

LYCar Company Project

To what extent does the origin of locally produced products (farm vs greenhouse) influence the purchasing behaviour of Taste Lab and Roots consumers within Hotelschool The Hague?

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Date Submitted: 19 – 02 – 2023



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Preface

Dear reader,

The last phase of the bachelor program 'International Business Administration in Hospitality Management' at Hotelschool The Hague includes the course Launching Your Career (LYCar). This final project has been executed for Ms. de Visser – Amundson, research client, who has been the righthand through this study. The research direction was proposed by the Hotelschool Research Centre, focused on the general topic: adoption of local foods and sustainable consumption.

The initial goal of this research project was to contribute to the research line of Ms. De Visser – Amundson focused on sustainable consumption considering the urgency for a more sustainability future with the upcoming worldwide challenges. After narrowing down the research purpose, the focus shifted towards the consumer sustainable purchasing behaviour of locally grown vegetables. Thereafter, the researching student set a goal to develop a realistic plan to improve the identified problem within Hotelschool The Hague. This plan is proposed to make an impact on the educational curriculum and affect consumer knowledge and behaviour accordingly.

At last, I would like to thank all stakeholders who have been involved in the execution of this research project. Starting with Ms. De Visser – Amundson for her valuable knowledge and guidance through the set-up and execution of the research project. Moreover, I am grateful for the continuous support of Dr. Ntregka through the entire project, the feedback she provided, and research insights she has given me. Finally, I would like to express my gratitude to the involved Food & Beverage instructors, the Management Outlet students, the Practical Education students, and the focus group participants for helping with the data collection to support the research and simultaneously improve my stakeholder management skills.

I hope you will gather valuable insights from the research project and will support the movement to a more sustainable and brighter future.

Warm regards,
Lauren de Boer



Executive Summary

This LYCar company report is focused on the general topic of the adoption of local foods commissioned by Ms. de Visser – Amundson on behalf of the Hotelschool The Hague Research Centre. After redefining the research topic, the focus shifted towards consumer purchasing behaviour and the adoption of locally grown vegetables. The research is structured through the steps of the Design Based Research Cycle.

After conducting primary research, it became clear that with the global population set to exceed 10 billion people by 2050, the challenge of providing enough food for everyone in a sustainable, efficient, and cost-effective way is rising in significance. For thousands of years, human populations have farmed the land for food. With the growing worldwide population, increased living standards, and falling mortality rates, the pressure on food production has continually increased. Nevertheless, these farming methods have a significant effect on the biodiversity and environment resulting in a negative cycle for traditional farming methods.

The combination of the set research direction and problem context has led to the following main research question:

To what extent does the origin of locally produced products (farm vs greenhouse) influence the purchasing behaviour of Taste Lab and Roots consumers within Hotelschool The Hague?

Within the next step of the Design-Based Research (DBR) cycle, analysis and diagnosis, a literature review was conducted to gather relevant studies building on the mentioned topic. The main themes which were investigated are: 1) the consumer perception of local foods, 2) environmentally and socially responsible behaviour, 3) marketing, 4) education, 5) socio-economic factors, and 6) farming methods. These insights have created a foundation for the remaining research methodology and sub-research questions to continue the gather and analyse phase of the DBR cycle. The primary data collection has led to the creation of the sub-research questions as followed:

1. To what extent is the accessible population aware of the different farming techniques and their implications?
2. To what extent do different growing techniques subconsciously influence the purchasing behaviour of the accessible population within Taste Lab and Roots?
3. What are the most deciding factors for the accessible population when purchasing a meal in Taste Lab or Roots?

To gather answers to these questions, it was decided to conduct a quasi-experiment on Campus Hotelschool The Hague. This quasi-experiment, including three conditions, was done over five weeks in two different outlets. To ensure reliable data collection and analysis, daily dishes were set for the entirety of the study. As the general population was not feasible to include in the research timeline, an accessible population has been identified at Hotelschool The Hague.

The gathered results have given elaborate details on the measured consumer purchasing behaviour of the accessible population. These results have shown there is a preference for traditional farming products when comparing the data to greenhouse farming and traditional greenhouse farming (figure 1). However, the results identify no significant



result when comparing the remaining two farming methods. To support these findings, continuous contact with key-stakeholders, Ms de Visser – Amundson and F&B Instructor Mr. Hollen, has been maintained to discuss the next steps of the research.

Considering the restricted amount of data collection days of the quasi-experiment, further data has been collected by hosting an online focus group to acquire more in-depth consumer insights into the accessible population. This method is particularly used to explore people's knowledge and experiences and further insights into their decision-making process. The focus group consisted of six participants and was structured through six open-ended questions. This revealed the consumer perception regarding different farming methods and the lack of knowledge amongst the population. The participants mentioned they realize change is necessary, but the lack of urgency amongst themselves and their peers. Additionally, the lack of education leads to a lack of knowledge about the implications of either farming methods leading to unsubstantiated consumer behaviour. Moreover, it identified the most important purchasing factors for the consumer being; waiting lines and the ingredients included in the dish, when purchasing a meal at Taste Lab or Roots.

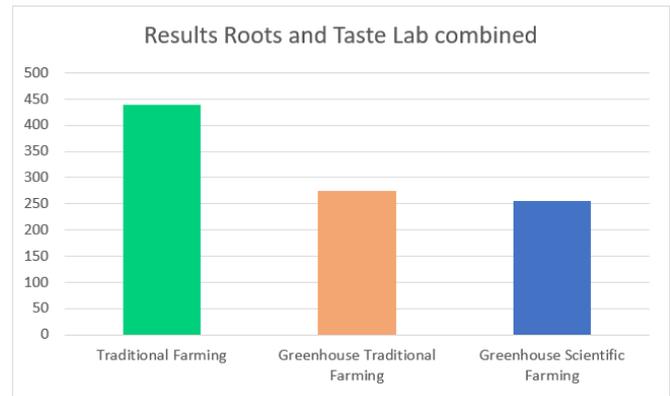


Figure 1: Results

The next step of the cycle was to create a solution design based on the gathered insights. It has been chosen to create a solution focused on increasing the awareness of the population through an educational addition to the minor Future of Food. This field trip including a workshop will challenge the current consumer knowledge and provide insights accordingly focused on the triple bottom line. In the short-term this solution is focused on initiating the conversation regarding the research topic and in the long-term is aiming to affect future consumer behaviour.

To measure the effectiveness of this solution, the field trip will include a before – and after assessment which will measure the general knowledge the population has gathered throughout the event. Additionally, the urgency level will be measured, and general points of improvement to ensure quality for future similar events.

At last, to summarize the research journey, an academic reflecting chapter has been added to critically look back on the decisions made during the researching process and the implications for future research. The research approach and measurement tools are questioned and further discussed as well as the fundamentals of the solution choice. Further research is advised to build on a more impactful educational movement to increase general awareness as the challenge regarding sustainable consumption is bigger than solely focussing on farming methods. The initial advice would be to focus on consumer awareness and willingness to develop themselves in the field of sustainable consumption.

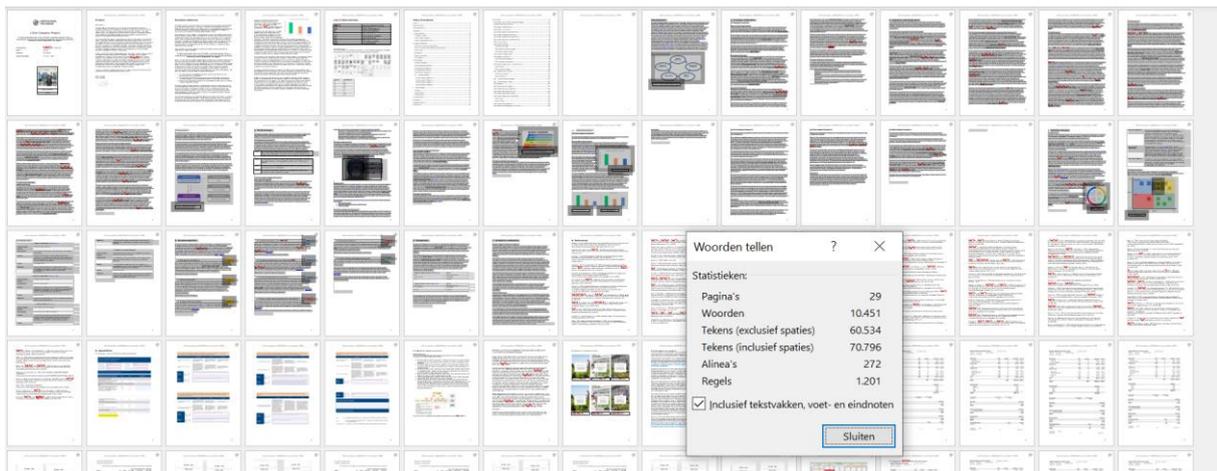


List of Abbreviations

ANOVA	One-way analysis of variance
B.C.	Before Christ
DBR	Design Based Research
EI	Emotional Intelligence
FoF	Future of Food
GMM	Global Mind Monitor
HPP	High-pressure processing
IoT	Internet of Things
MRQ	Main research question
SRQ	Sub research question
UIDs	Unique identifiers
WTP	Willingness to pay

Proof of Wordcount

The final wordcount from page 9 'Introduction' until 37 'Academic Reflection' is 10.451 + the wordcount from the figures is 162. The total wordcount is 10.613.



Main Body Figures	Wordcount
1	1
2	15
3	10
4	62
5	4
6	0
7	1
8	31
9	38
Total	162



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Introduction

The Design-Based Research model (figure 2) has been used to structure this study in five steps. Within [chapter 1](#) 'Problem Definition', the research context is introduced followed by the main research question and purpose for the study. The next chapter ([two](#)) 'Analysis and Diagnosis' is focused on discussing the relevant identified studies related to the research topic. From these findings, a conceptual framework has been developed which shows the main focus of the remaining research. After this secondary data collection, [Chapter three](#) highlights the research methodology explaining the choice and set-up per primary data collection method. Afterwards, the gathered insights and results from these methods are discussed which leads to the conclusion of the main research question. From this conclusion, the student has developed a solution ([chapter four](#)) focused on solving the identified problems whilst keeping it economically interesting, socially acceptable, and technically feasible. This is followed by a complete implementation plan ([chapter five](#)) linking to all necessary materials and information in the appendices (App. [9.15](#) – [9.21](#)). To analyse the effectivity of the solution, [chapter six](#) is focused on evaluating and hence improving the set-up and execution of the solution. The final chapter ([seven](#)) discusses a critical academic reflection focused on the validity and reliability of the study. Moreover, it includes a piece of advice for future research.

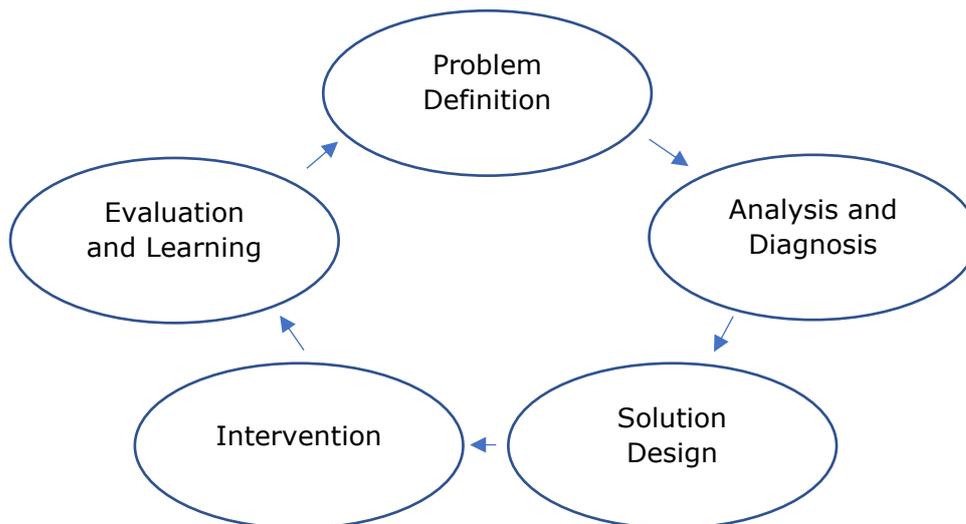


Figure 2: Design Based Research Cycle



1. Problem definition

1.1 Research context

History of the Food Industry

The food industry has gone through many stages over the past millennia, all distinctive by their own characteristics. The timeline starts with the diet of the prehistorian from roughly 2.5 million years ago to 1.200 B.C. Their primary task was collecting or hunting enough food to survive mainly existing out of plants or animal resources (Dennell, 1979).

Over the following centuries, humans began to cultivate land, farm, and animal practices to reduce labour and simplify food sources. As practices improved and quantities thrived, local trade started forming the local environment. People began earning profits and the exchange of food and products became normal (Gibbons, 2021). The Western world changed from continuously fighting for meals and nutrition to buying different products, qualities, and prices around the corner.

The food industry encountered the biggest transformation in the twentieth century when food distributors focused on fast and tasteful food which could be standardized and simplified. The economical focus became evident with low prices and high profits. Research however showed this new eating habit, had a significant effect on people's health and the earth's vitality (Glanz, 2009).

Worldwide Challenges

The earth's average global temperature has risen by 1.04 °C through the emission of greenhouse gases since early 1900 (WWF, 2021). The combination of humanity's increased use of fossil fuels, deforestation, and the increasingly intensive agriculture are considered its major causes. Climate change has been resulting in increased extreme weather events (flooding, drought, wildfires) and rising global/sea temperature and hence sea levels (United Nations, 2022). Scientists predict that because temperatures will continue to rise long after the emissions are curbed, one or more tipping points will be reached, where certain changes become irreversible (Lindsey and Dahlmann, 2022).

Moreover, the United Nations expects the total global population to increase from 7.7 billion in 2019 to 9.7 in 2050, and 10.9 by 2100 (Christensen et al., 2019). To ensure food for this large population, twofold the current food production will be necessary (Singh and Sharma, 2017). Adding to that, the fastest-growing population is 85 or higher expected to reach a total of 5% of the total population by 2035 (IGD, 2021). Considering that the quality of a diet strongly affects the physical and cognitive condition, they are generally recommended to implement a clean food diet to avert preventable conditions (Institute of Medicine (US) Food Forum, 2010). This trend of global population growth combined with climate change is expected to be one of the greatest challenges with regards to food supply (Sanchez, 2019).

Agricultural Practices

Nowadays, consumer behaviour is slowly shifting from highly processed foods to purchasing fresher healthier foods. The industry is steering back to the early days when clean ingredients were the fundamentals of the diet (McCluskey, 2015; Aschemann-Witzel et al., 2019). To elaborate on the definition of clean foods, they are traditionally defined as ingredients produced as close to their natural state as possible (Cao and Miao, 2022; Martinez, 2017). Different agricultural practices use different methods when producing their products shifting between the use of pesticides, monitoring of temperature and rainfall, to scientific manipulation.

Traditional farming is focused on methods and practices which are based on traditional tools, natural resources, and effective land use. Research shows that people generally feel that these locally produced products are fresher, more nutritious, tastier, and safer



than substitutes in the market (De and De, 2019). Nowadays traditional farming has shifted towards mechanical techniques and chemical substances to increase the quantities per harvest to eventually increase the farmers' profitability. These traditional modernised techniques, result in severe environmental damages like depletion of soil nutrients, soil erosion, deforestation, and crop failure (Gilbert, 2022). Additionally, chemical pesticides are used to prevent any pests or outside intruders which can eventually affect food nutrition or human health. So even though the quantities are highly increased, the effects on the environment and one's health bear the brunt of these modernised techniques.

Scientific greenhouse farming can be considered the counterpart of traditional farming. Greenhouse farming allows farmers to grow vegetables in a controlled environment meaning they control the light, humidity, ventilation, and temperature to create optimal growing circumstances. The scientific developments in greenhouses itself have led to many advancements in terms of food produce, quality, and volumes. For example multiple rows of fields, mobile shading, and cooling systems (Valoppi et al., 2021). This leads to high-yielding, high-quality, within a reduced time. Greenhouses are considered the future of agriculture when focusing on climate change, the growing population, and nutritious healthy products (Annunziata and Mariani, 2018).

This study aims to gather evidence concerning the consumer's purchasing behaviour focused on products varying in the production method. What do consumers take into consideration when purchasing products? Are they aware of the implications of different farming methods on the earth's vitality and/or their own? Within the analysis and diagnosis, existing data regarding these topics will be discussed.

1.2 Main Research Question

To what extent does the origin of locally produced products (farm vs greenhouse) influence the purchasing behaviour of Taste Lab and Roots consumers within Hotelschool The Hague?

1.3 Client and Researcher's Goal

- i. Build on the previous research line of behavioural change towards more sustainable consumption to increase the gathered data, ensuring a more complete.
- ii. Advice on how to further extend the overarching research line with regards to future research students contributing to sustainable consumption and food circularity.
- iii. Generic advice on how to improve the current situation, depending on the results of the experiment and further data collection, for Hotelschool The Hague and possible other parties in the future.



2. Analysis and Diagnosis

In the following chapter, a literature review is conducted, by identifying relevant academic articles, to gain further insights to support the MRQ and refine sub-research questions. The gained insights have given a valuable dimension to the study to enlarge the gathered data collection and hence adjust and refine further steps in the research methodology.

2.1 Consumer perception of local foods

Many studies have based their research on the term 'local' however, due to the lack of a consistent definition not only do consumers struggle with identifying local products but there is also no guarantee that expectations are being met depending on the consumers' profile (Lang et al., 2014; Feldmann and Hamm, 2015). Local foods are usually referred to when produced near (30-100 kilometers) the area of consumption, therefore eliminating the additional distances in comparison to food distributors (Wageli and Hamm, 2012; Hu et al., 2013). Moreover, research shows that consumers identify the production methods (limited chemicals and pesticides) and types of producers (practices and animal welfare) to be important factors to distinguish local products (Martinez, 2017).

According to the International Food Information Council, one-quarter of consumers claim they desire to have more extensive insights about the origin of their food purchases (Sloan, 2021). Previous research has revealed consumers are overall positive about locally produced foods. For example, consumers consider locally farmed products more authentic and of higher quality (McCluskey, 2015), as well as fresher, more nutritious (Ellis, 2021; Fan et al., 2019), tastier, and safer (Naspetti and Bodini, 2008; Gustafson, 2020). Others rather oppose these local methods, believing that they lead to environmental issues such as soil degradation, water pollution, and unsustainable use of resources (Meena, 2022).

A study conducted in Italy focused on the consumer perception of local and organic products, indicating the major trust and motivating factors for consumers are seasonality, territoriality, and localness (Naspetti and Bodini, 2008). In the global market organic foods seem to struggle, as consumers are lacking to encompass these identified factors in the characteristics. By analysing these findings, localness can provide a solution as they appear to meet one or more of the attributes. Likewise, a paper focused on 73 relevant publications within the food industry, concluded that consumers, unlike organic food, perceive local foods as not expensive increasing the demand accordingly (Feldmann and Hamm, 2015).

The consumers' opinion on greenhouse-farmed products is twofold. Less favourable consumers view this cultivation process as unnatural, less nutritious, tasteless, and even dangerous, supposedly due to misconceptions or lack of knowledge. Other consumers view greenhouse farming as a way to reduce environmental impact and support sustainable agriculture (Yano et al., 2021). They consider these vegetables safe, tasty, and of good quality.

Adams et al, have studied the consumer perception and their purchasing decisions of greenhouse vegetables to pursuit sustainable development goal 2 of achieving zero hunger and ensuring food security. By assessing 400 consumers through a perception index and multivariate ordered probit model, it shows positive perceptions related to environment and health but negative towards affordability of greenhouse farming. The study concludes that considering the findings, government interventions should increase investment in greenhouse technology to increase affordable such products. (Adams et al., 2022)



Other studies claim that consumers resist greenhouse-farmed products which are grown in an artificially controlled cultivation environment (Verbeke, 2011; Siegrist, 2008). Innovations, such as nanotechnology and genetic modification, are not well understood by consumers leading to a lack of acceptance (Coyle and Ellison, 2017). To ensure the success of new food technologies, gaining trust is an important factor. As stated by Macfie, 'successful product development is driven by consumer needs, and consumer acceptance is a key aspect' (MacFie, 2007).

2.2 Environmentally and socially responsible behaviour

The increase in environmental awareness has had a significant impact on the food industry. As awareness regarding climate change has grown, so has the public's understanding of the need to protect the environment (Zurek et al., 2022). Studies show that over the past decades, an exponential growth in product demand and consumption has led to highly pressured supply chains, which have severely damaged the environment and society (Rajeev et al., 2017). Increased pollution and environmental disasters as a result of industrial production have urged companies, populations, and researchers to seek alternatives (Stewart and Niero, 2018). Westbrook and Angus claim that in 2020, 73% of experts believe that the focus on sustainable initiatives has become a factor critical to success (Westbrook and Angus, 2021).

From the food industry perspective, five necessary changes have been identified: 1) the implementation of more sustainable foods and diets, 2) increased food diversity, 3) reduced amounts of food waste, 4) improvement of food system circularity, 5) promoting food-related health (Aschemann-Witzel et al., 2019). A study focused on consumer awareness and their sustainable-focus states that consumer awareness is growing and the sustainability-focused value has a direct influence on responsible consumer behaviour (Buerke et al., 2017). On the other hand, a meta-analysis of 80 worldwide studies has identified the problem regarding consumers' willingness to pay (WTP) for sustainable food products. Results suggest that 29,5% on average is willing to pay for such products depending on consumers' gender, region, sustainable attributes, or the food categories (Li and Kallas, 2021).

The increasing awareness regarding the environment has also impacted the acceptance of sustainable and newer farming technologies, such as hydroponics and aquaponics (Panda and Kumar, 2022). By using these methods, farmers are able to produce crops without the need for large amounts of land or the use of pesticides and fertilizers (Michalczyk, 2022). This helps to reduce the amount of pollution that is caused by traditional farming methods, making it more acceptable to the public (idem). Milicic et al, have studied the consumers' knowledge of aquaponics and their acceptance of aquaponics products in different European regions. The results show that on average attitudes towards aquaponics were positive with no significant differences between those who had already heard of aquaponics before and those who learned about aquaponics via the online survey (Miličić et al., 2017).

Moreover, an online survey conducted by Annunziata and Mariani confirms the support of consumers for local foods considering the sustainable implications. Nevertheless, the findings of this study show consumers attach more value to quality and health than to environmental and social sustainability. Conclusively, the results lead to a division of three different consumer segments being; a large percentage of more egocentric-oriented individuals, an environmental sustainability-oriented population, and a small segment including socially responsible focused consumers. To ameliorate the consumers' outtakes, the first group should focus on increasing the knowledge regarding social and environmental benefits related to sustainable consumption. The second group should be educated more about the social and economic benefits, aiming to increase the sense of inclusivity in the community. (Annunziata and Mariani, 2018)



Additionally, a study focused on consumer attention towards sustainable farming, show eight identified factors that influenced the consumers purchasing behaviour of which environmental concern was not included. The deciding factors were; attitude, subjective norm, perceived behavioural control, perceived quality, price, availability, health consciousness, and knowledge. This study consisted of an online survey including 981 participants, followed by multiple regressions and a cluster analysis (Balqiah et al., 2020).

2.3 Marketing

Marketing and advertising strategies can be used to influence consumer behaviour and increase the consumer's sustainable purchases accordingly shown by Dewi et al. (2022). By creating campaigns that focus on the positive effects of different farming practices, such as improved soil health, or the positive impacts, such as reduced fossil fuel emissions, marketers can help to increase awareness and encourage more people to support sustainable agricultural methods. According to White, Habib, and Hardisty, the psychological factors: social influence, individual self, habit formation, feelings and cognition, and tangibility are the key to successful marketing (White et al., 2019).

Wang, Dalsgard, and Giacalone carried out a randomized experiment focused on grape and cotton production and consequently its sustainable consumer choices (Wang et al., 2022). The experiment consisted of two studies in which one group was informed about the origin of the products and the other group was informed after the experiment. The results show that 39% preferred the sustainable over the conventionally produced wine, yet 41% (N=75) would be willing to pay more for sustainably produced wine. Hence, the study highlights that some consumers are willing to pay more for sustainably produced products, but only whenever the participants already had an affinity with sustainability.

Grunert has also studied sustainability in the food sector focused on consumer behaviour. He identified six potential barriers which prevent consumers from using the available information to make sustainable choices, even if they are motivated to support sustainability ([App. 9.2](#)). An essential part of consumers making well-thought decisions is that they spend a minimum of time making their choice. On average, shoppers spend 35 seconds per product, 62.6% only observe the front of the package, and 7.7% look elsewhere on the package (Grunert, 2011). Consumers can process these messages central or peripheral. In the context of sustainability, peripheral processing implies that consumers have a positive attitude towards e.g. sustainability, but they do not put in the effort to understand the background of the product. Juhl and Poulsen have investigated peripheral processing through a field study and concluded only 29% of consumers claim to be aware of the information and use this within their decision-making (Juhl and Poulsen, 2001).

In addition, studies have shown that the nutritional information on food labels is not only lacking references but there is also a lack or incompleteness of available information on the market (Aschemann-Witzel et al., 2019). Some production methods are seen as less biological by consumers (e.g. conventional agriculture) while others are perceived as 'unhealthy' or 'unfamiliar' (e.g. artificial methods) (Asioli et al., 2017) even though in reality, theories prove the opposite. An exploratory study by Charlebois, Swab, Henn, and Huck, was found that focused on the consumer perception of mislabelled food products and consequently their behaviour (Charlebois et al., 2016). Findings suggest general mistrust towards the food industry augments consumers, which seek to be knowledgeable about the products, and their willingness to verify details. Moreover, it claims highly educated consumers, women more than men, are more likely to mistrust the specifics on food labels (Wahlich et al., 2013), leading to an increased demand for local products. As a result, consumers are increasing their demand for transparency and details on food origin due to the growing number of food processes and food scandals (Butu et al., 2020).



2.4 Education

Consumer education is a vital factor to stimulate one's thought process and increase general knowledge. Through promoting sustainable consumer knowledge, consumers could influence the food system through their purchasing decisions. This behaviour can eventually lead to more sustainable, environmentally friendly, and efficient farming practices (McCluskey, 2015).

Gierszewska and Seretny (2019) have researched the readiness of the young generation to face the challenge of changing their lifestyle based on unlimited consumption and sustainable conditions. They confirmed the importance of educational frameworks and projects which are offered from an early age onwards by educational institutions, social organisations, and responsible enterprises. Moreover, Murphy supports this statement by creating a conceptual framework that includes the four overarching concepts being; public awareness, equity, participation, and social cohesion. This framework is intended to support the implementation of the sustainable development of the population (Murphy, 2017)

Studies regarding purchasing behaviour and willingness to pay show that, individuals with higher levels of education are more likely and interested in accepting more advanced sustainable products than those with lower levels of education (Wang et al., 2022; Marty et al., 2021). In addition, lower education is recognized to be associated with worse health knowledge and awareness due to education inequity. A review of empirical studies has created a framework to support equal educational programs to promote health equity (Hahn and Truman, 2015). Their concept is focused on promoting formal education from early childhood to working life and beyond. It starts as a personal attribute and grows to be a contributing factor to assist in the collective movement.

A study focused on effective teaching and learning strategies to enhance knowledge and understanding of sustainable farming has combined student and teacher surveys, key informative interviews with education institutions, and a teacher focus group, to gather multiple perspectives (Walsh, 2022). The results support a holistic approach where students are presented with sustainable farming in all aspects, both theoretical and practical. The importance of practical hands-on learning, with different farms plays a vital role in demonstrating these sustainable farming practices.

Consumer education can also help to promote understanding between producers and consumers accordingly. By understanding the challenges and constraints that farmers face, consumers can be more forgiving when it comes to food prices, quality, and availability. This can create a more collaborative and mutually beneficial relationship between producers and consumers, which supports sustainable farming methods (Taghikhah et al., 2020).

2.5 Socio-economic factors

Consumer purchasing behaviour can be influenced by a variety of factors when making decisions. Cultural norms and values, environmental awareness, socio-economic factors, and ethical considerations can all shape consumer attitudes and preferences towards different farming methods. Some consumers consider the impacts of the supply chain of the food industry on the climate and therefore choose a more environmentally friendly alternative. For others safety, freshness, and nourishment of the product is more key. (Schrack and Running, 2018; Annunziata and Mariani, 2018).

Research studies focused on consumers' attitudes and purchasing behaviour showed the influence of the consumers' socio-economic factors on their actual behaviour. Most studies confirm the target market of older, wealthier people who systematically purchase foods from more expensive and sophisticated farming methods, while those with lower



incomes may be limited to more conventional farming methods (Cholette et al., 2013; Megicks et al., 2012; Racine et al., 2013; Feldmann and Hamm, 2015) as also the generic gender findings showed, women, are more likely to systematically purchase clean foods than men would (Illichmann and Abdulai, 2013; Bryła, 2021; Bhutto et al., 2019).

Additionally, a study focused on the young consumer' perception and hence their willingness to buy local foods claims the young consumers pay less attention to environmental benefits and product attributes linked to the production methods than other aspects (Su et al., 2019; Pugliese et al., 2013). The results show they rather consider local socioeconomic benefits or high-quality products when deciding on local foods (Radzyminska and Jakubowska, 2018). Nevertheless, the overall conclusion shows a positive attitude towards the production of local foods considering both buyers and non-buyers of local foods perceive them to be fresher, healthier, and tastier.

Affordability has also been identified as a key deterrent for deciding where to purchase groceries. Several studies have concluded healthy foods to be more costly meaning certain consumers simply cannot afford these products (Toussaint et al., 2021). Hence not everything depends on the consumers' preference, as other financial obligations will have priority (Naicker et al., 2021). In some cultures it is even claimed, the only consideration when purchasing products is the price, regardless of the quality or nutritional value (Koen et al., 2018).

Distance is also closely related to consumer' purchasing behaviour (MacNell, 2018). Results show that the accessibility of local products makes a difference in consumer behaviour. The contrast between towns with local markets and regions with limited possibilities strongly affects the purchasing behaviour of consumers (Szegedyné Fricz et al., 2020). In a study focused on understanding regional food environments, participants anticipated that savings were made when shopping at budget shops further from home. These participants did not consider travel time and costs whilst others did take this into consideration (Dangerfield et al., 2021). These findings confirm that further research would be necessary to draw a reliable conclusion. Nevertheless when combining this activity with other social or work commitments, distance is not the prominent factor for consumers (idem).

