## Do you want fries with that?

A product-based study of hamburger flavour combinations and customer preferences in the Nummela, Finland area.

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#### Abstract

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Do you want fries with that? A product-based study of hamburger flavour combinations and customer preferences in the Nummela, Finland area.

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The purpose of this thesis was to find out what are the taste, restaurant, hamburger, and international flavour preferences of the Nummela, Finland population. This data would be used to determine if the opening of a premium hamburger restaurant in the area would not only be ecconomical but well received by the local population.

The measuring tool used for the thesis was a Webropol survey created by the author. It was then distributed via numerous local Facebook groups in the Nummela area. The survey was conducted over a three-week period in November 2020. The primary data received was of excellent quality and provided more than adequate data to confirm the hypotheses. By starting with broader topics and narrowing them down at each phase, and by using data found in the previous phase allowed the thesis to become more and more specific towards the end. This in turn provided the maximum relevant data to the author. Data that will be used in the decision process of whether or not to open a premium hamburger restaurant in Nummela, Finland.

The results of the survey showed that people in the Nummela area have meals not cooked at home on a regular basis. They choose a wide variety of different types of foods and where they choose to have them. The population responded well towards all of the proposed internationally themed burgers and provided great insight to what topping, meat, condiment, and sauces they enjoy eating. When presented with the conceptual plan for the restaurant, the respondents gravitated towards the ideas, and many commented about how they cannot wait for this place to open.

The further development of this restaurant plan is now confirmed to the author. He will continue to move forward with plans to open once the overall situation with Covid-19 in Finland allows the safe visitation of restaurants and the economical conditions are acceptable to be a restaurateur.


## Keywords

Hamburger, premium, restaurant, Nummela, Finland.

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## 1 Introduction

In the upcoming chapter the focus will be on showing the viability of introducing new hamburger flavours and topping combinations to the local population of Nummela, Finland. The goal of the thesis would be to prove that these concepts are valid and marketable. This would assist in the planning by the author to move forward with the opening of a new hamburger restaurant in the town centre area, in the hope that the business could succeed and grow in popularity with the local population.

### 1.1 Background

If you were to take a walk around the town centre area of Nummela, Finland one night looking for somewhere to eat, you would come across the usual se-lection of restaurants to choose from. There is a few pizza and kebab locations spread across the centre, as well as an Asian restaurant, two Nepalese restaurants, two grill kiosks, a bar that serves bar foods, a fast-food burger restaurant and two á la carte restaurants. While most people would think this is quite a decent selection to choose from, it would be quickly apparent from visiting these places that they are either all extremely similar in taste and selection or the cost for a meal is quite high.

As a person who enjoys a good quality and delicious hamburger, you have a few choices when going out in Nummela. You could either choose the high-priced options at the á la carte restaurants, but when the establishment has 50+ menu options it is hard to imagine they are focusing too much on making just a great burger. If you choose the grill kiosk, they are sure to have a smaller menu that is more focused on grilled items like hamburgers. How good can the burger be though, when the grill kiosks focus on serving quick and greasy food all night long to every car and taxi that pulls up with the post bar patron inside. Not to mention that the price for that burger never seems to be reasonable, á la carte level prices again but with reduced quality. The final option is to approach it from the opposite end of the spectrum; the mass produced and well tested and proven fast-food burger. They offer a consistent product whenever you want it for a semi-decent price. From Eastern Finland to Western Finland, from the far north to the capital Helsinki and beyond; you can get the same "grilled" burger with the same handful of lettuce, oversized squirts of sauces and a familiar sesame bun.

So, what happens when you really desire that perfectly cooked burger? Some-thing that plays to those four major taste sensations of saltiness, sweetness, sourness, and bitterness as well as that fifth recent addition, umami (Fisher \& Scott 1997, 2). Something with
a great combination of a high quality, perfectly grilled meat, and flavourful toppings on a soft, fresh bun; but you do not want to spend the same as what those a la carte places are charging you? The answer is: nothing! Well, for now at least. If the concept of a charcoal grilled burger restaurant, serving delicious flavour combinations, made fresh to order, for a reasonable price and located in the centre area of Nummela can be proven to be viable; soon those customers will have a place to flock to.

### 1.2 Project objective

This thesis aims to explore the international flavour combinations and taste preferences of the local customers of Nummela. The analysis conducted will determine if there are certain trends or inclinations of what kind of international burger flavours will persuade customers to eat at the restaurant once it is in business. The outcomes found will be used to supplement other ongoing research regarding the opening of the restaurant, helping to decide if taking this risk is advisable in this location and at this time.

The project objective (PO) of this thesis is to determine what international hamburger flavour combinations will appeal to local customers of the Nummela area. This PO will be further divided into eight individual project tasks (PTs). PT's 1 and 2 will be desktop research focusing on the theories behind customer satisfactions, food concept testing and what factors make for a great hamburger. This will lead further research in PT's 3 thru 6, where primary research will find out from members of the Nummela area population information about their habits for dining out/getting takeaway/delivery, what foods they choose, what they like to eat on a hamburger and what they think of selected internationally themed burgers. The theoretical framework, project management methods and outcomes for each PT are outlined in table 1 below.

Table 1. Overlay matrix (adapted from San Miguel 2019)

| Project Task | Theoretical <br> Framework | Project <br> Management <br> Method | Outcomes |
| :--- | :--- | :--- | :--- |
| PT 1. <br> What makes a <br> satisfied <br> customer, and <br> what are the <br> ideal methods to <br> test a food <br> concept. | Food testing, food <br> safety, sensory <br> testing, food sci- <br> ence, food chem- <br> istry. | Desktop <br> research. | Theoretical <br> framework for <br> use in <br> developing <br> surveys in the <br> research phase. |
| PT 2. |  | Theoretical <br> Ascertaining <br> what factors | Food <br> preferences, taste |


| make a great tasting hamburger. | combinations, eating behaviour, reasoned action, and sensory experiences. |  | regarding development of burger flavour combinations. |
| :---: | :---: | :---: | :---: |
| PT 3. <br> Determining whether the local population of Nummela goes out for food or gets take away, and the frequency. | Quantitative research with inductive theories. | Webropol survey to local population. | Numerical results showing how many people go out for dinner/get take away, and how frequently they do. |
| PT 4. <br> Analysing what food decisions are made when someone goes out for a meal/gets takeaway | Quantitative research with deductive theories. | Webropol survey to local population. | Insight to the dining out or take away trends of Nummela residents. |
| PT 5. <br> Evaluating which type of hamburger and flavor combinations a person chooses when deciding what burger to eat. | Qualitative research with deductive theories. | Webropol survey to local population. | Broad spectrum of flavour combinations is narrowed down, allowing more in-depth analysis to follow. |
| PT 6. <br> Scrutinizing which possible international hamburger flavors will appeal to the local customer. | Qualitative research with deductive theories. | Webropol survey to local population. | Which of the planned hamburger flavours will work and which do not. |
| PT 7. <br> Examining results from research and draw conclusions regarding customer preferences. | Data analysis. | Desktop analysis. | Analysing the results from PT 6 to establish local customer preferences. |
| PT 8. <br> Establishing if flavour concepts are valid and should be pursued. | Results analysis. | Desktop analysis. | Hard evidence to use in the decision to start the restaurant or not. |

### 1.3 Project scope

The project will begin with looking at the objective of testing which international hamburger flavours will appeal to local customers in the Nummela area. As seen in figure 1, following the desktop research phases the scope narrows its focus further and further with each PT, ultimately reaching the final goal of finding the flavour combination(s) to offer on the menu, should the plan to go ahead with opening the restaurant occur. When demarcating the limits of the research, some areas will be specific and set, while others will be explored from various angles. The geographical limitation of the research will be on Nummela, Finland and the surrounding area of the municipality of Vihti as a set criterion and will not be expanded further. Factors such as age, gender, income level, employment status, family status, and number of children (if applicable) will be used to tailor the studies and the focus group to provide data of the widest cross-section of the Nummela area population.

Other items such as occupation, ethnicity, and sexual orientation will not be included in criteria for evaluation as they are deemed to be irrelevant when asking about preferences regarding hamburgers.


Figure 1. Structure of research focus (adapted from San Miguel 2019)

### 1.4 International aspect

From its humble beginnings somewhere around 170 years ago up to the present day, the simple hamburger has swept across the world as a meal enjoyed by millions. It is hard to put a single country of origin on the hamburger, as the concept has crossed oceans back and forth with new ideas towards it being added all along its journey.

When it comes to this thesis and its exploration of what hamburger flavour combinations will appeal to the customers on Nummela, the focus will be on which internationally inspired tastes potentially offered on the case company's menu would be appealing to those customers.

### 1.5 Benefits

The benefits of this thesis will be immense to the case company for future planning purposes. The data collected and insight gained will directly allow the company to decide if moving forward with the establishment of the business is a smart idea or not. They will also have information about personal preferences of the local residents to help guide future decisions regarding hamburger flavour combinations to offer in the restaurant. As the author of this thesis, I will gain valuable skills in designing research for future new product launches, should the concept for the restaurant be proven and the business established.

### 1.6 Risks

Like in business, a thesis contains both inherent and residual risk. While we can mitigate these risks, each one comes with different degrees of severity and courses of action for them. By analysing the possible risks and their conceivable outcomes, we can reduce the amount and severity of those inherent risks. They can be mitigated into more manageable residual risks or even possibly removed altogether. (Slabotsky 2017.)
As shown in table 2 below, there are several risks expected with the writing of this thesis. While some are rated high risk, it is the belief of the author that through use of proper management techniques and disciplined research the thesis will be a success. These risks will be constantly referenced and kept under consideration while conducting all phases of the thesis.

Table 2. Risk source, priority level and management tool (adapted from San Miguel 2019)

| Risk <br> Source | Risk | Level of <br> Risk * | Man- <br> ageabil- <br> ity of <br> Risk ** | Risk Man- <br> agement <br> Need *** | Risk Management Activ- <br> ities |
| :--- | :--- | :---: | :---: | :---: | :--- |
| 1 | Not enough <br> high-quality <br> sources for <br> desktop re- <br> search | 1 | 1 | 1 | Ensure sources for ref- <br> erence materials are <br> varied and of high qual- <br> ity. Online and print ma- <br> terials should both be <br> considered and used. |
| 2 | Issues with <br> survey design <br> in relation to <br> topic | 2 | 1 | 2 | Maintain a clear focus <br> on the end goal. De- <br> velop a straightforward <br> plan and attempt to fol- <br> low it throughout the <br> process. |
| 3 | Difficulty ob- <br> taining partici- <br> pants for re- <br> search phases | 1 | 1 | 1 | Language barrier (par- <br> ticipants not able or <br> comfortable with speak- <br> ing English) should be <br> avoided by careful se- <br> lection of participants <br> and use of people <br> skilled in English \& Finn- <br> ish to assist in translat- <br> ing. |
| 4 | Choices of var- <br> ious partici- <br> pants will be <br> wide and <br> cause difficulty <br> in product test- <br> ing phase | 2 | 1 | 2 | Attempt to narrow the <br> selected participants to <br> those who best meet the <br> established criteria. <br> Once original phases <br> are completed, re-evalu- <br> ate the selection criteria <br> and ensure participants <br> meet the updated re- <br> quirements. |
| 5 | Usability of re- <br> search results | 3 | 1 | 3 | While conducting re- <br> search make certain the <br> results being received <br> are inline with the in- <br> tended results. If they <br> begin to stray, it must be <br> addressed and rectified <br> immediately. |

* 1 High: Must be managed to keep the project viable, 2 Intermediate: Should be managed,

3 Low Unlikely to arise; does not need to be managed
** 1 Manageable by researcher, 2 Manageable by partner or another accessible party,
3 Not manageable by 1 or $2 \rightarrow$ Abandon project.
*** 1 High priority, 2 Medium priority, 3 Low priority

### 1.7 Key concepts

Food science is defined by the Institute of Food Technologists (IFT) as the "study of physical, biological, and chemical makeup of food; the causes of food deterioration; and the concepts underlying food processing (IFT 2019).

Sensory analysis is the "scientific method used to evoke, measure, analyse, and interpret those responses to products as perceived through the senses of sight, smell, touch, taste, and hearing (Vaclavik \& Christian 2008, 6).

The Maillard reaction was discovered by French chemist Louis-Camille Maillard in 1912. It's a "non-enzymatic reaction that takes place between an available amino group and a carbonyl-containing moiety. This is the browning of food that gives it that distinctive flavour. Some notable examples are the sear on the outside of a steak, the golden crust of bread, toasted marshmallows, and roasted coffee. (Ruan, Wang \& Cheng. 2018, 1.)

Denaturation is an important stage in the cooking of meat. It is the process where protein strands are broken down by the application of heat and time. As this process begins the meat will begin to change color, lose moisture content, render out the fat and visibly shrink in size. These are all processes that transform that raw piece of meat into the mouth-watering final product we all love to enjoy. (Allison, K. 2020.)

Neurogastronomy is a new and emerging branch of food science that deals with the psychology of food. As stated in the article by Marina Konnikova, "Taste is an experience composed of only five elements: sweet, salty, bitter, sour, and umami". Flavor is a separate entity from taste, and flavor is the more powerful of the two. It brings together those five elements of taste with experiences, memories and neurobiological influences which define the way we eat. (The New Republic 2016).

Food pairing is the science of combining different food items based upon the principle of specific shared aroma components. According to Bernard Lahousse, co-founder of the food tech company Foodpairing, "It is estimated that $20 \%$ of a tasting experience comes from taste, whereas $80 \%$ comes from the smell or the aroma (Particle 2017).

### 1.8 Case company

The company for which this thesis is being written for is my own yet to be established business. The currently unnamed company will be a premium hamburger restaurant located in Nummela, Finland. The concept will be to serve charcoal grilled hamburgers using high quality meats, freshly baked buns, delicious and well thought out combinations of toppings; all with hand-cut chunky French fries on the side, for a reasonable price. The plan is to open an approximately 40-50 seat restaurant in the city-centre area of Nummela. It will serve both the lunch crowd starting around 11.00 as well as the dinner crowd, closing for the day around 23.00 .

This thesis will supplement other planning stages in the decision whether to pursue this business venture or not. Being a relatively small population base, it is important to ensure that the idea to serve more international flavours alongside the standard burger will be accepted and embraced by the local customers.

### 1.9 Research methods

The research methods being used in this thesis are of the mixed research ideology. Both qualitative and quantitative data are to be collected to determine the preferences of the local population of the Nummela area.

The qualitative data will deal with personal preferences regarding flavour combinations and preferred toppings on a hamburger. The quantitative data will cover aspects about how often and where someone decides to order take away/delivery or dine in at different restaurants. Both types of data will be collected using a singular Webropol online survey.

