "We just have to change, so the legislation is going to change. So you're just not going to make it if you don't pay attention to this, I'm convinced of that." (R2) | Law | |

| | |
|---|---|
| "It is a bit of respect from your environment, which also translates. It is a total picture that yields something." (R2) | Outcomes |
| "You see a lot of companies around you that are going to do it, and then you think yes, we have to take our social responsibility." (R3) | Pressure |

## Appendix E – Barriers for becoming sustainable as mentioned by respondents

| Example quotes | Barriers |
|---|---|
| "Grid capacity at the moment, from the electricity grid, that is a major bottleneck at the moment." (R1) | Availability |
| "There is a very strong perception among restaurants that they should serve enough meat because then customers are happy." (R7) | Customers |
| "It just creates a bit of hassle. You have to arrange it, you have to think about it, you have to educate your staff." (R2) | Effort |
| "One thing is the money, the financing. They often want to, but where do they get the money to finance it." (R1) | Financial |
| "We lack frontrunners and examples, and the ones out there are quite modest. They are difficult to find." (R2) | Frontrunners |
| "I think they do too little here in the municipality, here in Leeuwarden, to encourage that." (R4) | Government |
| "The linear use of products is part of our system, we just grew up with it." (R2) | Habituation |
| "I don't think entrepreneurs have enough knowledge to do this all on their own." (R5) | Lack of knowledge |
| "Should we do that now? Let the big entrepreneurs do that first." (R3) | Lack of responsibility |
| "I think we can really grow a lot in that regard, that I don't have enough time to really delve into it." (R4) | Lack of time |
| "Barriers mainly start with the entrepreneur herself, if she doesn't choose it, she doesn't choose it, she is completely free to do so." (R5) | Motivation |
| "Gosh I want to do this, how do I do that. Then you end up in a quest." (R2) | Overwhelming |
| "You sometimes have a problem with quality that is not really desired." (R3) | Quality |
| "What also plays a role in this is that companies often still think too much in the short term." (R1) | Short term vision |

## Appendix F – Solutions for barriers for becoming sustainable as mentioned by respondents

| Example quotes | Solutions | Actor |
|---|---|---|
| "You have to work together a lot more if you want to do that." (R2) | Collaboration | **Entrepreneur** |
| "Entrepreneurs inspire each other." (R5) | Motivating each other | |

| | | |
|---|---|---|
| "I think it's important that companies continue to do more research into the little things they can change." (R4) | Research | |
| "Maybe also stimulating things in money, such as subsidies." (R3) | Financial support | **Municipality** |
| "It could be a good thing from the municipality, that they appoint someone and say 'okay, who is responsible for the catering industry and will ensure that there are pillars of sustainability in which they can support you." (R4) | Guidance | |
| "But if I'm very honest, you see that now with single-use plastic, now that it becomes mandatory, people are going to do it." (R2) | Regulations | |
| "But anyway, municipalities can also play a role in this, to help companies, to facilitate and to inspire." (R1) | Motivating | |
| "Educating chefs, giving masterclasses to existing restaurants." (R5) | Education | **Others/municipality** |
| "Should be able to call somewhere and say; I want to make this more sustainable, how can I do that? Where should I order it?" (R2) | Guidance | |
| "There is a catering association, which, together with Dutch Cuisine, organizes all kinds of inspirational meetings to show how things can be done differently and why you should do that." (R5) | Motivating | |

**Appendix G – Influence of the Northern Netherlands context as mentioned by respondents**

| Example quotes | 1st order themes | 2nd order themes |
|---|---|---|
| "Not much volume here in the North, except on the islands." (R2) | Volume | **Negative** |
| "Not a lot of companies in the area that are really very sustainable." (R3) | Few examples | |
| "But it still remains Friesland and Leeuwarden, and people here eventually just want meat." (R4) | Demand for meat | |
| "The Frisians are also very stubborn. What he does not know, he does not eat." (R2) | Stubborn | |
| "If I had been in Amsterdam, I could have said ok, I will focus a lot more on vegan and vegetarian." (R4) | Conservative | |
| "Friesians are quite proud. If something is local, it would catch on more quickly with a Frisian than with someone from the Randstad." (R2) | Proud of culture | **Positive** |
| "I think there are still a lot of opportunities, because people are becoming more and more aware of it." (R4) | Aware | |
| "In the North, there are initiatives underway to make it possible for restaurants to get food on a local and regional level." (R5) | Initiatives | |