2.6 Farming methods

Traditional farming

The principle of traditional agriculture is based on the extensive use of indigenous knowledge, natural resources, effective land use, and traditional tools. Nowadays, traditional farming is shifted towards agroforestry, composting, intercropping, water harvesting, and crop rotation (Hamadani et al., 2021). An essential component of agriculture and maintaining biodiversity is soil health through sustaining water quality and plant efficiency. Subsequently, the soil absorbs greenhouse gases from the atmosphere and acts as a divers living system for multiple ecosystems (M. Tahat et al., 2020). Moreover, the use of synthetic chemical fertilizers, pesticides, and other inputs are strongly used.

The traditional methods using mechanical techniques affect the environment through the depletion of these soil nutrients, deforestation, and soil erosion (Pinduoduo, 2021). Original agricultural practices can decrease the soil nutrients and fertility, resulting in a decreased yield, eventually leading to a shift of farmers moving to a new field to start again (Gilbert, 2022). Research shows that these new fields are, amongst other methods, created through deforestation, mainly in tropical rainforests. Furthermore, soil erosion happens whenever plants are unable to firmly hold onto the soil due to the elimination of topsoil by water, wind, or tillage. This layer of soil is the most fertile part and can take decades to restore to the original quality (Borrelli et al., 2021).



Contrarily, the use of minimal mechanical soil disturbance techniques brings many benefits, such as improved soil fertility, increased crop yield, prevention of soil erosion, and decreased water runoff (Majavu, 2022). Additionally, the usage of chemical pesticides is minimised on the contrary to traditional conventional agriculture where pesticides are used to prevent or destroy any pest. This can have detrimental effects on food, crops, livestock, or human health (Andrews and Rose, 2021). Nevertheless, traditional farming is receiving worldwide acknowledgment for being a sustainable source of food production in an era of environmental degradation (Hamadani et al., 2021).

Greenhouse farming and scientific developments

Considering the growing worldwide population and the continuously declining capacity of the earth's natural resources, new techniques must be found to ensure food for current and future populations. Over the past decades, many strategies to improve the supply chain have been implemented from production to distribution through reducing waste, digitalizing processes, or presenting new technologies (Valoppi et al., 2021; Earle, 1997).

The before-mentioned consumer trends have additionally attributed to the development of high-pressure processing (HPP) technologies supporting the developments in the food industry (Huang et al., 2017). These technologies focus on maintaining natural flavours, minerals, and quality whilst reducing chemical additives. Many like-minded production technologies are being tested to fulfill consumer demand and additionally supporting the challenge of the growing worldwide population. Several patents have already been registered for biopesticides and bioactive agricultural products. Studies show that an increased level of scientific evidence of yields and other benefits are requested to broaden the adoption of innovation by farmers (Annunziata and Mariani, 2018).

Greenhouse farming methods allow farmers to grow crops and vegetables year-round in a controlled environment whilst ensuring high-yielding and high-quality products (Yano et al., 2021). External threats such as pests and unfortunate weather circumstances are unapplicable to the grown products (Pinduoduo, 2022) as greenhouses control the light, humidity, ventilation, and temperature to create an optimal ecosystem for the specific crops. Nevertheless, the harvests highly depend on the accuracy of these variables throughout the lifecycle. Fluctuation of humidity might result in nutrient shortcomings or intrusion of pests, and inadequate temperatures can lead to uncommon parameters of the plant leading to reduced productivity (Rayhana et al., 2020).

Therefore, greenhouses require high amounts of energy depending on production intensity, mostly related to heating. These implications of greenhouse farming have led to a rapid shift towards renewable energy sources and energy-saving techniques. A study conducted by Ahamed et al states the energy-saving potential mostly depends on the location (relatively warm or cold). For cold locations, there are greater challenges that require the application of multiple alternative energy sources such as industrial waste heat or wood biomass (Ahamed et al., 2019; Vadiiee and Martin, 2014).

The development of scientific technologies and methods in greenhouse cultivation has led to a shift from single covered rows of field to vertical farming in a highly controlled agricultural environment (R. Shamshiri et al., 2018). These increased amounts of strategies are used and studied to enhance the overall harvesting process, like mobile shading, fog-cooling systems, or covering materials. Regarding documentation and monitoring, Internet of Things (IoT) technologies focus on collecting data through interrelated computing devices equipped with unique identifiers network topologies, and big data analytics (UIDs) without requiring human interaction (Kodali et al., 2016; Kumar et al., 2019).

2.7 Conclusion

This literature overview has given insights regarding the identified position of consumer purchasing behaviour based on published studies. These findings have identified both positive and negative viewpoints related to the food production methods and mentioned worldwide challenges. Moreover, the farming methods are discussed to shed light on the production cycle and its effects on the triple bottom line.

Overall, consumers are influenced by a variety of factors when making decisions about purchasing behaviour. Environmental awareness, socio-economic factors, ethical considerations, marketing strategies, and education can all effect consumer attitudes and preferences towards different farming methods. In addition, education is considered a vital channel to inform consumers about the advantages and disadvantages of different farming methods to assure more informed decision-making.

It is expected that the traditional conventional farming methods will be most popular due to the 'long-established, known' practices. Additionally, it is expected the growing interest in sustainable behaviour will not uphold the findings considering the expected lack of consumer knowledge of farming methods. Regarding purchasing behaviour, we believe that consumers will value other purchasing variables (like price) more than the origin of the product.

In conclusion of the literature overview, the following conceptual framework (figure 3) has been created for the research study. It focuses on the effect the farming method has on the purchasing behaviour of the consumer. The identified moderator variables are expected to alter the effect of the independent variable on the dependent variable. The further exploration of the study will be explained in detail within the methodology.

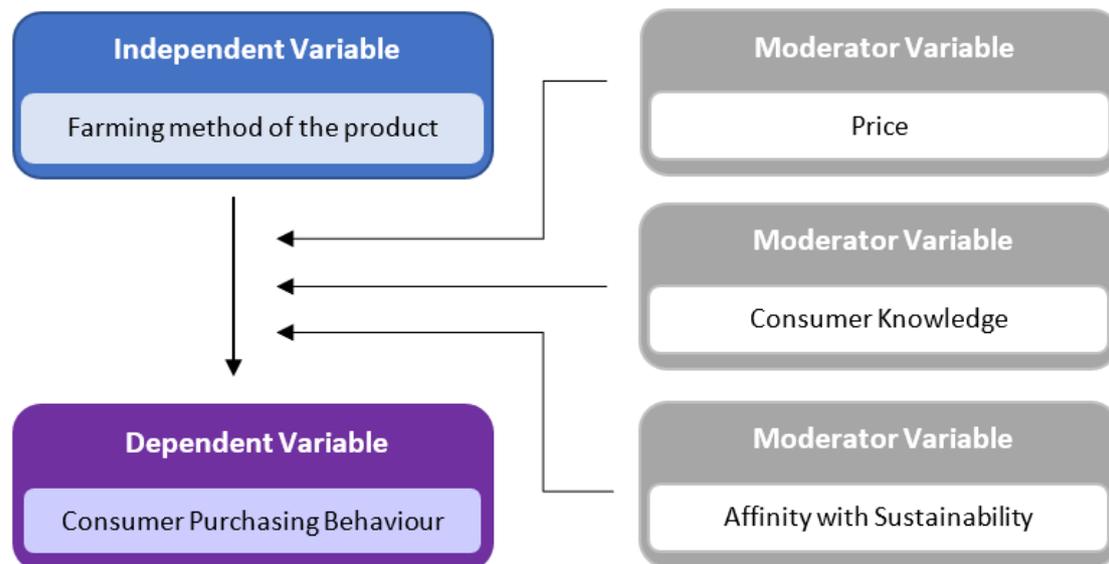


Figure 3: Conceptual framework



3. Methodology

The following chapter will focus on clarifying the structure of the remaining research to support the MRQ. The methodological approach will include the methods of data collection, the population and sample size, and data analysis for the study.

3.1 Research questions

The research has been commenced with an in-depth literature overview of secondary data discussing key aspects and peer-reviewed studies. The identified articles are linked to the food industry, different farming methods and innovations, and consumer perception as well as behaviour. After conducting the literature overview, the following sub-research questions have been created to support the main research question.

MRQ1	To what extent does the origin of locally produced products (farm vs greenhouse) influence the purchasing behaviour of Taste Lab and Roots consumers within Hotelschool The Hague?
SRQ1	To what extent do different growing techniques subconsciously influence the purchasing behaviour of the accessible population within Taste Lab and Roots?
SRQ2	To what extent is the accessible population aware of the different farming techniques and their implications?
SRQ3	What are the most deciding factors for the accessible population when purchasing a meal in Taste Lab or Roots?

3.2 Quantitative data collection

Data collection method

The research is shifted towards primary quantitative data collection through conducting a quasi-experimental field study. These experiments are in many aspects similar to randomized controlled trials with the exception of randomization (Maciejewski, 2020). Considering the facilities and resources at HTH the possibility of randomization of the participants in the study lacks. Hence, a quasi-experiment is considered the most reliable method.

The quasi-experiment consisted of three conditions, over the course of five weeks and analysed the population's subconscious consumer behaviour. The manipulation of the independent variables, in three conditions, has showcased whether they correlated with the dependent variables. The conditions have been given an equal amount of data collection days as well as weekdays over the five weeks to ensure equal measurement. In the context, the independent variables have been shown as posters and digital visualization on screens at both food outlets to stimulate their subconscious consumer behaviour ([App 9.3](#)).

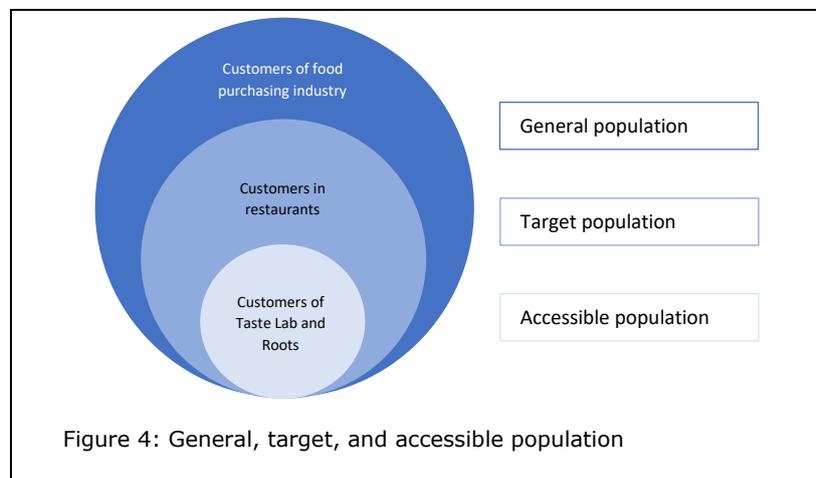
The different conditions are as followed (in depth explanation [App 9.4](#)):

- Condition 1: Traditional dirt farm: vegetables that have been grown outside in the dirt and are regulated through traditional methods.
- Condition 2: Greenhouse 'science': vegetables that have been grown in a greenhouse and regulated through scientific methods.
- Condition 3: Greenhouse 'dirt': vegetables that have been grown in the dirt and regulated in a greenhouse through using modern methods.

Population and sampling

Considering the targeted population of consumers in restaurants is not feasible to include in the research timeline, the accessible population for the quasi-experiment is defined to be the customers visiting Taste Lab and Roots (figure 4) (Asiamah et al., 2017).

The customers can be divided into Hotelschool students, its employees, and a small number of external visitors making use of the F&B facilities. The sample profile of the field study is 80% students of which the average age is 21 years old, 20% staff of which the average age is 52 years old, 65% is female and 35% male, at last, 45% is international and 55% is Dutch (de Visser - Amundson, 2022).



Data analysis

As the daily population fluctuates depending on external factors like scheduled classes or upcoming deadlines, the research is based on set daily dishes at both Taste Lab and Roots throughout the five weeks ([App 9.5](#)). The data analysis is focused on comparing the quantity of sold dishes to the total amount sold in the entire food outlet to gather relative data. Research shows relative data with different numbers and products provides more consistent and reliable results in comparison to absolute judgments (Stone et al., 2021). This quantitative data collection is done by the banqueting MOs and instructors through printing and collecting the F&B sales reports. Thereafter they have been handed over to the researching student ([App 9.6](#); [9.7](#)).

The quantitative data analysis will be carried out through the following SPSS tests ([App. 9.10](#); [9.11](#)):

1. Univariate analysis
2. One-way analysis of variance (ANOVA test)
3. Chi-Square test

3.3 Ethical data management

As the entire food outlet consists of four sub-sections, we are dealing with a limitation in controlling all variables. For the sections Taste Lab and Roots we will compare purchases of the same dishes every week. However, the additional product range in the remaining outlets is not influenced meaning the population's choice is affected by external factors.



Moreover, the quasi-experiment is focused on measuring the difference in consumer behaviour after being influenced by the posters. The lack of explanation on the posters could be a limitation as it only mentions the growing method, but not the advantages, or disadvantages. To eliminate this limitation, the MOs have been informed about the conditions to ensure sufficient knowledge in case consumers propose a related question.

Additionally, the practicalities of the experiment have been changed from week 2 Thursday onwards, meaning the posters are not stuck to the counter of Taste Lab and shop window of Roots, but the visualization has changed to plastic signs. This could lead to insignificant results, for the first week of testing, however, there is a second week of data collection for condition 1. Therefore, the effect on reliability will be minimal.

3.4 Qualitative data collection

Data collection method

After finalising the quasi-experiment, the researching student decided for a second data collection method, namely a focus group, to gather more qualitative data focused on consumer knowledge and conscious behaviour. Focus groups are identified as group interviews used to generate data by stimulating an interactive conversation. This method is particularly used to explore people's knowledge and experiences and further insights into their decision-making process (Kitzinger, 1995).

A mixed method is a research approach that combines both quantitative and qualitative methods to create a broader overview of insights and hence a stronger solution to the problem (Almeida, 2018). Moreover, it has been advocated in business and management research as it is likely to overcome weaknesses linked to only one method (Bryman, 2006).

This qualitative research method will be focused on testing the current knowledge of the accessible population and their purchasing behaviour. Research has shown a traditional focus group is most effective with 6-12 participants and approximately six open-ended questions with pre-set prompts for each question whenever an initial response is minimal (Nagle and Williams, 2019)([App. 9.9](#)). Considering the researching student is located abroad, it is necessary to host the focus group online as the researched population is located in The Netherlands. A study focused on online focus groups has stated that the most recent years have led to many opportunities to gather data, but have also seen differences with face-to-face focus groups concerning group interaction and the ability to obtain information (Stewart and Shamdasani, 2017). As a result, it has been chosen to host a focus group with six individuals to stimulate group interaction and consequently obtain in-depth insightful information ([App 9.12](#)).

Population and sampling

Convenience sampling will be used as the most practical sampling method to determine the participants of the focus group considering the goal of the data collection. Research states that through including customers with characteristics (gender, age, profession) of the overall population, a greater reach of the population will be represented (Sharp et al., 2012; Nagle and Williams, 2019)([App. 9.12](#)).

Data analysis

The data analysis of the qualitative data will be done through **deductive coding**. Labelling and organizing the qualitative data by different themes and relationships will make it easier to interpret the gathered insights (Auerbach and Silverstein, 2003). The predefined set of codes will help identify the relevant data to answer the MRQ which are the following: Consumer knowledge (*traditional farming methods, greenhouse farming methods, preferences, and socially responsible behaviour*), and purchasing behaviour (*nutrition, budget, quality, and accessibility*). The level of knowledge will be measured against the revised bloom's taxonomy model (figure 5) which focuses on identifying the position of the targeted population. The model is focused on knowledge based on six cognitive processes, to help clarify the most useful future objectives (Anderson and Krathwohl, 2001).

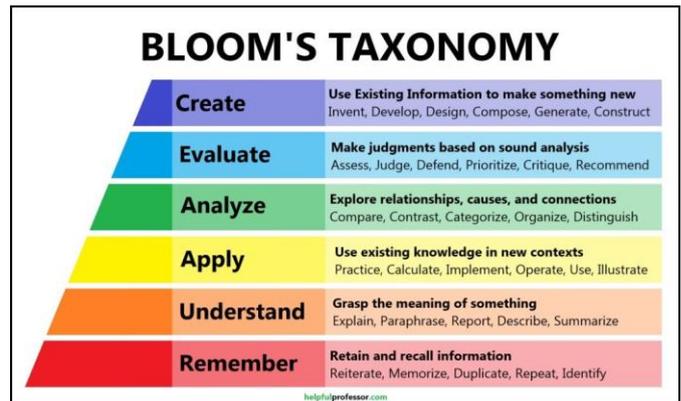


Figure 5: Revised Bloom's Taxonomy

3.5 Ethical data management

The setting of an online environment may cause a distant atmosphere leading to limited discussions hence insights regarding the research topic. Therefore, the moderator should ensure a safe and involved dialogue by asking everyone's opinion and regularly ask or any remaining comments or questions. In addition, the number of participants is relatively minimal which could lead to an incomplete representation of the population. To minimize this limitation, the participants will be questioned regarding their personal behaviour as well as their awareness regarding the knowledge of their network ([App. 9.12](#))



3.6 Results & analysis

3.6.1 Sub-research Question 1

To what extent do different growing techniques subconsciously influence the purchasing behaviour of the accessible population within Taste Lab and Roots?

General descriptive analysis

The descriptive data shows the number of experimental days, the frequency of days of the week, and the frequency per condition. The data shows there is an equal division between days of the week as well as the condition which increases the reliability of the gathered data (App. 9.10.1). Nevertheless, the total number of data collection days is 22 (7/7/8) which makes N relatively small and therefore increases the chance for false positive. For further descriptive statistical analysis see 9.10.2; 9.10.3.

Non-Parametric Chi-Square tests

When conducting the Chi-Square tests the combined sales of Roots and Taste Lab (figure 6) clearly show that traditional farming exceeds the sales of the greenhouse traditional and the greenhouse scientific (439 > 274; 255) App. 9.11). ($X^2 (N = 968) = 51.264, P < .001$) indicates the significant result of the combined results.

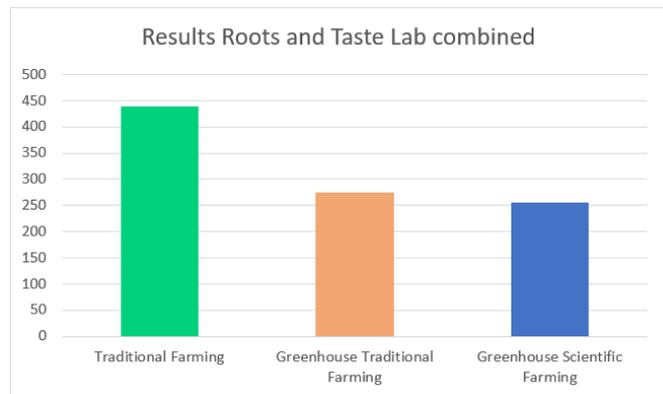


Figure 6: Combined results

A further breakdown of the results between Roots and Taste Lab both indicate a significant result. For Roots (figure 7) ($X^2 (N = 567) = 71.841, P < .001$) the traditional greenhouse sales are higher than the scientific and traditional greenhouse. When comparing these two methods greenhouse traditional holds the majority of sales (164 > 122) which was also indicated in the combined results. For Taste Lab (figure 8) the results of traditional farming are also significant ($X^2 (N = 401) = 8.623, P = .013$), but an inconsistent pattern occurs between the remaining two farming methods when comparing this to Roots (greenhouse traditional (110) and greenhouse scientific (133)). A following Chi-Square test between these remaining two farming methods has identified a preference for greenhouse traditional farming over greenhouse scientific farming ($X^2 (N = 286) = 6.168, P = .013$) (App. 9.11).

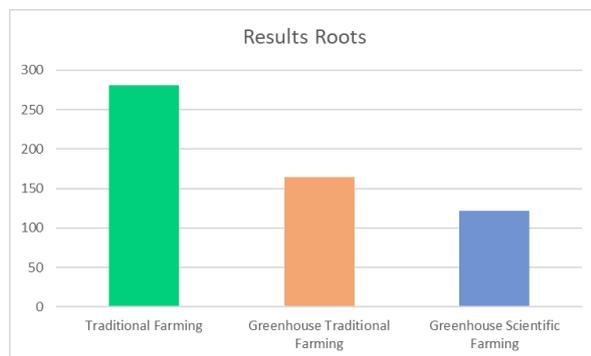


Figure 7: Results Roots

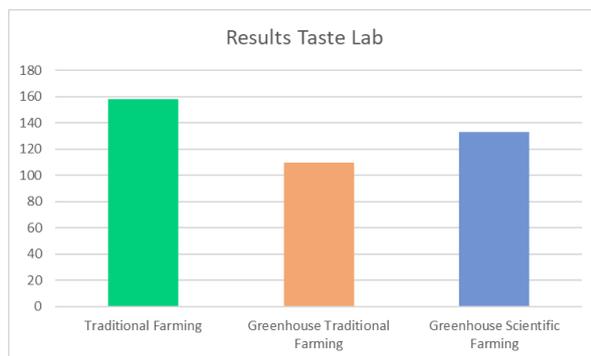


Figure 8: Results Taste Lab



Conclusion

The results of the experiment have given more insights into the consumer behaviour of the population. The overall pattern shows that traditional farming methods are preferred by the accessible population rather than greenhouse traditional and greenhouse scientific. Regarding the greenhouse traditional and greenhouse scientific it has a less evident pattern, but the tests show that the sales for traditional greenhouses are still higher than the scientific.



3.6.2 Sub-research Question 2

To what extent is the accessible population aware of the different farming techniques and their implications?

When discussing **traditional agriculture** during the focus group, participants mentioned two different views. Firstly the, expected, idea of human-intensive, natural craft: *"The image of farmers working on land and no new techniques being involved in the process."* and *"(...) working in the fields, from the ground and harvesting the vegetables"*. Thereafter, participants started elaborating on the shift from hand-intensive labour to technical labour they have been noticing: *"However, nowadays more and more machines and vehicles are used within this process, like tractors (...) I think the farming is way more separated now than it was decades ago."*

For **greenhouse farming** the participants had a common image of industrialised farming through the use of machines resulting in efficiency: *"Greenhouse farming is a more industrialised way of producing crops because it is more efficient and you do not need to worry about seasonality and space (...)"*.

After discussing the general image of the farming methods, the participants were asked about their knowledge regarding the implications of both practices. Both positive and negative sides regarding the **social and environmental aspects** were mentioned. For traditional farming people were stating fewer chemicals were used resulting in healthier products, *"Traditional farming means local products; short food-print and less/no chemicals."*. When others claimed pesticides and chemicals are often used resulting in monoculturalism: *"The biggest problem (...) is monoculturalism and we use chemicals to kill bugs and the diseases. If there is a field with a lot of variety then nature will take care of that."*

Regarding the implications of greenhouse farming, the negative side was mostly focused on energy usage and the controlled growing process through unnatural resources: *"Well the greenhouses cost a lot of energy and I can imagine they use a lot of additional chemicals to make sure the crops grow as they want (...) "*. The positive sides were stating the efficiency and hence high quantities: *" (...) you can place them everywhere and you can grow things vertically. Whenever you have little space you can still farm a higher quantity."*

In general, the participants mentioned that there is a fundamental **lack of knowledge** amongst the population. It was stated that the general awareness regarding worldwide challenges is growing, but the **urgency** is not felt by many: *"I think people are getting more knowledgeable, but indeed it is just not talked about. It does not seem like a priority (...) "* and *"I think people have a general knowledge that it is happening but it is very hard to do anything about it"*. As a result, they have noticed a slow movement as people are not sharing and applying their knowledge: *"It is just really not talked about."*

Conclusion

It can be concluded that the accessible population is in between the remembering and understanding scale of Bloom's Taxonomy (Anderson and Krathwohl, 2001). The findings show that some have a valid, more in-depth level of knowledge regarding farming practices. Whilst others had minimal knowledge about the topic or had wrong theoretical statements.

In general, the participants felt that the lack of knowledge amongst the population is one of the main problems. In their point of view, people are not feeling the urgency or spreading their knowledge sufficiently, additionally, the information requires people to potentially change their behaviour which they identify as challenging.



3.6.3 Sub-research Question 3

What are the most deciding factors for the accessible population when purchasing a meal in Taste Lab or Roots?

Based on the conducted focus group, **waiting lines** have been identified as one of the most important factors for food choice in Taste Lab or Roots: *"I don't like waiting for a long time, (...)".* Due to external factors such as meetings or deadlines, consumers identify the dish itself to be less of a deciding factor: *" (...) due to all the meetings I just choose for a shorter line".* From previously mentioned research, it can also be supported that consumers are affected by the accessibility of products (MacNell, 2018; Szegedyné Fricz et al., 2020).

The second identified factor would be the **ingredients of the dish** depending on the consumers' needs. Some clarify they focus on vegetarian dishes, so mostly purchase dishes at Roots, whilst others focus on meat dishes due to habit. *"Number 1: vegetarian option (...)"* and *" (...) I love to eat meat as I grew up with this culture (...)"*. This behaviour is therefore reliant on consumer priorities in terms of nutrition, sustainability, and taste. The participants have confirmed there are enough options available to meet everyone's needs and generally, the food has become more healthy in comparison to previous years: *"I like that the food has changed to more healthier options which assure you will have something nutritious in your system (...)"*.

At last, **budget** is also identified as a relevant purchasing factor. As the prices are generally considered low in Roots and Taste Lab, consumers are more focused on price-value rather than 'cheap': *"All dishes are generally well prices (...). Price value is important for a lot of people, definitely most students".*

Conclusion

Findings show that all consumers have different priorities when purchasing at Taste Lab or Roots. The main evidence shows that waiting lines are the biggest deciding factor due to external obligations. In addition, the ingredients of the dish are a dependant factor as an increasing number of consumers is becoming vegetarian, hence eliminating several options. In general, consumers seem to outweigh waiting lines and ingredients of the dish to make their decisions. A third identified relevant factor is the price-value of the dishes considering many consumers are students with a limited budget.



3.6.4 Main Research Question

To what extent does the origin of locally produced products (farm vs greenhouse) influence the purchasing behaviour of Taste Lab and Roots consumers within Hotelschool The Hague?

The findings have shown that there are two important aspects when answering this question. The consumer purchasing behaviour and the knowledge and awareness of the consumer regarding different farming methods.

For the consumer purchasing behaviour, it can be concluded from the quasi-experiment that **traditional farming** is clearly preferred over **greenhouse farming**, even though greenhouse farming is considered the more responsible option considering the current worldwide challenges (Yano et al., 2021; Annunziata and Mariani, 2018). Findings from the literature overview and the focus group can substantiate this behaviour due to behavioural habits and lack of knowledge (Verbeke, 2011; Coyle and Ellison, 2017). Moreover, other purchasing factors, like waiting lines or price (Li and Kallas, 2021; Su et al., 2019) seem of higher importance for consumers when purchasing a meal: "(...) *depending on how long it will take to get the food*" (App. [9.12.2](#)).

Regarding the knowledge and awareness, findings show that consumers generally know that both farming methods have somewhat of an impact on society. Nevertheless, the average level of knowledge is lacking due to a **lack of education** (Wang et al., 2022; Marty et al., 2021) and a **lack of urgency** (Balqiah et al., 2020). Research shows that consumers would be willing to make changes and adjust their behaviour with the right guidance and support, leading to a rise in interest in socially responsible behaviour (Miličić et al., 2017; Buerke et al., 2017). "(...) *I really did not have any idea, but I am interested to learn more about it*" (App. [9.12.2](#)).

To build further on these findings, the next chapter discusses a potential solution that is focused on the main conclusion of this research.

4 Solution Design

4.1 Solution

Considering the identified problem, the main goal of the solution is focused on increasing the **consumer knowledge** and **sense of urgency** of Taste Lab and Roots consumers regarding their social and environmental purchasing behaviour.

As mentioned in the literature overview, higher levels of education lead to an increased interest in e.g. sustainable farming methods and general health awareness (Wang et al., 2022; Marty et al., 2021). Walsh (2022) has created a holistic approach through his research by combining both theoretical and practical education to improve the quality of learning. On the other side, marketing has been identified as an efficient way of increasing one's knowledge.

Consequently, a dissemination of the quasi-experiment results ([App. 9.13](#)) was organised to present the results and potential solutions. From the dialogue and previous research, it can be concluded that the fundament of an educational solution would offer more prospects and the dissemination of the solution will focus on marketing. The study conducted by Juhl and Poulson (2001) has shown that the effectiveness of marketing techniques depends on the level of processing by the consumer. They concluded only 29% of consumers combine this information within their decision-making process. On the contrary, for education, participants are actively confronted to learn about a new topic of interest, hence more knowledge is created effecting their long-term decision-making (McCluskey, 2015).

Based on the conducted research, previously mentioned conclusions, and second dissemination ([App. 9.15](#)), it is recommended to implement a **field trip including an educational workshop** for the accessible target market. This will introduce them to the physical environment, create a sense of urgency and increase their basic knowledge about farming methods and their implications. The destination for the field trip will be a farm, like Remeker ([App. 9.16](#)), where the workshop could also be held.

The face-to-face workshop is focused on testing the current population's knowledge and providing expert knowledge accordingly. Several studies over the past decades have shown that workshops significantly help increase the knowledge and skills of the participants (Anwar, 2019; Cimermanová, 2018; Morrato et al., 2015). The entire field trip is structured through four phases; vision, design, act, and learn (figure 9). These phases will be discussed more in-depth in the chapter: Implementation.

In the longer term, this solution is meant to stimulate the conversation amongst the accessible population and reach the understand and apply phase (Anderson and Krathwohl, 2001) by increasing the general knowledge of the entire population through word-of-mouth. This form of communication is considered one of the most powerful marketing tools nowadays (Gildin, 2022; Chen and Yuan, 2020).



Figure 9: Four Phases



<p>Socially acceptable</p>	<p>The solution is focused on improving the educational program of Hotelschool The Hague and contributes to the promotion of socially and environmentally friendly behaviour. In the long-term, it aims to increase the general level of awareness due to the power of word-of-mouth post-solution. Considering the worldwide challenges, it is needed and expected from organisations to contribute to fighting these challenges. This solution can be one of several aspects for Hotelschool The Hague.</p>
<p>Economically interesting</p>	<p>All departments, e.g. Future of Food (FoF), have an allocated budget per semester (App. 9.15), which is used for field trips and activities. Moreover, the estimated costs for the solution are location, external speaker, and food facilities. From previous invoices it can be stated, the total costs will be under €1000, which is the average for a FoF field trip. Therefore, this solution is economically interesting.</p>
<p>Technically feasible</p>	<p>The solution requires time dedication in terms of creating the structure and content of the workshop together with the field expert. Thereafter, food and beverages will be available at the location. This will allow for a successful implementation of the solution.</p>

4.2 Stakeholders

Before designing the dissemination methods and implementation processes, a stakeholder map (figure 10) has been created to identify key stakeholders and prioritize them on interest, influence, and financial investment (Savina, 2019).