The format for the report will follow a deductive theory approach when investigating each chosen aspect or area. As seen in figure 2 below, the rationale of thinking will begin with previously established theories and/or research, leading to the formation of a hypothesis regarding that aspect / area. The results of the survey will then be analysed, and those findings will then either lead to the confirmation or rejection of the hypothesis. The final step in the process, revision of theory, will likely not be included in this report. The theory being investigated in the first step is not the author's theories, but those of other parties based upon their own research or writings.


Figure 2. Deductive theory process (Adapted from Bryman \& Bell 2011, 11)

### 1.10 Report structure

This report will follow a modified version of the Haaga-Helia zipper thesis structure, as presented in appendix 2 of Writing reports and theses at Haaga-Helia. While the traditional format has each topic to be studied and developed as its own entity and separate from one another, this thesis will use data and conclusions from previous topic sections to further develop following sections, ultimately resulting in an overall conclusion at the end. Research will be in the form of an explanatory study, looking at causal relationships that are occurring between key variables identified. (Saunders, Lewis \& Thornhill 2009, 140.)

Data for primary research will be collected by the means of a survey distributed electronically. This will provide quantitative data that will be analysed using descriptive statistics methods to summarize the choices made by respondents, and inferential methods to generalize about the local population's preferences. By using data from the respondents, we can consider this a sample of the larger population of the Nummela area and use this to represent the overall feelings and preferences of the whole population. (Saunders \& al., 144).

### 1.11 Population and sample

The survey used to collect data was conducted over a three-week period in November 2020. The survey was created using Webropol and respondents were collected using Facebook posts in local area groups in the Nummela and surrounding areas. When the survey was closed 1064 persons had opened the survey, 701 had started responding, and

560 completed the survey. This was a response rate of $79 \%$. It is believed that the length of survey and number of questions could have been the cause for nearly half of those who opened the survey to not respond or not complete the survey.

Before the survey was made public for respondents to see, it was hypothesised that there would be difficulties in getting enough people to fill out the survey, leading to the need for sampling to give an ideal mix of respondents across different groups.
Of those who responded, they indicated the following demographics:

Sex:

- Female: $77 \%$
- Male: $22 \%$
- Other / prefer not $2 \%$ to answer

Age:

- 15-18-year-old: $2 \%$
- 19-24-year-old: $11 \%$
- 25-44-year-old: $56 \%$
- 45-64-year-old: $27 \%$
- Over 65: 3\%

Employment:

- Student:
- Full-time: 64\%
- Part-time: 6\%
- Self-employed: 7\%
- Unemployed: 3\%
- Retired: $4 \%$
- Other: $6 \%$ (e.g., Military service, on leave, furloughed.)

Household net income:

- Less than $500 €$ : $1 \%$
- 500-999€: 2\%
- 1.000-2.999€: 17\%
- 3.000-5.999€: $40 \%$
- 6.000-9.999€: 18\%
- 10.000€ or more: $4 \%$
- Declined to answer: $18 \%$

Base upon these results, the average respondent is female, 22-44 years old, working fulltime and has a household net income of 3.000-5.999€.

### 1.12 Threats to reliability \& validity

Reliability and validity are two aspects of a thesis which can be difficult for an author to control. It is something that must therefore be managed and mitigated whenever and wherever possible.

To ensure reliability in the research, all data collected will be used no matter what the results give, even if it would negatively affect the direction of the research. According to Robson (2002, in Saunders \& AI. 2009, 156) there are four threats to reliability: subject/participant error, subject/participant bias, observer error \& observer bias.

The subject/participant error and subject/participant bias are removed from the threats because the survey was voluntary and put out to the general population. There was nothing forcing participants to complete the survey, they were even encouraged to reply by the drawing of a gift card to be awarded to a random participant. Observer error and observer bias were minimized because I am also a lover of a well cooked and topped premium hamburger. My understanding of the subject area ensures that responses are interpreted as closely to what was likely intended by the respondent.

When considering any threats to validity, the only foreseeable issue could be that respondents are being asked to rate potential hamburger flavour combinations solely based on an image and description of that burger. If possible, a focus group would be ideally added with taste testing of those various burgers to give the respondents the full picture of what that burger is all about.

## 2 Satisfied customers，great burgers，and testing concepts

＂A Burger Is Something Anyone Can Do，Just Follow the Rules．＂
－Anthony Bourdain，celebrity chef（A－Z quotes 2020）
Before it is time to choose the types of seating to use and what music to play at what times，we must begin with the core of what makes a great restaurant，the food． This chapter will first focus on customer happiness and how as an entrepreneur to get and maintain that happy customer．It will explain factors that influence that level of happiness． Secondly it will look at the key elements that make up a great hamburger．The history of how they have evolved and what aspects of them make for the best possible variant． Finally，we will look at how to go about testing a food concept．What the industry does when it wants to know if something will or will not work with consumers and why．

## 2．1 What makes a customer happy？

At the start of the $20^{\text {th }}$ century Harry Gordon Selfridge，founder of the UK luxury store chain Selfridges，coined the term＂The customer is always right＂．This motto has spread across the globe with various cultures reworking the saying to their own local take on it． The French would say＂Le client n＇a jamais tort＂，the customer is never wrong．In Japan they take it a bit further with＂okyakusama wa kamisama desu＂（お客様は神様です），the customer is God．Quite the moniker when referring to your customer！In Germany they would say＂der Kunde ist König＂，the customer is king．（Barnett 2011；EU－Japan Centre 2020；Paprotka 2020；The Chew 2011．）

All these sayings are perfectly accurate when we think about our customers and how they should be treated．In the service industry it is after all the customer that determines how successful the business is．No customers＝no business．Period．Its best summed up in this excerpt from an 1809 speech in South Africa by Mahatma Gandhi where he states：
＂A customer is the most important visitor on our premises．He is not dependent on us．We are dependent on him．He is not an interruption of our work．He is the purpose of it．He is not an outsider of our business．He is part of it．We are not doing him a favour by serving him．He is doing us a favour by giving us the opportunity to do so．＂
（Hüttenrauch 2017）
This highlights the goal of customer service perfectly．We as those doing the serving， must always strive to keep our customer happy and keep their experience a memorable one so that they return to our establishment again and hopefully many times again after that．

Customer satisfaction has become one of the key strategic issues for companies of all sizes, as the amount of, and level of satisfied customers will significantly impact the amount of profit a business will generate. When a business gives the customer what makes them happy, they become loyal, long term customers who are far more likely like to continue to purchase items from your business but also recommend you to their family/friends/others. This provides the snowball effect whereas the number of satisfied customers grows, the "snowball" gets larger and picks up speed. More customers will give the restaurant a chance and they in turn continue to grow the "snowball". This will solidify the restaurant's position within the market, giving it a serious competitive advantage with rivals.

As stated by Jalal Hanaysha, senior lecturer at DRB-HICOM University of Automotive Malaysia, there are three key areas that will most significantly affect a customer's opinion of your restaurant. First there is the food quality. As the business is solely centred around food and how good it tastes, naturally the quality of not only the finished product but the raw ingredients should be paramount.


Figure 3. Important factors when buying food in the EU, by topic (EFSA 2019)

As seen in figure 3 above, four of the top five topic areas consumers question when making food decisions relate almost directly to food quality. To the consumer the origin of the ingredient and safety of the ingredient are understandably on this list. A single mistake in food safety can cause serious illness or even death to an unsuspecting customer. In 1993
an E. coli outbreak across 73 Jack in the Box restaurants in the US lead to over 700 people becoming ill and 4 children's deaths because of eating contaminated meat (Knight, Worosz \& Todd, 476). In the 27 years since that incident food safety standards in the US and around the world have of course changed for the better. Here in Finland the food authority Ruokavirasto is charged with the prediction, prevention and management of risks associated with food. They enforce the Food Act, which covers the safety and hygiene of foodstuffs, the proper labelling of food and to ensure it is not misleading, methods to ensure traceability of food, methods to ensure high quality food control, and to continually improve the operating conditions of businesses in the food sector (Food Act 23/2006). This act also draws upon and enforces numerous EU regulations as required by EU laws, such as $852 / 2004 / E C$, the regulation governing the hygiene of foodstuffs (Regulation on the Hygiene of Foodstuffs 852/2004/EC). These regulations supersede any local regulations and ensure a higher level of food safety across all of Europe as a whole. Using these regulations, they direct local food control authorities across Finland to conduct monitoring measures as well as compliance assessments of all food sector businesses.

The Oiva report program allows everyday consumers to quickly identify if a certain establishment meets the requirements and at what level they are adhering to. It uses an easy to recognize system of four smileys to display between bad and excellent for various categories that apply to the restaurant in question. The report also shows consumers the amount of each smiley received and previous inspection results. The report must be posted at the front entrance of the establishment to all allow the customer to make an informed decision prior to entering. The regulation of food safety also falls upon the shoulders of the operators themselves using the Own-check system. Based upon HACCP principles, it makes operators responsible for their own activities and checking on themselves. They must be aware of dangers associated with foodstuffs, their safe handling, and ensure they do not pose a threat to human health (Ruokavirasto 2020).

The second key area is price fairness. There is a common misconception that all businesses are just there to make as much profit as they can at the expense of the customer. While this may be true in some examples, usually ones filled with dubious actions and illegal practices (i.e., Enron, WorldCom, Lehman Brothers, etc.), most businesses are run by good people trying to make a living by providing a product or service to their community. While this is all good in theory, there are still businesses who will exploit the popularity or buzz of their product / service / industry to try and get the maximum profit at the expense of the consumer without breaking the law. When consumers see the price of a product or
service, they will almost always ask themselves whether the product/service they are receiving is reasonably, of fair value and justifiable. The process involves benchmarking of the product/service in question to a previously personally known example, to a competitor's price, or by comparison to what someone else has paid for that product/service. (Hanaysha 2016, 33.) When a customer is satisfied with the experience/price from a seller, they build confidence in the seller. In turn that means customer retention and customer revisitation for the seller (Dai 2010, 27).

The final key area is the physical area. We can all recall from our own memory restaurants we visited that both stand out positively for amazing décor, experience, or cleanliness and those that really stand out negatively for dirty floors or washrooms, dated or broken furniture, and poorly lit areas. These factors will either draw customers back to this establishment or ensure they never return again. The customer will pick up on good and bad points when it comes to overall cleanliness, restaurant decoration and design features, ambient temperature, quality and quantity of lighting, scent/smell of the premises, amount of noise, air quality and the music or lack thereof. All factors which define if your restaurant is a memorable one for good or bad reasons. (Hanaysha 2016, 34.) As an entrepreneur you can influence the number of both return visitors and new visitors by spending both monetary and physical assets towards maintaining a positive experience for the customer when they visit your establishment. Having enough seating and tables, that are also in good repair. Making sure the bathrooms are cleaned regularly, have soft toilet paper, and smell nice. Professional, well-dressed, and friendly staff. Clean, spotless glassware and tableware. Those decisions customers make pre-purchase will echo long into post-purchase behaviours they exhibit.

### 2.2 What factors make for a great hamburger?

For anyone who has eaten a great hamburger, they can remember key details about it like it was just yesterday that they were enjoying that delicious treat. Those specific elements that came together symbiotically to create a symphony of flavours, textures, sights, and smells that makes our taste buds salivate and ache for another taste of that bun, meat, and toppings that make up a great hamburger.

The key factors that make up a hamburger are backbone of what makes them great. Without any one of the three, we simply cannot call it a hamburger anymore. While each one may seem straightforward and simple on its own, they are complex in their design and
composition. Elements which if done improperly or poorly, take the majestic hamburger from its golden pedestal and turn it into some sort of lowly sandwich.

In order to understand why the hamburger in its entirety works so fundamentally well together, we must explore those three key factors in depth. Each one of them contains both scientific and sociological factors that will be explained below.

### 2.2.1 The bun

For us to fully understand the hamburger bun, we must look back to not only how it became part of the hamburger, but to how the wheat itself evolved to become part of the human diet.

First, we must discuss what actually makes up a hamburger bun. The basic recipe for a hamburger bun as approved by the United States Food \& Drug Administration (USFDA) states that a bun can contain wheat (or non-wheat) flour, water, yeast, salt, fat (shortening, vegetable oil, butter, ghee, or lard), milk (non-fat dried milk, buttermilk, or whey), egg, sugar, enzymes, dough conditioners (e.g., calcium iodate or potassium bromate) and colors and spices, spice oils or spice extracts. (USFDA 2019.) While there are many variants of hamburger buns being made today using all sorts of the listed non-wheat fours, the vast majority of them use wheat four due to its high availability and low cost.

The evolution of wheat as we know it today can be traced back about 10,000 years to 8000 BC in the area of southern Levant, where modern day Palestine, Jordan and Israel are. The climate shifted out of its last glacial period, and this brought about warm, dry summers in that region. The inhabitants of this region harvested a wild wheat that was very different to the wheat we know today. It was a self-sewing type of wheat that had brittle tops upon maturity, which would break off in the wind and spread, becoming the following years crop. The inhabitants would gather stalks of wheat and transport them to their homesteads for other uses, where some of the seeds that remained attached to the stalks. Those seeds were then planted close to the settlements and wheat grown. This process continued from year to year, and through the process of natural selection, the strongest of the seeds survived and thrived in those locally planted crops. Accidental cross breeding with other wild wheats and mutations created new strains of wheat and the farmers themselves also began to be selective over which crops to keep and which ones to plant again. It has been theorized by archaeologists that this process made wheat and
humans co-dependant for their survival and helped develop humans from the hunter-gatherer to farmers. The earliest forms of "bread" were made by parching (dry roasting) the grains of wheat on hot rocks, softening the roasted kernels in water, and then forming them into a type of flatbread. Modern science has proven that this process denatures the gluten proteins and destroys the enzymes that yeasts use to convert sugar to starch, both of which are key processes in breadmaking. (Amendola \& Rees 2003, 4-5.)

Fast forward to $18^{\text {th }}$ century England. A Frenchman by the name of Pierre-Jean Grosley wrote of travels to London where he saw a government minister play cards for 24 hours straight, eating only pieces of beef between two slices of bread. This minister turned out to be John Montagu, the Fourth Earl of Sandwich, then Minister of the Admiralty. While he is certainly not the first person to ever eat meat between pieces of bread, he has solidified his name in history as the inventor of the sandwich. (Smith 2008, 12.) The first account of the hamburger occurs in 1870's German restaurants in America. Following the attempted German revolution of 1848 refugees began emigrating to America, working in, or opening their own restaurants and eateries in the major American cities. They brought with them foods and dishes from their old homelands and started to introduce them to the American diner. Here we now get the Hamburg steak. Named after Hamburg beef, which was meat that was chopped up, seasoned, and formed into patties. These eateries began serving that Hamburg beef patty and after the 1876 Philadelphia Centennial Exposition helped the nation learn about and fall in love with the Hamburg steak, the craze swept the country with eateries everywhere serving it. (Smith 2008, 16-17.)