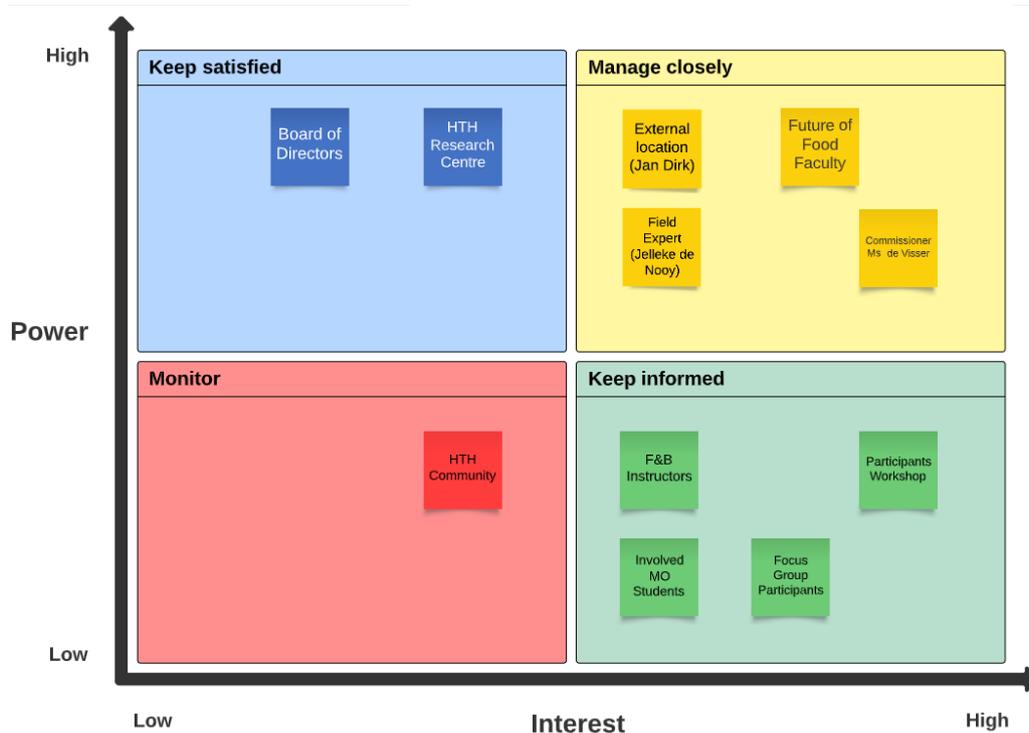


Figure 10: Stakeholder



4.3 Dissemination

1. Results presentation (App. 9.13)	
Communication channel	Microsoft Teams meeting
Stakeholders	Commissioner Ms de Visser, F&B instructors, and involved MO students
Content	Providing an overview of the full research set-up and underpin why initial decisions have been made, followed by a summary of the key findings of the quasi-experiment and the next steps for the research.
Timing	10 October 2022
Objective	Sharing insights regarding the researched topic and discuss/advise the following steps for future research lines to increase the knowledge regarding sustainable consumption.
2. Solution presentation (9.14 – 9.19)	
Communication channel	Microsoft Teams meeting
Stakeholders	Future of Food faculty
Content	Presenting the research outline including data collection methods and conclusions. The initial solution was presented thereafter and feedback was provided to strengthen the underpinning and efficiency of the solution.
Timing	6 January 2023
Objective	Gather expert stakeholder insights to increase the effectivity and structure of the solution.
3. Social media (App. 9.17)	
Communication channel	HTH LinkedIn and HTH Intranet
Stakeholders	HTH Community, Board of Directors
Content	An infographic summary of the workshop insights (simple and structured to understand) including a picture of the workshop, main key conclusions, and tips for the entire population to increase their sustainable consumption.
Timing	17 May 2023



Objective	Raise awareness regarding sustainable consumption and related farming methods and increase curiosity regarding the topic.
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4. Research client deliverables	
Communication channel	Deliverables will be shared via HTH Research Centre and personal e-mail communication
Stakeholders	HTH Research Centre, Commissioner Ms de Visser, Focus Group Participants, F&B Instructors, and Involved MO Students.
Content	The deliverable includes the preliminary research, the complete set-up, the findings, and conclusions, followed by the strategic advice for future research.
Timing	6 February 2023
Objective	Providing new insights regarding the topic which can lead to further more in-depth research about consumer behaviour related to sustainable consumption.



5. Implementation

To ensure a smooth implementation process of the solution, a detailed overview should be created, summarizing the time-line, action plan, objectives, and stakeholders involved. As mentioned the activity design is based on four phases which are indicated by the coloured items at every step (Sessionlab, 2022). This report includes an overview of the necessary tasks to organize an impactful field trip. Through organizing the second dissemination ([App. 9.15](#)), specific examples and realistic improvements have been added. All detailed overviews can be found in the appendices ([9.14](#) – [9.21](#)).

1. Set goal for the field trip

VISION

Every project should start with setting a clear intention and realistic end-goals to help clarify the purpose on the long-term. This helps to set priorities, allocate resources, and ensure a collaborative common objective (Bowen, 2018; Malik, 2021). Hence, the following goal has been created; reach a 30% increase in knowledge regarding farming methods and a 30% increase in urgency through organising a field trip including a 100-minute workshop regarding farming methods and their implications.

Stakeholders involved: FoF faculty

2. Define participants

VISION

The next step is to define the participants of the field trip by analysing the educational calendar and accessible population. For this implementation outline, it has been chosen to focus on students following the minor FoF, considering the suitability within their curriculum. Moreover, this decision has been made to further involve stakeholders in creating this implementation plan. Nevertheless, the final implementation plan is applicable for all consumers of Taste Lab and Roots depending on availability in the educational calendar.

Stakeholders involved: FoF faculty

3. Create a field trip schedule

VISION

To ensure a smooth execution of the field trip, the faculty should create a detailed schedule including the stakeholders, location, time planning, materials, and budget. This will lead as a guideline through the organisation of the field trip and increase efficiency and structure accordingly ([App. 9.14](#))

Stakeholders involved: FoF faculty



4. Contact the location (e.g. Remeker)

DESIGN

Determining the location of the field trip is of great importance considering the goal of the workshop. The location should be in The Netherlands at a farming site with sustainable practices. This could be a conventional farm with sustainable practices or a greenhouse with modern techniques. A potential location could be Remeker as FoF has visited this site before including a tour and workshop at their on-site event space (Remeker, 2023)([App. 9.16](#)).

Stakeholders involved: FoF faculty, external location

5. Contact the field expert (e.g. Jelleke de Nooy)

DESIGN

The workshop on-site will be hosted by a field expert within the food industry, hence the importance to determine this expert timely. This expert must have sufficient knowledge regarding farming methods, sustainable consumption, and food processes. For example, Jelleke de Nooy could be hosting the workshop as she works as a consultant regarding the transition to sustainable inclusive food and farming systems ([App. 9.17](#)).

Stakeholders involved: FoF faculty, field expert

6. Finalize the agenda of the workshop

DESIGN

After defining the 'why' and 'who', it is time to focus on the 'what'. The agenda for the workshop should include key objectives, main activities, designated host, and necessary materials. Moreover, all additional details related to the workshop should be defined, including time and place, the content of the agenda, visuals, pre-workshop communication, and identifying potential queries or bottlenecks during the workshop (Reina, 2005). It is of utmost importance to identify all relevant stakeholders to prevent any miscommunication. A potential full set-up of the workshop can be found in [app. 9.18](#).

Stakeholders involved: FoF faculty, Field expert

7. Communication and preparations for the field trip

ACT

The final step before executing the field trip and workshop is focused on final communication regarding the structure of the day towards the participants. Thereafter, there should be a final check with both the field expert and external location to confirm the information. At last, the visuals should be finalised and materials should be gathered ([App. 9.19](#)).

Stakeholders involved: Participants workshop, FoF faculty, Field expert, External location



8. Execute the field trip

ACT

The execution is where the faculty and participants execute the field trip and the field expert puts all workshop preparation into practice. The set agenda is followed whilst leaving enough room for open discussion during the workshop itself (Christodoulou et al., 2013). At the end of the workshop, there is time set to discuss any verbal feedback and remaining questions regarding the topic.

Stakeholders involved: Participants workshop, FoF Faculty

9. Collect insights and disseminate results

LEARN

After completing the field trip, it is time to learn and reflect on the process. The main focus of this step is to gather the participant's learning curve through a before- and after measurement.

To extend the reach of the field trip, the insights will be combined into figures and information which will be distributed via multiple social media channels (LinkedIn and HTH Intranet Website). This distribution method is meant to trigger the conversation of sustainable consumption amongst the entire population and raise curiosity. ([App. 9.20;9.21](#))

Stakeholders involved: Board of Directors, HTH Research Centre, FoF Faculty, HTH community, Participants of Workshop, Focus Group Participants, F&B Instructors, and Involved MO Students



6. Evaluation

To measure the effectivity of the field trip, a before/after assessment will be done. This measurement will focus on determining the effect of the field trip on the participants' knowledge and sense of urgency (Baker, 2011). The pre-assessment will help identify the initial level of knowledge and possible misconceptions regarding the topic. The post-assessment is used to determine whether the learning outcomes/objectives have been reached.

When creating the survey, it is most important to identify the structure and hence question types (Brace, 2018). The difference in questions between topic-specific and more generic should depend on their overall purpose in comparison to the other assessment (Meads and Davenport, 2009). The overall focus will be on measuring their general feelings towards the field trip, their knowledge level, and identifying potential points of improvement for future field trips. To avoid any inaccurate data, the introduction notes that considering the goal, participants are solely asked to answer according to their current knowledge, not accordingly to their expected knowledge. Moreover, the multiple choice answers also include incorrect options to avoid manipulation of the participant.

Questions before-survey (App. 9.20)	Focus
1, 9	General sentiment
2, 3, 4, 5, 6, 7	Knowledge
7, 8	Urgency

Questions after-survey (App. 9.21)	Focus
1, 2, 3, 4, 5	General sentiment
6, 7, 8, 9, 10	Knowledge
11, 12	Urgency
13, 14, 15	Feedback

The knowledge and urgency results will be evaluated through using KPIs focused on percentual changes per question, positively or negatively. These results will give insights into the shift in knowledge regarding farming methods and the potential shift in urgency. Moreover, the general sentiment and feedback aspects will be processed manually to improve the organisation for future similar events.



7. Academic reflection

Research design and future research

The fundament of the research including the problem statement and research context was clearly set. Reflecting on the overarching topic focused on sustainable consumer behaviour, additional farming methods could have added interesting aspects, like organic farming. When realizing this potential, the experiment had already been conducted, therefore it did not make sense to adjust these details in the study. Hence, further research should focus on including additional sustainable farming principles, like organic farming.

The quasi-experiment was conducted under the close guidance of Ms de Visser – Amundson to maximize reliability and sufficient data analysis. When reflecting on this process, more time to execute the study would have been helpful to ensure reliable data collection. Considering the timeline, the study was executed well and stakeholders were well-managed through consistent communication. An additional aspect that could have increased the validity of the quasi-experiment was observations. Through observing body language or consumer behaviour at the outlets, more behavioural facts regarding purchasing behaviour could have been collected than solely numbers can conclude.

With regards to the focus group, the execution was circumstantial considering the researching student was located in Singapore. Ideally, the focus group would have been held in real-life with more participants, which was expected to result in more insightful face-to-face discussions, hence decreasing the reliability. Nevertheless, the researching student is satisfied with the outcomes of the actual focus group as the findings were more insightful than expected.

The suggested educational solution is the best solution on short-term to increase consumer awareness regarding the research topic. The problem of sustainable consumption is bigger than solely focussing on farming methods, hence future research is necessary to build on a more impactful educational movement to increase general awareness.

Value for stakeholders

Considering the close collaboration on the research set-up, the SPSS data analysis, and dissemination, this study has been a valuable addition to the overarching research line of the commissioner. For future research, it would be interesting to investigate consumer awareness more in-depth. To what extent are they feeling urgency regarding sustainable consumption? Or how interested are they in learning about sustainable practices? Additionally, it would be relevant to research how to most effectively influence long-term consumer behaviour. What are the best approaches to educate or shift their (purchasing) behaviour with regards to the worldwide challenges?

For the FoF Faculty, the findings offer great potential for future educational topics to improve the awareness of the population and hence stimulating sustainable behaviour. The continuous improvement would be concluded from the post-field trip survey and its qualitative data to involve the participants' experience.

For the F&B instructors, the research insights are less valuable as they need more useful information to adjust their marketing towards sustainable consumption. However, the insights regarding purchasing factors are useful for them to manage the environment in the outlets and potentially consider this during their practices. Future researching students can help study this topic and suggest solutions accordingly.



8. References

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9. Appendices

9.1 Appendix: Proof of LYCAR Proposal and Feedback

LYCar Proposal Grading Rubric

U.1.1 (Version LYCar 2020; 16 February, 2021)

Student Name:	Lauren de Boer	LYCar Coach:	Ms Ntregka
Student Number:	782026	Primary PLO:	2
Date Submitted:	27-10-2022	Secondary PLO(s):	9

Note: All boxes with red border to be filled by student

Preconditions (required for assessment)	Yes	No	Comments
Checks content and completeness			
Executive Summary is present, concise, can be read independently, contains information about process and content, focuses on results and outcomes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
LYCar Proposal meets formal reporting criteria (according to e.g., LYCar Reading & Writing Guide)			
LYCar Proposal is written in English and is professional, including common basic components such as Intro, ToC, Conclusion etc. - see Reading & Writing Guide	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
LYCar Proposal is max. 5.000 words (counting after Table of Content, incl. text in tables) - visual proof of wordcount is included in Appendices.	<input type="checkbox"/>	<input type="checkbox"/>	
Harvard Referencing Style is used consistently, referencing to primary sources only, List of References is well presented	<input type="checkbox"/>	<input type="checkbox"/>	
Check (technical) formalities and submissions			
Ephorus upload	<input type="checkbox"/>	<input type="checkbox"/>	
LYCar Proposal incl. Appendices are uploaded in Osiris	<input type="checkbox"/>	<input type="checkbox"/>	
Ethics and data management			
Ethical, integrity and data management requirements	<input type="checkbox"/>	<input type="checkbox"/>	
Entitled to assessment? (All yes above required):	<input type="checkbox"/>		



DD1: The student has demonstrated knowledge and understanding in a field of study that builds upon their general secondary education, and is typically at a level that is supported by advanced textbooks

	Excellent	Pass	No Go
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1.1 Use of literature and knowledge of the field	Student uses in-depth literature and knowledge of the field throughout the report. The report contains no mistakes and factual incorrectness.	Student uses in most cases literature and knowledge of the field in the report. The report contains some mistakes and factual incorrectness in a limited part of the report.	No sufficient or correct use of literature and knowledge of the field in the report. The report contains mistakes and factual incorrectness.
1.2 Intellectual depth and abstract thinking	Student takes all significant factors into account and looks from different perspectives, sees patterns, relates situations to concepts in order to solve larger problems. The reports show excellent thinking capacity of the student. New unique insights presented in the topic and depth of understanding displayed. Excellent linking between the elements and the underlying issues within the case situation.	Student takes different perspectives into account. The report shows intellectual depth (taking into account all significant factors and looking from different perspectives) in most parts of the report. Some patterns are clear. Some links have been made.	The report lacks intellectual depth (superficial and merely descriptive) in some parts of the report. Patterns are not sufficiently made clear.

Student Feedback: Pass <input checked="" type="checkbox"/> Not Yet <input type="checkbox"/>	Enough literature is used throughout the literary parts. Could elaborate more on consumer perspective on farming methods.
	Assessor Feedback: Pass <input checked="" type="checkbox"/> Not Yet <input type="checkbox"/>

DD2: The student can apply their knowledge and understanding in a manner that indicates a professional approach to their work or vocation, and has competences typically demonstrated through devising and sustaining feedback and solving problems within their field of study

	Excellent	Pass	No Go
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2.1 Application of theories/models to situations at hand	Student uses a range of theories/models appropriate to the problems in the case skilfully and able to add their own unique perspective and insight. They own the model(s).	Student mentions a range of theories/models appropriate to the problems in the case and applying some of them in the correct way.	Mentioning models and theories but not using them in a correct way.
2.2 Possible impact and meaning of own work - dissemination of research	Student plans evaluation of impact and meaning of own work in relation to business and industry with sound underpinning. Identification of all stakeholders and acts of dissemination. Plan on how to effectively disseminate knowledge through different channels fitted for a variety of audiences is also presented.	Student formulates criteria for evaluation. Student describes possible impact and meaning of own work. Identification of stakeholders and planning of dissemination through at least one valuable channel with an audience is presented.	Student fails to describe criteria how to evaluate impact. No identification of stakeholders or realistic plan on dissemination of knowledge through at least one valuable channel with an audience.

Student Feedback: Pass <input checked="" type="checkbox"/> Not Yet <input type="checkbox"/>	Models strengthen the study in terms of methodology. Clear build up and reasoning why steps are taken.
	Assessor Feedback: Pass <input checked="" type="checkbox"/> Not Yet <input type="checkbox"/>



DD3: the student has the ability to devise data gathering events, gather and interpret relevant data (usually within their field of study) to inform judgements that include reflection on relevant social, scientific or ethical issues

	Excellent	Pass	No Go
3.1 The Design Based Research Process	Student sets the research process up in a systematic and well organised way. Student makes sense of a problem mess, analyses a (complex) problem and formulates feasible solutions by using a design-based research approach. Logical flow from Problem definition to Analysis to Solutions Design/methods are well chosen and motivated,	Student analyses the problem, and formulates possible solutions underpinned by literature using a design-based research approach. Methods motivated and mostly logically chosen	Insufficient problem analysis and methodology, research cycle not used.
3.2 Analysis and evaluation of data	Student plans analysis and evaluation of data/information well using appropriate (digital) tools and makes data-driven decisions. All statements are underpinned with facts and figures and/or referencing. The appropriate tools are used in all steps. Analysis is sufficiently complex with use of information from more than 2 different dimensions (practioners, scientific literature, the organization and stakeholders).	Student plans analysis and evaluation of solutions clearly, with some flaws or unclearities. Some statements are underpinned with facts and figures and/or referencing, some lacking underpinning. Analysis is sufficiently complex using data from at least one dimension and sufficiently backed up with literature.	Plan of analysis and evaluation of solutions is not clear. Statements are mostly not underpinned with facts and figures and/or referencing; some are contradicting. No tools are used. Lacking or no analysis and not backed up with literature.
Student Feedback:	Pass <input checked="" type="checkbox"/> Not Yet <input type="checkbox"/>	<p>Logical structure of the study, accessible to read and structure is well underpinned. Contains a minimum of 2 different dimensions. For further study could see if an additional form of distribution would be helpful to create more insights. For the evaluation of the solution no specifics are included, but the general idea is good.</p>	
Assessor Feedback:	Pass <input checked="" type="checkbox"/> Not Yet <input type="checkbox"/>	<p>The study is logical indeed. The problem has been defined clearly. Did you make sure the goals of the commissioner will be answered by your research? There is change in the MRQ again from La mangerie consumers to employees and students. Because you have not way of making any separation between the groups perhaps consider the wording. The theoretical underpinning is there, the methods have been supported with some appropriate literature. The conceptual model though still needs work in the following weeks. At the moment it is too complicated and some of the identified variables do not 'go'</p>	

DD4: the student can communicate information, ideas, problems and solutions to both specialist and non-specialist audiences

	Excellent	Pass	No Go
4.1 Communication to audience making use of professional (business) English	Student divides information effectively in paragraphs/chapters. No noticeable errors in English usage and mechanics. Use of language enhances the argument and avoids abbreviations. Sentence structures are well varied, and voice and tone are highly suitable for the specific audience/s. Style and content complement each other into an appealing, high quality story. Highly skilful organisational strategy. The logical sequence of ideas increases the effectiveness of the argument and transitions between paragraphs strengthen the relationship between ideas. Sub-headings are employed effectively and the links between different sections are reinforced through linking expressions. Shows attention to detail in all parts of the report.	Student divides information in paragraphs/chapters. Errors in English usage and mechanics are present, but they rarely impede understanding. Use of language supports the argument. Sentence structures are varied, and voice and tone are generally appropriate for the intended audience/s. Generally, a clear organisational strategy. The sequence of ideas in most cases supports the argument and transitions between paragraphs clarify the relationship between ideas. The report is mainly comprehensively written and lacks some attention to detail in some parts of the report.	Distracting errors in English usage are present and they impede understanding. Use of language is basic, only somewhat clear and does not support the argument. Word choice is general and imprecise. Voice and tone are not always appropriate for the intended audience/s. Basic organisational strategy, with most ideas logically grouped. Transitions between paragraphs sometimes clarify the relationship among ideas. The report is not comprehensively written and lacks attention to detail in most parts of the report.
Student Feedback:	Pass <input checked="" type="checkbox"/> Not Yet <input type="checkbox"/>	<p>Clearly structured study. Overall grammar and vocabulary is more than sufficient including sentence structures, linking words and length of paragraphs. The sequence of the study makes sense and builds on each paragraph.</p>	
Assessor Feedback:	Pass <input checked="" type="checkbox"/> Not Yet <input type="checkbox"/>	<p>Better structure and cohesion. The report is communicated well.</p>	



DD5: the student has developed those learning skills necessary to continue to undertake further study with a high degree of autonomy

	Excellent	Pass	No Go
5.1 Plan on IQ development in PLO: Reflection on product(s)	Student has clear plans on what will be delivered and uses different relevant theory to underpin own work and reflect on it.	Student has a plan on what will be delivered and uses theory to underpin planned own work and reflect on it.	No clear deliverables mentioned and almost no theory to underpin own work and reflection.
5.2 Plan on AQ & EQ Self development	Student devises excellent ability to critically reflect on own developmental goals and demonstrates real growth mindset for life-long learning. Student proposes a demonstration of being able to self-direct, taking initiative in unpredictable situations. Student shows different metrics that can demonstrate development in terms of their EQ/AQ.	Student shows developmental goals and demonstrates growth mindset. There is a plan on how to reflect on values, attitudes and behaviour. Starting levels and desired end levels are described and measurements are provided.	Developmental goals are not concrete, there is no demonstration of growth mindset. Plan on how to reflect is vague and does not give enough substantiation to show growth.
5.3 Plan on EQ Social development	Student provides a plan on how to construct a multitude of proof that shows development as an Intercultural Hospitality Leader. Excellent ability to contribute to the global society/local community as a responsible citizen. Excellent analysis of diversity of people the student will deal with. Possible effective collaboration with all stakeholders in different cultural settings. Hospitality is key to the project or work the student does.	Student provides a plan on how to prove development as an Intercultural Hospitality Leader. Plan on how to contribute to the global society/local community as a responsible citizen. Proposing ideas on how to collaborate with different stakeholders in different cultural settings. Hospitality is a differentiator in the students' project or work.	No clear plan on development as an Intercultural Hospitality Leader. Plan on how to contribute to global society/local community is missing. Ideas proposed on collaboration or hospitality are not sufficient.

Student Feedback: Pass Not Yet

Clear goals per sub category. Could add a more detailed plan, but this will be more elaborate in career portfolio.

Assessor Feedback: Excellent Pass Not Yet

More details could have been added. But this is ok for now - consider previous feedback-. Still work to be done for the final deliverable.

Overall Assessor Feedback

LYCar Proposal Outcome

- Pass All qualitative criteria awarded a "Pass". "P" registered in Osiris. Student can continue with LYCar execution.
- No Go One or more qualitative criteria graded as "Not Yet". "F" registered in Osiris. Student re-writes LYCar Proposal with incorporated feedback.
- Pre-Condition NY Pre-conditions not met. Student resubmits LYCar Proposal. No grade or feedback provided to the student.

9.2 Additional literature overview

Potential barriers

The six identified possible barriers between consumers from using the available information and making sustainable choices:

1. Exposure does not lead to perception. Consumers simply do not notice the label, because they are time pressured when shopping and most purchases are made habitually.
2. Perception leads only to peripheral processing. Consumers see the label, but do not care to make an effort to understand what it means. It may still affect their choices, though.
3. Consumers make 'wrong' inferences. Consumers do see the label, make an effort to understand what it means, but draw the wrong inferences. They may end up buying the product, but for the 'wrong' reasons.
4. Eco-information is traded off against other criteria. The price may be higher, the taste is not good, the family prefers something else.
5. Lack of awareness and/or credibility. Consumers who want to make sustainable choices may find it hard to carry them out in practice.
6. Lack of motivation at time of choice. While consumers have a positive attitude towards sustainability, this attitude is not so strong that it affects behaviour in all situations where sustainability may be a criterion. We can say that consumers 'forget' about their positive attitude to sustainability when making food choices. Such 'dormant' attitudes are a major factor in explaining discrepancies between attitude and behaviour

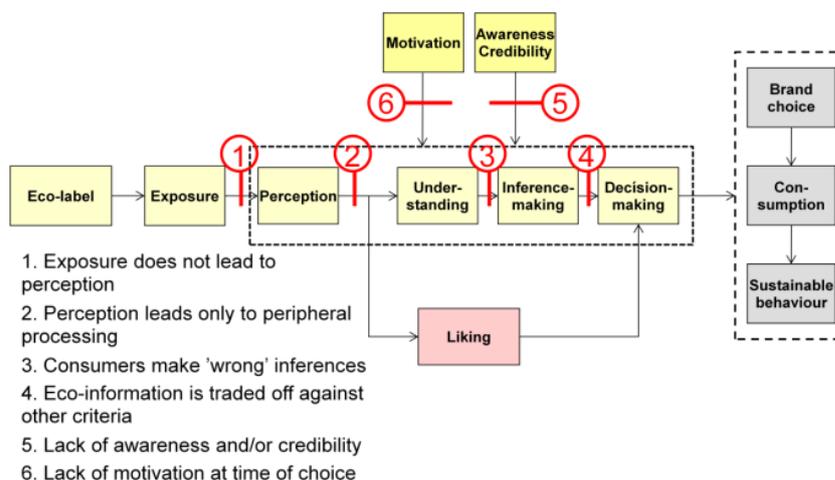


Figure 11: Hierarchy of effects of eco-labels and potential barriers (Grunert, 2011)



What technique of growing vegetables is most favourable considering the current and future worldwide challenges?

Different farming methods have been innovating and growing over the past centuries.

Traditional farming is known as cultivating land through the use of indigenous knowledge, natural resources, effective land use, and traditional tools (Dennell, 1979). This method stimulates polyculture farming of combining multiple ecosystems within one area. The reduced use of chemicals and increased use of natural resources like insects and worms. (Majavu, 2022)

Due to the growing demand for food resources and the growing economical benefits producers the 'new' **traditional farming** image has shifted towards agroforestry composting, intercropping, water harvesting, and crop rotation (Hamadani et al., 2021). These new methods boost the quantity of produce, but through the increased usage of pesticides, chemicals, and additional modern techniques, the soil health, water quality, and biodiversity has been carrying the burden (Pinduoduo, 2021). This shift in agriculture has led to a depletion of soil nutrients and deforestation which eventually causes decreased certainty of successful harvest. It can be considered as a vicious circle where farmers seek the highest quantity of products, hence they use the most efficient tools and resources, resulting in depletion of the natural resources available, which reduces the capability to reuse the farmland as the chances of a success harvest have significantly reduced (Gilbert, 2022). This vicious circle eventually leads to an increased depletion of farmland and complications during the harvesting period due to increased intense weather circumstances caused by climate change or issues related to lack of natural resources.

Greenhouse farming methods allow farmers to grow crops and vegetables year-round in a controlled environment whilst ensuring high-yielding and high-quality products (Yano et al., 2021). This newly developed farming method controls the light, humidity, ventilation and temperature to create an optimal ecosystem for the specific crops. Due to the highly controlled environment, high-yielding can be reached and an increased level of yearly harvests (R. Shamshiri et al., 2018). However, these greenhouses do require high amounts of energy to control the environment. Over the past years, there have been rapid developments to shift greenhouses to renewable energy to increase the sustainability of this practice (Ahamed et al., 2019; Vadiee and Martin, 2014).

Conclusion

Considering the worldwide challenges, of the upcoming food crisis to feed over 10.9 billion by 2100 and the fight against climate change, it can be concluded greenhouse farming is currently significantly more opportunistic than traditional farming.



9.3 Appendix: Visuals experiment



CREATE YOUR OWN SALAD

Add vegetables grown in local fields using modern methods

Taste Lab condition: 1



CREATE YOUR OWN SALAD

Add vegetables grown in local greenhouses using modern methods.

Taste Lab condition: 2



CREATE YOUR OWN SALAD

Add vegetables grown in local greenhouses using modern methods

Taste Lab condition: 3



GET YOUR DELICIOUS FOOD

All prepared with vegetables grown in local fields using modern methods

Roots condition: 1



GET YOUR DELICIOUS FOOD

All prepared with vegetables grown in local farmhouses using modern methods

Roots condition: 2



GET YOUR DELICIOUS FOOD

All prepared with vegetables grown in local farmhouses using modern methods

Roots condition: 3



9.4 Explanation per condition

To further explain the three different farming methods (traditional farming, traditional greenhouse farming, and scientific greenhouse farming) used during the quasi-experiment and the visual representation in Taste Lab and Roots.

Traditional farming is focused on the methods and practices which are based on traditional tools, natural resources and effective land use. Research shows that people generally feel that these locally produced products are fresher, more nutritious, tastier and safer than substitutes in the market. [As you can see on the posters we have used. It represents a gentleman outside on the field in casual clothing, keeping track of the harvest of the vegetables.](#)

Nowadays traditional farming has shifted towards mechanical techniques and chemical substances affecting the environment. The main reason this shift is being made is to increase the quantities per harvest to eventually increase their profitability. Besides their own economical benefit, this growth in production is necessary in general as the global population is expected to increase from 7.7 billion in 2019 to 9.7 in 2050. To ensure enough food for this growing population is considered one of the biggest challenges nowadays for the food industry.