The next big leap in the history of the hamburger takes us to industrial revolution America. With the boom of factories springing up all across the eastern seaboard and Midwest, factory workers rarely lived near enough to the factory for them to travel home for lunch or dinner breaks as they would have traditionally done in the past. These workers began to take meals with them to work or get meals from the boom of cafeterias opening up at or near the factories. This worked well enough for those working day shifts, but with factories regularly running around the clock, those on night shift did not have the option of eating at the cafeteria or getting food from a grocery store. Their only option was to bring the food from home or thanks to some entrepreneurs like Worcester, Massachusetts' Sam Jones who opened lunch wagons with grills, called "fancy night cafes". (Smith 2008, 19.) With the addition of the grill to those lunch wagons it was only a matter of time that the fastsweeping craze of the Hamburg steak made its way to those menus. The only downside was that the workers coming out from the factory did not have places to sit and eat the
meal, almost always standing and eating before returning to work. It's not known exactly who first one to sell the Hamburg steak between pieces of bread, but by the 1890's the "hamburger steak sandwich" was being seen all across the USA.

We have now seen the evolution of the burger and its bread covering, but finally we get to the iconic shell of the burger. The golden-brown cover that holds every delicious morsel inside and keeps our hands clean (relatively!) while we eat that burger; the bun. J. Walter Anderson was a short-order cook from Wichita, Kansas who had a dream. In 1916 he realized that dream and was able to buy an old building and convert it into a hamburger stand. This stand sold small one inch-square patties served on equally small bread rolls they called "buns". This was the first of a now well-known chain of restaurants, White Castle. Anderson and his business partner Edgar Waldo Ingram created an entire system which revolutionized the hamburger's journey from the café grill to the hamburger chain restaurant. (Smith 2008, 25.)

What exactly makes the bun so special, though? It is just bread that is baked in a round shape. Well, not exactly. First, we must look at that outer shell. Golden in color thanks to the Maillard reaction. A process that occurs when food(s) is (are) heated in and the sugars and amino acids contained within them produce a yellow-brown color. This is the reaction in its simplest form, as first discovered by its eponym Dr. Louis Camille Maillard. (Fayle \& Gerrard 2002, 1.) Also referred to as the "browning reaction" or more scientifically "nonenzymic browning", the Maillard reaction effects the color, aroma, flavor, and texture of processed foods. In the case of baked goods, we see the Maillard reaction playing a role in a number of aspects. First, we notice that it has created that enticing look to the bun, golden brown that almost tells us how delicious it really is just from the look of it. Secondly, it provides that wonderful fresh baked aroma that fills our noses with the sweetness of what some consider the most loved smell in the world. A warm smell that is like being wrapped in a big blanket on a cold day. The Maillard reaction's role in flavor gives bread its toasty, nutty, roasted, and sweet notes, all depending on the dough's composition of course. Some recipes will be traditional and follow the "standard" idea of a bread roll recipe and have less of those ingredients to promote the Maillard reaction (i.e., less sugars and amino acids therefore having a blonder flavor, like in a baguette), while others will give a deeper, darker taste with heavier roasted or toasted notes (i.e., butterscotch, molasses, toffee, chocolate, caramel; like in dark ryes or black bread). (Kalanty 2015, 36.) The final aspect we get from the Maillard reaction in breads is the texture. During the baking process, while the Maillard reaction is occurring, the outer shell of the bread changes
form as the water begins to evaporate and the dough changes shape (growing or shrinking depending on the composition of ingredients in the dough recipe). This leads to either that wonderful crispy, crunchy crust we find on a Kaiser roll or that smooth, glossy finish we find on a brioche bun. (Purlis 2010, 3.) Either way it goes, it leaves us with that perfect vessel to contain all the other components of that perfect burger, all in a convenient handheld format.

### 2.2.2 The meat

As we move deeper inside the composition of a great hamburger, we get to the "meat and potatoes" of the hamburger, hopefully with little or no actual potatoes in it! The "meat" portion of a hamburger can consist of different sources, cuts and amounts of meat. Nowadays a hamburger can even contain no animal meats at all. Cattle (beef) has been traditionally used for the meat in a hamburger, with most restaurateurs advertising a " $100 \%$ allbeef patty" as part of their marketing to entice diners. With eaters becoming both more health conscious about the negative effects of consuming too much beef such as higher cholesterol and increased risk of cardiovascular disease, and the continued destruction of our environment due to cattle ranching worldwide, we have begun to both introduce other meats to the hamburger patty mix or completely switch to other ground meats entirely. It is now a common sight to see on a restaurant menu or in someone's home kitchen both alternative from beef options like turkey, chicken, salmon, lamb, pork, or bison or meat-free options like bean, quinoa, chickpea, and the plant-based creations of the Impossible Burger and Beyond Burger. Each one bringing different health benefits to the diner as well as reducing our overall dependence on beef. (Potts 2019.) Currently an estimated 95\% of those buying plant-based meats do not identify as vegetarian and it is speculated that by the year 2040 upwards of $60 \%$ of the meat we consume will not be animal-based (Jacobsen 2019). For the remainder of this text, focus will be solely on the beef burger patty.

Putting aside the questions about alternative meats / non-meats and the environmental and social questions surrounding beef production, we look to what aspects create the best hamburger patty. First, we can look at the cuts of beef used.


Figure 4. Beef meat diagram (Southern Farm Network 2020)

As seen in figure 4, there are generally 16 main cuts created when butchering beef cattle. From years of study and testing by food scientists, butchers, and burger masters alike, it has been said that meat from the chuck makes the baseline for the best hamburger. (Motz 2016,25 .) Made up of the neck, shoulder, and upper arm of the cattle, chuck is a very flavourful albeit tough cut of meat. (Alfaro 2020.)

The palatability of meat is described as "how meat tastes and is defined in terms of juiciness, tenderness and flavour" (Dikeman \& Devine 2014, 256.) This is a key component to making a great burger because nobody likes a dry, hard, and flavourless meat patty. In order to achieve the maximum level of palatability, it is essential to get the ratio of meat and fat correct. Too much meat content and you run the risk of a dry burger after cooking, too much fat and you may have a greasy burger, especially if you are cooking it in a pan. The generally accepted ratio for meat to fat for a great burger is $80 \% / 20 \%$. When cooking this burger medium to medium-rare this should give a juicy, flavorful burger that does not taste greasy when eaten. Some burger chefs like to incorporate either less or more amounts of fat to their blend to achieve different results. An $85 \%$ / $15 \%$ is a leaner burger but can lead to drying out while cooking. An $75 \% / 25 \%$ will give you a more flavourful burger, yet possibly greasy tasting burger and is more ideal when cooking the burger either medium or medium-well and beyond. (Gorgone 2017.)

During the cooking process the meat goes though various processes between raw meat and a cooked hamburger patty. The first change is the thermal processing of food. This is a process whereby heating the meat using roasting, we either reduce or completely destroy possibly harmful microbes, making the product safe to consume (and especially
commercially safe to serve!). In addition, the roasting process will change the characteristics of the meat. The external heat from the roasting will slowly transfer from the outside of the meat inwards, causing the internal temperature to rise. Proteins in the meat begin to denaturize (a breakdown in the protein's structure) and the meat fibers break down, softening and shrinking. This causes a loss of moisture content and subsequently a loss in overall weight. (Sun 2012, 195-196.) This process then leads directly in to the second change, the Maillard reaction.

As previously mentioned, it is the non-enzymatic browning or simply "the browning reaction" in food. The heating of sugars and amino-acids in the foods causing a yellow-brown color to develop. In the case of hamburger patty, it not only creates that wonderful brown sear on the outside, but also creates intense tastes on the inside of the meat and a soft and palatable texture. In addition to taste and texture, the Maillard reaction also creates aroma compounds. It creates the distinct aromas in things like chocolate, baked goods, coffee, and roasted meats. (Fayle \& Gerrard 2002, 6, 9, 12.)

These two concepts work hand-in-hand with the third process, meat aroma formation. When the thermal breakdown of proteins, carbohydrates and fats occur during the cooking process, meat aromas are produced. Raw meat contains the needed precursors for meat aroma creation. (Hui, Kip, Rogers \& Young 2001, 84.) Thousands of these volatile flavour compounds have been found and identified in cooked meat. They come together to arouse our sense of smell and taste for that wonderful roasted meat sensation. Without each other they are simple reactions but put together in harmony they provide our burger patty with the color, smell, texture and taste we desire for our ultimate hamburger experience.

### 2.2.3 The toppings

The final component in the trio that makes up a great hamburger is the toppings. They are arguably the make-or-break part of a burger. Depending on what combinations we choose the burger could be either boring and bland, a hot mess of contradicting flavours \& textures, or it could become a symphonious marriage of tastes, smells and sights to delight all our senses.

In order to reach that perfect burger, we must explore three key areas that will further our burger journey. First, we begin with Neurogastronomy, the science behind how smell and
taste work hand in hand. First written about in the book "Physiologie du goût; Ou, meditations de gastronomie transcendante: ouvrage théorique, historique et a l'ordre du jour, Dédiée aux gastronomes parisiens, par un Professeur, Membre de Sociétés Litteraires et Savants (The Physiology of Taste; or, Meditations on Transcendental Gastronomy: Theoretical, Historical, and Practical Work, Dedicated to Parisian Gastronomes, by a Professor, Member of Literary and Scientific Societies)" by Jean Anthelme Brillat-Savarin in 1825. He describes how important the sense of smell was in tasting food, although at the time he combined them as a singular sense. (Shepherd 2012, 15-16.) He spoke of how smelling would occur when someone eats and the food moves farther back into the mouth and down the esophagus, pushing the smell up to the nasal chamber. This was movement by the retronasal route and was thought to be the only way this occurred. A 1982 article by University of Pennsylvania psychologist Paul Rozin then hypothesized that smelling was not only a retronasal smell (as we breathe out) but also an orthonasal smell (as we breathe in). His experiments were able to show that smells were perceived differently when taking different routes. (Shepherd 2012, 17.) The orthonasal smell is what most people would consider "smelling". We breathe in and our brain identifies the compound. We become stimulated and the senses become aroused. This is seen when smelling food being cooked, a beautiful blooming rose or the so-called social odours like the scent of a loved one, or alarm smells like smoke or a gas leak. (Shepherd 2012, 17-18.) Retronasal smells coming from inside the body, while working along with orthonasal, is more in sync with the senses of taste and touch. Originating from inside the body, it works with movements of the cheeks, jaw, and tongue to amplify the smells so they can be identified. (Shepherd 2012, 18.)
For those senses of smell and the others to be activated, we require a form of stimulus. Our second area to explore is the flavour compounds found in different ingredients. As seen in figure 5 below, we determine the flavour of an item using 3 of our 5 senses: smell, taste, and touch. Sight and hearing also play a role, but in different ways.


Figure 5. The five senses and how they affect our senses (Adapted from Fisher \& Scott 1997, 2)

When looking at taste specifically, our body determines the flavour based upon the five taste sensations: sweet, salty, sour, bitter, and umami (Fisher \& Scott 1997, 2). Using a knowledge of these five tastes, you can then learn which ones will enhance, reduce, or balance each other when put together. If you use at least two of the five tastes in a dish of food, you should achieve balance. As seen in figure 6 below, each of the five (plus additions of fat, alcohol, and pungency) can either enhance another taste, reduce that taste, or balance it out. (Coucquyt, Lahousse \& Langenbick 2020.)


Figure 6. Balancing and contrasting tastes (Adapted from Coucquyt, Lahousse \& Langenbick 2020)

According to professional chef and food researcher Charles Michael, the perfect burger contains a certain mix of each of the five tastes: $35 \%$ umami, $25 \%$ salty, $20 \%$ sweet, $15 \%$ sour and 5\% bitter (Gibbs 2015).

This leads us to our third key area. Food pairing is a scientific approach to in which we break down the ingredient to its individual aroma types and descriptors. Aromas of fruit, citrus, floral, green, herbs, vegetables, caramel, roasted/toasted, nuts, spice, cheese, animal, and chemical can all be used to describe something. Using a gas chromatography coupled mass spectrometry (GC-MS), we can get a profile of the ingredient. It will show its aroma profile and the different aromas it contains, as seen in figure 7 below. Using that profile, we can then use researched data on which aromas pair well with another.


Figure 7. Aroma profile of strawberries (Adapted from Foodpairing s.a.)

Using black garlic as the example, we find that it is heavily filled with vegetable notes of onion and garlic, but also contains caramel flavours of maple, spicy flavours of vanilla and clove and floral flavours of honey. A quite complex blend of flavour! Using this breakdown, we can then choose other complimentary flavours to pair with the black garlic. Strawberries pair well with black garlic (or garlic) as they both contain fruity notes. Cocoa or chocolate may seem like a strange pairing, but the sweet and tangy flavour of black garlic can add a fruity and floral note to a chocolate dish. (Coucquyt, Lahousse \& Langenbick 2020.) By carefully selecting flavours that complement each other, in conjunction with the ratio for a perfect burger as stated by chef Charles Michael, we can come up with a topping selection to appeal to the customer's taste buds and have them drooling in anticipation just reading the menu board.

### 2.3 Testing the business concept

Before any business starts operating, they must ensure concepts are valid and can be profitable. There is no sense in opening a restaurant somewhere that is already saturated with ten other ones just like it or creating a business model that could just never be profitable in that location. In order to determine if the concept will work, certain aspects as discussed below must be considered during the planning phases.

### 2.3.1 The lean startup methodology

Until the early 2000's whenever someone wanted to start a business venture, they generally followed the same six basic steps in that process: Ideation, Definition, Development, Design, Validation and Launch (Carter 2020). This is commonly referred to as the waterfall approach and this was generally accepted by many scholars as how things were done.