Back to the traditional farming method. Apart from the increase in volume of these traditional modernised techniques, they also result in a depletion of soil nutrients, soil erosion, deforestation, and crop failure heavily affecting the environment. Additionally, chemical pesticides are used to prevent any pests or outside intruders which can eventually have an effect on the food nutrition or human health. So even though the quantities are highly increased, the effects on the environment and one's health bear the brunt of these techniques.

Then scientific farming which we can consider the exact opposite of traditional farming. For the poster we have used a picture of a scientist in a lab coat with a tablet. Moreover the greenhouse shows modern equipment in terms of lighting and techniques. We have done this to portrait someone who is focused on experimenting and artificially controlling the setting these products are grown in. Greenhouse farming allow farmers to grow vegetables in a controlled environment meaning they control the light, humidity, ventilation and temperature to create optimal growing circumstances. The scientific developments in greenhouses itself have lead to many advancements in terms of food produce, quality, volumes etc. You can think of multiple rows of fields, mobile shading, and cooling systems. Foods are kept under such strict and controlled circumstances to ensure the harvest will be a success within a shorter timeframe. Therefore this means: increased volumes, less time, and healthier products. Greenhouses are considered the future of agriculture when focusing on climate change, the growing population and nutritious healthy products.

Moving on to the greenhouse traditional farming, this was meant as an intervention. From previous studies we were already aware there was a preference for traditional farming in comparison to scientific farming. Therefore, we were wondering if this combined scenario of the greenhouse with the modern methods, but portrait with traditional methods, would increase the number of sales in comparison to the scientific. [For the poster you can see that we have used a picture in a greenhouse, but traditional maintenance as the person is watering the plants by himself.](#)



9.5 Appendix: Weekly overview experiment

Set-up Data Collection Week 4								
Date	Weekday	Start time	End time	Experiment Nr.	Leading MO Taste Lab	Contact details	Leading MO Roots	Contact details
23-mei	Monday	10:00	16:00	3	Noud Aardse		Fabienne Ruijgrok	
24-mei	Tuesday	11:30	14:00	3	Noud Aardse		Fabienne Ruijgrok	
25-mei	Wednesday	11:30	14:00	3	Noud Aardse		Fabienne Ruijgrok	
26-mei	Thursday	11:30	14:00	3	Noud Aardse		Fabienne Ruijgrok	
27-mei	Friday	11:30	14:00	3	Noud Aardse		Fabienne Ruijgrok	
Set-up Data Collection Week 5								
Date	Weekday	Start time	End time	Experiment Nr.	Leading MO Taste Lab	Contact details	Leading MO Roots	Contact details
30-mei	Monday	11:30	14:00	2	Josephine Verver		Julia de Man	
31-mei	Tuesday	11:30	14:00	2	Josephine Verver		Julia de Man	
1-jun	Wednesday	11:30	14:00	2	Josephine Verver		Julia de Man	
2-jun	Thursday	11:30	14:00	2	Josephine Verver		Julia de Man	
3-jun	Friday	11:30	14:00	2	Josephine Verver		Julia de Man	
Set-up Data Collection Week 6								
Date	Weekday	Start time	End time	Experiment Nr.	Leading MO Taste Lab	Contact details	Leading MO Roots	Contact details
6-jun	Monday	11:30	14:00	1	Noud Aardse		Fabienne Ruijgrok	
7-jun	Tuesday	11:30	14:00	1	Noud Aardse		Fabienne Ruijgrok	
8-jun	Wednesday	11:30	14:00	1	Noud Aardse		Fabienne Ruijgrok	
9-jun	Thursday	11:30	14:00	1	Noud Aardse		Fabienne Ruijgrok	
10-jun	Friday	11:30	14:00	1	Noud Aardse		Fabienne Ruijgrok	
Set-up Data Collection Week 7								
Date	Weekday	Start time	End time	Experiment Nr.	Leading MO Taste Lab	Contact details	Leading MO Roots	Contact details
13-jun	Monday	11:30	14:00	3	Josephine Verver		Julia de Man	
14-jun	Tuesday	11:30	14:00	3	Josephine Verver		Julia de Man	
15-jun	Wednesday	11:30	14:00	3	Josephine Verver		Julia de Man	
16-jun	Thursday	11:30	14:00	3	Josephine Verver		Julia de Man	
17-jun	Friday	11:30	14:00	3	Josephine Verver		Julia de Man	
Set-up Data Collection Week 8								
Date	Weekday	Start time	End time	Experiment Nr.	Leading MO Taste Lab	Contact details	Leading MO Roots	Contact details
20-jun	Monday	11:30	14:00	2	Noud Aardse		Fabienne Ruijgrok	
21-jun	Tuesday	11:30	14:00	2	Noud Aardse		Fabienne Ruijgrok	
22-jun	Wednesday	11:30	14:00	1	Noud Aardse		Fabienne Ruijgrok	
23-jun	Thursday	11:30	14:00	1	Noud Aardse		Fabienne Ruijgrok	
24-jun	Friday	11:30	14:00	1	Noud Aardse		Fabienne Ruijgrok	

General information experiments				
	Explanation	Online visuals	Signs visuals	Level of measurement
Condition 1	Greenhouse 'dirt': vegetables that have been grown in dirt and regulated in a greenhouse			Gather data at the end of shift by acquiring the spreadsheets from Mr. Waindrich
Condition 2	Greenhouse 'science': vegetables that have been grown in a greenhouse and regulated through scientific methods			Gather data at the end of shift by acquiring the spreadsheets from Mr. Waindrich
Condition 3	Traditional dirt farm: vegetables that have been grown outside in the dirt and are regulated through traditional methods			Gather data at the end of shift by acquiring the spreadsheets from Mr. Waindrich

General information food dishes Roots	
	Dish 1
Monday	Buddha Bowl
Tuesday	Filled bellpeppers
Wednesday	Wrap with vegetables
Thursday	Taco's
Friday	Bagel Sandwich

General information food dishes Taste Lab			
	Dish 1	Dish 2	Dish 3
Monday	Cucumber	Roasted Bellpepper	Lettuce
Tuesday	Cucumber	Roasted Bellpepper	Lettuce
Wednesday	Cucumber	Roasted Bellpepper	Lettuce
Thursday	Cucumber	Roasted Bellpepper	Lettuce
Friday	Cucumber	Roasted Bellpepper	Lettuce



9.6 Appendix: Results Roots experiment

Report shifts per turnover group

Den Haag - Roots

Date from: 23-05-2022

Number of shifts: 4

Date until: 23-05-2022

Sales totals	IdNr.	amount	amount €	perc %
Soft Drinks	1016	69	125.10	22.10 %
Juices & Smoothies	1017	13	19.10	3.37 %
Beverage low	1002	82	144.20	25.47 %
Food	1006	8	10.00	1.77 %
statistics root	500	8	10.00	1.77 %
Main course	1045	56	161.70	28.56 %
Dessert/Pastry/Chees	1037	72	77.60	13.71 %
Sandwiches	1038	58	127.60	22.54 %
Monos	1043	36	45.00	7.95 %
Food	1006	222	411.90	72.76 %
Total		312	566.10	100 %

Payment totals	amount €
Maestro	271.05
Mastercard	4.00
Visa	9.25
V-pay	23.00
Xafax	266.00
Total	573.30

VAT overview	base amount	VAT amount €
VAT 9.00 %	519.36	46.74

Tips totals	amount €
tip	0.00
Total	0.00

Cash transactions totals	amount €
no cash transactions	0.00
Total	0.00

Discount totals	amount €
Discount	0.00
Total	0.00

Totals deposit sales	count	amount
Statiegeld	48	7.20

Employees: Roots
25-May-2022

booq

Page 1 of 2

**Report shifts per turnover group**

Den Haag - Roots

Date from: 24-05-2022 Number of shifts: 4

Date until: 24-05-2022

Sales totals	IdNr.	amount	amount €	perc %
Soft Drinks	1016	50	86.60	14.01 %
Juices & Smoothies	1017	14	20.20	3.27 %
Beverage low	1002	64	106.80	17.28 %
Food	1006	15	18.75	3.03 %
statistics root	500	15	18.75	3.03 %
Main course	1045	72	217.25	35.15 %
Dessert/Pastry/Chees	1037	64	77.55	12.55 %
Sandwiches	1038	74	162.80	26.34 %
Monos	1043	28	35.00	5.66 %
Food	1006	238	492.60	79.69 %
Total		317	618.15	100 %

Payment totals	amount €
Maestro	336.15
Mastercard	1.25
Visa	16.10
V-pay	31.50
Xafax	238.10
Total	623.10

VAT overview	base amount	VAT amount €
VAT 9.00 %	567.11	51.04

Tips totals	amount €
tip	0.00
Total	0.00

Cash transactions totals	amount €
no cash transactions	0.00
Total	0.00

Discount totals	amount €
Discount	0.00
Total	0.00

Totals deposit sales	count	amount
Statiegeld	33	4.95

Employees: Roots
25-May-2022

booq

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**Report shifts per turnover group**

Den Haag - Roots

Date from: 25-05-2022

Number of shifts: 2

Date until: 25-05-2022

Sales totals	IdNr.	amount	amount €	perc %
Soft Drinks	1016	51	91.90	19.07 %
Juices & Smoothies	1017	9	11.50	2.39 %
Beverage low	1002	60	103.40	21.46 %
Food	1006	10	12.50	2.59 %
statistics root	500	10	12.50	2.59 %
Main course	1045	47	136.95	28.42 %
Dessert/Pastry/Chees	1037	43	45.60	9.46 %
Sandwiches	1038	76	167.20	34.70 %
Monos	1043	13	16.25	3.37 %
Food	1006	179	366.00	75.95 %
Total		249	481.90	100 %

Payment totals	amount €
Maestro	231.50
Mastercard	5.25
Visa	8.40
V-pay	26.30
Xafax	215.25
Total	486.70

VAT overview	base amount	VAT amount €
VAT 9.00 %	442.11	39.79

Tips totals	amount €
tip	0.00
Total	0.00

Cash transactions totals	amount €
no cash transactions	0.00
Total	0.00

Discount totals	amount €
Discount	0.00
Total	0.00

Totals deposit sales	count	amount
Statiegeld	32	4.80

Employees: Roots
30-May-2022

booq

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**Report shifts per turnover group**

Den Haag - Roots

Date from: 30-05-2022 Number of shifts: 4
 Date until: 30-05-2022

Sales totals	IdNr.	amount	amount €	perc %
Soft Drinks	1016	62	115.00	20.24 %
Juices & Smoothies	1017	19	24.50	4.31 %
Beverage low	1002	81	139.50	24.55 %
Food	1006	18	22.50	3.96 %
statistics root	500	18	22.50	3.96 %
Main course	1045	65	193.05	33.97 %
Dessert/Pastry/Chees	1037	40	50.95	8.97 %
Sandwiches	1038	55	121.00	21.29 %
Monos	1043	33	41.25	7.26 %
Food	1006	193	406.25	71.49 %
Total		292	568.25	100 %

Payment totals	amount €
Maestro	318.70
Visa	3.30
V-pay	52.05
Xafax	200.95
Total	575.00

VAT overview	base amount	VAT amount €
VAT 9.00 %	521.33	46.92

Tips totals	amount €
tip	0.00
Total	0.00

Cash transactions totals	amount €
no cash transactions	0.00
Total	0.00

Discount totals	amount €
Discount	0.00
Total	0.00

Totals deposit sales	count	amount
Statiegeld	45	6.75
Total	45	6.75

Employees: Roots
 05-Jun-2022

booq

Page 1 of 1

**Report shifts per turnover group**

Den Haag - Roots

Date from: 31-05-2022 Number of shifts: 4
 Date until: 31-05-2022

Sales totals	IdNr.	amount	amount €	perc %
Soft Drinks	1016	38	68.80	18.29 %
Juices & Smoothies	1017	3	4.10	1.09 %
Beverage low	1002	41	72.90	19.38 %
Food	1006	2	2.50	0.66 %
statistics root	500	2	2.50	0.66 %
Main course	1045	55	155.65	41.38 %
Dessert/Pastry/Chees	1037	59	78.95	20.99 %
Sandwiches	1038	17	37.40	9.94 %
Monos	1043	23	28.75	7.64 %
Food	1006	154	300.75	79.95 %
Total		197	376.15	100 %

Payment totals	amount €
Maestro	189.00
Visa	8.25
V-pay	21.35
Xafax	161.90
Total	380.50

VAT overview	base amount	VAT amount €
VAT 9.00 %	345.09	31.06

Tips totals	amount €
tip	0.00
Total	0.00

Cash transactions totals	amount €
no cash transactions	0.00
Total	0.00

Discount totals	amount €
Discount	0.00
Total	0.00

Totals deposit sales	count	amount
Statiegeld	29	4.35
Total	29	4.35

Employees: Roots
 05-jun-2022

booq

Page 1 of 1



Den Haag - Roots

Product report

2192	Salad Chickpea	20.00	55.00
2230	Salad Greek	1.00	2.75
2243	Salad Tomato	6.00	16.50
2242	Turkish Pizza	11.00	36.30
1114	Butcha Hop & Grapefruit	4.00	10.00
1115	Butcha Orange & Bergamot	2.00	5.00
1124	Schulp Apple Big	1.00	3.50
1122	Schulp Apple Elderflower	2.00	3.00
1121	Schulp Apple juice	7.00	10.50
1123	Schulp Apple Raspberrie	3.00	4.50
1116	Vitamin Water Blackberry/Acai	10.00	17.00
1117	Vitamin Water Lemon/Cactus	6.00	10.20
1118	Vitamin Water Lemon/Lychee	16.00	27.20
1119	Vitamin Water Mango/Guave	14.00	23.80
1120	Vitamin Water Raspberries/Pomegranate	12.00	20.40
1195	Juice	2.00	2.20
1197	Mixed juice	3.00	3.30
1194	Smoothie	7.00	10.50
1356	Croissant	2.00	1.80
1350	Pastry € 0.90	3.00	2.70
1351	Pastry € 1.00	1.00	1.00
1352	Pastry € 1.25	19.00	23.75
1353	Pastry € 1.50	25.00	37.50
2244	Sandwich Caprese	66.00	145.20
2110	Sandwich Cheese	13.00	28.60
2231	Sandwich Halloumi	11.00	24.20
2245	Wrap	17.00	37.40
2140	Chocolatebar	22.00	27.50

Total 306.00 591.30

Mr. Bol, Lennart
6/1/22 10:06 PM

Den Haag - Roots

Product report

2259	Salad Cauliflower	16.00	44.00
2230	Salad Greek	10.00	27.50
2260	Vega Pumpkin	7.00	23.10
1114	Butcha Hop & Grapefruit	6.00	15.00
1115	Butcha Orange & Bergamot	1.00	2.50
1113	Butcher Ginger & Lime	1.00	2.50
1112	Schulp Apple Elderflower	1.00	1.50
1121	Schulp Apple juice	5.00	7.50
1123	Schulp Apple Raspberrie	1.00	1.50
1127	Schulp Pear juice Bio	1.00	1.50
1116	Vitamin Water Blackberry/Acai	6.00	10.20
1117	Vitamin Water Lemon/Cactus	9.00	15.30
1118	Vitamin Water Lemon/Lychee	4.00	6.80
1119	Vitamin Water Mango/Guave	7.00	11.90
1120	Vitamin Water Raspberries/Pomegranate	8.00	13.60
1195	Juice	3.00	3.30
1194	Smoothie	3.00	4.50
1196	Veggie juice	1.00	1.10
1356	Croissant	11.00	9.90
1350	Pastry € 0.90	1.00	0.90
1351	Pastry € 1.00	8.00	8.00
1352	Pastry € 1.25	20.00	25.00
1353	Pastry € 1.50	50.00	75.00
1354	Pastry € 1.75	1.00	1.75
2139	Nakd Cocoa Delight	2.00	2.50
2220	Sandwich Cream Cheese	20.00	44.00
2261	Sandwich Tofu	12.00	26.40
2140	Chocolatebar	2.00	2.50

Total 217.00 389.25

Mr. Hillemans, Jeroen
6/3/22 6:53 PM



Start date: 02-06-2022 06:00

End date: 02-06-2022 23:00

This overview is not suitable for your VAT statement, amounts may have been rounded off.

Name	ID	Total	Excl. Incl. discount Incl. discount		
			Incl. VAT	Excl. VAT	Incl. VAT
Carrot Cake	805	1	3.00	2.75	3.00
Croissant	254	6	5.40	4.98	5.40
Pastry € 0.90	248	3	2.70	2.49	2.70
Pastry € 1.00	249	8	8.00	7.36	8.00
Pastry € 1.25	250	14	17.50	16.10	17.50
Pastry € 1.50	251	48	72.00	66.24	72.00
Pastry € 1.75	252	1	1.75	1.61	1.75
Dessert/Pastry/Chees	28	81	110.35	101.53	110.35
Nakd Cocoa Delight	942	4	5.00	4.60	5.00
Food	24	4	5.00	4.60	5.00
Juice	57	3	3.30	3.03	3.30
Mixed juice	59	2	2.20	2.02	2.20
Smoothie	56	8	12.00	11.04	12.00
Juices & Smoothies	4	13	17.50	16.09	17.50
Salad Feta	652	8	22.00	20.16	22.00
Salad Mozzarella	657	18	49.50	45.36	49.50
Vega Taco	790	14	46.20	42.42	46.20
Main course	36	40	117.70	107.94	117.70
Chocolatebar	943	16	20.00	18.40	20.00
Monos	34	16	20.00	18.40	20.00
Clubsandwich	954	59	147.50	135.11	147.50
Sandwich Cream Cheese	480	13	28.60	26.26	28.60
Sandwiches	29	72	176.10	161.37	176.10



Den Haag - Roots

Product report

2109 Buddha Bowl	25.00	68.75
2217 Vega Stuffed Bellpepper	13.00	42.90
1114 Butcha Hop & Grapefruit	2.00	5.00
1115 Butcha Orange & Bergamot	3.00	7.50
1121 Schulp Apple juice	4.00	6.00
1122 Schulp Apple Rhubarb Big	1.00	3.50
1127 Schulp Pear juice Bio	1.00	1.50
1116 Vitamin Water Blackberry/Acai	15.00	25.50
1117 Vitamin Water Lemon/Cactus	12.00	20.40
1118 Vitamin Water Lemon/Lychee	9.00	15.30
1119 Vitamin Water Mango/Guave	19.00	32.30
1120 Vitamin Water Raspberries/Pomegran ate	20.00	34.00
1195 Juice	3.00	3.30
1194 Smoothie	8.00	12.00
1350 Pastry € 0.90	21.00	18.90
1351 Pastry € 1.00	7.00	7.00
1352 Pastry € 1.25	16.00	20.00
1353 Pastry € 1.50	39.00	58.50
2139 Nakd Cocoa Delight	18.00	22.50
2244 Sandwich Caprese	70.00	154.00
2220 Sandwich Cream Cheese	4.00	8.80
2184 Sandwich Falafel	35.00	84.00
2140 Chocolatebar	20.00	25.00
Total	365.00	676.65

Roots,
6/7/22 7:12 PM

Den Haag - Roots

Product report

2109 Buddha Bowl	13.00	35.75
2270 Gnocchi	31.00	102.30
2271 Salad Halloumi	21.00	57.75
1114 Butcha Hop & Grapefruit	3.00	7.50
1115 Butcha Orange & Bergamot	1.00	2.50
1122 Schulp Apple Elderflower	1.00	1.50
1121 Schulp Apple juice	3.00	4.50
1123 Schulp Apple Raspberrie	3.00	4.50
1127 Schulp Pear juice Bio	1.00	1.50
1116 Vitamin Water Blackberry/Acai	7.00	11.90
1117 Vitamin Water Lemon/Cactus	10.00	17.00
1118 Vitamin Water Lemon/Lychee	10.00	17.00
1119 Vitamin Water Mango/Guave	17.00	28.90
1120 Vitamin Water Raspberries/Pomegran ate	12.00	20.40
1195 Juice	5.00	5.50
1194 Smoothie	7.00	10.50
2047 Carrot Cake	2.00	6.00
1350 Pastry € 0.90	9.00	8.10
1351 Pastry € 1.00	8.00	8.00
1352 Pastry € 1.25	25.00	31.25
1353 Pastry € 1.50	28.00	42.00
2139 Nakd Cocoa Delight	12.00	15.00
2272 Sandwich Ricotta	37.00	81.40
2140 Chocolatebar	13.00	16.25
Total	279.00	537.00

Roots,
6/8/22 7:21 PM



Den Haag - Roots

Product report

2109 Buddha Bowl	20.00	55.00
2192 Salad Chickpea	17.00	46.75
2252 Vega Taco	21.00	69.30
1114 Butcha Hop & Grapefruit	3.00	7.50
1115 Butcha Orange & Bergamot	1.00	2.50
1121 Schulp Apple juice	2.00	3.00
1123 Schulp Apple Raspberry	1.00	1.50
1 Schulp Pear juice Bio	2.00	3.00
1116 Vitamin Water Blackberry/Acai	10.00	17.00
1117 Vitamin Water Lemon/Cactus	5.00	8.50
1118 Vitamin Water Lemon/Lychee	5.00	8.50
1119 Vitamin Water Mango/Guave	12.00	20.40
1120 Vitamin Water Raspberries/Pomegranate	4.00	6.80
1195 Juice	1.00	1.10
1194 Smoothie	3.00	4.50
1350 Pastry € 0.90	6.00	5.40
1351 Pastry € 1.00	4.00	4.00
1352 Pastry € 1.25	6.00	7.50
1353 Pastry € 1.50	24.00	36.00
2 Hotdog	26.00	57.20
2139 Nakd Cocoa Delight	2.00	2.50
2095 Sandwich Hummus	9.00	19.80
2140 Chocolatebar	10.00	12.50
Total	194.00	400.25

Roots,
6/9/22 7:28 PM

Den Haag - Roots

Product report

2109 Buddha Bowl	5.00	13.75
2194 Pasta Tomato	6.00	19.80
2283 Poke Bowl	34.00	93.50
1114 Butcha Hop & Grapefruit	4.00	10.00
1115 Butcha Orange & Bergamot	1.00	2.50
1113 Butcher Ginger & Lime	1.00	2.50
1121 Schulp Apple juice	3.00	4.50
1123 Schulp Apple Raspberry	1.00	1.50
1116 Vitamin Water Blackberry/Acai	1.00	1.70
1117 Vitamin Water Lemon/Cactus	2.00	3.40
1118 Vitamin Water Lemon/Lychee	4.00	6.80
1119 Vitamin Water Mango/Guave	5.00	8.50
1120 Vitamin Water Raspberries/Pomegranate	5.00	8.50
1195 Juice	1.00	1.10
1194 Smoothie	2.00	3.00
1350 Pastry € 0.90	12.00	10.80
1351 Pastry € 1.00	6.00	6.00
1352 Pastry € 1.25	6.00	7.50
1353 Pastry € 1.50	9.00	13.50
2253 Clubsandwich	29.00	69.60
2139 Nakd Cocoa Delight	1.00	1.25
2220 Sandwich Cream Cheese	11.00	24.20
2140 Chocolatebar	9.00	11.25
Total	158.00	325.15

Roots,
6/10/22 7:34 PM



Start date: 13-06-2022 06:00

End date: 13-06-2022 23:00

This overview is not suitable for your VAT statement, amounts may have been rounded off.

Name	ID	Total	Excl. Incl. discount Incl. discount		
			Incl. VAT	Excl. VAT	Incl. VAT
Carrot Cake	805	1	3.00	2.75	3.00
Pastry € 0.90	248	4	3.60	3.32	3.60
Pastry € 1.00	249	19	19.00	17.48	19.00
Pastry € 1.25	250	19	23.75	21.85	23.75
Pastry € 1.50	251	58	87.00	80.04	87.00
Pastry € 1.75	252	1	1.75	1.61	1.75
Dessert/Pastry/Chees	28	102	138.10	127.05	138.10
Juice	57	3	3.30	3.03	3.30
Mixed juice	59	2	2.20	2.02	2.20
Smoothie	56	4	6.00	5.52	6.00
Juices & Smoothies	4	9	11.50	10.57	11.50
Buddha Bowl	899	15	41.25	37.80	41.25
Pasta Tomato	549	18	59.40	54.54	59.40
Poke Bowl	626	10	27.50	25.20	27.50
Main course	36	43	128.15	117.54	128.15
Chocolatebar	943	5	6.25	5.75	6.25
Monos	34	5	6.25	5.75	6.25
Clubsandwich	954	31	74.40	68.20	74.40
Sandwich Cream Cheese	480	11	24.20	22.22	24.20
Sandwiches	29	42	98.60	90.42	98.60



Start date: 15-06-2022 06:00

End date: 15-06-2022 23:00

This overview is not suitable for your VAT statement, amounts may have been rounded off.

Name	ID	Total	Excl. discount		Incl. discount	
			Incl. VAT	Excl. VAT	Incl. VAT	Excl. VAT
Pastry € 0.90	248	9	8.10	7.47	8.10	7.47
Pastry € 1.00	249	16	16.00	14.72	16.00	14.72
Pastry € 1.25	250	11	13.75	12.65	13.75	12.65
Pastry € 1.50	251	40	60.00	55.20	60.00	55.20
Dessert/Pastry/Chees	28	76	97.85	90.04	97.85	90.04
Nakd Cocoa Delight	942	17	21.25	19.55	21.25	19.55
Food	24	17	21.25	19.55	21.25	19.55
Juice	57	7	7.70	7.07	7.70	7.07
Mixed juice	59	1	1.10	1.01	1.10	1.01
Smoothie	56	4	6.00	5.52	6.00	5.52
Veggie juice	58	1	1.10	1.01	1.10	1.01
Juices & Smoothies	4	13	15.90	14.61	15.90	14.61
Asparagus	884	16	56.00	51.36	56.00	51.36
Buddha Bowl	899	4	11.00	10.08	11.00	10.08
Vega Salad Chicken	675	12	33.00	30.24	33.00	30.24
Main course	36	32	100.00	91.68	100.00	91.68
Chocolatebar	943	9	11.25	10.35	11.25	10.35
Monos	34	9	11.25	10.35	11.25	10.35
Sandwich Ricotta	987	5	11.00	10.10	11.00	10.10
Wrap Vega	507	80	176.00	161.60	176.00	161.60
Sandwiches	29	85	187.00	171.70	187.00	171.70



Den Haag - Roots

Product report

2109 Buddha Bowl	2.00	5.50
2299 Salad Bacon	7.00	19.25
2300 Salad Lentil	3.00	8.25
2301 Taco's	23.00	75.90
1115 Butcha Orange & Bergamot	1.00	2.50
1122 Schulp Apple Elderflower	1.00	1.50
1126 Schulp Apple Elderflower Big	2.00	7.00
1123 Schulp Apple Raspberry	2.00	3.00
1127 Schulp Pear juice Bio	1.00	1.50
2102 Vifit Forest Fruits	3.00	4.50
2104 Vifit Strawberry	3.00	4.50
1116 Vitamin Water Blackberry/Acai	11.00	18.70
1117 Vitamin Water Lemon/Cactus	10.00	17.00
1118 Vitamin Water Lemon/Lychee	5.00	8.50
1119 Vitamin Water Mango/Guave	9.00	15.30
1120 Vitamin Water Raspberries/Pomegranate	12.00	20.40
1195 Juice	2.00	2.20
1197 Mixed juice	3.00	3.30
1194 Smoothie	2.00	3.00
1196 Veggie juice	1.00	1.10
1350 Pastry € 0.90	6.00	5.40
1351 Pastry € 1.00	10.00	10.00
1352 Pastry € 1.25	8.00	10.00
1353 Pastry € 1.50	15.00	22.50
1355 Pastry € 2.00	1.00	2.00
2139 Nakd Cocoa Delight	8.00	10.00
2261 Sandwich Tofu	19.00	41.80
2152 Sandwich Vegetarian	23.00	50.60
2140 Chocolatebar	11.00	13.75

Total 204.00 388.95

Mr. Prinsen, Kevin
6/16/22 8:31 PM

Den Haag - Roots

Product report

2136 Salad Caesar	10.00	27.50
2162 Salad Pasta	9.00	24.75
2163 Shoarma	14.00	46.20
1114 Butcha Hop & Grapefruit	1.00	2.50
1122 Schulp Apple Elderflower	1.00	1.50
1121 Schulp Apple juice	1.00	1.50
1127 Schulp Pear juice Bio	2.00	3.00
2102 Vifit Forest Fruits	3.00	4.50
2103 Vifit Peach	2.00	3.00
2104 Vifit Strawberry	2.00	3.00
1116 Vitamin Water Blackberry/Acai	8.00	13.60
1117 Vitamin Water Lemon/Cactus	4.00	6.80
1118 Vitamin Water Lemon/Lychee	5.00	8.50
1119 Vitamin Water Mango/Guave	9.00	15.30
1120 Vitamin Water Raspberries/Pomegranate	8.00	13.60
1195 Juice	3.00	3.30
1197 Mixed juice	1.00	1.10
1194 Smoothie	1.00	1.50
1196 Veggie juice	1.00	1.10
1350 Pastry € 0.90	5.00	4.50
1351 Pastry € 1.00	13.00	13.00
1352 Pastry € 1.25	5.00	6.25
1353 Pastry € 1.50	4.00	6.00
2139 Nakd Cocoa Delight	2.00	2.50
2110 Sandwich Cheese	19.00	41.80
2204 Sandwich Vega Tuna	7.00	15.40
2140 Chocolatebar	10.00	12.50

Total 150.00 284.20

Mr. Hillemans, Jeroen
6/17/22 8:32 PM



Start date: 20-06-2022 06:00

End date: 20-06-2022 23:00

This overview is not suitable for your VAT statement, amounts may have been rounded off.