Ideation was the discovery phase. The entrepreneur needed to determine what exactly the customers wants, and needs are and how they can fulfil them. Determine and define what the product's / service's performance / functional requirements are and find out who their competitors are (if any) and how they could be competitive with them. Second was the definition phase. Here they needed to conduct the detailed assessments of business, technical and market aspects. How exactly the product / service differentiated from others needed to be determined. This was a critical phase as if it were not done properly it could lead to delays in getting to market or missing the market need completely. Next came the development phase. This involved the creation of the business plan, a critical document that not only laid out the plan for the company internally but was used to justify to investors why they should put money towards this venture. The fourth phase was design, where the plans for the product / service came to life. In the case of a product, it meant creating and alpha testing a prototype and the development of support systems to manufacture, market and sell it. For a service it meant creating and testing the concept, and the support systems to sell it. The fifth phase was the validation phase, which some grouped with the previous phase. In validation the product / service is tested with customers and the financial model is tested by the company. This is conducted in real world conditions to give the best results. If needed, the company can revisit the previous phases dependent on results in this phase. Finally, we reached the launch phase. All the testing and researching has been completed, the company feels that the product / service is ready, and it is time to sell. (Carter 2020.) While there is nothing fundamentally wrong with this pro-
cess, it has been noted that it can be time consuming, lengthy, over complicated, and expensive. By utilizing this model, the customer's reaction to a new product / service was not measured until the end phase when full scale operations were in effect.

In contrast to this model, we have the lean start-up theory. It uses the understanding that by getting a MVP in the hands of consumers early in the process, testing their acceptance or rejection of it, seeking any suggestions for improvement, pivoting, and proceeding. It uses the theory of "Build, Measure, Learn" and to do it quickly. The methodology is that taking a product / service to full scale completion before testing it with a customer is wasteful when you do not even know if the product / business model is viable and a working concept. (Boyd 2017.)

This lean startup method can be attributed to two scholars, Steve Blank and Eric Ries. In his book "The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses", Ries talks about the five principles of a lean startup. First is "Entrepreneurs are everywhere", speaking to how the concept of entrepreneurship is not limited to big Silicon Valley type businesses or to small garage-based businesses similarly. It is a global happening which has become deeply part of the global economy. The second principle is that "Entrepreneurship is management", meaning that to succeed as an entrepreneur, you must also be an effective manager. They must be able to manage multiple business disciplines, regularly on their own, in times of possible uncertainty and prosperity alike. The third and fourth principles are "Validated Learning" and "Build, Measure, Learn" respectively. They will be discussed further in the upcoming sub-sections. The final principle as theorized by Ries is "Innovation accounting". This consists of focusing on the less exciting tasks: methods for measuring progress, how work should be prioritized and what milestones should be achieved. (Ries 2011, 7-8; Boyd 2017, 11-13.)

For the case company, the lean startup method is an ideal way to test the concepts and foods that could be served because the restaurant concept allows on the fly adaptation of what is being served. The limited menu options have pre-selected topping choices which mean that if one or more of the toppings are not testing well with customers, they can be quickly substituted with an alternative without difficulty or delay. If feedback comes in as negative during the lunch hours, a pivot can occur, and the next cycle of the Build-Meas-ure-Learn Feedback Loop can occur as quickly as that same day's dinner hours.

### 2.3.2 Validated learning

As mentioned above, the third principle of the lean startup theory is validated learning. This concept is one of the main steps in a cyclical model known as the Build-MeasureLearn Feedback loop. Validated learning is the idea that a very small unit of progress can be used to hypothesize if a chosen direction is the correct one to be taken. This allows the entrepreneur to streamline the entire process by eliminating things the customer does not want or need in the product or service itself. The customer is intensively involved in this as the feedback they provide is what drives the validation in the loop. This process then continually repeats itself throughout the life of the product or service, providing a more accurate and more definitive result as compared to traditional methods such as market forecasting. (Rouse 2020.)

### 2.3.3 Build-measure-learn feedback loop



Figure 8. Build-Measure-Learn feedback loop (Adapted from Reis 2011)

The feedback loop is a core component of the lean startup methodology. As seen in figure 8 above, the loop consists of 3 key phases: build, measure and learn. The first phase in the loop is to plan, although it is not shown as step in the diagram. This is a crucial element since jumping directly into the loop at the build phase lacks the planning needed to properly develop the idea you want to test, and the information needed to test it. Determining a hypothesis of what exactly you want to achieve in this test will give focus to the research throughout the process. Once this has been completed you can begin with the first marked phase, build. In this phase an MVP is brought in to complete at minimum one cycle of the loop. Once the MVP has been introduced to the customer it is then time to measure their response to it and collect feedback. This second phase is the Measure portion of the loop. Here we will see if what was hypothesised was observed / achieved or
not. The data will give an insight in whether we should continue development of this idea or return to the build phase. We can then move to the final phase in the loop, Learn. In learn we have the data needed to follow one of two different paths. Option one is choosing to persevere. Taking note that our hypothesis was correct, we can continue with the same goal(s) in mind. We then enter another cycle of the loop to continue to refine our ideas additionally. If we found that our hypothesis was incorrect, we must then choose option two, Pivot. To pivot is to take the knowledge we learned from the first two phases in the loop and decide how to move forward. We can choose to do a full reset from the start or simply make minor changes and run the loop again. There are no set rules for what you must or must not do. It is up to you on how to move forward with the information you have gained. (Reis 2011, 76-78; Boyd 2017, 11-12, 24.)

### 2.3.4 The industry

The restaurant and mobile food service industry in Finland is comprised of over 10,000 companies (as of 2018) and generates approximately 4.93 billion euros in revenue (2018 figure). (MaRa 2019; Eurostat 2019.) In the municipality of Vihti there are currently 20 restaurants operating, consisting of pizza, chicken, Chinese food, sushi, Italian, Nepalese, café, a la carte restaurants and hamburgers. These are divided mainly between the town centers of Nummela and Vihti (Vihdin Kirkonkylä) but also locations in Vihti towns of Ojakkala and along the major roadways crossing through Vihti. (Jorma 02 February 2021) Within Nummela itself, the restaurants are spread across the entire town center, with most centered around the area of the market square (Tori), the main street (Vihdintie), and the bus station / K-Citymarket plaza area.

Direct competition in the hamburger space would be Hesburger (a fast-food chain), Klassico Ravintola (serving a wide variety of dishes from many cuisines), Nummelan Katugrilli (a grilli kiosk), AG-Grillit (a grilli kiosk), and Seisakki (a roadside "truck stop" style establishment, serving various menu items). The currently is no premium burger restaurant located in the Nummela area.

### 2.3.5 Restaurant concept

The concept behind the restaurant is to serve premium burgers perfectly cooked in a charcoal oven. This gives the burger that amazing smoky flavour but also keeps the meat juicy and mouth-watering. Carefully selected topping combinations will be served with high-
quality meats on freshly baked buns. In addition, alternative bun options such as glutenfree, keto and bunless (lettuce wrap) will be offered.

The menu will contain six burger options:

- Signature burger (beef patty, cheese, ketchup, onion, pickles)
- Deluxe burger (bigger beef patty, more toppings / premium toppings)
- Chicken burger
- Vegan burger (with plant-based patty)
- Rotating burger of the month
- Build your own burger

Since you cannot just eat a burger alone, there will of course be fries to go along with them. The best Finnish potatoes will be hand-cut in the restaurant daily. They will then be triple cooked to perfection. If someone wants a little extra, there will also be sweet potato fries and Poutine available. Poutine is a French-Canadian delicacy that is made with the fresh-cut fries covered with cheese curds and smothered in a rich gravy. The restaurant will sell premium soft drinks in cans, offering many American and foreign favorites to the customer. Once the rights are received, there will also be wine and beer for sale. A dinner is not complete without dessert. There will be s 'mores torched to order available. A graham cracker crust, Fazer milk chocolate and big marshmallow. This, like the burger bun, will also have a gluten free option.

The atmosphere of the restaurant itself will feel warm, inviting and somewhere you want to spend a bit more time at and have another drink or snack. The walls will have the industrial feel with textures like brick, rough wood, and metal. Colors will be combinations of black, red wood, and steel. The décor will feature elements like chalk boards, industrial style lights, and some funky items on the wall to build the overall feel of the restaurant. There will be a wood fireplace, burning on cold days for warmth and ambiance. Well curated music will always be playing in the background for ambiance, without being too loud as to overpower conversation.

### 2.3.6 The entrepreneur

The role of the entrepreneur in today's society is a strong one. More and more individuals are joining the growing trend of venturing out with their own businesses. According to Statistics Finland there were 38,600 enterprise openings in 2019. This was an annual increase of 9\% from 2018 and looking back at previous years there has been a steady increase yearly each of the past 5 years. On the opposite side of that, there were 21,600 closures in 2019, representing an 11\% increase from 2018. Although it was an increase,
as seen in figure 9 below, years 2018 and 2019 show the lowest number of closures in the 7 years indicated. (Statistics Finland 2020.)

Enterprise openings and closures in 2013 to 2019 1)


Figure 9. Enterprise openings and closures, 2013 to 2019 (Statistics Finland 2020)

The reasons for someone deciding to become an entrepreneur can be varied. Many will reply with similar reasons, but each case will inherently be individual to the person. A 2017 study by Elisa Oyj, a Finish telecommunications provider and Suomen Yrittäjät, the Federation of Finnish Enterprises (Elisa Oyj \& Suomen Yrittäjät 2018.) listed the top five motivations for someone to become an entrepreneur as:

1. Desire to employ oneself.
2. Desire to determine how the workplace is.
3. Desire to choose own schedule.
4. Desire to use knowledge learned or gained working for another company.
5. Having a competitive business model.

In addition to those listed, the aspects of being able to make the decisions regarding how the company will function or perform, and the desire to bring a quality product to the Finnish customer for a fair and reasonable price would be added by the author as key motivations for entrepreneurship.

### 2.3.7 Personal SWOT

Developed in the late 1960's by Stanford Research Institute management consultant Albert Humphrey, the SWOT analysis has grown in popularity steadily ever since. Becoming part of the toolkit for start-ups to fortune 500 companies alike, taught at business schools
worldwide, the SWOT analyses Strengths, Weaknesses, Opportunities and Threats. (Morrison 2016.)

A personal SWOT analysis of the author is seen in figure 10 below. It provides an insight to their entrepreneurial standpoint and allows the author to reflect on areas where improvements can be made.

| Strengths <br> - Bachelor of Business administration degree in International Business. <br> - Previous life and work experience. <br> - Strong leadership and organizational skills. <br> - Passionate about entrepreneurship | Weaknesses <br> - Lacking Finnish and Swedish language skills. <br> - No previous restaurant experience. |
| :---: | :---: |
| Opportunities <br> - No restaurant like this currently in the area. <br> - Gap in market for this type of service. | Threats <br> - Similar restaurant opens in the area. <br> - Local community does not like the concept. |

Figure 10. Personal SWOT analysis of the author (adapted from Morrison 2016)

### 2.3.8 Skills and competencies

Traditionally in a business you find different departments, being run by people who have expertise in that department. Accountants in the finance department, lawyers in the legal department, HRM experts in human resources and so on. As an entrepreneur you are all these skillsets in one.

In order to start and run this business venture the author has previous knowledge in areas where they feel confident in such as accounting, purchasing, IT, operations, and administration. There are then areas where they feel their skillset is lacking or virtually non-existent. They will need to learn these prior to opening, learn on-the-fly, or alternatively subcontract these out if required. As the author has never been a restauranteur, they will need to learn about food safety and hygiene in a commercial kitchen environment. Additionally, they must become familiar with what the rules, regulations and safe practices are here in Finland. The skillset in marketing is limited, as they have never utilized them outside an educational setting. Networking with other entrepreneurs and friends already experienced in marketing will help develop the skillset and benefit the business immensely.

Having limited language skills in the Finnish and Swedish languages will certainly hinder the author as an entrepreneur in Finland, but with the assistance of family and friends combined with the high level of English language skills of the Finnish population there should be a minimized risk of issues from this.

### 2.3.9 Startup capital required

Before a business can start generating revenue, it requires capital. There is no denying it or getting around it. According to NewCo Helsinki, a City of Helsinki run service that helps develop new businesses and start-ups, a conservative estimate of funds required to open a 50 -seat restaurant in Helsinki is $85000 €$. This is a basic calculation for 2 entrepreneurs with 2 full-time employees, a monthly rent of $1500 €+$ VAT, and water/power expenses of $400 €+$ VAT. When you consider what that basic calculation contains, it really is not that much. Costs can easily climb much higher depending on how you wish to decorate and furnish the space, the type of plates and cutlery you will use, the type of ingredients you purchase, and so on. The list can be almost endless. (NewCo Helsinki 2018, 6-8.)

The restaurant being located in Nummela will certainly lower those costs comparatively in some areas, but other will remain the same regardless of location. Currently available rental spaces in Nummela are going from $590 €$ per month for a $35 \mathrm{~m}^{2}$ space, to $900 €$ per month for an $82 \mathrm{~m}^{2}$ space, maxing out at $1.600 €$ per month for a $162 \mathrm{~m}^{2}$ space. All of these locations are geographically located in the center of Nummela and would be ideal locations to draw maximum exposure and traffic to the restaurant. (Oikotie.fi 2020.)

In order to secure the funding needed to begin this business venture, various sources will need to be explored and utilized. While the traditional source of an entrepreneur's savings or family and friends investors are still excellent ways to get low-cost funding, there are numerous services provided by many different institutions to assist the start-up.
One excellent place to start is the Employment and Economic Development Offices, or more commonly know as the TE-Offices (Työ- ja elinkeinotoimisto in Finnish). They offer a start-up grant (Starttiraha in Finnish) for new entrepreneurs that is around $700 €$ per month. The intention is to provide the entrepreneur with funds to cover personal living expenses while the business venture is in the infancy phase. This allows the entrepreneur to keep the maximum funds within the business without having to remove them in order to pay for things like rent, food expenses, etc. This grant is awarded for periods of 6 months at a time and can be given for up to 2 periods. (Uuismaa TE office 2020.)

A second excellent local institution is Finnvera, a government of Finland owned financing company that provides financing to start, grow and internationalize Finnish businesses. For the small entrepreneur Finnvera provides a Start Guarantee to a banking institution on their behalf. This is usually needed when the entrepreneur does not have the collateral required by the bank in order to secure a loan. This guarantee is a minimum of $10000 €$ and can cover up to $80 \%$ of the loan amount and the total amount of Start Guarantees a company can be granted is a maximum of $160000 €$. (Finnvera 2020.)

While both Finnvera and the TE-Offices are an excellent starting spot, inevitably an entrepreneur will need to contact a bank for the bulk of their funding. While there are some readily available quick loans accessible to an individual, these come with a much steeper cost associated as the APR is anywhere between $40 \%$ and $60 \%$. Ideally an entrepreneur would visit a conventional bank where the loan interest rate would consist of the bank's rate plus the 12-month Euribor rate, which currently stands at $-0.486 \%$ (as of 02.11 .2020 ) and any service fees. (Triami Media 2020.)
As an example, financial loan broker LVS Brokers Oy (operating as Omalaina.fi) offers a loan calculator on their site. Searching for a $60000 €$ loan with a 5 -year repayment period, with a nominal interest rate of $4.18 \%$ and a $160 €$ starting fee returns a total cost of 6 $459,48 €$ for the loan. (LVS Brokers Oy 2020.)