Name	ID	Total	Excl. Incl. discount Incl. discount		
			Incl. VAT	Excl. VAT	Incl. VAT
Pastry € 0.90	248	19	17.10	15.77	17.10
Pastry € 1.00	249	3	3.00	2.76	3.00
Pastry € 1.25	250	34	42.50	39.10	42.50
Pastry € 1.50	251	5	7.50	6.90	7.50
Dessert/Pastry/Chees	28	61	70.10	64.53	70.10
Nakd Cocoa Delight	942	12	15.00	13.80	15.00
Food	24	12	15.00	13.80	15.00
Smoothie	56	12	18.00	16.56	18.00
Veggie juice	58	3	3.30	3.03	3.30
Juices & Smoothies	4	15	21.30	19.59	21.30
Buddha Bowl	899	21	57.75	52.92	57.75
Vega Mushroom Risotto	775	38	125.40	115.14	125.40
Main course	36	59	183.15	168.06	183.15
Chocolatebar	943	27	33.75	31.05	33.75
Monos	34	27	33.75	31.05	33.75
Sandwich Falafel	481	20	44.00	40.40	44.00
Sandwich Vegetarian	941	34	74.80	68.68	74.80
Sandwiches	29	54	118.80	109.08	118.80



Den Haag - Roots

Product report

2109 Buddha Bowl	16.00	44.00
2162 Salad Pasta	16.00	44.00
2217 Vega Stuffed Bellpepper	14.00	46.20
1114 Butcha Hop & Grapefruit	3.00	7.50
1115 Butcha Orange & Bergamot	2.00	5.00
1113 Butcher Ginger & Lime	1.00	2.50
1121 Schulp Apple juice	6.00	9.00
1123 Schulp Apple Raspberry	2.00	3.00
1127 Schulp Pear juice Bio	2.00	3.00
2102 Vifit Forest Fruits	1.00	1.50
2104 Vifit Strawberry	2.00	3.00
1116 Vitamin Water Blackberry/Acai	11.00	18.70
1117 Vitamin Water Lemon/Cactus	7.00	11.90
1118 Vitamin Water Lemon/Lychee	6.00	10.20
1119 Vitamin Water Mango/Guave	13.00	22.10
1120 Vitamin Water Raspberries/Pomegran ate	11.00	18.70
1195 Juice	3.00	3.30
1194 Smoothie	3.00	4.50
1350 Pastry € 0.90	20.00	18.00
1351 Pastry € 1.00	6.00	6.00
1352 Pastry € 1.25	71.00	88.75
1353 Pastry € 1.50	9.00	13.50
2139 Nakd Cocoa Delight	5.00	6.25
2316 Tostl	70.00	154.00
2226 Wrap Vega	34.00	74.80
2140 Chocolatebar	14.00	17.50
<hr/>		
Total	348.00	636.90

Roots,
6/21/22 6:58 PM

Den Haag - Roots

Product report

2109 Buddha Bowl	1.00	2.75
2162 Salad Pasta	11.00	30.25
2217 Vega Stuffed Bellpepper	27.00	89.10
1114 Butcha Hop & Grapefruit	1.00	2.50
1115 Butcha Orange & Bergamot	2.00	5.00
1121 Schulp Apple juice	3.00	4.50
2102 Vifit Forest Fruits	6.00	9.00
2103 Vifit Peach	5.00	7.50
2104 Vifit Strawberry	4.00	6.00
1116 Vitamin Water Blackberry/Acai	11.00	18.70
1117 Vitamin Water Lemon/Cactus	11.00	18.70
1118 Vitamin Water Lemon/Lychee	6.00	10.20
1119 Vitamin Water Mango/Guave	19.00	32.30
1120 Vitamin Water Raspberries/Pomegran ate	14.00	23.80
1195 Juice	3.00	3.30
1194 Smoothie	2.00	3.00
1350 Pastry € 0.90	24.00	21.60
1351 Pastry € 1.00	1.00	1.00
1352 Pastry € 1.25	59.00	73.75
1353 Pastry € 1.50	1.00	1.50
2316 Tostl	69.00	151.80
2226 Wrap Vega	42.00	92.40
2140 Chocolatebar	4.00	5.00
<hr/>		
Total	326.00	613.65

Roots,
6/22/22 6:52 PM



Den Haag - Roots

Product report

2109 Buddha Bowl	3.00	8.25
2218 Salad Couscous	14.00	38.50
2182 Vega Burger	10.00	37.50
1115 Butcha Orange & Bergamot	1.00	2.50
2103 Vifit Peach	1.00	1.50
1116 Vitamin Water Blackberry/Acai	4.00	6.80
1117 Vitamin Water Lemon/Cactus	9.00	15.30
1118 Vitamin Water Lemon/Lychee	6.00	10.20
1119 Vitamin Water Mango/Guave	4.00	6.80
1120 Vitamin Water Raspberries/Pomegranate	4.00	6.80
1195 Juice	1.00	1.10
1194 Smoothie	2.00	3.00
1350 Pastry € 0.90	9.00	8.10
1351 Pastry € 1.00	4.00	4.00
1352 Pastry € 1.25	32.00	40.00
1353 Pastry € 1.50	2.00	3.00
2329 Sandwich Chicken	4.00	9.60
2095 Sandwich Hummus	7.00	15.40
2140 Chocolatebar	2.00	2.50
Total	119.00	220.85

Roots,
6/24/22 6:58 PM

Den Haag - Roots

Product report

2109 Buddha Bowl	11.00	30.25
2094 Nasi Goreng	33.00	108.90
2321 Salad Rice	14.00	38.50
1114 Butcha Hop & Grapefruit	1.00	2.50
1124 Schulp Apple Big	1.00	3.50
1121 Schulp Apple juice	3.00	4.50
1123 Schulp Apple Raspberry	6.00	9.00
2102 Vifit Forest Fruits	2.00	3.00
2103 Vifit Peach	2.00	3.00
2104 Vifit Strawberry	3.00	4.50
1116 Vitamin Water Blackberry/Acai	7.00	11.90
1117 Vitamin Water Lemon/Cactus	7.00	11.90
1118 Vitamin Water Lemon/Lychee	6.00	10.20
1119 Vitamin Water Mango/Guave	18.00	30.60
1120 Vitamin Water Raspberries/Pomegranate	9.00	15.30
1195 Juice	2.00	2.20
1194 Smoothie	10.00	15.00
2327 Make a Wish	7.00	14.00
1350 Pastry € 0.90	17.00	15.30
1351 Pastry € 1.00	14.00	14.00
1352 Pastry € 1.25	58.00	72.50
1353 Pastry € 1.50	2.00	3.00
2244 Sandwich Caprese	16.00	35.20
2322 Wrap Falafel	38.00	83.60
2140 Chocolatebar	13.00	16.25
Total	300.00	558.60

Roots,
6/23/22 7:12 PM



Results sales Roots											
	Monday		Tuesday		Wednesday		Thursday		Friday		
	Buddha Bowl	Totals	Bell peppers	Totals	Wrap	Totals	Taco's	Totals	Bagel	Totals	
Week 4	42	114	35	146	41	123	x		x		
Week 5	28	120	8	154	17	217	14	112	20	160	
Week 6	x		13	250	37	199	21	145	11	128	
Week 7	15	187			80	210	23	136	19	98	
Week 8	21	213	14	275	42	239	33	216	7	87	
	Unavailable data collection days										
	Have not received data from Mr Waindrich										
	Production error										

Results (%)					
	Monday	Tuesday	Wednesday	Thursday	Friday
Week 4	36,84%	23,97%	33,33%		
Week 5	23,33%	5,19%	7,83%	12,50%	12,50%
Week 6		5,20%	18,59%	14,48%	8,59%
Week 7	8,02%		38,10%	16,91%	19,39%
Week 8	9,86%	5,09%	17,57%	15,28%	8,05%

One data collection day is not valid as the planned dish could not be made due to a delivery error. Hence, the sales data is missing for Roots on 14 June 2022. For the data collection in SPSS, it has been chosen to take an average of the valid numbers for the total amount of sales.

The unavailable data collection days are due to public holidays in The Netherlands being: Hemelvaart.



9.7 Appendix: Results Taste Lab experiment

Report shifts per turnover group Den Haag - Foodcourt

Date from: 23-05-2022 Number of shifts: 20

Date until: 23-05-2022

Sales totals	IdNr.	amount	amount €	perc %
Soft Drinks	1011	106	178.20	7.97 %
Juices & Smoothies	1012	14	19.40	0.87 %
Beverage low	1001	120	197.60	8.84 %
Main course	1040	375	1275.15	57.04 %
Starter	1030	40	40.00	1.79 %
Dessert/Pastry/Chees	1032	162	194.05	8.68 %
Sandwiches	1033	224	528.60	23.65 %
Food	1005	801	2037.80	91.16 %
Total		921	2235.40	100 %

Payment totals	amount €
Maestro	1053.60
Mastercard	3.00
Visa	36.20
V-pay	107.50
Xafax	1046.50
Total	2246.80

VAT overview	base amount	VAT amount €
VAT 9.00 %	2050.83	184.57

Tips totals	amount €
tip	0.00
Total	0.00

Cash transactions totals	amount €
no cash transactions	0.00
Total	0.00

Discount totals	amount €
Discount	0.00
Total	0.00

Totals deposit sales	count	amount
Statiegeld	76	11.40
Total	76	11.40

Employees: Food Court 2, FoodCourt 3, Mr. Westerveld, FoodCourt 1
25-May-2022 boog

Page 1 of 1

**Report shifts per turnover group**

Den Haag - Foodcourt

Date from: 24-05-2022

Number of shifts: 14

Date until: 24-05-2022

Sales totals	IdNr.	amount	amount €	perc %
Soft Drinks	1011	121	207.90	9.72 %
Juices & Smoothies	1012	9	12.30	0.58 %
Beverage low	1001	130	220.20	10.29 %
Main course	1040	279	973.35	45.50 %
Starter	1030	41	41.00	1.92 %
Dessert/Pastry/Chees	1032	182	224.30	10.49 %
Sandwiches	1033	292	680.20	31.80 %
Food	1005	794	1918.85	89.71 %
Total		924	2139.05	100 %

Payment totals	amount €
Maestro	1135.65
Mastercard	3.30
Visa	23.95
V-pay	119.10
Xafax	868.90
Total	2150.90

VAT overview	base amount	VAT amount €
VAT 9.00 %	1962.43	176.62

Tips totals	amount €
tip	0.00
Total	0.00

Cash transactions totals	amount €
no cash transactions	0.00
Total	0.00

Discount totals	amount €
Discount	0.00
Total	0.00

Totals deposit sales	count	amount
Statiegeld	79	11.85
Total	79	11.85

Employees: FoodCourt 1, Mr. Westerveld, FoodCourt 3, Food Court 2
25-May-2022 boog

Page 1 of 1

**Report shifts per turnover group**

Den Haag - Foodcourt

Date from: 25-05-2022 Number of shifts: 8

Date until: 25-05-2022

Sales totals	IdNr.	amount	amount €	perc %
Soft Drinks	1011	106	172.20	10.02 %
Juices & Smoothies	1012	16	19.60	1.14 %
Beverage low	1001	122	191.80	11.16 %
Main course	1040	231	798.55	46.47 %
Starter	1030	16	16.00	0.93 %
Dessert/Pastry/Chees	1032	156	182.55	10.62 %
Sandwiches	1033	224	529.40	30.81 %
Food	1005	627	1526.50	88.84 %
Total		749	1718.30	100 %

Payment totals	amount €
Maestro	928.80
Mastercard	6.80
Visa	16.15
V-pay	117.20
Xafax	658.50
Total	1727.45

VAT overview	base amount	VAT amount €
VAT 9.00 %	1576.42	141.88

Tips totals	amount €
tip	0.00
Total	0.00

Cash transactions totals	amount €
no cash transactions	0.00
Total	0.00

Discount totals	amount €
Discount	0.00
Total	0.00

Totals deposit sales	count	amount
Statiegeld	61	9.15
Total	61	9.15

Employees: FoodCourt 1, FoodCourt 3, Mr. Westerveld, Food Court 2
30-May-2022 boog

Page 1 of 1

**Report shifts per turnover group**

Den Haag - Foodcourt

Date from: 30-05-2022 Number of shifts: 12
 Date until: 30-05-2022

Sales totals	IdNr.	amount	amount €	perc %
Hot Drinks	1010	15	33.00	1.30 %
Soft Drinks	1011	216	409.60	16.17 %
Juices & Smoothies	1012	20	24.80	0.98 %
Beverage low	1001	251	467.40	18.45 %
Main course	1040	311	1140.80	45.03 %
Starter	1030	20	20.00	0.79 %
Dessert/Pastry/Chees	1032	174	269.75	10.65 %
Sandwiches	1033	285	635.70	25.09 %
Food	1005	790	2066.25	81.55 %
Total		1041	2533.65	100 %

Payment totals	amount €
Maestro	1124.55
Mastercard	18.95
Visa	11.05
V-pay	152.85
Xafax	852.50
Op rekening	385.30
Total	2545.20

VAT overview	base amount	VAT amount €
VAT 9.00 %	2324.45	209.20

Tips totals	amount €
tip	0.00
Total	0.00

Cash transactions totals	amount €
no cash transactions	0.00
Total	0.00

Discount totals	amount €
Discount	0.00
Total	0.00

Totals deposit sales	count	amount
Statiegeld	77	11.55
Total	77	11.55

Employees: Mr. Hillemans, FoodCourt 1, FoodCourt 3, Food Court 2, Mr. Prinsen
 05-Jun-2022 boog

Page 1 of 1

**Report shifts per turnover group**

Den Haag - Foodcourt

Date from: 31-05-2022

Number of shifts:

10

Date until: 31-05-2022

Sales totals	IdNr.	amount	amount €	perc %
Soft Drinks	1011	101	176.70	7.94 %
Juices & Smoothies	1012	8	9.20	0.41 %
Beverage low	1001	109	185.90	8.35 %
Roomrentaal	1024	3	705.00	31.67 %
Non food	1003	3	705.00	31.67 %
Main course	1040	198	737.90	33.14 %
Starter	1030	25	25.00	1.12 %
Dessert/Pastry/Chees	1032	89	116.35	5.23 %
Sandwiches	1033	209	456.20	20.49 %
Food	1005	521	1335.45	59.98 %
Total		633	2226.35	100 %

Payment totals	amount €
Maestro	706.40
Visa	21.55
V-pay	64.55
Xafax	678.95
Op rekening	763.75
Total	2235.20

VAT overview	base amount	VAT amount €
VAT 9.00 %	1395.73	125.62
VAT 21.00 %	582.64	122.36

Tips totals	amount €
tip	0.00
Total	0.00

Cash transactions totals	amount €
no cash transactions	0.00
Total	0.00

Discount totals	amount €
Discount	0.00
Total	0.00

Employees: FoodCourt 3, Mr. Hillemans, FoodCourt 1, Food Court 2
05-jun-2022 boq

Page 1 of 2



Den Haag - Foodcourt

Product report

2099 Good to go Salad	14.00	21.00
2263 Perch	19.00	85.50
2287 Pizza Serrano	41.00	161.95
2164 Salmon	14.00	68.25
2356 Taco Beef	120.00	450.00
2165 Vega Lasagne	68.00	224.40
1195 Butcha Hop & Grapefruit	4.00	2.50
1196 Butcha Orange & Bergamot	8.00	2.50
1194 Butcher Ginger & Lime	3.00	0.00
1203 Schulp Apple Elderflower	1.00	1.50
1202 Schulp Apple juice	5.00	7.50
2095 Vifit Forest Fruits	7.00	10.50
2094 Vifit Peach	5.00	7.50
2093 Vifit Strawberry	3.00	4.50
1197 Vitamin Water Blackberry/Acai	14.00	23.80
1198 Vitamin Water Lemon/Cactus	8.00	13.60
1199 Vitamin Water Lemon/Lychee	4.00	6.80
1200 Vitamin Water Mango/Guave	17.00	28.90
1201 Vitamin Water Raspberries/Pomegranate	15.00	25.50
1409 Celeric Soup	20.00	20.00
1276 Juice	6.00	6.60
1275 Smoothie	7.00	10.50
1437 Croissant	29.00	26.10
2366 Homemade Pastry	19.00	20.90
1431 Pastry € 0.90	4.00	3.60
1432 Pastry € 1.00	2.00	2.00
1433 Pastry € 1.25	3.00	3.75
1434 Pastry € 1.50	59.00	88.50
2365 Yoghurt	2.00	2.50
2305 Sandwich Grillsausage	55.00	132.00
2105 Sandwich Ham	66.00	158.40
2252 Sandwich Mozzarella	3.00	7.20
2340 Sandwich Salami	53.00	116.60
2214 Sandwich Smoked Trout	26.00	62.40
2367 Daily Snack	11.00	16.50
Total	735.00	1823.75

Mr. Bol, Lennart
6/1/22 10:05 PM

Den Haag - Foodcourt

Product report

2231 Beef	62.00	279.00
2163 Flammkuchen	37.00	146.15
2099 Good to go Salad	20.00	30.00
2154 Pasta Beef	57.00	199.50
26 Vega Quesadilla	25.00	82.50
1195 Butcha Hop & Grapefruit	1.00	2.50
1202 Schulp Apple juice	1.00	1.50
1204 Schulp Apple Raspberry	3.00	4.50
1208 Schulp Pear juice Bio	1.00	1.50
2095 Vifit Forest Fruits	1.00	1.50
2094 Vifit Peach	4.00	6.00
2093 Vifit Strawberry	5.00	7.50
1201 Vitamin Water Raspberries/Pomegranate	1.00	1.70
1276 Juice	13.00	14.30
1418 Mushroom Soup	26.00	26.00
1275 Smoothie	5.00	7.50
2391 Crepe	2.00	4.40
1437 Croissant	33.00	29.70
2366 Homemade Pastry	7.00	7.70
1431 Pastry € 0.90	4.00	3.60
1433 Pastry € 1.25	6.00	7.50
1434 Pastry € 1.50	39.00	58.50
2365 Yoghurt	4.00	5.00
2082 Sandwich Hummus	23.00	50.60
2381 Sandwich Oxsausage	39.00	93.60
2380 Sandwich Pepperoni	20.00	44.00
2382 Tosti	38.00	83.60
2367 Daily Snack	45.00	67.50
Total	522.00	1267.35

FoodCourt 1,
6/3/22 6:54 PM



Start date: 02-06-2022 06:00

End date: 02-06-2022 23:00

This overview is not suitable for your VAT statement, amounts may have been rounded off.

Name	ID	Total	Excl.	Incl. discount	Incl. discount
			Incl. VAT	Excl. VAT	Incl. VAT
Cookies	524	2	2.20	2.02	2.20
Croissant	254	25	22.50	20.75	22.50
Homemade Pastry	1019	6	6.60	6.06	6.60
Pastry € 0.90	248	7	6.30	5.81	6.30
Pastry € 1.00	249	2	2.00	1.84	2.00
Pastry € 1.25	250	7	8.75	8.05	8.75
Pastry € 1.50	251	80	120.00	110.40	120.00
Yoghurt	1020	2	2.50	2.30	2.50
Dessert/Pastry/Chees	28	131	170.85	157.23	170.85
Juice	57	2	2.20	2.02	2.20
Mixed juice	59	1	1.10	1.01	1.10
Smoothie	56	7	10.50	9.66	10.50
Juices & Smoothies	4	10	13.80	12.69	13.80
Fishcurry	740	28	105.00	96.32	105.00
Good to go Salad	900	19	28.50	26.22	28.50
Pasta Carbonara	537	100	350.00	321.00	350.00
Perch	746	1	4.50	4.13	4.50
Pizza Serrano	1007	30	118.50	108.60	118.50
Vega Lasagne	798	35	115.50	106.05	115.50
Main course	36	213	722.00	662.32	722.00
Hotdog	955	61	109.80	100.65	109.80
Sandwich BLT	993	76	182.40	167.20	182.40
Sandwich Chicken	422	57	136.80	125.40	136.80
Sandwich Chicken Teriyaki	432	54	129.60	118.80	129.60
Sandwich Hummus	472	12	26.40	24.24	26.40
Sandwiches	29	260	585.00	536.29	585.00



Den Haag – Foodcourt

Product report

2216	Cod Filet	44.00	198.00
2099	Good to go Salad	24.00	36.00
2141	Mexican Bowl	50.00	165.00
2393	Pasta Bolognese	82.00	284.40
2395	Pizza Aubergine	38.00	150.10
2406	Pizza Parmigiana	5.00	16.50
2394	Seabass	8.00	32.00
1902	Beverage break straightforward	15.00	63.75
1225	Made blue sparkling big	2.00	4.40
1227	Made blue still big	3.00	6.60
1203	Schulp Apple Elderflower	1.00	1.50
1207	Schulp Apple Elderflower Big	1.00	3.50
1202	Schulp Apple juice	3.00	4.50
1206	Schulp Apple Rhubarb Big	1.00	3.50
1208	Schulp Pear juice Bio	3.00	4.50
2095	Vifit Forest Fruits	5.00	7.50
2094	Vifit Peach	6.00	9.00
2093	Vifit Strawberry	11.00	16.50
1197	Vitamin Water Blackberry/Acai	11.00	18.70
1198	Vitamin Water Lemon/Cactus	6.00	10.20
1199	Vitamin Water Lemon/Lychee	3.00	5.10
1200	Vitamin Water Mango/Guave	7.00	11.90
1201	Vitamin Water Raspberries/Pomegranate	27.00	45.90
1276	Juice	5.00	5.50
1275	Smoothie	4.00	6.00
1428	Tomato Soup	32.00	32.00
2024	Cookies	1.00	1.10
1437	Croissant	33.00	29.70
1431	Pastry € 0.90	5.00	4.50
1433	Pastry € 1.25	15.00	18.75
1434	Pastry € 1.50	60.00	90.00
2365	Yoghurt	3.00	3.75
2396	Sandwich Aubergine	29.00	63.80
2142	Sandwich Beef	29.00	72.50
2105	Sandwich Ham	49.00	117.60
2340	Sandwich Salami	55.00	132.00
2367	Daily Snack	18.00	27.00
Total		694.00	1703.25

FoodCourt 1,
6/7/22 6:21 PM

Den Haag – Foodcourt

Product report

2423	Eggplant	10.00	33.00
2099	Good to go Salad	24.00	36.00
2393	Pasta Bolognese	7.00	24.50
2412	Pasta Pesto	54.00	189.00
2413	Pizza Chicken	50.00	175.00
2276	Pork	49.00	183.75
1203	Schulp Apple Elderflower	1.00	1.50
1202	Schulp Apple juice	1.00	1.50
1204	Schulp Apple Raspberry	4.00	6.00
2095	Vifit Forest Fruits	6.00	9.00
2094	Vifit Peach	6.00	9.00
2093	Vifit Strawberry	16.00	24.00
1197	Vitamin Water Blackberry/Acai	2.00	3.40
1198	Vitamin Water Lemon/Cactus	3.00	5.10
1199	Vitamin Water Lemon/Lychee	5.00	8.50
1200	Vitamin Water Mango/Guave	7.00	11.90
1201	Vitamin Water Raspberries/Pomegranate	20.00	34.00
1406	Broccoli Soup	18.00	18.00
1276	Juice	8.00	8.80
1275	Smoothie	3.00	4.50
1437	Croissant	26.00	23.40
2366	Homemade Pastry	3.00	3.30
1431	Pastry € 0.90	4.00	3.60
1432	Pastry € 1.00	12.00	12.00
1433	Pastry € 1.25	10.00	12.50
1434	Pastry € 1.50	55.00	82.50
1435	Pastry € 1.75	9.00	15.75
1436	Pastry € 2.00	14.00	28.00
1205	Yoghurt	2.00	2.50
2142	Sandwich Beef	36.00	90.00
2415	Sandwich Egg Salad	79.00	173.80
2414	Sandwich Filet American	81.00	178.20
2340	Sandwich Salami	1.00	2.40
2260	Sandwich Spinata	10.00	24.00
2367	Daily Snack	5.00	7.50
Total		641.00	1445.90

FoodCourt 1,
6/8/22 7:16 PM



Den Haag - Foodcourt

Product report

2426 Asian Bowl	35.00	115.50
2079 Asparagus	25.00	98.75
2425 Chicken Fajita	95.00	356.25
2183 Flammkuchen	10.00	39.50
2099 Good to go Salad	11.00	16.50
2393 Pasta Bolognese	13.00	45.50
1227 Made blue still big	2.00	4.40
1203 Schulp Apple	1.00	1.50
Elderflower		
1202 Schulp Apple juice	1.00	1.50
1208 Schulp Pear juice	1.00	1.50
Bio		
2095 Vifit Forest Fruits	6.00	9.00
2094 Vifit Peach	3.00	4.50
2093 Vifit Strawberry	5.00	7.50
1197 Vitamin Water	4.00	6.80
Blackberry/Acai		
1198 Vitamin Water	6.00	10.20
Lemon/Cactus		
1199 Vitamin Water	3.00	5.10
Lemon/Lychee		
1200 Vitamin Water	7.00	11.90
Mango/Guave		
1201 Vitamin Water	20.00	34.00
Raspberries/Pomegranate		
2302 Asparagus soup	20.00	20.00
1276 Juice	4.00	4.40
1275 Smoothie	6.00	9.00
1437 Croissant	30.00	27.00
2366 Homemade Pastry	2.00	2.20
1431 Pastry € 0.90	2.00	1.80
1432 Pastry € 1.00	6.00	6.00
1433 Pastry € 1.25	20.00	25.00
1434 Pastry € 1.50	69.00	103.50
1436 Pastry € 2.00	1.00	2.00
2365 Yoghurt	2.00	2.50
139 Bruschetta	2.00	4.00
2187 Hotdog	28.00	61.60
2142 Sandwich Beef	19.00	47.50
2128 Sandwich Caprese	24.00	52.80
2415 Sandwich Egg Salad	4.00	8.80
2414 Sandwich Filet	13.00	28.80
American		
2300 Sandwich Herring	5.00	10.00
2436 Sandwich Italian	63.00	151.20
2127 Sandwich Roastbeef	16.00	38.40
2260 Sandwich Spinata	19.00	45.60
2367 Daily Snack	1.00	1.50
Total	604.00	1423.30

Mr. Westerveld, Casper
6/22 7:29 PM

Den Haag - Foodcourt

Product report

2231 Beef	19.00	76.00
2163 Flammkuchen	17.00	67.15
2191 Gnocchi	21.00	69.30
2099 Good to go Salad	10.00	15.00
20 Wok Chicken	54.00	202.50
203 Schulp Apple	1.00	1.50
Elderflower		
1202 Schulp Apple juice	3.00	4.50
1208 Schulp Pear juice	1.00	1.50
Bio		
2095 Vifit Forest Fruits	1.00	1.50
2094 Vifit Peach	3.00	4.50
2093 Vifit Strawberry	4.00	6.00
1197 Vitamin Water	1.00	1.70
Blackberry/Acai		
1198 Vitamin Water	2.00	3.40
Lemon/Cactus		
1199 Vitamin Water	3.00	5.10
Lemon/Lychee		
1201 Vitamin Water	8.00	13.60
Raspberries/Pomegranate		
1276 Juice	3.00	3.30
1275 Smoothie	3.00	4.50
1428 Tomato Soup	17.00	17.00
2024 Cookies	3.00	3.30
437 Croissant	30.00	27.00
1431 Pastry € 0.90	10.00	9.00
1432 Pastry € 1.00	5.00	5.00
1433 Pastry € 1.25	11.00	13.75
1434 Pastry € 1.50	44.00	66.00
2339 Bruschetta	4.00	8.00
2142 Sandwich Beef	15.00	37.50
2300 Sandwich Herring	22.00	44.00
2436 Sandwich Italian	42.00	100.80
Total	357.00	812.40

Mr. Westerveld, Casper
6/10/22 7:33 PM



Start date: 13-06-2022 06:00

End date: 13-06-2022 23:00

This overview is not suitable for your VAT statement, amounts may have been rounded off.