### 2.3.10 Revenue forecast

In order to calculate a rough preliminary revenue forecast, the same estimated 50-seat restaurant will be used. The meal option will be the standard burger with fries and a drink. The dessert option will be the s 'mores.

Table 3. Estimated sales forecast

| PRODUCT | Meal $(19 €$ combined | Dessert $(5 €$ combined $)$ |
| :---: | :---: | :---: |
| Price per unit | $16,67 €$ | $4,39 €$ |
| - expenses | $7,16 €$ | $1,89 €$ |
| $=$ margin | $9,51 €$ | $2,50 €$ |


| CUSTOMER GROUP | Number | Total | umb | Total | Total ( $£$ /month) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Lunch/mid-afternoon | 740 | 1759,35 € | 220 | 137,50 € |  |
| Dinner/Late night | 760 | 1806,90 € | 380 | 237,50 € |  |
| Sales margin total |  | 3566,25 € |  | 375,00 € | $3941,25 €$ |
| Product sales total | 1500 | 25005,00 € | 600 | 2 634,00 € | 27 639,00 € |

Table 4. Sales margins forecast

| REQUIRED SALES MARGIN | Month | Year |
| :--- | :---: | :---: |
| Turnover (VAT 0\%) | $27639,00 €$ | $317848,50 €$ |
| Expenses total | $-7021,50 €$ | $-84258,00 €$ |
| Sales margin total | $20617,50 €$ | $247410,00 €$ |
| Required sales margin in the profitability calculation <br> (11,5 months) | $15005,00 €$ | $180060,00 €$ |
| Difference in $\%$ <br> (Goal: A difference below $80 \%)$ | $73 \%$ | $73 \%$ |

Based upon the calculations in tables 3 and 4 above, it can be speculated that when using an estimated monthly expense of $7021,50 €$ the resulting sales margin could be a healthy 20000 Euros. By these rudimentary calculations and estimations, a difference of $73 \%$ between turnover and profit is forecasted.

## 3 Determining the frequency of the local population dining out, getting take away or delivery

"There Is No Sincerer Love Than the Love of food."<br>- George Bernard Shaw, Irish Playwright (A-Z quotes 2020)

The need to eat is as old as human life itself. The physiological need to eat is engrained in the core of our DNA and the need to supress the sensation of hunger is insatiable. Today we have two options when it is time to eat, we can either make ourselves food or we can get food prepared for us.

In the past the only the affluent could afford to eat at restaurants or have meals prepared for them. 1950's America created the boom of fast food and the 1960's brought the concept of casual family dining (Mealey 2019). By the early 2000's the total money spent away from home vs at home for food had risen by $94 \%$ and research conducted by Eddie Yoon placed Americans into three groups when it comes to preferences about cooking. While $15 \%$ love cooking, $35 \%$ are mixed about it and a shocking $50 \%$ downright hate to cook. (Van Duyne n.d.) Statistics that show people lean quite heavily towards eating food they did not have to prepare!

In this section we will begin by looking at the broad questions regarding if and how often does the population of the Nummela area get take away/delivery food or eat at a restaurant.

### 3.1 Theory

Going out for a hamburger has become an almost worldwide ritual for meals. Surveys conducted by South African food magazine Eat Out and American market research company Ask Your Target Market (AYTM) have shown, as seen in figure 11 below, that most diners go out for a hamburger at least once a month, with at least $20 \%$ going out weekly. While most research regarding preferences for take away, delivery and in restaurant dining comes from the USA or the UK, it is no surprise that those trends are echoed here in Finland as well. Where going out for a meal was usually something one did for a special occasion or a sporadic indulgence, according to a study by Kespro $57 \%$ of the population visits restaurants spontaneously and at least $67 \%$ use it as a reason to change up routines. (K-Group 2019.)


Figure 11. Survey results of how frequently someone eats a hamburger (Adapted from PiIon 2016 \& Jacobs 2012)

When looking at a breakdown of restaurant visitation frequency by age and gender, as seen in figure 12 below, the highest frequency of visitors come from the 20-24 and 25-34 year old groups, with males and females showing almost identical numbers with both above $90 \%$. All other groups, with the exception of the youngest group (15-19 year olds) show higher than $50 \%$ of respondents visiting restaurants. This is a trend that has changed significantly over the 15 years reported in figure 12. While most age categories remained relatively the same from 2002 to 2017, we see that three categories changed significantly. The amount of $15-19$ year olds has dropped by over a quarter (males: $26 \%$ and females: $27 \%$ ) since 2002, the $65-74$ year old have increased by fifeteen percent ( males: $16 \%$ and females: $15 \%$ ), and the 75 and older group who have increased by almost a quarter (males: $21 \%$ and females: $24 \%$ ).


Figure 12. Restaurant visitation in Finland by age and gender, 2002 vs 2017 (Statistics Finland 2019)

According to Statistics Finland the population forecast for 2020 was 5530 922. When looking at the division between men and women it is virtually 50-50. The population in 2019 of approximately 5,5 million inhabitants was 2,79 million women to 2,73 million men. For the sake of simplicity, we will consider the breakdown as that 50/50 mix (Statistics Finland 2021). Breaking that down to individual age groups as seen in figure 13 below, we can extrapolate the data from national statistics and apply them to local population numbers.


Figure 13. Population forecast of Finland from 2020 to 2070, by age group (Statistics Finland 2019)

When looking at the population for the municipality of Vihti, according to Statistics Finland numbers from 2019 there were 29158 living in the area. Of that number there are about 14000 living in Nummela itself. (Municipality of Vihti 2021.) Using the national population statistics, we can extrapolate the percentage of each age group and apply it to the local population statistics of the Municipality of Vihti, as seen in table 5 below.

Table 5. Data extrapolation for national to municipal population statistics (Adapted from Statista 2021)

NATIONAL
\% of total
population

| 14 and under | 859383 | 16 | 4531 |
| :--- | :---: | :---: | :---: | :---: |
| $15-24$ years old | 608319 | 11 | 3207 |
| $25-44$ years old | 1417193 | 26 | 7471 |
| $45-64$ years old | 1389320 | 25 | 7324 |
| $65-74$ years old | 708808 | 13 | 3737 |
| 75 years old and up | 547899 | 10 | 2888 |

### 3.2 Hypothesis

Eating a meal not cooked at home is something most people partake in at some point. For some it may be a regular occurrence while for others is may be a one in a while treat.
Therefore, it can be hypothesised that based on restaurant visitation statistics plus population statistics in Finland and more specifically the Nummela area, $74 \%$ of the local population, or 21868 people have meals not prepared at home at least once a month or more.

### 3.3 Findings

The initial question asked to respondents was how many days on average do they eat at a restaurant, get take away or delivery. Shown in figure 14 below, the most popular response was " $2-3$ times per month" with $40 \%$ of those surveyed choosing this. Once a month was the next choice, with a rate almost as strong at $31 \%$. Once a week or more was next $18 \%$ followed by rarely / never at $11 \%$.


Figure 14. The average frequency someone eats at a restaurant / gets take away / delivery food in the Nummela area ( $\mathrm{n}=560$ )

Next the respondents were asked to indicate of those times they chose to eat out, get take away or delivery, and which mealtime period during the day were they going for both weekdays and weekends.

Figure 15 below shows the responses for the weekday time periods. Here the options for dinner time and lunch time were the most popular, at $46 \%$ and $57 \%$ respectively. The mid-
afternoon meal or snack had roughly half of that with $22 \%$ and finally the late-night meal / snack had less than half of that with $9 \%$.


Figure 15. Time periods (weekday) when someone eats at a restaurant / gets take away / delivery food in the Nummela area ( $\mathrm{n}=193$ )

When asked about the weekend time periods, figure 16 below shows us that again the dinner time was very popular with $73 \%$ of respondents indicating such. Mid-afternoon meal / snack was in second with just under $50 \%$ response. The late-night meal / snack and lunch time options both came in with around $25 \%$.


Figure 16. Time periods (weekend) when someone eats at a restaurant / gets take away / delivery food in the Nummela area ( $\mathrm{n}=234$ )

### 3.4 Results

Analysing the results from respondents, we can see that a combined $89 \%$ have eaten a meal not prepared at home at least once in the previous month. When comparing this to the figures derived from national survey data, we see there is an increase of $15 \%$ as compared to the hypothesised data. As this is an increase in percentage, we can unequivocally validate the hypothesis and confirm that the local population of Nummela regularly eats out at least once a month or more. Therefore, we can not only say that there is an adequate population that would visit the restaurant when opened, but we can continue to determine what choices are made when they are going out / getting take-away / getting delivery.

## 4 Analysing what food decisions are made when someone dines out, gets take away or delivery

"He was a bold man that first ate an oyster."

- Jonathan Swift, Irish Satirist (A-Z quotes 2020)

Once we as diners have made the decision to have a meal that was not cooked at home, the decision is not over. Next comes what can sometimes feel like the eternal struggle, "So what do you feel like having?". Depending on where you live, the choices can seem endless.
"Should we get pizza?" Ok, but from which pizza place? There are 4 different restaurateurs within a 5 -minute walk of the apartment. "How about Chinese?" Which one has the best egg rolls? Do they have my favourite orange chicken there? We as diners can be very picky when it comes to which restaurant is our favourite. It is not uncommon for someone to drive across town to get take away from the "best Chinese food in town". "Look! They just opened a new jerk chicken joint. Should we try it?" What if you have never tried it before? Will you like it? Will it be too spicy? The fear of the unknown mixed with the fear of something new could easily turn someone away from a certain type of food.

The reasons why we choose a type of take-away, delivery or dine-in food can be varied for a whole list of reasons. Some of us are creatures of habit while others are adventurous foodies, in the end we all end up at the same decision point. "What do we eat tonight?". In this section we will develop our scope further down to find out once that person has decided to have take-away/get delivery/eat at a restaurant, what type of food they will choose to have.

### 4.1 Theory

Eating out or getting takeaway/delivery is something a large majority of the population takes part in, a recent and substantial change in the overall food culture of Finland. A culture that has been developing, albeit slowly at times, since the great famine in the second part of the $19^{\text {th }}$ century when the division of social classes had the well-off eating international dishes off their fine dishes while the poor would stand around and all together eat from a shared pot of oatmeal, hanging their wood spoons on the wall after being licked clean to await the next meal. During this time restaurants also began to open, serving only to the wealthy elite who could afford it. Fast forward to the 1950's and 60's where another
boom helped push the restaurant culture forward. French cuisine was the talk of the town and Finnish chefs were eagerly studying French cookbooks to learn and perfect those fine techniques and flavours for their menus. This was a time when going to a restaurant was considered a formal affair, men were required to wear a tie and strict dress codes were enforced by the staff. Do not even think of bringing the children with you to eat, this was a big no-no at most places.

The first big jump in Finnish restaurant culture came about in 1975 when the first franchise fast food hamburger restaurant, Carrol's (later Carrols), was opened. For the first time people from all social classes, ages, genders, and areas of the country could gather and get a hot, freshly cooked hamburger, fries, and a drink for a reasonable price. This also signalled the start of "family" restaurants as Carrols not only welcomed children, but also considered them customers. The 1980's and explosion of television helped further the Finnish food culture by bringing shows like Patakakkonen which showcased traditional Finnish recipes and the trendier Bon Appetit which introduced new international foods. Flavours and recipes like mussels or artichokes were being shown to the Finnish public and began the education and experimentation by home cooks. During this time wine appreciation and popularity began to rise with magazines and weekly newspaper columns being devoted solely to it. One journalist called the 1980's the "decade of feta and shrimp". (Saastamoinen 2018).

The most recent boom in Finnish food culture came in the 2010's with a boom in immigration and subsequently more "ethnic" restaurants being opened in the country. While for many years the international restaurants were limited to the large cities, this boom saw smaller cities and town across the country having their own Chinese, Japanese, Nepalese, Mexican and/or American restaurants. Finns were travelling more than ever, visiting further destinations, and gaining exposure to new tastes and cuisines. Upon returning home they longed for those foods once again, and insightful entrepreneurs listened by opening new eateries with those foods at the forefront. With this upward trend the availability of international ingredients has also risen. From speciality stores opening in many cities across Finland, the large grocery store chains like Prisma (S-Group) and K-Citymarket (Kesko) offering always enlarging international food shelves (and even aisles!), and the boom in internet-based shopping; consumers have pretty much the world's selection of ingredients at their fingertips.

Food blogger Minka Ryytty says she visits a restaurant at least once a month, more often at least once a week. She draws inspiration for her cooking from Instagram, cookbooks, and media articles. She also takes inspiration from individual, seasonal ingredients when planning a dish. (Tarkkala 2019.) This trend has become the new normal for many generations, especially those in 25-34-year-old demographic. As lifestyles become more hectic and days become busier and busier, more people are turning to meals not prepared at home. According to Kespro's 2018 Restaurant phenomena survey, the volume of food delivery was expected to rise by $34 \%$ and take-away by $30 \%$. People's willingness to partake in street food would rise by $32 \%$ (Kespro 2017, 10). This rise was not only with that age group though. The older demographics and especially the retirees category have begun to embrace in restaurant eating, take-away and delivery services.

Of the 985 people asked in the 2020 Kespro Expectations of Finnish restaurants survey, an estimated $49 \%$ of respondents will get take away from a restaurant, $44 \%$ are eating workday lunches somewhere other than in the workplace or from the workplace cafeteria, and $57 \%$ will spontaneously visit a restaurant (to eat in or take away) on a day off (Kespro 2019, 12). With the rise in online professional, peer, and crowd reviews of restaurants, more and more people turn to the internet when deciding on where to eat. Approximately $72 \%$ of people asked will search information either on the restaurant's own website or by asking family/friends. They search for information about the menu, opening hours, location, and prices. (Kespro 2019, 5.)

A 2018 survey compiled by YouGov of 8521 respondents in Finland asked what their favourite type of ethnic restaurant was. As seen in figure 17 below, the most popular choices are Italian, Chinese, and Greek foods. Depending on where in Finland someone lives, they may not have a restaurant in their local area serving these cuisines. Although as previously stated, as immigration continues to rise and the demand for international foods continues to grow, these options should become more accessible to all parts of the country.