Name	ID	Total	Excl. Incl. discount Incl. discount		
			Incl. VAT	Excl. VAT	Incl. VAT
Croissant	254	8	7.20	6.64	7.20
Homemade Pastry	1019	1	1.10	1.01	1.10
Pastry € 0.90	248	19	17.10	15.77	17.10
Pastry € 1.00	249	5	5.00	4.60	5.00
Pastry € 1.25	250	4	5.00	4.60	5.00
Pastry € 1.50	251	46	69.00	63.48	69.00
Yoghurt	1020	1	1.25	1.15	1.25
Dessert/Pastry/Chees	28	84	105.65	97.25	105.65
Coffee break straightforward	840	20	44.00	40.37	44.00
Hot Drinks	2	20	44.00	40.37	44.00
Smoothie	56	4	6.00	5.52	6.00
Veggie juice	58	1	1.10	1.01	1.10
Juices & Smoothies	4	5	7.10	6.53	7.10
Beef	681	2	8.00	7.34	8.00
Duck	700	11	49.50	45.43	49.50
Flammkuchen	956	4	15.80	14.48	15.80
Gnocchi	557	56	196.00	179.76	196.00
Good to go Salad	900	24	36.00	33.12	36.00
Kapsalon	602	32	105.60	96.96	105.60
Pizza Serrano	1007	30	105.00	96.30	105.00
Vega Steak	1035	5	17.50	16.05	17.50
Wok Chicken	619	2	7.50	6.88	7.50
Main course	36	166	540.90	496.32	540.90
Selection Day Candidates	331	167	1670.00	1532.11	1670.00
Selection Day Selectors package	332	60	840.00	770.64	840.00
Packages	22	227	2510.00	2302.75	2510.00
Sandwich Beef	425	7	17.50	16.03	17.50
Sandwich Ham Cheese	446	55	132.00	121.00	132.00
Sandwich Italian	1034	25	60.00	55.00	60.00
Sandwich Mortadella	453	7	15.40	14.14	15.40
Sandwich Roastbeef	463	62	148.80	136.40	148.80
Wrap Chicken	502	68	163.20	149.60	163.20
Sandwiches	29	224	536.90	492.17	536.90
Daily Snack	1021	62	93.00	85.39	93.00
Snack	30	62	93.00	85.39	93.00



Den Haag – Foodcourt

Product report

2460 Dorade	25.00	112.50
2457 Duck	9.00	40.50
2099 Good to go Salad	22.00	33.00
2459 Paella	76.00	285.00
2154 Pasta Beef	14.00	49.00
2179 Pizza Salami	48.00	158.40
2462 Vega Tortilla	42.00	138.60
1203 Schulp Apple	2.00	3.00
Elderflower		
1202 Schulp Apple juice	1.00	1.50
1204 Schulp Apple	3.00	4.50
Raspberry		
2095 Vifit Forest Fruits	5.00	7.50
2094 Vifit Peach	8.00	12.00
2093 Vifit Strawberry	5.00	7.50
1197 Vitamin Water	3.00	5.10
Blackberry/Acai		
1198 Vitamin Water	3.00	5.10
Lemon/Cactus		
1199 Vitamin Water	7.00	11.90
Lemon/Lychee		
1200 Vitamin Water	5.00	8.50
Mango/Guave		
1201 Vitamin Water	15.00	25.50
Raspberries/Pomegranate		
1406 Broccoli Soup	33.00	33.00
1276 Juice	5.00	5.50
1275 Smoothie	5.00	7.50
2024 Cookies	4.00	4.40
1437 Croissant	19.00	17.10
1431 Pastry € 0.90	25.00	22.50
1432 Pastry € 1.00	3.00	3.00
1433 Pastry € 1.25	12.00	15.00
1434 Pastry € 1.50	48.00	72.00
2365 Yoghurt	5.00	6.25
2463 Pita	34.00	81.60
2080 Sandwich Brie	42.00	92.40
2300 Sandwich Herring	8.00	19.90
2127 Sandwich Roastbeef	62.00	148.80
2367 Daily Snack	24.00	36.00

Total 622.00 1474.05

FoodCourt 1,
6/14/22 7:29 PM

Den Haag – Foodcourt

Product report

2476 Beef Roulade	54.00	270.00
2288 Fried Noodles	32.00	105.60
2099 Good to go Salad	15.00	22.50
2475 Mussels	53.00	222.60
2477 Pizza Portobello	47.00	155.10
2478 Vega Taco	18.00	45.00
2095 Vifit Forest Fruits	2.00	3.00
2094 Vifit Peach	11.00	16.50
2093 Vifit Strawberry	2.00	3.00
1197 Vitamin Water	5.00	8.50
Blackberry/Acai		
1198 Vitamin Water	5.00	8.50
Lemon/Cactus		
1199 Vitamin Water	3.00	5.10
Lemon/Lychee		
1200 Vitamin Water	12.00	20.40
Mango/Guave		
1201 Vitamin Water	13.00	22.10
Raspberries/Pomegranate		
1276 Juice	5.00	5.50
1275 Smoothie	7.00	10.50
1429 Vegetable Soup	14.00	14.00
2024 Cookies	3.00	3.30
1437 Croissant	5.00	4.50
1431 Pastry € 0.90	20.00	18.00
1432 Pastry € 1.00	2.00	2.00
1433 Pastry € 1.25	26.00	32.50
1434 Pastry € 1.50	45.00	67.50
2365 Yoghurt	1.00	1.25
2080 Sandwich Brie	29.00	63.80
2081 Sandwich Chicken	58.00	139.20
2105 Sandwich Ham	14.00	33.60
2322 Sandwich Mortadella	61.00	146.40
2367 Daily Snack	32.00	48.00
2176 Dutch Platter	13.00	45.50

Total 807.00 1543.45

FoodCourt 1,
6/15/22 8:43 PM



Den Haag – Foodcourt

Product report

2490 Burger	41.00	147.60
1900 Coffee break straightforward	8.00	17.60
2163 Flammkuchen	16.00	64.00
2099 Good to go Salad	19.00	28.50
2488 Poke Bowl	10.00	45.00
2489 Salad Caesar Chicken	10.00	440.00
1226 Made blue sparkling big	3.00	6.60
1227 Made blue still big	3.00	6.60
1204 Schulp Apple Raspberry	2.00	3.00
2095 Vifit Forest Fruits	3.00	4.50
2094 Vifit Peach	8.00	12.00
2093 Vifit Strawberry	8.00	12.00
1197 Vitamin Water Blackberry/Acai	3.00	5.10
1198 Vitamin Water Lemon/Cactus	6.00	10.20
1199 Vitamin Water Lemon/Lychee	6.00	10.20
1200 Vitamin Water Mango/Guave	8.00	13.60
1201 Vitamin Water Raspberries/Pomegranate	11.00	18.70
1276 Juice	1.00	1.10
1418 Mushroom Soup	26.00	26.00
1275 Smoothie	4.00	6.00
2391 Crepe	20.00	44.00
1437 Croissant	14.00	12.60
1904 Healthy break sweet	8.00	36.00
2366 Homemade Pastry	6.00	6.60
1431 Pastry € 0.90	36.00	32.40
1432 Pastry € 1.00	9.00	9.00
1433 Pastry € 1.25	4.00	5.00
1434 Pastry € 1.50	19.00	28.50
1436 Pastry € 2.00	1.00	2.00
2365 Yoghurt	5.00	6.25
2492 Focaccia	1.00	2.00
2491 Sandwich Bacon	3.00	7.50
2080 Sandwich Brie	27.00	59.40
2081 Sandwich Chicken	8.00	19.20
2105 Sandwich Ham	11.00	26.40
2322 Sandwich Mortadella	21.00	50.40
2127 Sandwich Roastbeef	62.00	155.00
2367 Daily Snack	16.00	24.00
tal	567.00	1404.55

FoodCourt 1,
16/22 9:47 PM

Den Haag – Foodcourt

Product report

2078 Chicken	31.00	116.25
2099 Good to go Salad	11.00	16.50
2521 Pasta Salmon	24.00	95.00
2266 Pizza Vegetarian	17.00	56.10
2510 Vega Falafel	44.00	145.20
1205 Schulp Apple Big	1.00	3.50
1202 Schulp Apple juice	5.00	7.50
1204 Schulp Apple Raspberry	3.00	4.50
2098 Schulp Pear juice Bio	1.00	1.50
2095 Vifit Forest Fruits	7.00	10.50
2094 Vifit Peach	12.00	18.00
2093 Vifit Strawberry	3.00	4.50
1197 Vitamin Water Blackberry/Acai	4.00	6.80
1198 Vitamin Water Lemon/Cactus	2.00	3.40
1199 Vitamin Water Lemon/Lychee	2.00	3.40
1200 Vitamin Water Mango/Guave	2.00	3.40
1201 Vitamin Water Raspberries/Pomegranate	8.00	13.60
1276 Juice	4.00	4.40
1418 Mushroom Soup	13.00	13.00
1275 Smoothie	2.00	3.00
2391 Crepe	20.00	50.00
1437 Croissant	12.00	10.80
2366 Homemade Pastry	5.00	5.50
1431 Pastry € 0.90	15.00	13.50
1432 Pastry € 1.00	13.00	13.00
1433 Pastry € 1.25	4.00	5.00
1434 Pastry € 1.50	16.00	24.00
2365 Yoghurt	5.00	6.25
2492 Focaccia	4.00	8.00
2491 Sandwich Bacon	3.00	7.50
2300 Sandwich Herring	15.00	37.50
2322 Sandwich Mortadella	55.00	132.00
2144 Sandwich Vegetarian	9.00	19.80
2367 Daily Snack	8.00	12.00
Total	380.00	875.90

Mr. Hillemans, Jeroen
6/17/22 8:33 PM



Start date: 20-06-2022 06:00

End date: 20-06-2022 23:00

This overview is not suitable for your VAT statement, amounts may have been rounded off.

Name	ID	Total	Excl. Incl. discount Incl. discount		
			Incl. VAT	Excl. VAT	Incl. VAT
Croissant	254	14	12.60	11.62	12.60
Pastry € 0.90	248	21	18.90	17.43	18.90
Pastry € 1.00	249	10	10.00	9.20	10.00
Pastry € 1.25	250	11	13.75	12.65	13.75
Pastry € 1.50	251	45	67.50	62.03	67.50
Yoghurt	1020	15	18.75	17.25	18.75
Dessert/Pastry/Chees	28	116	141.50	130.18	141.50
Juice	57	3	3.30	3.03	3.30
Smoothie	56	7	10.50	9.66	10.50
Juices & Smoothies	4	10	13.80	12.69	13.80
Asparagus	884	30	99.00	90.90	99.00
Cordon Bleu	697	76	285.00	261.44	285.00
Good to go Salad	900	29	43.50	40.02	43.50
Pasta Chicken	538	85	297.50	272.85	297.50
Pizza Capriciosa	568	46	161.00	147.66	161.00
Sandwich Cod	1061	8	19.20	17.60	19.20
Main course	36	274	905.20	830.47	905.20
Sandwich Cheese	479	48	105.60	96.96	105.60
Sandwich Chicken	422	90	216.00	198.01	216.00
Sandwich Vegetarian	941	18	39.60	36.36	39.60
Sandwiches	29	156	361.20	331.33	361.20



Den Haag – Foodcourt

Product report

2079 Asparagus	1.00	3.30
1818 Beverage 4.00	11.00	44.00
2524 Cordon Bleu	2.00	7.50
2099 Good to go Salad	13.00	19.50
2277 Pasta Chicken	21.00	73.50
2523 Pizza Capriciosa	4.00	14.00
2541 Quiche	65.00	214.50
2525 Sandwich Cod	9.00	21.60
2542 Vega Curry	29.00	95.70
2103 Wolffish	33.00	148.50
1194 Butcher Ginger & Lime	3.00	7.50
1817 Food 7.00	11.00	77.00
1205 Schulp Apple Big	1.00	3.50
1203 Schulp Apple Elderflower	3.00	4.50
1202 Schulp Apple juice	2.00	3.00
1204 Schulp Apple Raspberry	3.00	4.50
2095 Vifit Forest Fruits	7.00	10.50
2094 Vifit Peach	10.00	15.00
2093 Vifit Strawberry	3.00	4.50
1197 Vitamin Water Blackberry/Acai	7.00	11.90
1198 Vitamin Water Lemon/Cactus	8.00	13.60
1199 Vitamin Water Lemon/Lychee	3.00	5.10
1200 Vitamin Water Mango/Guave	7.00	11.90
1201 Vitamin Water Raspberries/Pomegranate	10.00	17.00
1816 Final Defence	11.00	0.00
1276 Juice	4.00	4.40
1418 Mushroom Soup	38.00	38.00
1275 Smoothie	10.00	15.00
2024 Cookies	1.00	1.10
1437 Croissant	19.00	17.10
1431 Pastry € 0.90	34.00	30.60
1432 Pastry € 1.00	33.00	33.00
1433 Pastry € 1.25	15.00	18.75
1434 Pastry € 1.50	40.00	60.00
2492 Focaccia	72.00	237.60
2104 Sandwich Cheese	36.00	79.20
2081 Sandwich Chicken	89.00	213.60
2289 Sandwich Healthy	30.00	72.00
2144 Sandwich Vegetarian	28.00	61.60
2367 Daily Snack	2.00	3.00
2534 Mixed Platter	4.00	34.00
Total	732.00	1750.55

Food Court 2,
6/21/22 7:03 PM

Den Haag – Foodcourt

Product report

2426 Asian Bowl	34.00	112.20
2549 Bell Pepper Chorizo	46.00	161.00
1818 Beverage 4.00	4.00	16.00
2099 Good to go Salad	11.00	16.50
2179 Pizza Salami	34.00	119.00
2548 Roti	112.00	532.00
1194 Butcher Ginger & Lime	1.00	2.50
1817 Food 7.00	4.00	28.00
1203 Schulp Apple Elderflower	1.00	1.50
1202 Schulp Apple juice	1.00	1.50
1204 Schulp Apple Raspberry	4.00	6.00
2095 Vifit Forest Fruits	7.00	10.50
2094 Vifit Peach	5.00	7.50
2093 Vifit Strawberry	4.00	6.00
1197 Vitamin Water Blackberry/Acai	5.00	8.50
1198 Vitamin Water Lemon/Cactus	4.00	6.80
1199 Vitamin Water Lemon/Lychee	5.00	8.50
1200 Vitamin Water Mango/Guave	12.00	20.40
1201 Vitamin Water Raspberries/Pomegranate	12.00	20.40
1816 Final Defence	4.00	0.00
1276 Juice	7.00	7.70
1418 Mushroom Soup	15.00	15.00
1275 Smoothie	7.00	10.50
1437 Croissant	3.00	2.70
1431 Pastry € 0.90	28.00	25.20
1432 Pastry € 1.00	16.00	16.00
1433 Pastry € 1.25	29.00	36.25
1434 Pastry € 1.50	28.00	42.00
2385 Yoghurt	3.00	3.75
2167 Hotdog	55.00	121.00
2304 Sandwich BLT	56.00	134.40
2289 Sandwich Healthy	20.00	48.00
2550 Sandwich Salmon	17.00	42.50
2144 Sandwich Vegetarian	32.00	70.40
2534 Mixed Platter	2.00	17.00
Total	628.00	1677.20

Mr. Westerveld, Casper
6/22/22 6:27 PM



Den Haag – Foodcourt

Product report

2426 Asian Bowl	44.00	145.20
1901 Coffee break indulgence	7.00	28.00
2099 Good to go Salad	12.00	18.00
2207 Hamburger	65.00	308.75
2561 Naan	22.00	77.00
2562 Nok Pork	31.00	116.25
1195 Butcha Hop & Grapefruit	1.00	2.50
1194 Butcher Ginger & Lime	1.00	2.50
1202 Schulp Apple juice	4.00	6.00
1204 Schulp Apple Raspberry	2.00	3.00
1208 Schulp Pear juice Bio	2.00	3.00
2095 Vifit Forest Fruits	4.00	6.00
2094 Vifit Peach	3.00	4.50
2093 Vifit Strawberry	4.00	6.00
1197 Vitamin Water Blackberry/Acai	6.00	10.20
1198 Vitamin Water Lemon/Cactus	3.00	5.10
1199 Vitamin Water Lemon/Lychee	8.00	13.60
1200 Vitamin Water Mango/Guave	1.00	1.70
1201 Vitamin Water Raspberries/Pomegranate	7.00	11.90
1276 Juice	3.00	3.30
1418 Mushroom Soup	10.00	10.00
1275 Smoothie	1.00	1.50
2568 Make a Wish	95.00	189.00
1437 Croissant	4.00	3.60
1431 Pastry € 0.90	19.00	17.10
1432 Pastry € 1.00	3.00	3.00
1433 Pastry € 1.25	13.00	16.25
1434 Pastry € 1.50	47.00	70.50
1435 Pastry € 1.75	2.00	3.50
1436 Pastry € 2.00	3.00	6.00
2365 Yoghurt	3.00	3.75
2142 Sandwich Beef	33.00	82.50
2304 Sandwich BLT	47.00	112.80
2550 Sandwich Salmon	12.00	30.00
2144 Sandwich Vegetarian	5.00	11.00
2382 Tost1	28.00	61.60
2367 Daily Snack	1.00	1.50

Total 556.00 1396.10

Food Court 2,
6/23/22 7:07 PM

Den Haag – Foodcourt

Product report

2570 Chicken Couscous	34.00	127.50
2288 Fried Noodles	28.00	92.40
2099 Good to go Salad	18.00	27.00
2207 Hamburger	24.00	114.00
2571 Pizza Calzone	31.00	108.50
1195 Butcha Hop & Grapefruit	1.00	2.50
1194 Butcher Ginger & Lime	1.00	2.50
1203 Schulp Apple Elderflower	1.00	1.50
1202 Schulp Apple juice	2.00	3.00
1204 Schulp Apple Raspberry	2.00	3.00
2576 Thijs Juice	6.00	9.00
2095 Vifit Forest Fruits	3.00	4.50
2094 Vifit Peach	1.00	1.50
2093 Vifit Strawberry	3.00	4.50
1197 Vitamin Water Blackberry/Acai	8.00	13.60
1198 Vitamin Water Lemon/Cactus	5.00	8.50
1199 Vitamin Water Lemon/Lychee	1.00	1.70
1200 Vitamin Water Mango/Guave	4.00	6.80
1201 Vitamin Water Raspberries/Pomegranate	3.00	5.10
1276 Juice	2.00	2.20
1418 Mushroom Soup	17.00	17.00
1275 Smoothie	2.00	3.00
2568 Make a Wish	34.00	66.00
1437 Croissant	4.00	3.60
1431 Pastry € 0.90	19.00	17.10
1432 Pastry € 1.00	26.00	26.00
1433 Pastry € 1.25	2.00	2.50
1434 Pastry € 1.50	24.00	36.00
1435 Pastry € 1.75	1.00	1.75
2365 Yoghurt	7.00	8.75
2142 Sandwich Beef	18.00	45.00
2304 Sandwich BLT	32.00	76.80
2104 Sandwich Cheese	30.00	66.00
2144 Sandwich Vegetarian	16.00	35.20

Total 410.00 944.00

Food Court 2,
6/24/22 6:55 PM



Results sales Taste Lab										
	Monday		Tuesday		Wednesday		Thursday		Friday	
	Salads	Totals	Salads	Totals	Salads	Totals	Salads	Totals	Salads	Totals
Week 4	31	599	22	571	14	455	x	x	x	x
Week 5	22	596	16	521	14	628	19	473	20	487
Week 6	x	x	24	580	24	559	11	535	10	324
Week 7	24	565	22	555	15	529	19	493	11	324
Week 8	29	550	13	612	11	539	12	404	18	331
	Unavailable data collection days									
	Have not received data from Mr Waindrich									
	Production error									

Results (%)					
	Monday	Tuesday	Wednesday	Thursday	Friday
Week 4	5,18%	3,85%	3,08%	x	x
Week 5	3,69%	3,07%	2,23%	4,02%	4,11%
Week 6	x	4,14%	4,29%	2,06%	3,09%
Week 7	4,25%	3,96%	2,84%	3,85%	3,40%
Week 8	5,27%	2,12%	2,04%	2,97%	5,44%

The unavailable data collection days are due to public holidays in The Netherlands being: Hemelvaart.

9.8 Appendix: Visual proof of field experiment

Condition 1: Greenhouse 'dirt'

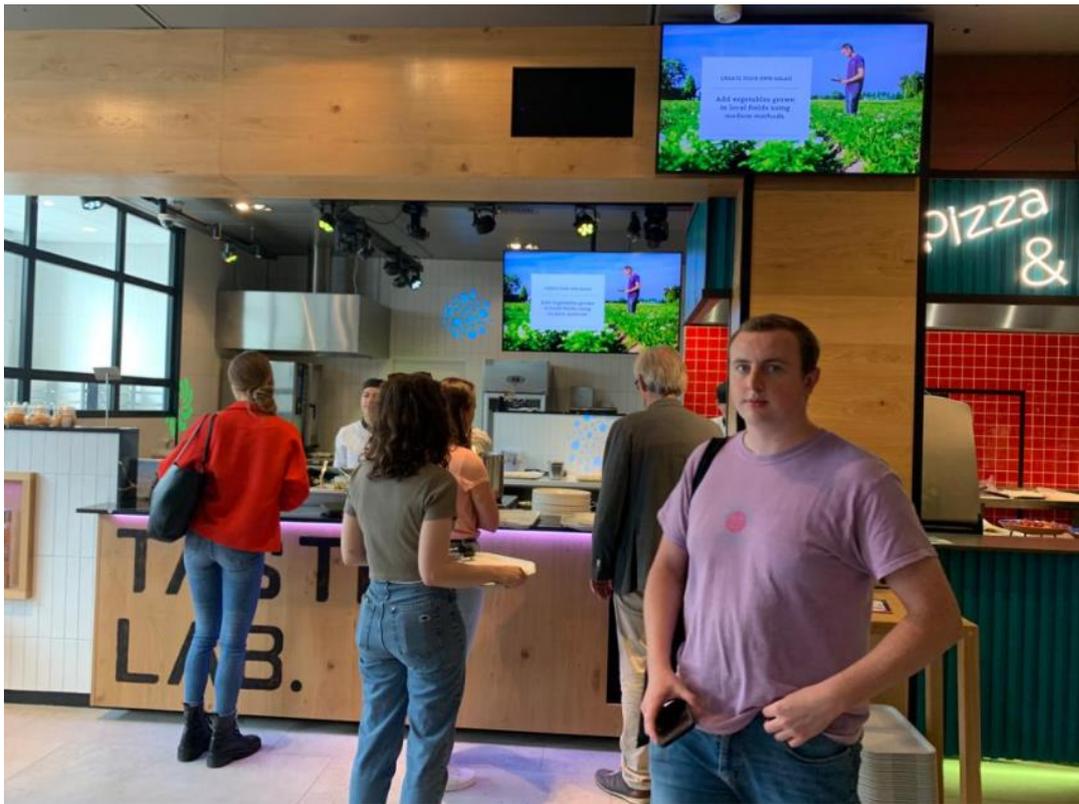


Condition 2: Greenhouse 'science'





Condition 3: Traditional dirt farm





9.9 Set-up Focus Group

Questions	Sub-Questions	Time dedication
When purchasing a meal in Taste Lab or Roots, what is the most important and second most important factor you base your decision on?	Budget, level of nutrition, ingredients, tastefulness, sustainability, where do the ingredients come from?	12:05 – 12:12

Questions	Sub-Questions	Time dedication
How would you describe traditional farming methods?	What image do you have in your head?	12:13 – 12:22
How would you describe greenhouse farming?	What image do you have in your head?	12:23– 12:32
If you would have to compare traditional farming methods and greenhouse farming. What would have your preference?	What is your opinion about these farming methods?	12:33 – 12:42
To what extent does it matter to you where your vegetables comes from?	Do you have the feeling you would purchase certain vegetables sooner?	12:43 – 12:50
What environmental and social consequences are you aware of in terms of traditional and greenhouse farming?	What do you think are the biggest consequences of either farming methods?	12:50 – 13:00



9.10 Appendix: SPSS Data

9.10.1 General analysis

Statistics

		Day_of_week	Condition
N	Valid	22	22
	Missing	0	0

Frequency Table

Day_of_week

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Monday	4	18,2	18,2	18,2
	Tuesday	5	22,7	22,7	40,9
	Wednesday	5	22,7	22,7	63,6
	Thursday	4	18,2	18,2	81,8
	Friday	4	18,2	18,2	100,0
	Total	22	100,0	100,0	

Condition

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Traditional farming	8	36,4	36,4	36,4
	Science farming	7	31,8	31,8	68,2
	Greenhouse traditional	7	31,8	31,8	100,0
	Total	22	100,0	100,0	

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Sales_Taste_Lab	22	10,00	31,00	18,2273	6,04689
Sales_Roots	22	,00	80,00	24,5909	17,25622
Total_sales_La_Mangerie	22	324,00	628,00	510,4545	91,79207
Total_sales_Roots	22	87,00	275,00	168,0455	52,90106
Valid N (listwise)	22				

Figure 12: Descriptive data general experiment



9.10.2 Taste Lab univariate analysis

Taste lab analysis

The initial descriptive statistics show a deviation in mean between traditional farming ($\bar{x} = 19,75$) /science farming ($\bar{x} = 19,00$) and greenhouse traditional ($\bar{x} = 15,71$) assuming there could be a significant difference. Contradictorily, the significance level ($\alpha = 0,420$) ($> 0,05$) showing there is no relation between the farming condition and the consumer behaviour (See 9.6.2).

When adding a covariate (Sandwich sales) ($\alpha = 0,428$) ($> 0,05$), assuming it remains there is no relation.



Figure 13: Taste Lab overview

Additionally, the one-way ANOVA shows comparable data ($\alpha = 0,42$) and additionally the Bonferroni test shows ($\alpha = 0,644$) or ($\alpha = 0,973$) or ($\alpha = 1,00$) resulting in the conclusion that there is a low probability for a false positive as $\alpha > 0.05$.

Descriptive Statistics

Dependent Variable: Sales_Taste_Lab

Condition	Mean	Std. Deviation	N
Traditional farming	19,7500	6,40870	8
Science farming	19,0000	5,47723	7
Greenhouse traditional	15,7143	6,23737	7
Total	18,2273	6,04689	22

Tests of Between-Subjects Effects

Dependent Variable: Sales_Taste_Lab

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power ^b
Corrected Model	66,935 ^a	2	33,468	,907	,420	,087	1,814	,183
Intercept	7222,438	1	7222,438	195,778	<,001	,912	195,778	1,000
Condition	66,935	2	33,468	,907	,420	,087	1,814	,183
Error	700,929	19	36,891					
Total	8077,000	22						
Corrected Total	767,864	21						

a. R Squared = ,087 (Adjusted R Squared = -,009)

b. Computed using alpha = ,05

Figure 14: Taste Lab univariate analysis



9.10.3 Roots univariate analysis

Roots analysis

The descriptive statistics for Roots show an increased fluctuating mean than for Taste Lab being traditional farming ($\bar{x} = 31,88$), science farming ($\bar{x} = 17,43$) and greenhouse traditional ($\bar{x} = 23,42$). Initially assuming the mean can display a quantitative effect on the purchasing behaviour

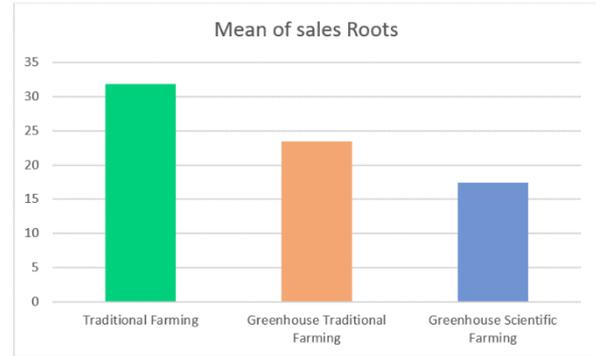


Figure 15: Taste Lab overview

of customers. Further tests show ($\alpha = 0,276 > 0,05$) inclining an insignificant results in the univariate tests (See 9.6.3), meaning the farming methods do not influence the purchasing behaviour of customers.

When running the test again with a covariate (Sandwich sales) ($\alpha = 0,110 > 0,05$), meaning there is no relation between the two variables. The one-way ANOVA test show ($\alpha = 0,097 > 0,05$), supported by the Bonferroni (($\alpha = 0,110$)) or ($\alpha = 0,461$)) or ($\alpha = 1,00$)) resulting in the conclusion that there is a low probability for a false positive as $\alpha > 0.05$.

Descriptive Statistics

Dependent Variable: Sales_Roots

Condition	Mean	Std. Deviation	N
Traditional farming	31,8750	24,07392	8
Science farming	17,4286	6,37331	7
Greenhouse traditional	23,4286	13,90272	7
Total	24,5909	17,25622	22

Tests of Between-Subjects Effects

Dependent Variable: Sales_Roots

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power ^b
Corrected Model	793,015 ^a	2	396,507	1,380	,276	,127	2,759	,260
Intercept	12879,914	1	12879,914	44,818	<,001	,702	44,818	1,000
Condition	793,015	2	396,507	1,380	,276	,127	2,759	,260
Error	5460,304	19	287,384					
Total	19557,000	22						
Corrected Total	6253,318	21						

a. R Squared = ,127 (Adjusted R Squared = ,035)

b. Computed using alpha = ,05

Figure 16: Roots univariate analysis



Tests of Between-Subjects Effects

Dependent Variable: Sales_Taste_Lab

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power ^b
Corrected Model	106,894 ^a	3	35,631	,970	,428	,139	2,911	,221
Intercept	333,124	1	333,124	9,072	,007	,335	9,072	,813
Sandwich_Sales	39,959	1	39,959	1,088	,311	,057	1,088	,167
Condition	33,566	2	16,783	,457	,640	,048	,914	,113
Error	660,969	18	36,721					
Total	8077,000	22						
Corrected Total	767,864	21						

a. R Squared = ,139 (Adjusted R Squared = -,004)

b. Computed using alpha = ,05

Figure 17: Univariate Analysis Taste Lab including covariate

Tests of Between-Subjects Effects

Dependent Variable: Sales_Roots

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power ^b
Corrected Model	1563,498 ^a	3	521,166	2,313	,110	,278	6,938	,488
Intercept	265,622	1	265,622	1,179	,292	,061	1,179	,177
Sandwich_Sales	337,938	1	337,938	1,500	,237	,077	1,500	,213
Condition	1382,328	2	691,164	3,067	,071	,254	6,134	,519
Error	4056,365	18	225,354					
Total	20233,000	22						
Corrected Total	5619,864	21						

a. R Squared = ,278 (Adjusted R Squared = ,158)

b. Computed using alpha = ,05

Figure 18: Univariate Analysis Roots including covariate

For both Taste Lab ($\alpha = 0,420 (> 0,05)$) and Roots ($\alpha = 0,276 (> 0,05)$) the descriptive statistics show the different farming methods have no effect on the consumer sales. When adding a covariate (Sandwich sales) to the study, the results remain insignificant. The one-way ANOVA test shows comparable data and the additional Bonferroni test shows for both outlets there is low probability for a false positive as $\alpha > 0.05$.



9.11 Appendix: Chi-Square tests

When conducting a Chi-Square test for Taste Lab (Figure 18), the data shows a significant result ($P < 0.05$) when comparing all farming conditions ($X^2 (N = 401) = 8.623, P = .013$), hence rejecting the null hypothesis. Additionally the test for Roots (Figure 17) also shows a significant result, ($X^2 (N = 567) = 71.841, P < .001$).

Chi-Square Test

Frequencies

	Condition		
	Observed N	Expected N	Residual
Traditional farming	281	189,0	92,0
Science farming	122	189,0	-67,0
Greenhouse traditional	164	189,0	-25,0
Total	567		

Test Statistics

	Condition
Chi-Square	71,841 ^a
df	2
Asymp. Sig.	<,001

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 189,0.

Chi-Square Test

Frequencies

	Condition		
	Observed N	Expected N	Residual
Traditional farming	158	133,7	24,3
Science farming	133	133,7	-,7
Greenhouse traditional	110	133,7	-23,7
Total	401		

Test Statistics

	Condition
Chi-Square	8,623 ^a
df	2
Asymp. Sig.	,013

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 133,7.

Figure 19: Chi Square Test Roots

Figure 20: Chi Square Taste Lab

Further analysis shows that the relative data assumes that when weighing the data, traditional farming will outweigh science farming and greenhouse farming in all scenario's meaning consumers are more likely to purchase products from traditional farming than the other methods (Figure 19). Figure 17 shows ($N=567$) = 281 > 122, 164 and figure 18 shows ($N=401$) = 158 > 133, 110, resulting in a significant result in expected difference in sales.

Considering consumers have a clear preference for traditional farming, the remaining questions lays with the two remaining farming methods being; Greenhouse science farming and Greenhouse traditional farming. When solely comparing these two farming methods (Figure 22), the results show a significant result in favour of the Greenhouse traditional farming method ($N=286$) = 164 > 122. Hence from these results it can be said that greenhouse traditional farming methods are preferred after the traditional farming condition.



Chi-Square Test

Frequencies

	Condition		
	Observed N	Expected N	Residual
Traditional farming	255	180,3	74,7
Science farming	122	180,3	-58,3
Greenhouse traditional	164	180,3	-16,3
Total	541		

Test Statistics

	Condition
Chi-Square	51,264 ^a
df	2
Asymp. Sig.	<,001

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 180,3.