Figure 17. Favourite type of ethnic restaurant in Finland 2018 (YouGov 2020)

### 4.2 Hypothesis

Based upon the statistical data for diners in Finland and the fact that the data is likely made up of a majority of those living in the capital region (Helsinki, Espoo \& Vantaa), we must take in to account the location size of the Nummela area, the availability of restaurant choices in the area, and the general attitudes of the residents (compared to those living in the metro area of the capital region) when hypothesizing what decisions local residents will make when choosing which dine-in, take-away or delivery food.

Therefore, is it hypothesized that based upon trends in Finland, the population of the Nummela area will choose Italian (to include pizza), Chinese, American (to include hamburgers), Indian (to include Nepalese), or Japanese (sushi) when deciding on what food to get when dining out, getting take away or delivery.

When considering in which manner the population will have their meals: dining out, getting take away or delivery; the population of the Nummela area should choose an approximately even distribution between the three options. This will also be dependent on the type of restaurant they visit, where certain ones will not offer a type of dining experience, therefore leaving the customer to make more difficult decisions on where to have the meal. The choice may also be heavily skewed if they are visiting for a lunch meal vs a dinner meal or a snack.

### 4.3 Findings

The first question asked to respondents was which type of food do they get when choosing to eat at a restaurant, get take away or delivery. They were presented with examples of local businesses only to help guide them in each category, and not to be specific in visiting only that location.

As seen in figure 18 below, with a large margin ahead of the next popular choice, $75 \%$ of the respondents choose pizza / kebab when making that food choice. Following that the next choice, Chinese / sushi, has nearly half the popularity but still a strong following with nearly $50 \%$. The third thru fifth most popular choices all had response rates in the low to mid $30 \%$ ranges, with subsequent options diminishing to nearly $7 \%$ for the last marked choice. In the free text box for "Other", some respondents entered the names of locations that were part of previously mentioned categories for approximately $80 \%$. Of those who entered truly other options, they mentioned some restaurants that are now closed as well as other non-relevant answers like "homemade pizza" or "Tex-Mex, if we had it".


Figure 18. The food choices made by those who eat at a restaurant / get take-away / delivery in the Nummela area ( $n=558$ )

The follow up question in this section asked respondents that when they chose that type of food to eat, did they enjoy it dining in at the restaurant, picking up takeaway or having it delivered. In figure 19 below the popularity of each dining method is shown. Certain options leaned heavily to one method over the others, where some options even had a $0 \%$ response to it. Options such as Finnish food, Indian / Nepalese, café food, and Italian had dine-in responses well over $80 \%$, with some like Italian being over $90 \%$. When asked about take away, the grill kiosk, grocery store service counter, and sandwiches lead category with responses over $70 \%$, with grocery store service counter having over $90 \%$. In the delivery category, pizza / kebab and other were the only options that showed significant responses at $25 \%$. The remainder of those that had a response were below $10 \%$, with all but one of them being under $5 \%$.


Figure 19. Manner how customers enjoy their meals ( $n=557$ )

### 4.4 Results

When looking at both the choices made by diners and how they choose to enjoy those meals, certain options are very clearly what was expected, and others came a quite a surprise. Firstly, looking at the choice of restaurant the Nummela area diners make. The hypothesized choices of Italian, Chinese, American, Indian, and Japanese cuisines were correct. Although when the survey was designed, some options like Chinese and Japanese (sushi) were grouped together based upon the local restaurants serving both cuisines. The Italian category was also split to two groups, Italian and pizza as there is a local Italian restaurant in Nummela and various pizza places, when in actuality serve the socalled Turkish style pizza. This did not change the results as the local diners still chose those hypothesised options just in different forms.

When looking at the second area, in which manner will the diners have their meals, we see a slight deviation from the hypothesised results in some of the categories. When we look at the pizza category there is for arguments sake a general $1 / 3$ split for each manner. This is no surprise as for each manner as there are excellent reasons why to choose that one. The pizza places normally have decent sized dining rooms which offer the salad bar along with the pizzas, actually with any meals eaten within the restaurant. Customers come there for the atmosphere and for the extra perk of the salad bar. They choose take away so the pizza can be enjoyed at home, likely curled up on the sofa with a drink and a
movie on a Friday night. One reason the delivery is not higher than the takeaway option is that one of the more popular locations, Ismet pizza has only offered delivery very recently. Many customers have become accustomed to going and picking it up themselves. The delivery fee the restaurant charges is also relatively expensive, so this may deter those who live closer from choosing the delivery option. For many options we see a $50 / 50$ split between two options. The fast food, Chinese/Sushi, and Chicken all either do not offer delivery or those who frequent these establishments have a set routine of either taking that meal home or grabbing a quick bite at the location itself. Based on theory data presented earlier that $49 \%$ of fast-food diners will get take away from a restaurant, we can say the numbers obtained though the survey accurately mirrors this. There are those restaurants which are intended as a sit-down meal in the location, and the numbers received are indicative of that. While there are always some who will get take away from this type of restaurant, that percentage is quite low. Finally, we have those types of restaurants which done really offer a seating area and are intended for take-away only, and the results show that. Both the grill kiosks and the grocery store food had very high response rates for the take-away option.

When factoring in the different manner of getting the meal results for each type of restaurant and the type of cuisines they chose, the hypothesis is considered valid as local results are closely mirroring the theoretical data presented.

## 5 Evaluating which types of hamburger flavour combinations a person chooses when deciding on a burger

"Variety is the spice of life, that gives it all its flavor."

- William Cowper, English poet (A-Z quotes 2020)

Finally, it has been decided. Tonight, we are having burgers for dinner! That should be it, right? Just drive over to the burger place, grab the burgers, and come home? Sounds simple. Well... Maybe not.

If we are talking about getting a burger from the fast-food joint it might be simple, but if it is coming from the gourmet burger place it is not. Beef, chicken, or veggie patty? What bun should it be on? White, pretzel or brioche? What toppings do I want? Lettuce, tomato, onion, and pickle? Something else? What condiments will go best with all those choices? Will they complement each other or clash? What cheese will be best for this burger? So many choices! Well, that is my burger decided. Now what about my spouse? Cannot forget the kids either. This will take forever!

Sometimes we know exactly what we want, or we go back to the usual order; other times we go daring and brave, choosing new and exotic choices. The decisions we make can lead to bite after bite of delicious bliss, or chew after chew of oddly mixed flavours.

### 5.1 Theory

It does not matter if you are grabbing a quick snack at the nearby fast-food location or sitting down to eat a burger at a local restaurant, certain tried and tested flavour combinations appear on both these menus for a reason. When putting together a burger, we want the meat (or protein choice) to be the star of the show. The toppings and condiments we choose to accompany it should be there to compliment the flavour of the meat (or protein choice) without stealing the thunder from it. According to chef Colin Greensmith, the development chef at Pallas Foods (Ireland), keeping a burger simple to where you can taste the meat (or protein choice) and the different toppings / condiments is key (Pallas Foods 27 June 2019).

Since there has not been any available survey data for hamburger meat (protein), topping or condiment preferences in Finland, we must turn to broader international surveys to compile the baseline data needed for comparison. Three of the biggest surveys found
while researching were used to draw data for a baseline. First was YouGov, a global public opinion and data company who in 2015 conducted a survey in conjunction with Huffington Post asking respondents in the USA about burgers. They also conducted a 2020 survey asking Americans which toppings make their favourite burger. The second source was from Ask Your Target Market (AYTM), an American market research company who did a survey in 2016 for Hamburger month (May) which asked respondents their opinion about hamburgers and what ways they liked to enjoy them. The third source was from Eat Out, "South Africa's best guide to South Africa's best food". They asked respondents ( $\mathrm{n}=270$ ) about how often they eat burgers, how they get their burgers, and additional things like sides and what locations they get them from (not used it this thesis). A fourth survey by The Zagat Survey, a guide to top restaurants, had a 2014 burger survey that spoke only about bun choices and none of the other categories, therefore their data was only used for that section.

The first area to be studied is the burger patty itself. As seen in figure 20 below, beef was the popular choice in all three studies, with turkey and veggie also showing significant results. Other options such as chicken, black bean, and lamb had lower yet still notable results. As the studies asked slightly different questions regarding the patties and due to regional tastes and availability of meat/protein sources, we see some options listed in one survey and not another (e.g., Ostrich).


Figure 20. Survey results when asked what type of burger patty someone would have on a burger (Adapted from Pilon 2016, Jacobs 2012 \& Moore 2015)

When specifically looking at Finland, it can be seen in figure 21 below that per capita people in Finland eat pork the most, followed by chicken and then beef. Lamb is hardly eaten overall in comparison, with a $191 \%$ difference in amount consumed.


Figure 21. Per capital consumption of meats in Finland 2019 in kilograms (Adapted from Natural Resources Institute Finland 2020)

The second area, as seen in figure 22 below, the surveys asked respondents about the bun they choose to have the burger on. This again varied greatly in the American vs. South African studies based on local taste preferences and availability. The Zagat data unfortunately only spoke of "fad buns" and stated that $55 \%$ of respondents prefer gourmet buns while only $23 \%$ said they prefer a classic plain white variety. They only specified numbers for the fad buns like pretzel, ramen, or doughnut buns. (Dobkin 2014). The Eat Out survey had more variety in its responses, where the white bun was most popular with whole-wheat (healthier option) and focaccia ("fad bun") also having notable results. The option for wheat-free/gluten-free had significantly less responses but was on par with rye buns.


Figure 22. Survey results when asked what type of bun someone would have a burger on (Adapted from Jacobs 2012 \& Dobkin 2014)

In the third area asked by the surveys was what cheese (if any) a respondent would choose to have on a burger. As seen in figure 23 below, the Eat Out survey only listed cheese and feta and the AYTM survey listed only cheese as one of their top ten topping choices by respondents. The YouGov survey broke the options down and listed several options they received from respondents. The "American" cheese listed is processed cheese found either in pre-wrapped slices or is available at deli counters sliced from a block. The availability, cost, and popularity in the USA has given the large result in the YouGov study. Cheddar is then the most popular choice by far, with the other cheeses having a much smaller following.


Figure 23. Survey results when asked what cheese someone would have on a burger (Adapted from Pilon 2016, Jacobs 2012 \& Moore 2020)

The final area, seen in figure 24 below, asked about the toppings someone would have on a burger. The top five options given by respondents in both American surveys were ketchup, lettuce, tomato, onion, and pickles. Not only are these the top five responses given but it is noteworthy that these are the standard toppings found on most burgers in both fast-food establishments and restaurants that serve burgers alike. The fifth and sixth most popular choices, mustard, and mayonnaise, are also noteworthy and regularly found on fast-food/restaurant burgers.


Figure 24. Survey results when asked what toppings someone would put on a burger (Adapted from Pilon 2016, Jacobs 2012 \& Nguyen 2020)

### 5.2 Hypothesis

Based upon international trends for choices made when selecting which protein, bun, cheese, topping or condiment to have on a burger; we can try to predict what choices local diners in Nummela will possibly have on their burger. Limited by the lack of specific research done in Finland, we must base the hypothesis upon data collected in the US and South Africa. Using these trends, we can therefore hypothesise:

1. Most will choose beef as their preferred protein. Plant-based and chicken will be the next most popular choices.
2. A "white bread" bun will be most popular (this may encompass many types of bun) with more exotic types of bread and a wheat-free/gluten-free option also being popular.
3. Cheddar cheese will be the most popular choice followed by possibilities like Swiss or simply "cheese" if the person if indifferent to the type offered.
4. Based upon the studies conducted and the standard toppings found on most fastfood burgers, the top four topping choices will be lettuce, tomato, onion, and pickles.
5. Based again on the studies and the most popular fast-food burgers available, the top three condiment choices will be ketchup, mustard, and mayonnaise.

### 5.3 Findings

The first question to respondents of the survey asked about their preference of which proteins they would typically choose when having a burger. These were not intended to be all on a burger simultaneously, but to find out what types the person would like to eat or already does eat. As seen in figure 25 below, the majority of respondents will choose beef as their protein of choice with grilled chicken slightly behind that, and then quite a drop to crispy chicken and pork, which had similar results.

When asked if there are other options not listed, they replied with options such as vegetable base patties (not using soy), portobello mushroom patty, organic meats, game meats, and halloumi cheese (as the patty).


Figure 25. Percentage of respondents that would choose each meat / protein type when choosing a burger ( $\mathrm{n}=557$ )

Respondents were then asked about what types of hamburger buns they already eat or would eat on burger on. The results showed an even division of the standard buns found on hamburger menus from fast-food to premium establishments alike. Figure 26 below
shows the sesame bun was the most popular with brioche only $13 \%$ behind it. Both are regularly offered on menus and available in all grocery store shelves. Ciabatta and whole grain had equal share, as did onion and bunless options. The remained showed good results but were clearly less popular.

When asked for any additional preferred options, respondents added suggestions of a rye bun and that a gluten-free bun should be made of high-quality ingredients, as so anyone can eat one and not immediately tell it is gluten-free.


Figure 26. Percentage of respondents that would choose each bun type to have a burger with ( $\mathrm{n}=557$ )

Next the respondents were asked which cheeses they currently have or would have with their burger. As seen in figure 27 below, the overwhelming choice was cheddar with a massive $87 \%$ of those polled choosing this option. The next 3 choices: smoked gouda, pepper jack, and blue cheese all came in right around the same result except at approximately half the popularity of cheddar. The final 3 choices all had strong results around the $30 \%$ mark. Additional suggestions from respondents included halloumi (as a topping), cheddar sauce, feta, leipäjuusto (a Finnish flat cheese that is then grilled), and most popularly vegan cheese.


Figure 27. Percentage of respondents that would choose each cheese type to have on a burger ( $\mathrm{n}=547$ )

Moving to the next layer of the burger, the respondents were asked which toppings they like to put on a burger. As in the first question regarding protein choices, the respondent was informed that these were not intended to all be on the burger at the same time (unless they really want to!), but to get an idea of all the options they would consider when having a burger.

In figure 28 below, the top three choices were reported by over $80 \%$ of respondents. Lettuce was chosen by a staggering $94 \%$ of respondents, with tomato and red onion coming close behind it. Pickles and bacon were the next popular choices, with responses in the $60 \%-70 \%$ range. The additional comments for topping choices gave responses of pineapple (grilled or fresh), grilled vegetables (eggplant, zucchini, bell peppers), pickled vegetables, coleslaw, potato chips, spinach, and tofu.


Figure 28. Percentage of respondents that would choose each topping to have on a burger ( $\mathrm{n}=554$ )

The final aspect presented to respondents was the options for condiments they would have on a burger. Seen in figure 29 below, the two clear favourite choices of respondents were mayonnaise then ketchup, doubling and nearly doubling respectively the next most populous choices. The next four choices all had equal response rates, with the remaining choices not too far behind them. The only one to be significantly lower was the HP sauce at $11 \%$.