Figure 21: Chi Square: Traditional Farming, Science Farming, Greenhouse traditional

Chi-Square Test

Frequencies

	Condition		
	Observed N	Expected N	Residual
Traditional farming	255	188,5	66,5
Science farming	122	188,5	-66,5
Total	377		

Test Statistics

	Condition
Chi-Square	46,920 ^a
df	1
Asymp. Sig.	<,001

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 188,5.

Figure 22: Chi Square: Traditional Farming, Science Farming



Chi-Square Test

Frequencies

	Condition		
	Observed N	Expected N	Residual
Traditional farming	255	209,5	45,5
Greenhouse traditional	164	209,5	-45,5
Total	419		

Test Statistics

	Condition
Chi-Square	19,764 ^a
df	1
Asymp. Sig.	<,001

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 209,5.

Figure 23: Chi Square: Traditional Farming, Greenhouse traditional

Chi-Square Test

Frequencies

	Condition		
	Observed N	Expected N	Residual
Science farming	122	143,0	-21,0
Greenhouse traditional	164	143,0	21,0
Total	286		

Test Statistics

	Condition
Chi-Square	6,168 ^a
df	1
Asymp. Sig.	,013

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 143,0.

Figure 24: Chi Square: Science farming, Greenhouse traditional



9.12 Appendix: Focus Group

9.12.1 Participants focus group

No.	Participant	Age	Gender	Occupation
1		>40	Male	Lecturer
2		>40	Female	Lecturer
3		>40	Male	Lecturer
4		<25	Female	Student
5		<25	Female	Student
6		<25	Male	Student

Colour coding

Purchasing factors	
Traditional farming methods	
Greenhouse farming methods	
Preferences in farming method	
Awareness of environmental and social consequences	

9.12.2 Transcript of focus group

Host:

Welcome everyone, It was quite a challenge to gather enough people to join today, so thank you for being here. A short introduction, I am busy writing my thesis related to sustainable food consumption and to gather some more sights I have chosen to host this focus group.

As online is not the most efficient way to host a focus group I would like to establish three house rules for this session.

1. To make sure everyone is able to express their opinion, I would like to ask everyone to answer the question I am proposing through replying in the chatbox. After which we can further discuss the answers.
2. If you would like to respond to a fellow participant, please raise your virtual hand so we will avoid multiple people talking at the same time.
3. I have created a times schedule to cover all the questions, so every 7/8 minutes we will jump to a different question. If you want to share anything, please do this whenever something pops up.

That is it, so are there any unclarities or remaining questions?

At first I would like to focus on your food choices when purchasing a dish in Taste Lab or Roots.

When purchasing a meal in Taste Lab or Roots, what is the most important and second most important factor you base your decision on? Budget, level of nutrition, ingredients, tastefulness, sustainability, where it comes from?

Participant 3:

Waiting line first and how the demonstration plate looks like second

Participant 2:

Number 1: vegetarian option/if I like it. Number 2: depending on how long it will take to get the food

Participant 4:



For me it depends mostly on budget I think, and also the nutrition. So if it is too greasy or a lot of calories I do not buy that

Participant 1:

I often choose a sandwich as the hot stations have long waiting lines and I don't have enough time to wait for that.

Participant 3:

I agree with that point. Due to all the meetings I just choose for a shorter line.

Participant 1:

Also I choose vegetarian food as traditional farming is monoculture and mass meat production

Participant 6:

For me it just depends on the dish itself and how it looks. I usually have some time during the break so I do not mind waiting for a bit.

Participant 5:

I don't like waiting for a long time, so usually it is mix between waiting lines and dish itself. If there are two or three dishes I like, I choose the one with the shortest line.

Host:

I see that you also mentioned vegetarian food and how the dishes look. Do you have the feeling there are enough options within Taste Lab and Roots which cover your request?

Participant 2:

Indeed, there more than enough options. However, the hot sections are mostly focused on meat options, so in that sense I prefer Roots as that offers a lot of other vegetarian options.

Participant 5:

For me the price value is a big thing as I don't have too big of a budget. Also, I love to eat meat as I grew up with this culture, so considering those two points of budget and meat, it is obvious for me to usually choose this. I do however really respect the initiative and I try to eat more vegetarian every now and then.

Participant 6:

All dishes are generally well priced as the outlets do not make any profit on the dishes right? So I think what you mentioned about price value, is important for a lot of people, probably mostly students.

Participant 4:

I like that the food has changed to more healthier options which assure you will have something nutritious in your system at the end of the break. Also, I agree with the waiting lines, as those discourage me to purchase certain dishes.

Participant 3:

Definitely agree with healthier options:

Host:



To dive a bit more in depth, the experiment that I did in Block D, maybe you have seen it, was focused on vegetables within Taste Lab and Roots. So I would like to see how much you are all aware of vegetables and where they come from.

How would you describe traditional farming methods? What image do you have in your head?

Participant 4:

I think of working in the fields, from the ground and harvesting the vegetables.

Participant 3:

Traditional farming means local products; short food-print and less/no chemicals. I'm focussing more on 'original' looking products (f.e. curved cucumbers) than food market nicely looking straight or spot less

Participant 6:

I think it depends on what you mean by traditional. There is the traditional now where they are producing a lot and not being good for the environment, and there is the organic and nature farming where they have specific harvesting periods and let the field rest. This has more symbiosis. That used to be the case way back. They would have cows, pig, and chickens next to crops, so it would be far more than just one product.

Participant 4:

I would think of farms and big fields where farmers would maintain their crops by hand and such tools. However, nowadays more and more machines and vehicles are used within this process, like tractors (I don't know the names of the other types of vehicles). I think the farming is way more separated now than it was decades ago.

Participant 5:

Animal farming, agriculture is unfortunately all i know

Participant 2:

It depends: in the Netherlands there are many green houses for vegetables. Traditional farming methods to me would be having a piece of land where you grow crop. Fields of the same crops is something of the last 30 years, but traditional it would be that you are more concerned about what you do to the land and you let the field rest and grow different crops next to each other

Participant 1:

The traditional image of farmers working on land and no new techniques being involved in the process.

Host:

You just mentioned greenhouse farming, how would you describe this method of farming? What image do you have in your head?

Participant 2:

Greenhouse farming is a more industrialised way of producing crops, because it is more efficient and you do not need to worry about seasonality and space. In these greenhouses you would have rows and rows of for example tomato plants where robot arms would exactly know whereto cut off the tomato's. There is the whole system behind and everything is automated, like when they need to get water, fertilizer and so on. A huge industry.

Participant 6:

I guess greenhouse farming is way more modern in terms of machines and techniques. They probably use a lot more chemicals to control the crops and make sure everything goes right in the process.



Participant 1:

Mixed feelings: greenhouse farming can be okay, but sometimes it's not, sometimes it's energy consuming and on substrate so no nutrients in the food

Participant 3:

Greenhouse farming on industrial scale I'm not a big fan; However it also brings back my youth: small scale producing fruits and veggies in our back yard to avoid so of the funny weather elements of the Netherlands.

Participant 4:

I think of warmth, controlled conditions, efficiency and space effectiveness

Participant 6:

I can't come up with anything else haha. It has all been said already.

Participant 1:

On the other hand, it's a good way of producing food for the cities. Efficient use of farm land

Host:

If you would have to compare traditional farming methods and greenhouse farming. What would have your preference? What is your opinion about these farming methods?

Participant 1:

I think it does not make a big difference between traditional and greenhouse farming, as long as it is done in a conscious, sensible, and sustainable way. The thing with modern farming in greenhouses that the food is often produced without soil. It is just the roots which are in the air and the farmers spray water on it with fertilizer. It is much better to eat vegetables from rich soil where there minerals and vitamins and other life forms as the whole nature is one big symbiosis.

Participant 4:

The good thing from greenhouses is that you can place them everywhere and you can grow things vertically. Whenever you have little space you can still farm a higher quantity than having done that horizontally.

Participant 2:

It is important that everyone understands better what makes food healthy. It needs a lot of variety, different species together. The biggest problem at this point in the food industry is that it is monocultural and we use chemicals to kill bugs and the diseases. If there is a field with a lot of variety then nature will take care of that.

Participant 6:

I think everything that is mentioned before makes a lot of sense when discussing it now, but before this I had no idea of all these processes beforehand. Of course everyone is getting more and more involved in eating healthier, but we never really get any education which is so fundamental. If we want to learn about this, it should be through self study.

Participant 3:

For me the upscaling of producing is the reason for this change in farming. Food is there to keep us healthy and fed, but now there is a focus of generating the highest price, due to probably the looks, and decreasing the costs. So there is such a big focus on least amount of labor and hence generating the highest possible revenue.



Host:

What environmental and social consequences are you aware of in terms of traditional and greenhouse farming?

Participant 3:

Well, I am vegetarian because meat is not good for humans, not good for the planet, not for the animals how it is produced and you don't need it.

Participant 5:

I am more knowledgeable about sustainable behaviour than before but if your upbringing it not focused on it, I think it is much more difficult to really change a lifestyle.

Participant 6:

Well the greenhouses cost a lot of energy and I can imagine they use a lot of additional chemicals to make sure the crops grow as they want. I cannot imagine that would be good for the humans eating those vegetables haha.

Participant 1:

I think all the practices are affecting the climate in their own different way. I am not completely informed on the exact implications, but I can assume that traditional farming has some effects on the quality of the dirt and greenhouses take up a lot of energy which is also not beneficial.

Participant 2:

I agree that there is no perfect method in that sense. In the ideal circumstance we should go back to the farming methods where crops and animals are all combined in the fields, but this is realistically not possible in todays society.

Host:

From everything that has just been mentioned, do you think the general knowledge and awareness is growing enough regarding this specific problem?

Participant 1:

No, we don't see it

Host:

Is that related to specific generations or in general?

Participant 1:

No one sees it

Participant 3:

In general

Participant 5:

Everyone

Participant 1:

I happen to know quite a bit about it and I am trying to tell as many people as I can, but not many people know and that is the problem.



Participant 6:

It is just really not talked about.

Participant 5:

I think people have a general knowledge that it is happening but it is very hard to do anything about it. They probably have the feeling like, I am just one person how am I going to make a difference? And how should I even make a difference.

Participant 1:

That is the thing

Participant 4:

Because the problem is so big and it is spread over different areas, that is feels like you are out of control. This results in everyone feeling like you cannot have any influence on it.

Participant 6:

I think people are getting more knowledgeable, but indeed it is just not talked about. It does not seem like a priority. Everything that has been discussed so far, I really did not have any idea.

Participant 1:

We have just gotten used to the techniques of mass producing, so we consider it normal, even though it is destroying the planet. It takes a lot of effort to go back to the organic way of producing, so if we want to do this it will cost a lot of money which people are not willing to spend.

Participant 3:

I strongly believe that we only focus on things that are bad. The war is bad, Poetin is bad, Trump is bad. So everything links back to what is bad. This means that if we talk about sustainability apparently it is covered in the shadow of it is all so bad. I think we should start relaunching sustainability as something which is just simply good.

Participant 1:

That is a very good point. To go back a few weeks to the vegetarian week which was hosted in Amsterdam. I heard one student remark 'if only they said nice healthy vegetable week, I would be excited and I would try it. Now it is marketed as 'No Meat Week' and I now miss my meat'. So it is portrait negatively.

Host:

To what extent does it matter to you where your vegetables comes from? Do you have the feeling you would purchase certain vegetables sooner?

Participant 4:

Yes definitely

Participant 2:

Yes definitely

Participant 3:

I definitely agree, I have a big family so once a week I do the week shopping list which is focused on multiple different locations. At the supermarket I buy the products which are marketed as for example 'Bijdehandjes' and we also have a vegetable shops where they



only sell vegetables which are slightly bruised, so if they are not bought they will be thrown away.

Participant 2:

My feelings about it are double, on one hand I can eat strawberries all year round. There is efficiency and I think we need to go there to feed the world. But it does not have this 'romantic' idea of someone caring for their land and getting food from your own land. I really like the notion of food forests and organic farming. It is not always possible. And then you need to consciously make a choice consistently.

However, even people who are aware, find it difficult to always make the right decision. Maybe you like meat or want to eat a certain type of food. It is there in the supermarket or in the outlet. Yes, I try to buy organic and local. If not organic, then local or if not local, organic. Preferably both. I do not mind if it is from the green houses, although strawberries do not have so much flavour if they are not in season.

Participant 3:

Then they do not use chemicals, right, if you buy organic? I wish I had the time to go to a farm in the area though, but I still go to the Jumbo/Albert Heijn/Picnic. I have invested in projects like 'Voedselbos' and I am on the waiting list for 'Herenboeren'. It is actually nice to look at with kids and find those little bugs. That is why I like the Happy Activist.

Participant 4:

If I could I would want to buy organic, healthy, local products but considering my budget I am not able to afford that at this point. In reality, I always end up going to the Albert Heijn or Hoogvliet to buy the fruits and vegetables which are 'on sale'. I do aim that later when my budget is a bit higher, I will be able to purchase local, more fresher products.

Participant 2:

I have the feeling that we also force students more to become vegetarian, so I remember we had the diversitree last year and students put in 'more meat options'. Not everyone is aware of all the implications and I think sometimes people become more resistant if you force things on them. So in terms of vegetables I think people in general choose the better option if they can just choose, but too much attention will shift them the other way.

Participant 1:

I would prefer organic vegetables mostly, but it is difficult. Traditional farming is also unnatural, as before there were humans you would never find one field with all the same crops. It would usually be mixed between crops and animals. This unnatural setting causes diseases for which you eventually need medicines and you then eat unhealthy food.

Participant 3:

I think it is also difficult to have a clear idea on what is actually organic or what is local. There are many products which claim they are local or organic but there is no way to check where they are actually from. This makes it quite difficult for the consumer as well.

Host:

Well thank you all again for joining, I have discussed all my questions, so I have some analysing to do after. Is there anything any of you would still like to add?

Participant 3:



Well I just want to say to the new generation is 'hang in there'. The old guys like myself are grown up with the compost pile in the back of the garden and that is a good thing. Nowadays the physical labour for your own garden and food has become less. So create some elements in there to do your part.

Participant 1:

Indeed, there are so many exciting things going on like city garden and bees in the city. So feed the excitement! You are the guys that can make the babysteps.

Participant 3:

We should be focusing on the sharecomony. You just bring your ingredients and cook together. This is always cheaper and that even offers you the possibility to buy the more expensive products.



9.13 Appendix: Dissemination 1 : quasi-experiment

Re: Dissemination



Visser de-Amundson, AL, Ms. <A.d.Visser-Amundson@hotelschool.nl>
30-9-2022 16:48



Aan: Lauren de Boer

Yes I sent the invite

From: Lauren de Boer <782026@hotelschool.nl>
Sent: Friday, September 30, 2022 3:58:56 AM
To: Visser de-Amundson, AL, Ms. <A.d.Visser-Amundson@hotelschool.nl>
Subject: Dissemination

Dear Anna,

I am glad we were able to set a meeting for 10/10. It will be good to speak to you again.

Additionally I was wondering if you have spoken to either Mr Hollen or Mr Waindrich yet. This will give me the possibility to send a teams meeting invitation and prepare accordingly.

Please let me know.

Warm regards,
Lauren

9.13.1 Transcript

WHO	ROLE
LAUREN DE BOER	Presenter
MS DE VISSER – AMUNDSON	Researching Client
MR HOLLEN	Instructor Taste Lab and Roots

Lauren de Boer:

- Introduction to meeting
- Welcome, thank you for being here
- Could not do it in real life as I am currently in SG
- During this meeting, I will be elaborating on my LYCar research and the experiment I have done in Blok D last year.
- If you have any questions, feel free to ask any questions.

The experiment

The focus of the research is on the food industry and specially local foods. To take you back in time quickly, the food industry has gone through many phases from hunting and collecting foods in the prehistory, to the uprise of local trading, to eventually the food industry which we mostly know. The food industry which is focused on fast, tasteful and cheap foods.

Over the past fifteen years the consumer behaviour is slowly shifting back to a more organic nature based diet. This has multiple reasons, amongst others:

People feel this change in their diet is more nutritious, hence resulting in a healthier body and mind. This is aligned with the movement of mindfulness and conscious behaviour. An increased level of ethical reasoning related to environmental sustainability. People want to give back



Studies however show that consumers do not sufficiently refer back to nutritional information on labels as well as that there is incomplete information available on the market. Consumers have the idea that certain production methods are considered as less biological or healthy even when in theory they are more healthy than the opposite.

Focus of research

Consequently, the focus of the project is to study to what extent there is a difference between the intended sustainable consumer behaviour with regards to locally produced vegetables and the actual sustainable consumer behaviour of Hotelschool The Hague students and employees?

With regards to the experiment my main focus was to gain insights regarding the consumer' purchasing behaviour focused on local products of Hotelschool The Hague students and employees when subconsciously being exposed to different farming methods.

Explanation of study

I will shortly elaborate on the overall procedure after which I will explain the thought process behind the structure.

The experiment took place in Taste Lab and Roots from week 4 to week 8 from Blok D last year. For Taste Lab we used the salad section and for Roots we focused on one specific dish per day for the experiment. These set dishes would give us the opportunity to compare the gathered data and see whether there are any patterns or interesting results from the experiment.

Then to further explain the nature of the three different methods we have decided on traditional farming, traditional greenhouse farming, and scientific greenhouse farming. I will explain both the thought behind the visual but also touch upon the theoretical side behind the farming method.

Traditional farming is focused on the methods and practices which are based on traditional tools, natural resources and effective land use. As you can see on the posters we have used. It represents a gentleman outside on the field in casual clothing, keeping track of the harvest of the vegetables.

Research shows that people generally feel that these locally produced products are fresher, more nutritious, tastier and safer than substitutes in the market.

Nowadays traditional farming has shifted towards mechanical techniques and chemical substances affecting the environment.

The main reason this shift is being made is to increase the quantities per harvest to eventually increase their profitability. Besides their own economical benefit, this growth in production is necessary in general as the global population is expected to increase from 7.7 billion in 2019 to 9.7 in 2050 To ensure enough food for this growing population is considered one of the biggest challenges nowadays for the food industry.

Back to the traditional farming method. Apart from the increase in volume of these traditional modernised techniques, they also result in a depletion of soil nutrients, soil erosion, deforestation, and crop failure heavily affecting the environment. Additionally, chemical pesticides are used to prevent any pests or outside intruders which can eventually have an effect on the food nutrition or human health.

So even though the quantities are highly increased, the effects on the environment and one's health bear the brunt of these techniques.

Then scientific farming which we can consider the exact opposite of traditional farming.



For the poster we have used a picture of a scientist in a lab coat with a tablet. Moreover the greenhouse shows modern equipment in terms of lighting and techniques. We have done this to portrait someone who is focused on experimenting and artificially controlling the setting these products are grown in. Greenhouse farming allow farmers to grow vegetables in a controlled environment meaning they control the light, humidity, ventilation and temperature to create optimal growing circumstances. The scientific developments in greenhouses itself have lead to many advancements in terms of food produce, quality, volumes etc. You can think of multiple rows of fields, mobile shading, and cooling systems. Foods are kept under such strict and controlled circumstances to ensure the harvest will be a success within a shorter timeframe. Therefore this means: increased volumes, less time, and healthier products. Greenhouses are considered the future of agriculture when focusing on climate change, the growing population and nutritious healthy products.

Moving on to the greenhouse traditional farming, this was meant as an intervention. From previous studies we were already aware there was a preference for traditional farming in comparison to scientific farming. Therefore, we were wondering if this combined scenario of the greenhouse with the modern methods, but portrait with traditional methods, would increase the number of sales in comparison to the scientific. For the poster you can see that we have used a picture in a greenhouse, but traditional maintenance as the person is watering the plants by himself.

This is a short summary of why we have chosen these three scenario's to test the current market.

Now we wanted to test if these posters have had an effect on the SALES of Roots and/or Taste Lab.

Do you have any questions with regards to the set up of the experiment?

Ms de Visser – Amundson:

No questions

Mr Hollen:

Not from me

Lauren de Boer:

To move on to the results and conclusions:

At first we have combined the sales of Roots and Taste Lab and you can see in the figure that the traditional farming is a lot higher at 255 than the greenhouse traditional and the greenhouse scientific which are 164 and 122. This is not the result we would have wished for but we expected to see this strong preference for traditional farming considering the image of traditional vs scientific. The 'known practices' versus the 'unknown methods'. This is a confirmation of the problem we are facing with the climate change and the growing population.

If we define it further we especially see the differences in Roots but we consistently see the majority of sales in traditional farming for both Taste Lab and Roots. As for the greenhouse traditional and greenhouse scientific we see less of a pattern.

The traditional greenhouse sales are higher than the scientific for Roots which was also indicated in the combined results. BUT the pattern switched for greenhouse traditional and greenhouse scientific for Taste Lab as the greenhouse scientific has increased numbers.

The overall pattern is that the traditional farming methods are working better than greenhouse traditional and greenhouse scientific. Then regarding the greenhouse



traditional and greenhouse scientific it has a less evident pattern, but the tests show that the sales for traditional greenhouses are still higher than the scientific.
Sooooooo...

Next steps for my research

Considering the results I presented, I will be focused on obtaining more in depth consumer insights through hosting a focus group. Through this I really want to find out what their current knowledge is, how aware they are of their consumer behaviour, how consciously they make certain decisions and what their perspective is on the future.

All these results and links have of course made me think how to contribute to solving this problem. Ideas which can help ameliorate the current gap between available knowledge and consumer purchasing behavior.

Campaign over several weeks addressing the current issues and the implications on the environment and health (together with sustainability committee)

A workshop/masterclass for all students. Make it interactive etc.

So hereby I have discussed everything I wanted to point out. I would love to answer any questions or hear any feedback regarding the solution ideas or anything else.

Mr Hollen:

I do not think a campaign would work. Nobody looks at that because it requires too much effort from the receiving party.

Ms de Visser – Amundson:

It would be a good solution if everyone would take the time to understand the information, but realistically that will not happen

Mr Hollen:

You could think about a fieldtrip or workshop about the topic. This would increase the interaction as well.

Lauren de Boer:

I agree with the points you both made. It is unfortunate that it is so difficult to reach the people you need to change the behaviour haha. Those two new options definitely sound good to explore. Thank you for thinking with me.

Mr Hollen:

You do have to make sure that the students are involved enough or that they can apply the situation to their own life, because otherwise it will not have enough impact.

9.13.2 Presentation slides



KEY POINTS

- FOCUS OF RESEARCH
- EXPLANATION OF EXPERIMENT
- RESULTS AND CONCLUSIONS
- NEXT STEPS FOR MY RESEARCH
- QUESTIONS



FOCUS OF THE RESEARCH

- Introduction to the research background
- Shift in diet
- Focus of the research



FOCUS OF RESEARCH

MAIN RESEARCH QUESTION

To what extent does the origin of locally produced products (farm vs greenhouse) influence the purchasing behaviour of Taste Lab and Roots consumers within Hotelschool The Hague?

DATA COLLECTION

Experiment



METHODS EXPLAINED

TRADITIONAL FARMING

- Traditional tools, natural resources, and effective land use
- The shift in techniques
- Increased volumes
- Effects on environment
- Consumer perspective: more familiar, more safe, better quality



METHODS EXPLAINED

GREENHOUSE SCIENTIFIC FARMING

- Scientific developments
- Multiple rows, mobile shading, cooling systems
- Future prospects related to world wide population and climate change





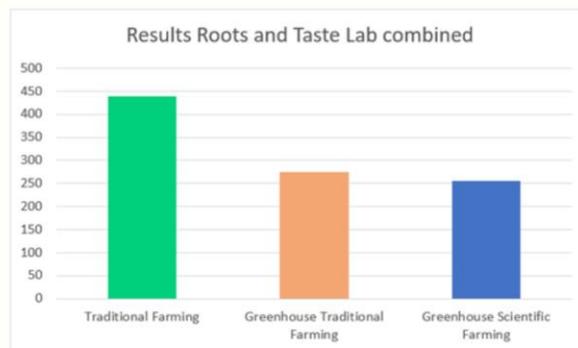
METHODS EXPLAINED

GREENHOUSE TRADITIONAL FARMING

- Intervention
- Comparison to scientific farming

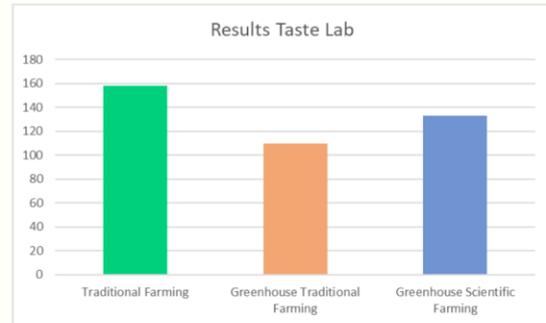
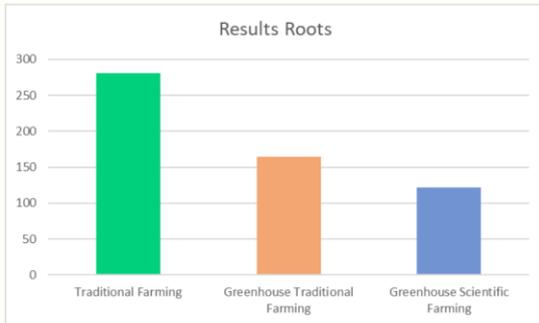


RESULTS AND CONCLUSIONS





RESULTS AND CONCLUSIONS



WHAT NOW?

NEXT STEPS OF MY RESEARCH

Focus group

- Current knowledge, consumer behaviour, future perspective

Solution ideas

- Campaign
- Workshop/Masterclass

QUESTIONS?

Figure 25: Presentation dissemination



9.14 Dissemination 2: Solution

9.14.1 Point of Contact



Gallicano, R, Mr. <R.Gallicano@hotelschool.nl>
5-1-2023 11:17



Aan: Lauren de Boer

Yes, for 10:00 a.m. NL time if that works for you?

From: Lauren de Boer <782026@hotelschool.nl>
Sent: Thursday, January 5, 2023 11:13 AM
To: Gallicano, R, Mr. <R.Gallicano@hotelschool.nl>
Subject: RE: LYCar Research Help

That would be even better. Shall I send you an invitation?

Please let me know!

Lauren

Van: [Gallicano, R, Mr.](#)
Verzonden: donderdag 5 januari 2023 11:10
Aan: [Lauren de Boer](#)
Onderwerp: RE: LYCar Research Help

Hello Lauren – Coincidentally I am on line with another Lycar student **tomorrow morning** and could speak with you at 10 a.m.? That might work out better for both of us?
R. Gallicano

From: Lauren de Boer <782026@hotelschool.nl>
Sent: Thursday, January 5, 2023 11:08 AM
To: Gallicano, R, Mr. <R.Gallicano@hotelschool.nl>
Subject: RE: LYCar Research Help

Dear Mr Gallicano,

I had a great holiday season with my friends here in Singapore, unfortunately not with my family, but they will be visiting me here in two weeks!

That would be great, thank you. I will send you an invitation for a meeting.

Enjoy the rest of your week!

Warm regards,
Lauren

Figure 26: Contact Mr Gallicano



Gallicano, R, Mr. <R.Gallicano@hotelschool.nl>

6-1-2023 12:20



Aan: Lauren de Boer

[Alle bijlagen opslaan](#)


Hello Lauren,

It was nice to speak with you and to hear about your research and Solution as well as your internship in Singapore.

Regarding what we discussed and the contacts – here is some more information.

1. Invoice from De Groote Voort for the Field Trip – you can figure out a price for student for your workshop
2. De Groote Voort contact is Jan Dirk and <https://www.remeker.nl/remeker/?lang=en> you also might find this video interesting - <https://www.youtube.com/watch?v=Lb9oAtIqWcQ>
3. Email address is remeker@remeker.nl – if you email Jan Dirk be sure to mention HTH, Joost de Vos and me.
4. Jelleke de Nooy – quite an expert on farming systems - bio attached – if you mail her do the same – mention HTH and the FOF course, etc. <http://www.jellekedenooy.nl/>

R. Gallicano

Figure 27: Contact Mr Gallicano

9.14.2 Conclusions

- Focus on creating a valuable and connecting event for the participants to ensure the impact and effectivity of the solution.
- Draft example documents like an invitation or PowerPoint to show the stakeholders how the solution can be best executed.
- Make sure to make it applicable for multiple populations within Hotelschool The Hague, so not too specific.
- Try to think of an addition to the solution to make it extra involving for the attendees.



9.15 Appendix: Fieldtrip Schedule

Location:

Remeker - De Groote Voort, Postweg 110, 6741 ML Lunteren

Schedule:

Time	Activity	Detailed plan	Who
10:00 – 10:15	Introduction	When arriving at the location, the participants will have an introduction discussing the activities of the day, timeline, and the emergency contact.	FoF Lecturer
10:15 – 11:15	Farm tour	The host will be giving us a tour around the farm through explaining the day-to-day practices and the changes they have recently made.	External guide (Farm host)
11:15 – 11:45	Walk around + Q&A	Participants will have some time for themselves where they are free to walk around the farm or ask questions regarding the tour.	Participants fieldtrip
11:45 – 12:30	Lunch	Participants will have lunch accommodated by the farm.	External location
12:30 – 14:10	Workshop	The workshop will be held at the on-site event space by the field expert. The schedule discussed in App. 9.18 will be used as a guideline.	Field Expert
14:10 – 14:30	Round - Off	The day will be rounded off through asking the final questions to the field expert, the farm host, or FoF lecturer.	FoF Lecturer
14:30	Back to campus	After all participants will be free to go.	Participants fieldtrip



Budget:

Farming 101 Fieldtrip				
17 mei 2023				
Category	Per Person	Estimate	Actual	Difference
Location (Tour)		100,00		
Rent Event-space		200,00		
F&B (Lunch)	10	330,00		
Speaker		100,00		
Total costs		730,00	0,00	0,00

Figure 28: Budget Fieldtrip

Communication:

Title: FIELDTRIP FARMING 101

Dear Foodies,

We are excited to inform you about our upcoming fieldtrip '**FARMING 101**' on Tuesday 16 May 2023 at 13:10 at Remeker de Grote Voort.

Attached is the invitation with some more details.

Please note we meet at Remeker de Grote Voort @ 9.45.

It is your responsibility to be on time.

While we ask you to dress warm with comfortable shoes please note you represent the school & yourselves so we still expect smart casual.

During the workshop on-site we will be testing your current knowledge about farming methods, its effect on the worldwide society, and YOUR own day-to-day behaviour. We expected you to prepare some in-depth questions.

The event is catered for so we expect full attendance.