When asked for additional suggestions respondents replied with flavoured mayonnaise(s), garlic sauce, salsa, crème fraiche, pesto, tapenade, honey, and fig jam.


Figure 29. Percentage of respondents that would choose each condiment to have on a burger ( $\mathrm{n}=553$ )

### 5.4 Results

Using the results of the survey compared to the theoretical data researched, we can make the following conclusions to the hypothesised points.

First, we will discuss the preferred protein that diners will choose. Previous data showed that half to three-quarters of people surveyed choose beef as their protein option in a burger. The survey of Nummela area residents showed even higher results than that. One reason for this could be that until recently, and especially in areas outside the capital region, the only burger patties available at both fast-food and restaurant burger establishments was beef. It has only been recently with the explosion of premium burger restaurants that diners have been exposed to alternative protein sources such as lamb, pork, salmon, or turkey. It is worth noting that grilled chicken scored quite highly with respondents as chicken is widely eaten in Finland and the grilled option is more health conscious to diners than the breaded / fried variant. Plant-based patties also showed significant numbers as the popularity of those options has certainly grown over the past few years,
especially as more and more options become available to market such as tempeh, seitan, jackfruit, and pulled oats.

In planning on which proteins to serve at the restaurant, going with a high-quality beef for the signature and deluxe burgers is the natural choice based upon the results. When looking at the planned chicken burger and the results of the survey, as the grilled variant rated $68 \%$ higher than the breaded/fried version it would be ideal to use this for that burger. The breaded/fried version would then become part of the rotating burger of the month option since it is still significantly popular with respondents. For the planned plant-based patty, further research and product testing will be required to determine exactly which source will make for the most appealing option to diners. Based upon research results, we will conclude that the first hypothesised point is valid.

Secondly, we considered the bun choices made by a diner. Bench research data showed that the "white" bun would be most popular. This could easily encompass many different buns all depending on the person being asked. The survey had more specific options presented to the respondents, where "white" buns were represented by sesame. This distinction allows a distinction between a standard bun and premium buns. The results indicated that respondents in the Nummela area chose the "white" bun at almost a 2:1 ratio compared to the bench data. This is most likely attributed to once again the only recent introduction of alternative types of hamburger buns in Finland. The results for the other types of buns showed those most closely resembling "white" buns and those whose type of bread has become more prevalent in Finland were chosen by respondents, while those buns that are more Americanized such as the pretzel bun were chosen far less by respondents. A notable increase came with the gluten-free bun where double the number of respondents indicated they would have this option. This is indicative of the increase in popularity of those eating gluten-free for trendy reasons (weight loss, boosting energy, generally feeling healthier, etc.) as well as the increase of those eating gluten-free for medical reasons (resulting from increased diagnoses of celiac disease and increases of non-celiac gluten sensitivity worldwide). We can therefore conclude our second hypothesis to be valid.

The third consideration was to do with the cheese a respondent would have on the burger. From the bench research we found that cheddar was liked by $\sim 30 \%$ and the survey results yielded much higher numbers with almost $90 \%$ saying they would have cheddar on the burger. The reason we see a significantly higher number in the survey data is that

American cheese (processed cheese) is not a common occurrence in Finland at all. It is on the other hand somewhat of a staple in American refrigerators. If we look at the bench data and combine the numbers for American and cheddar cheese, we get $\sim 71 \%$ which we can use to compare our survey data result against. This confirms our hypothesis as valid, that cheddar is the most popular choice for cheese with other cheeses like Swiss, blue, jack, and gouda being liked, but not nearly as popular as cheddar.

The fourth point was that lettuce, tomato, onion, and pickles would be the most popular topping choices by respondents. The results from the survey echoed this almost exactly. The one difference was that both red onion and onion were given as options in the survey. Red onion came out as the preferred option by respondents. The bench data may be indicative of both types being grouped together, and there is a general preference for the red onion in Finland, as they are sweeter and have a more intense taste then the plain white onion. The fourth hypothesis is therefore valid.

The final hypothesis was that the top three condiment choices would be ketchup, mustard, then mayonnaise. The respondents chose these three options but in a different order compared to the bench research results. Survey respondents chose mayonnaise as their first choice, which is most likely a result of how they have had burgers in the past. Finnish burger chains have always sauced their burgers heavily with a mayonnaise type sauce. Having only been introduced to more exotic sauces to put on a burger only recently, mayonnaise has become a favourite of the local population. Their second choice was ketchup followed by several options with equal response rates, mustard being one of them. As the typical yellow mustard associated with hamburgers worldwide is not that popular in Finland, the other choices were naturally chosen by respondents. Since they were not given any specific type of mustard, it is hard to determine if they took the option as yellow mustard, Finnish style mustard or something else. The hypothesis is valid, as they chose almost identical results to the bench research.

As all the hypotheses were found to be valid, we can take this data further to help develop the international flavour combinations that may appeal to customers. The taste preferences of Nummela area residents echo those preferences of hamburger lovers in other parts of the world. Using this information, we can create our different burgers using the same models as the USA, South Africa, or other parts of Finland without fear of rejection. We can also use inspiration from other burgers from around the world to create our specialty burger for the rotating burger of the month.

## 6 Scrutinizing which planned international hamburger flavours will appeal to the local customers

"Not everyone likes all our flavors, but each flavor is someone's favorite." - Irv Robbins, co-founder of Baskin-Robbins (A-Z quotes 2020)

Think back. Back to the last time you were in a burger restaurant, standing there, just staring. Staring at what seemed like an endless list of different burgers on the menu board above the counter. "Do I get the standard burger?" It is what I normally have, and I love how it tastes. Although they do have several specialty burgers. Some of the flavours sound familiar to me. Others I have never heard of before. "Will I like them? ... Will they be weird? ... Might I love them? ... What do I do?" There is a line forming behind me. I better hurry up, or maybe this will take a while.

When we are faced with a choice like this, it can be a daunting task. Some of us will be all for new experiences, or we have tried some of these international foods / flavours in the past. For those of us the choice will be easy when offered an internationally themed burger. For others, this choice may be tough for one or more reasons. It could be one of many things like unfamiliarity of the toppings, dislike of something or simply fear of something unknown.

### 6.1 Theory

In order to determine what flavour combinations will work together to create a memorable internationally themed burger, we first must understand two key areas. First are the key concepts of Neurogastronomy and the sensory evaluation of food that describe why certain toppings go well with each other and others clash, and second the types of international cuisine that Finnish diners enjoy eating.

The science of neurogastronomy is how the smell and taste of something triggers the flavour in our brain. Yet the flavour does not come to us passively, we are the ones who put different things together and we are the ones who put those foods in our mouths. We smell it, touch it, chew it, savour it, and ultimately swallow it. Our brain then creates a mental image of those flavours, either if we liked them or if we detested them. Our brain remembers these mental images for future reference when deciding to eat or not eat those again and will bring us back to or get us away from those foods. (Dieguez 2019.) This goes together with the sensory evaluation of food, where in addition to smell we use
the other four human senses of touch, taste, sight, and hearing to perceive what we have in front of us. Sensory evaluation then is used to activate, measure, and interpret our responses to those stimuli. Using our hands, we touch the bun of the burger and our lips and tongue feel the food as we eat it. Our tastebuds come alive with the 5 tastes; sweet, salty, sour, bitter, and umami when we chew the food. Our hearing picks up audible clues to associate with certain aspects: the crunch of fresh lettuce, the snap of a carrot, the fizz of a soft drink, and the crispiness of fresh fries. They say we first eat with our eyes, which cannot be denied. We see that burger coming towards us. The beautiful golden bun, the juicy meat patty, the sharp colours of the toppings. So much of this before we even put the first bit in our mouths. (Lawless \& Heymann 2010, 3.)

When looking at what international flavours will be appealing to Finnish people, we much look back at Finnish food history. For many years, the cuisines available in Finland consisted of either local, Scandinavian, or Russian dishes. As we reached the latest revolution in the food history of Finland, the population has become more exposed to international flavours from many aspects. They have travelled more often and to further destinations that ever before. Between 2001 and 2019 the amount of tourism expenditure outside of Finland by Finns rose from 2,44 billion USD to 6,86 billion USD, as seen in figure 30 below.


Figure 30. Tourism expenditure in other countries by Finns, 1995-2019 (Knoema 2021)

With this rise in external tourism, the food palate of Finnish travellers has become ever expanded, with people returning home with stories and memories of delicious meals and local cuisines they had had. Adding to this is the effect from immigration to Finland and
opening of home culture restaurants by those immigrants, as mentioned in previous chapters. Going together with those restaurants are the specialty food supply stores opening to provide the staple ingredients needed for those exotic dishes. The rising popularity of cooking shows from around the world and the explosion of food bloggers, those capturing meals on Instagram, and never-ending stream of recipes online have all opened the rest of the culinary world to those in Finland. Although the availability of these ingredients does not immediately mean people will be willing to try and make them at home. Food blogger Minka Ryytty from the Kipparin morsian blog says diners will be more likely to try these new foods when at a restaurant rather than trying to make them at home. This is likely attributed to the ingredients and spices sometimes being hard to find in stores, or people may not want to invest in large amounts of ingredients, if the dish turns out to be something they do not like or want to make again. (Tarkkala 2019.) As those diners try out new dishes and flavours, many turn to searching for those ingredients at their local stores. This has also become easier and easier for the customer, as many stores including smaller scale local stores are carrying more exotic ingredients as the customer demand for them increases.

### 6.2 Hypothesis

It is hypothesised that customers will highly rate those burgers in which the toppings and/or international theme presented is familiar to them. This will be based upon two major factors. First, the familiarity of the ingredients used in each burger, taken from both the appeal from the five tastes and how each burger will make someone relate back to previously eaten flavours or combinations. Secondly it will come from the willingness of the local population to either try new flavours/cuisines they have not previously tried or from a desire to return to those great flavours they have previously had.

### 6.3 Findings

The respondents were asked to look at the photos of nine internationally themed burgers and read a description regarding what bun, patty, and toppings each contained. They were then asked to rate how each burger sounded to them overall. The choices were ranked as seen in figure 31 below from "Not good at all." to "I'll order one right now!".


Figure 31. Rating system used for international hamburgers in survey (Webropol 2020)

The first burger presented to respondents was a Vietnamese themed bánh mì burger, seen in figure 32 below. This burger is made with a spiced pork patty and served on a French baguette style bun. Topped with pickled carrot and daikon, coriander, fresh chili, cucumber slices, pâté, and a chili mayonnaise.


Figure 32. Vietnamese themed bánh mì burger

When asked to rate the burger using the rating system, as seen in figure 33 below, most respondents had indifferent feelings both positively and negatively.


Figure 33. Rating of Vietnamese themed bánh mì burger ( $\mathrm{n}=558$ )

The second burger shown was the Greek themed burger, seen in figure 34 below. The burger has a spiced lamb patty and is served on a Kaiser bun. The toppings are lettuce, tomato, cucumber, red onion, tzatziki, feta cheese and harissa mayonnaise.


Figure 34. Greek themed burger

In the results from respondents shown in figure 35 below, a clear majority thought the burger looked good or great. Significantly less believed it did not look that good.


Figure 35. Rating of Greek themed burger ( $\mathrm{n}=557$ )

The third burger presented was the Australian themed burger, seen in figure 36 below. The burger was made with a seasoned beef patty and served on a sesame seed bun. It is topped with lettuce, tomato, cheddar cheese, grilled pineapple rings, bacon, red onion, a fried egg, pickled beet slices, and a chili mayonnaise.


Figure 36. Australian themed burger

When asked to rate the Australian themed burger, as seen in figure 37 below, most respondents were positively drawn to the burger. While some were indifferent, only a few did not like the burger.


Figure 37. Rating of Australian themed burger ( $\mathrm{n}=558$ )

The fourth burger shown was the Cuban "Frita" burger, as seen in figure 38 below. The burger has a spiced beef \& pork patty and is served with a brioche bun. The burger is topped with lettuce, onion, shoestring fries, and a spiced ketchup.


Figure 38. Cuban "Frita" burger

When presented to the respondents, as seen in figure 39 below, most of the respondents gave a positive rating of it. Less than $20 \%$ felt it was not an appealing burger.


Figure 39. Rating of Cuban "Frita" burger ( $\mathrm{n}=559$ )

Next the respondents were presented with the Korean themed kimchi burger, as seen in figure 40 below. It is made with a spiced beef patty and served with a sesame seed bun. It is topped with kimchi, cheddar cheese, avocado, coriander, a fried egg, and a spicy mayonnaise.


Figure 40. Korean themed kimchi burger

When asked to rate the Korean themed kimchi burger, as seen below in figure 41, over $50 \%$ liked the idea of the burger with $1 / 4$ feeling indifferent. Almost $1 / 4$ also felt it did not sound appealing.


Figure 41. Rating of Korean themed kimchi burger ( $\mathrm{n}=559$ )

The sixth burger offered to the respondents, as seen in figure 42 below, was the Italian themed caprese burger. It was made up of a seasoned beef patty served on a ciabatta bun. It was topped with pesto, mozzarella cheese, tomato, basil, pine nuts, and a balsamic reduction.


Figure 42. Italian themed caprese burger

In response to being presented this burger, as seen below in figure $43,2 / 3$ of respondents gave a positive rating of the burger. $20 \%$ were indifferent about it and a relatively small amount found it not appealing.


Figure 43. Results of Italian themed caprese burger ( $\mathrm{n}=559$ )

Burger number 7 shown to the respondents, as seen below in figure 44, was the Danish "bøfsandwich" burger. Containing a seasoned beef patty and a sesame seed bun, it is topped with ketchup, mustard, remoulade, pickles, raw onions, grilled onions, and crispy fried onions. It then has a brown gravy poured over the entire burger.


Figure 44. Danish "bøfsandwich" burger

The results from the survey, as shown in figure 45 below, over half found the burger to be appealing to them. $1 / 5$ remained indifferent about it and about $1 / 4$ found it to not be for them.


Figure 45. Results of Danish "bøfsandwich" burger ( $\mathrm{n}=559$ )

The eighth burger presented was a Hawaiian themed burger, as seen in figure 46 below. It is made with a spiced pork patty and served on a brioche bun. It is topped with lettuce, guacamole, a grilled pineapple ring, pickled jalapenos, BBQ sauce, and a coriander-lime mayonnaise.


Figure 46. Hawaiian themed burger

When asked to rate the Hawaiian burger, as seen in figure 47 below, just over half thought it was appealing, with nearly $30 \%$ being indifferent. Less than $1 / 5$ thought it was un-appealing to them.