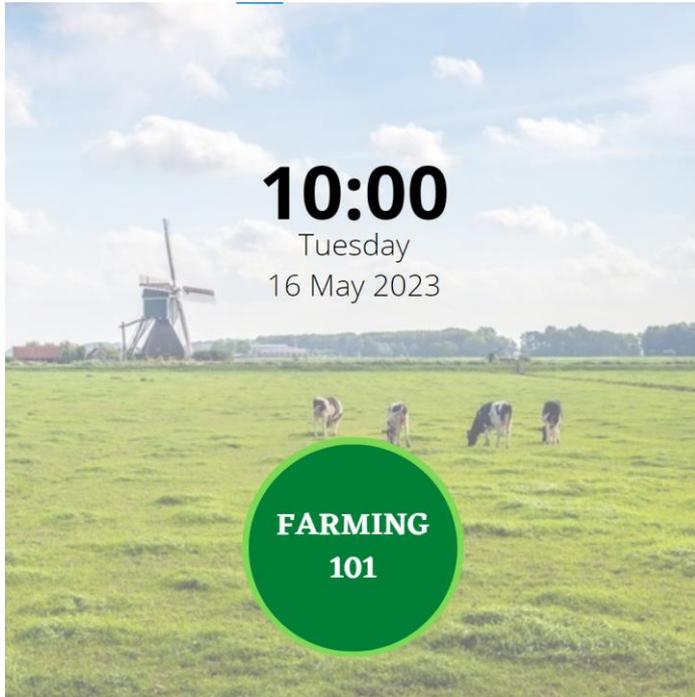
Looking forward to receiving you next week Tuesday.

Warm regards,
Future of Food

Figure 29: Draft E-mail



Invitation





FARMING
101

AGENDA

10:00 - 10:15	Arrival at Remeker	
10:15 - 11:15	Farm tour	
11:15 - 11:45	Walk - Around + Q&A	
11:45 - 12:30	Lunch	
12:30 - 14:10	Workshop FARMING 101	
14:10 - 14:30	Round - Off	



- **Check the weather forecast before arriving on location**
- **Make sure to be dressed smart casual with comfortable footwear**
- **Bring some snacks for the trip**
- **Make sure to prepare your questions!**
- **Communicate any dietary requirements to the core team**

Figure 30: Draft invitation

Link to invitation: https://www.canva.com/design/DAFXJUJS_uk/Zu68cmzxcyMs-GLCRDLLdg/edit?utm_content=DAFXJUJS_uk&utm_campaign=designshare&utm_medium=link2&utm_source=sharebutton

9.16 External location + Costs

Information external location De Groote Voort

The traditional farm 'De Groote Voort' is focused on cheese production in a sustainable manner. Considering the broad topic of farming and the information on hand, it has been chosen to use 'De Groote Voort' as example location for this solution.

The farm produces 100% organic cheese through ensuring totally free of antibiotic care, through using purely natural remedies where necessary. They focus on their diet of grass and clover, along with a rich variety of other herbs which are included in the process of manufacturing. The meadows where the cows reside are fertilised with straw-rich manure from the deep litter cowshed that was specially designed for cows that are allowed to keep their horns (Remeker, 2023).

Historical invoice for cost calculation



FACTUUR

Factuurdatum: 13-10-21
Factuurnummer: 42



<i>Omschrijving</i>	<i>Aantal</i>	<i>Prijs</i>	<i>Totaal</i>
Huur potstal inclusief aankleding	1 Dagdeel	200,00	200,00
Ontbijt met kaas, brood, boter, melk	45 Persoon	10,00	450,00
Excursie koeien & kaas incl. proeverij.	1 uur	100,00	100,00
	Verzendkosten	€	0,00
	subtotaal	€	750,00
	BTW 9,00%	€	40,50
	Totaal	€	853,50

Figure 31: Invoice Remeker



9.17 Field expert



JELLEKE DE NOOY

The New Normal agriculture, restoring socio-ecological farming systems

To produce food, feed and fodder sustainably (socially, ecologically and economically), we need to do more than 'just' recycle nutrients, water and energy in a cradle2cradle or circular economy approach.

Interested? Check out the QR code below!

We need:

- nature-inclusive farming
- conservation
- restoration
- regenerative farming
- closed-loop farming
- low energy input farming



Agro-Ecology

applied science that studies ecological processes applied to agricultural production systems. Bringing ecological principles to bear can suggest new management approaches in agroecosystems.

If we want to minimize our too large agricultural footprint, we need to partner with nature towards regionally diverse landscapes and we want to get rid of our protectionist regulations.

ABOUT JELLEKE AND CATALYST 4 CHANGE

Cheerful Communicator, Consultant, Catalyst

Jelleke's drive comes straight from her heart. She is above all a broadly experienced and compassionate woman, with a strong mission.

Her strength is in connecting people and organisations, by communicating and collaborating, to together make the transition to agro-ecology.



It is my mission and sincere wish to support, strengthen and accelerate the transition to sustainable, nature-inclusive food and farming systems. That is what I do, together with partners.



Figure 32: Information Expert



9.18 Appendix: Workshop design

Date and Time: Tuesday 16 May 2023, 13:10 – 14:50
Venue: Classroom 3.12
Host of the workshop: Field Expert, Jelleke de Nooy
Participants: Future of Food students (e.g. 30 students)
Necessary equipment: 12 A3 paper sheets, 12 red markers, 12 green markers, 12 blue markers, beamer, and computer

Pre-workshop

1. Arrange classroom booking
2. Send out informative e-mail to FoF students
3. Gather materials

Outline of the workshop

Time	Activity	Detailed plan	Who
13:10 – 13:15	Opening	Welcome and form groups of four when taking a seat	Host
13:15 – 13:25	Opening activity	Participants create a mind map about traditional conventional farming or greenhouse farming (split groups 50/50)	Participants
13:25 – 13:35	Introduce topic	Explain fundamentals of two farming methods and shortly touch upon growing worldwide challenges (food crisis and climate change)	Host
13:35 – 13:40	Questions	Time to answer any questions	Host
13:40 – 13:50	Follow-Up activity	Participants brainstorm and note the benefits and disadvantages of their appointed farming method	Participants
13:50 – 14:10	Presenting	Ask one group per farming method to run us through their thought process	Participants
14:10 – 14:20	Video	Show a video per farming method which elaborates on its benefits and disadvantages	IT
14:20 – 14:30	Discussion	Ask participants who would like to share their thoughts	Participants
14:30 – 14:40	Closing assignment	Participants create an overview of their key learnings of this workshop and what their thoughts are on the future of farming	Participants
14:40 – 14:50	Closing	Any questions or comments about the workshop. <ul style="list-style-type: none"> - Will they share their knowledge with their family or housemates? - How much did they know? 	Host



		<ul style="list-style-type: none"> - Do they have a preference in farming method? - What are their thoughts on consumer behaviour? 	
--	--	--	--

Communication plan

When	What	Responsible	Receiving party
9 May 2023	Informative e-mail	Host	Participants
15 May 2023	Workshop reminder e-mail	Host	Participants
17 May 2023	Key Findings E-mail	Host	Participants and FoF faculty
17 May 2023	Social Media Posts	Host	HTH Community



9.19 Appendix: Workshop Presentation

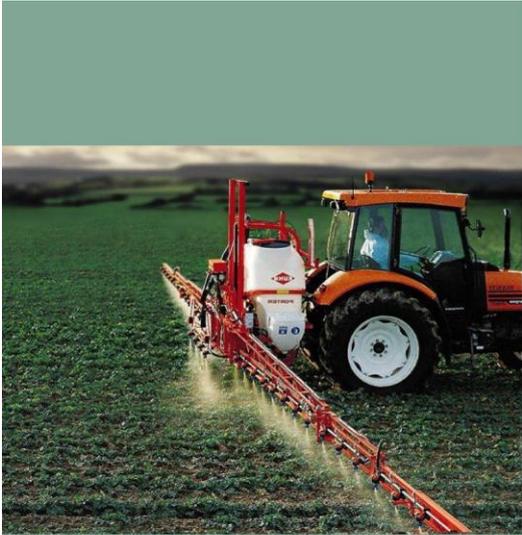
FARMING 101

Date: 17 May 2023
Minor Future of Food



CREATE A MIND MAP

You have until 13:25 to finalize



CONVENTIONAL FARMING

- 01 The traditional principle of traditional agriculture
- 02 The shift of towards conventional agriculture

GREENHOUSE FARMING

- 01 The principle of greenhouse farming
- 02 Technologies and methods





BRAINSTORM ABOUT BENEFITS AND DISADVANTAGES OF APPOINTED FARMING METHOD

You have until 13:50



TIME FOR A VIDEO

Link video: <https://www.youtube.com/watch?v=QT4TWbPLrN8>

ASSIGNMENT

- 01 Create an overview of the key takeaways from this workshop.
- 02 What are your thoughts about the future of farming?
- 03 Write down anything that comes to mind. Farming methods, feelings towards the effects on the environment or maybe a realization about your own behaviour
- 04 Work individually until 14:40

FINAL MOMENTS

Any remaining questions?

How much did you already know?

What will you do?

Figure 33: Presentation Workshop



9.20 Appendix: Before fieldtrip Survey

FARMING 101

Dear Foodie,

Thank you for joining in today's fieldtrip! We hope you are excited to learn about farming and all that comes with it.

Please take 3 minutes to fill in this survey. It is important to answer the questions according to your current knowledge. Do not fill anything in, because you are guessing it is the 'correct' answers. There is no correct/incorrect answer.

The answers to these questions are confidential and anonymous. The purpose of this survey is to measure your expectations and current knowledge regarding both the topic and the fieldtrip.

For any remaining questions, please ask us on campus or before we arrive at the location.

Have a great rest of your day.

General Fieldtrip Questions

1. I am interested in the topic 'Farming'

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

2. I would currently rate my knowledge about farming

	1	2	3	4	5	
Very unaware	<input type="radio"/>	Very aware				

3. What are the positive aspects of conventional farming?

- Healthy products
- Relatively cheap products
- Low external production risks (climate, pests)
- Maximize food production
- Easy to adopt in many countries
- No use of pesticides and chemicals
- Focus on keeping soil healthy
- Anders: _____



4. What are the negative aspects of conventional farming?

- Unhealthy products
- Relatively expensive products
- High external production risks (climate, pests)
- Uncertain food quantities
- Difficult to adopt in many countries
- Use of pesticides and chemicals
- Depletion of soil nutrients
- Anders: _____

5. What are the positive aspects of greenhouse farming?

- Healthy products
- Relatively cheap products
- Minimal external production risks (climate, pests)
- Maximizing food production
- Easy to adopt in many countries
- No use of pesticides and chemicals
- Anders: _____

6. What are the negative aspects of greenhouse farming?

- Unhealthy products
- Relatively expensive products
- High external production risks (climate, pests)
- Uncertain food quantities
- Difficult to adopt in many countries
- Use of pesticides and chemicals
- Anders: _____



7. Farming methods have an effect on the environment

1 2 3 4 5

Very unfamiliar Very familiar

8. To what extent do you think it is important farming methods change considering worldwide challenges?

1 2 3 4 5

Very unimportant Very important

9. What are you expecting to learn today?

Jouw antwoord _____

Figure 34: Before Fieldtrip Survey



9.21 Appendix: After fieldtrip Survey

FARMING 101

Dear Foodie,

Thank you for joining in today's fieldtrip! We hope you had a great time AND that you have learned aspects which you will share with your inner circle and adjust in your day-to-day behaviour.

Please take 3 minutes to fill in this survey.

The answers to these questions are confidential and anonymous. The purpose of this survey is to get your reactions to, experience in, and reflections on the usefulness of the workshop to understand what went well and what needs improvement for future workshops of this kind.

For any remaining questions, feel free to contact us via e-mail or approach us on campus..

Have a great rest of your day.

General Fieldtrip Questions

1. I enjoyed the fieldtrip 'FARMING 101'

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

2. I am interested in the topic 'Farming'

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

3. I enjoyed the workshop 'FARMING 101'

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				



4. I feel the workshop was well structured

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

5. I would recommend people to attend this fieldtrip

	1	2	3	4	5	
Very unlikely	<input type="radio"/>	Very likely				

Knowledge Fieldtrip Questions

6. I would currently rate my knowledge about farming

	1	2	3	4	5	
Very unaware	<input type="radio"/>	Very aware				

7. What are the positive aspects of conventional farming?

- Healthy products
- Relatively cheap products
- Low external production risks (climate, pests)
- Maximize food production
- Easy to adopt in many countries
- No use of pesticide and chemicals
- Focus on keeping soil healthy
- Anders: _____

8. What are the negative aspects of conventional farming?

- Unhealthy products
- Relatively expensive products
- High external production risks (climate, pests)
- Uncertain food quantities
- Difficult to adopt in many countries
- Use of pesticides and chemicals
- Depletion of soil nutrients
- Anders: _____



9. What are the positive aspects of greenhouse farming?

- Health products
- Relatively cheap products
- Minimal external production risks (climate, pests)
- Maximizing food production
- Easy to adopt in many countries
- No use of pesticides and chemicals
- Anders: _____

10. What are the negative aspects of greenhouse farming?

- Unhealthy products
- Relatively expensive products
- High external production risks (climate, pests)
- Uncertain food quantities
- Difficult to adopt in many countries
- Use of pesticides and chemicals
- Anders: _____

11. To what extent do you think it is important farming methods change considering worldwide challenges?

- | | | | | | | |
|------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|
| | 1 | 2 | 3 | 4 | 5 | |
| Very unimportant | <input type="radio"/> | Very important |

12. Should people become more aware of the topic farming and the positive/negative implications?

- | | | | | | | |
|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|
| | 1 | 2 | 3 | 4 | 5 | |
| Strongly disagree | <input type="radio"/> | Strongly agree |



13. I would have liked to hear more about ...

Jouw antwoord _____

14. The components of the fieldtrip which were well organised were:

- Communication before and during fieldtrip
- Set-up of fieldtrip
- Content of the fieldtrip
- Field-expert
- Anders: _____

15. Do you have any points of improvement for the fieldtrip?

Jouw antwoord _____

Figure 35: After Fieldtrip Survey

9.22 Appendix: Dissemination Social Media

9.22.1 Intranet

News

Farming methods for a brighter future – 17 May 2023

🕒 19 May 2023



Sustainable farming methods? Click below to read about different farming methods and their effects on society.

[Continue reading ▶](#)

Figure 36: Potential Visual Intranet

Discover the best farming methods for a brighter future!

Dear HTH Community,

On Tuesday 17 May 2023, Future of Food students had the opportunity to visit Remeker De Grootte Voort and participate in a workshop regarding the different farming methods and its effects on consumer health, climate, and the worldwide population.

Remeker De Grootte Voort focuses on producing 100% organic cheese, including the rind, made from their own ghee. They have ensured that since 2004 their cows are totally free of antibiotics, and solely receive purely natural remedies - where necessary. Their best daily medicine is their diet of grass and clover, along with the rich variety of other herbs that belong naturally to their pastures. Occasionally they get a treat of raw oats, rye and other unrefined grains. The meadows where the cows graze are fertilised with the straw-rich manure from the deep litter cowshed that was specially designed for cows that are allowed to keep their horns.

The workshop was mainly focused on discussing conventional farming and greenhouse farming methods. Through this read, we would like to share the key aspects of the workshop and encourage you to stimulate the conversation amongst your friends and family.

Traditional farming is known as cultivating land through the use of indigenous knowledge, natural resources, effective land use, and traditional tools. Over the past years, the growing demand of food resources has led to an increase of conventional agriculture. These new methods boost the quantity of produce, but through the



increased usage of pesticides, chemicals, and additional modern techniques, the soil health, water quality, and biodiversity has been carrying the burden.

On the contrary, greenhouse farming has been presenting methods which control the light, humidity, ventilation and temperature to create an optimal ecosystem for the specific crops. Due to the highly controlled environment, high-yielding can be reached and an increased level of yearly harvests. As a result, the need for pesticides decreases, land-use is minimal due to techniques like vertical farming and biodiversity is not affected. Nevertheless, these greenhouses do require high amounts of energy to control the environment. Over the past years, there have been rapid developments to shift greenhouses to renewable energy to increase the sustainability of this practice.

Considering the worldwide challenges, of the upcoming food crisis to feed over 10.9 billion by 2100 and the fight against climate change, it can be concluded greenhouse farming is currently significantly more opportunistic than traditional farming.

If you are interested and want to learn more about the above mentioned topics. Please see the links below:

<https://www.mckinsey.com/capabilities/sustainability/our-insights/spotting-green-business-opportunities-in-a-surg-ing-net-zero-world/transition-to-net-zero/food-and-agriculture>

<https://www.sciencedirect.com/topics/earth-and-planetary-sciences/greenhouse-cultivation>

<https://www.eea.europa.eu/signals/signals-2015/articles/agriculture-and-climate-change>



9.22.2 LinkedIn

Discover the best farming methods for a brighter future!

On Tuesday 17 May 2023, Future of Food students had the opportunity to participate in a workshop regarding the different farming methods and its effects on consumer health, climate, and the worldwide population. The workshop was mainly focused on discussing conventional farming and greenhouse farming methods. Through this figure, we would like to share the key aspects of the workshop and encourage you to stimulate the conversation amongst your friends and family.

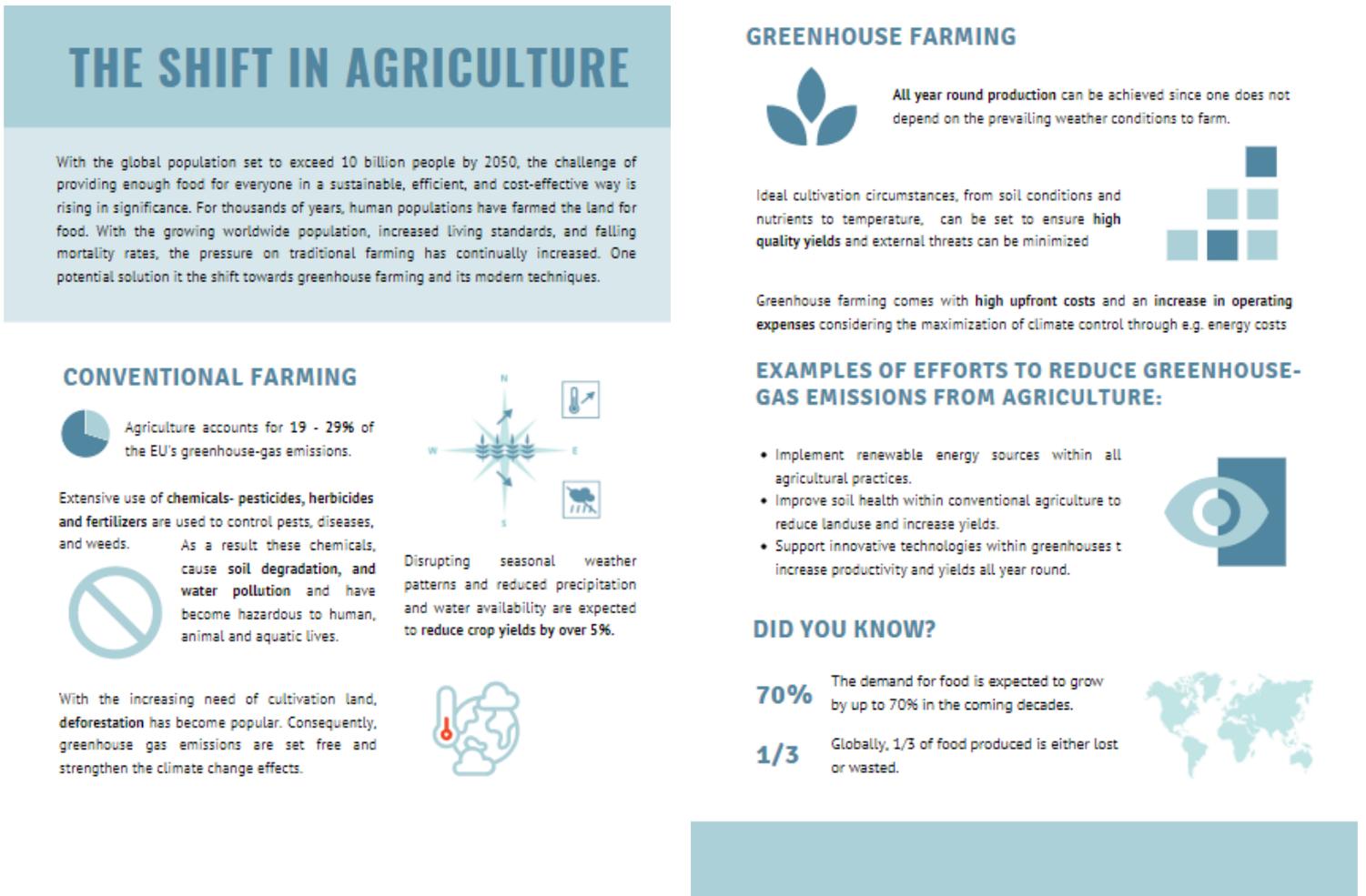


Figure 37: Infographic Dissemination



9.23 Appendix: Client evaluation



Evaluation Form Company Project/Research

(EVALUATION FORM OF ALL CLIENTS AND ON ALL DELIVERABLES IS COMPULSORY, FORMAT IS NOT)

Name of student:	Lauren de Boer	Student number:	782026
Name of company/organisation:	Hotelschool The Hague	Department:	Research Centre
Name of company tutor/research commissioner:	Anne de Visser- Amundson	Position of company tutor/commissioner (if applicable):	Senior Research Fellow
Project and/or Deliverable: (please specify)	<i>To what extent does the origin of locally produced products (farm vs greenhouse) influence the purchasing behaviour of Taste Lab and Roots consumers within Hotelschool The Hague?</i>		
This is the final assessment. The student has received interim feedback and has also been provided the opportunity to ask additional questions before this final assessment.			

Page 1 of 4

CATEGORY 1: EXPERTISE/KNOWLEDGE OF THE FIELD				
Rating	Excellent	Good	Room for improvement	Comments
	In-depth use of relevant literature and knowledge of the field. The deliverable shows excellent thinking capacity of the student (considering all significant factors and looking from all different perspectives).	Use of relevant literature and knowledge of the field. The deliverable shows mostly intellectual depth (considering significant factors and looking from different perspectives).	No or incorrect use of literature and knowledge of the field. The deliverable lacks intellectual depth.	Lauren has done a great job in scanning lots of literature. Most of her reporting is relevant and adds value to the study. However, I find her conclusions at times quite vague and a collection of reporting findings rather than building argument towards why or why not consumers would prefer local (vs non local) food grown in the fields (vs grown in green houses). As an example, sentences like this leaves the reader hanging "On the other hand, a meta-analysis of 80 worldwide studies has identified the problem regarding consumers' willingness to pay (WTP) for sustainable food products. Results suggest that 29.5% on average is willing to pay for such products depending on consumers' gender, region, sustainable attributes or the food categories (Li and Kallas, 2021). Stating this must clarify if they found that respondent are willing to pay <i>more</i> ? and what is the role of gender, religion etc. in finding such effects. This is just an example but occurs on more places in the literature review. Thus, I would have expected it a bit shorter (more is not always better), allowing for more in-depth analysis and thus a clear structure of the arguments.
CATEGORY 2: KNOWLEDGE APPLICATION/SOLVING PROBLEMS				
Rating	Excellent	Good	Room for improvement	Comments
	The theories and models are skillfully applied and the student can translate this in a unique solution and implementation. The student can relate situations to concepts that results into a solution that adds great value to the company's overall strategy. The creative solution is/can be implemented and evaluated and is solving the problem.	The student uses theory, models, and shows understanding of the issues at hand. The solution is realistic and implementable for the company. The solution is/can be implemented and evaluated.	Mentioning theory and models, but not using them in the correct way. The student cannot convince of the possibilities to implement and evaluate. It is not solving the problem.	The solution is certainly implementable but the long term effects of a field trip are questionable. Also as a research commissioner I had expected a more elaborate analysis of how to progress with this research on local foods and types of farming. The current reporting on this I find very limited.

Page 2 of 4



CATEGORY 3: INFORMED JUDGEMENTS				
Rating	Excellent	Good	Room for improvement	Comments
	The research process is done and explained in an excellent way. All statements, conclusions and recommendations are underpinned with the data collected by the students and/or referencing. The analysis is very substantial.	The research process is done and explained well. Most statements, conclusions and recommendations are underpinned with the data collected by the student and/or referencing. The analysis is substantial.	Weak problem analysis, research question not clear enough. Data collection and/or methodology is insufficient. Weak analysis, use of data from one dimension and not backed up.	I focus my evaluation on the field experiment. I think Lauren did a good job in explaining the findings in an accessible way, yet (almost) conform academic standards (p-values are always reported with a small italic p e.g., $p = .05$). I think the explaining of the research design and operationalization (e.g., showing the manipulations when explaining the conditions) could have been more elaborate and clear. I understand it well as I designed the research with Lauren but I'm not sure how clear this is for an external party? Especially if you are not familiar with experimental research.

CATEGORY 4: COMMUNICATION AND SHARING KNOWLEDGE				
Rating	Excellent	Good	Room for improvement	Comments
	Excellent ability to communicate information, ideas, problems and solutions to all stakeholders involved. The deliverable adds great value to the main stakeholders. Initial and creative channels have been actively used to share outputs and knowledge.	Good ability to communicate information, ideas, problems and solutions to stakeholders. The deliverable adds value to the company. Existing channels have been used to share knowledge	The deliverable could have been better delivered to the stakeholders. The deliverable could have added more value, if better delivered. No active communication of outputs and knowledge.	I think overall the report is very well written and interesting to read. I think Lauren did a great job in structuring the report and also how she presented the final solution. However, as indicated above, the solution for me as a researcher is very limited (hence the split here in the evaluation)

CATEGORY 5: INTERCULTURAL HOSPITALITY LEADERSHIP				
Rating	Excellent	Good	Room for improvement	Comments
	Student can lead the project by themselves. Student is self-critical towards improvement and takes feedback to heart. Student deals with a diversity of stakeholders in an intercultural competent way. Hospitality mindset is seen in project or work in a very distinct way.	Student can lead the project with little help. Student is critical towards improvement and listens to feedback. Student deals with different stakeholders. Hospitality mindset can be seen.	Tasks performed are described and not critically analyzed. Student is not too critical towards own learning and can listen better to feedback. Student does not know how to deal with differences in stakeholders. Hospitality can be improved.	Lauren does great in reaching out and asking for feedback. She is a pleasure to work with, always positive and willing to learn. Thus, she has a great hospitality mindset with which I believe she is able to work well with a range of different stakeholders.

OVERALL COMMENTS:	
Well done and thank you Lauren for all you work. I really enjoyed working with you and wish you all the best. I'm looking forward to building further on the results you found.	
STUDENTS' COMMENTS:	
Comments on evaluation:	
DATE & STUDENT'S SIGNATURE:	
	
COMPANY SUPERVISOR'S/RESEARCH COMMISSIONER'S SIGNATURE:	
	

THE COMPLETED FORMS (ON ALL DELIVERABLES AND PERFORMANCE) NEED TO BE EMAILED TO THE LYCAR COACH AND PUT IN THE APPENDICES OF THE CAREER PORTFOLIO

Figure 38: Client Evaluation

9.24 Appendix: Data Management Confirmation

URGENT REQUEST: Data Management Error

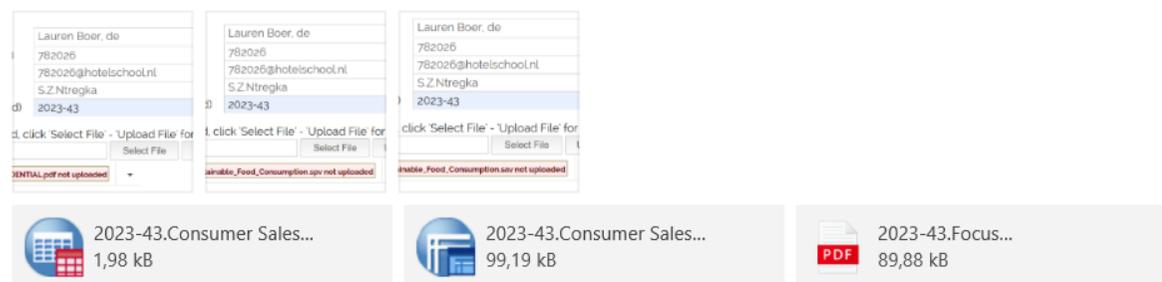


Lauren de Boer <782026@hotelschool.nl>

11:16

Aan: Research Hotelschool The Hague

[Alle bijlagen opslaan](#)



Dear Research Team

I hope this e-mail reaches you well.

As part of the Data Management procedure all students require to upload all the data collection files on Intranet. Considering I will be handing in my company project report before upcoming Monday (20 February 2023), I just attempted to hand-in the three files containing my data collection. As you can see on the images, for all three files I received an error which stated 'target folder does not exist'. After checking all the data management steps once more, I am not sure what the cause is for the error (as I successfully managed to follow all the steps).

As my deadline is in two days, I hope you will have time to get back to me as soon as possible, hence the title 'URGENT'. Moreover, considering the following steps of handing in both my Company Project Report and Career Portfolio, I will be adding a screenshot of this e-mail to confirm the distribution of the data collection files to research centre. As soon as the problem is solved (hopefully before the deadline), I will hand-in the data collection files through Intranet.

Thank you in advance for your help and I hope to hear from you shortly.

Kind regards,
Lauren de Boer

Figure 39: Error Data Management

File Upload Notification



noreply <noreply@hotelschool.nl>

03:50



Aan: Lauren de Boer

Dear Lauren Boer, de,

This is an automatic delivery message to notify you that a new file has been uploaded.

Name : Lauren Boer, de
Student Number : 782026
Email : 782026@hotelschool.nl
LYCar Coach : Ms. Ntregka
Research Number : 2023-43

We kindly request you to forward this email to your LYCar coach as evidence that your data files have been uploaded securely.
Thank You.

Figure 40: Confirmation Focus Group Data

File Upload Notification



noreply <noreply@hotelschool.nl>

03:50



Aan: Lauren de Boer

Dear Lauren Boer, de,

This is an automatic delivery message to notify you that a new file has been uploaded.

Name : Lauren Boer, de
Student Number : 782026
Email : 782026@hotelschool.nl
LYCar Coach : Ms. Ntregka
Research Number : 2023-43

We kindly request you to forward this email to your LYCar coach as evidence that your data files have been uploaded securely.
Thank You.

Figure 41: Confirmation SPSS Data