Figure 47. Results of Hawaiian themed burger ( $\mathrm{n}=558$ )

The final burger presented to respondents was the American themed BBQ brisket burger, as seen below in figure 48. It is made with slices of smoked beef brisket, served on a sesame bun. It is topped with a smoked sausage (sliced), spicy coleslaw, pickles, and a bourbon $B B Q$ sauce.


Figure 48. American themed BBQ brisket burger

As seen in figure 49 below, over half found this burger to speak to them, with about $1 / 4$ being indifferent. Only $1 / 5$ rated this burger negatively.


Figure 49. Results for American themed BBQ brisket burger ( $\mathrm{n}=558$ )

When asked for any additional comments or suggestions, some of the standout responses mentioned these flavour combinations should be available with plant-based / vegan friendly burger patties, pork as a meat source was not well received, and coriander should be removed (who knew how divided people are on coriander!).

### 6.4 Results

Overall, each burger presented to the respondents was rated at least a "Neutral / indifferent" or higher. None of them significantly scored in the negative half of the scale. Those burgers that contained familiar ingredients found in most local supermarkets scored highly as well as those from cuisines well known to the Finnish palate. When the ingredients were something that people are also familiar with when used in other dishes or regional cuisines, the respondents also scored those burgers highly. When presented with a possible lesser-known style of food, or more specifically the dish the burger was modelled upon, the respondents were more likely to give a negative rating for that burger.

When looking at the first hypothesised point regarding the familiarity of flavours, the point can be considered valid as the respondents chose topping combinations either familiar based on how well they know those cuisines and travel locations, such as Greek/Greece, American/USA, Danish/Denmark, and Italian/Italy. The familiarity of those flavours from other contexts also played a role in their choice to rate those burgers well, such as the Australian or kimchi burgers.

The second point spoke of the willingness of the population to choose these burger choices either as something new or as a way of revisiting past dining experiences abroad. While some of the flavours like the Vietnamese burger may have turned some diners off due to lack of familiarity of the cuisine/dish, the remainder of the burgers indicated that most diners would still give these burgers a try. Even the kimchi burger, which may not appeal to some due to perceived spicey flavors or the unknown of kimchi, it showed that most are still willing to try it. Therefore, the second point can also be considered valid.

## 7 Conclusion

"Don't worry about failure; you only have to be right once."

- Drew Houston, founder \& CEO of Dropbox (A-Z quotes 2020)

Leaning back in your chair, belly full of delicious food. The feeling of that button on your pants about to pop. Almost uncomfortable from all the food you just ate, but extremely satisfied. The thought of eating that last French fry on the plate just makes you queasy. This is that ultimate goal we all want, ultimate and utter satisfaction. Feeling we just got our money's worth eating a well-made, delicious meal we did not have to prepare ourselves. "But did everything live up to my expectations? ... "Was that the right choice of restaurant?" ... "Will I return?" ... "Should I tell my family and friends about it?" ... "Was the owner smart in opening that burger restaurant here in Nummela?"

### 7.1 Key outcomes

The key outcomes for the project objective (PO) were to determine what are the taste preferences and international flavor preferences the local customers of the Nummela area. This thesis has shown that there is a desire to have these cuisines and flavors available in the Nummela area. People are actively going to restaurants, getting take-away, and food delivered on a regular basis. When presented with various international flavor combinations, they overall responded positively to each choice. Comments in the free text portion of the survey seemed to echo "When are you opening?" and "I can't wait to try this!". When looking more specifically at outcomes for the project tasks (PT), certain ones stood out in regard to whether to open the burger restaurant or not.

Project task 1 was accomplished through desktop research. The key things that make a satisfied customer were clearly defined and the methods to be used in testing to the food concepts proved to be effective and the correct choices in later PT's.

Project task 2 was also accomplished through desktop research and the three main components to a burger were explored and ideal choices for each one determined.

PT 3 was the first section to be conducted with primary research. Beginning with a broader spectrum line of questioning, we were able to question and confirm that the local population of the Nummela area does go out for food on a regular basis.

In PT 4 the choices made by local diners were explored. The results showed that based on the format of the restaurant, the local population chooses to enjoy the meal a certain way. The Italian restaurant is a sit-down in-house experience, where the fast food is split between dine-in and take away. The grill kiosks are predominantly take-away, and pizza takes an even $1 / 3$ for each manner of enjoying the food.

Project task 5 was where the respondents were asked to identify what types of meats, cheeses, breads, toppings, and sauces they like to have or would have on a burger. This gave insight to the individual preferences scaled to a selection of the local population. Many of the hypothesised options based upon research were echoed in the results, but many other options came about though options in the survey or free choice options that people added in the comments section. They included alternative versions of some of those already offered (vegan mayo or a portobello mushroom patty) as well as Finnish specific additions like leipäjuusto (Finnish squeaky cheese). Using what was learned in these PT's helped formulate the options we would offer for rating in the upcoming sections.

PT 6 is where we could present the ideas for international themes burgers which would make up the rotating "burger for the month" at the restaurant. During the PT we were able to confirm that while the cuisines represented by these burgers may have stretched all across the globe, the diners were receptive to these ideas and would gladly give them a try.

This gives great insight used in PT's 7 to determine how to tailor the burger restaurant concept to effectively hit the style of experience we want. The ideal setting for the burger is in-restaurant where the meal is at its best, freshly made. The customer also gets the full sensory experience of the smells and sound of burgers cooking and the well-designed cozy interior space or casual patio in which to enjoy. This does not mean take-away, or delivery will be excluded, as that would reduce the customers exponentially. They will be offered but not the main focus of where we want our customers eating.

Finally in PT 8 we can make the recommendations about opening the restaurant or not.

### 7.2 Recommendations

Based upon the research conducted and the results received, the following recommendations are made regarding the opening of a premium hamburger restaurant in the Nummela, Finland area:

1. The local population of the Nummela area is very receptive to the concept of a premium hamburger restaurant. As there is not anything like this in the surrounding area, they have no other choice but to travel to the Helsinki capital region should they want this experience. This is not always an economical choice for most and would likely lead them to choosing something else local instead when thinking about a meal. Therefore, opening this restaurant in this geographic location is highly recommended.
2. The costs associated with opening in this geographical location as compared to the Helsinki capital region are substantially less. The customer base is also large enough to support the business operations in this location. This makes the location for the business highly practical and inviting.
3. While there are other restaurants that serve hamburgers on their menus, they are all of the standard basic hamburger or cheeseburger variety. Distinguishing the restaurant as something more than those type of burgers puts it in a whole different category of restaurant. Even though there is perceived competition for this restaurant, as it will be the only premium hamburger restaurant in the area there is no immediate direct competition.
4. Giving the diner choices between pre-selected topping choices, regular and premium options, alternative protein choices, a rotating burger of the month and the ability to create their own burger from a list of options makes the customer feel like they are a chef and can have it any way they want. This will also prevent diners from getting bored with the menu as there are an infinite number of different combinations they can create for a burger.
5. While there is currently no trained chef with the group interested in opening the restaurant, the survey being presented to the local population lead to an individual who has chef training and already runs his own home-based burger catering busi-
ness. The individual has reached out to the author and talks are underway to collaborate on this project. This partnership should be fully explored and is highly recommended for the success of the restaurant.
6. At the time of writing this thesis, the Covid-19 pandemic has a tight stranglehold on the entire world. While the numbers of daily cases in Finland is dropping at the moment, we do not know what the immediate future holds. There are constantly news stories coming out of different, often long-standing restaurants around the country which are being forced to downsize or outright close their doors because of Covid19. To open a restaurant at this immediate time is not recommended. As the plans are valid and not so time sensitive, the planning stages can continue, but further steps to open the doors should not be pursued at this immediate moment.

### 7.3 Reflection on learning

The process of writing this thesis has opened the author's eyes to what it takes to open a restaurant in Finland. The author has a strong entrepreneurial understanding gained through all the courses in the GloBBA program, specifically within the major of entrepreneurship. They have allowed the author to establish another business, an importer and retailer of cars and trucks from Canada and the USA. While the process of researching seemed to be tedious at times, and sometimes I felt as though a single paragraph took me hours to write, once reaching the stages of designing the survey and conducting the research, the author got a sudden resurgence of energy towards the project. When the survey went out for people to respond, the author worried about the numbers they would get. Even if they only got 50 people, the author would be happy with it and make the best of the data received. They were in for a shock! When less than a week later the survey neared the 300 mark, the author was beside themselves with awe. By the end, the total reached just over 500 respondents, and this made the author ecstatic. This them to really dive back in about the concept of this restaurant and want to move forward with it. Having the chef reach out and want to collaborate on the project has really solidified the author's desire to see this project though. Once we can realistically move forward when the Covid19 situation allows, the author honestly cannot wait to focus their energy on this.

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## Appendices

## Appendix 1. List of abbreviations

| USFDA | United States Food \& Drug Administration |
| :--- | :--- |
| HACCP | Hazard Analysis and Critical Control Points |
| HR | Human Resources |
| HRM | Human Resources Management |
| IT | Information Technology |
| APR | Annual Percentage Rate |
| MVP | Minimum Viable Product |

## Appendix 2. Webropol survey

## Hey Nummela, what would you like on your plate?



Hello!

Thank you for taking the time to fill out this survey about food preferences in the Nummela area. I would like to quickly introduce myself and what I am doing

My name is Eric Masterson. I am completing my bachelors degree in International Business at Haaga-Helia University of Applied Sciences. My chosen field of study is entrepreneurship, as I wish to open my own business here in Nummela.

My plan is to open a premium hamburger restaurant in Nummela, as there currently isn't anything like this. I believe that we deserve somewhere to get a great burger for a great price. Somewhere where friends can meet for a meal, or where you can get take-away for the whole family.

This survey will provide the research for my thesis. It will ask about the restaurant concept, your restaurant choices, your taste preferences, and international hamburgers. All data provided will remain confidental, only to be used for my thesis. No names will be attached to the data. Everything will be used as anonymous sources.

To say thanks for filling out this survey, please enter your name and e-mail at the end of the questions for a prize draw. There will be a $50 €$ gift card for the S-Group awarded to one participant.

I look forward to seeing you at the restaurant once it opens!

Best regards,
Eric Masterson

Click here to send me an e-mail if you have any questions.

## THE RESTAURANT

## CONCEPT

I would like to first tell you about the concept for the restaurant. Please read the text below. After that answer the questions regarding your feelings towards the planned restaurant.

Plans are in process to open a new hamburger restaurant in Nummela. The restaurant will serve premium burgers perfectly cooked in a charcoal oven. This gives the burger that amazing smoky flavor but also keeps the meat juicy and mouth-watering!


Carefully selected topping combinations will be served with high-quality meats on freshly baked buns. In addition, we will offer alternative bun options such as gluten-free, keto and bunless (lettuce wrap).

The menu will contain six burger options:

- Our signature burger (beef patty, cheese, ketchup, onion, pickles)
- Deluxe burger (bigger beef patty, more toppings / premium toppings)
- Chicken burger
- Vegan burger (with plant-based patty)
- Rotating burger of the month
- Build your own burger

Because burgers can't be eaten alone, we will offer triple cooked fries. All hand-cut in-house daily!


For those who wish something a bit more, we will also offer sweet potato fries and
Poutine. Poutine is a French-Canadian delicacy that is made with our fresh-cut fries covered with cheese curds and smothered in a rich gravy. I guarantee you will love it!


To wash down the burger and fries, we will offer premium soft drinks, and once the rights are received, beer and wine.

For those with a sweet tooth, we offer s' mores. Crunchy graham crackers topped with rich Fazer milk chocolate and fluffy marshmallows torched to order for that gooey goodness (also available gluten-free).


All these delights served in a friendly, warm and inviting atmosphere. Filled with good vibes, good music and great food!


NOTE: Conceptual photo. Not actual design of restaurant.

1. Would you visit this restaurant?


No, I won't.
Unsure if I Maybe. I might try it. Definitely! will.

## RESTAURANT CHOICES

Secondly I would like to ask about the choices you make about food on a regular basis, mainly about eating food you haven't had to cook yourself.
7. How many days on average do you visit a restaurant / get take away / delivery food in the Nummela area?Rarely / neverOnce a month2-3 times per monthOnce a week or more
9. What type(s) of food do you normally have when eating at a restaurant/ getting take away / delivery in the Nummela area? (select all that apply)Pizza / kebab (e.g. Ismet *, Formula pizza * , Grande Famiglia *)Fast food hamburgers (e.g. Hesburger ${ }^{\text {® }}$ )Italian (e.g. Rosso ${ }^{\text {a }}$ )Chinese / Sushi (e.g. Heng Feng *, Sushi Like ${ }^{*}$ )Fried chicken (e.g Chitir Chicken $\circledR$ )Indian / Nepalese (e.g. Bihani (®)Sandwiches (e.g. Subway ${ }^{\circledR}$ )Grill kiosk (e.g. AG-grilli ${ }^{\circledR}$ )Finnish food (e.g. Klassikko ${ }^{\circledR}$ )Soup / salad (e.g. II Punto®)Café food (e.g. Tuusan Tupa ${ }^{\circledR}$ )Grocery store (service counter or in-store ready to eat food)Other (please specify)

## THE FOOD

## TASTE PREFERENCES

In the next section I would like to know about your taste preferences. Please take a look at each section below and select ALL of the options you would possibly eat on a burger by clicking the photos.

NOTE: These are NOT meant to all be on the burger at the same time. This is to find out what you already eat on, or you would try on your burger.

## 11. MEAT / PROTEIN CHOICES


12. BUN CHOICES


Sesame


Keto


Pretzel


Brioche


Sourdough


Whole grain

13. CHEESE CHOICES

14. TOPPING CHOICES



Fried Egg
15. CONDIMENT CHOICES

$\square$

## INTERNATIONAL BURGERS

Here are some international burgers that could be offered as our rotating "burger of the month". Please read the description of ingredients and toppings on each burger, then give your opinion regarding each of them.

Vietnamese bánh mì burger


This burger is made with a spiced pork patty and served on a French baguette style bun.

## Topped with:

- Pickled carrot and daikon
- Coriander
- Fresh chili
- Cucumber
- Pâté


## - Chili mayonnaise

17. How does this burger sound to you overall?
O


Not good at
all.



Neutral /
Indifferent


That looks good.


I'll order one right now!

Greek burger


This burger is made with a spiced lamb patty and served on a kaiser bun.

Topped with:

- Lettuce
- Tomato
- Cucumber
- Red onion
- Tzatziki
- Feta cheese
- Harissa mayonnaise

18. How does this burger sound to you overall?
$\bigcirc$

Not good at all.

It seems a bit weird.

Neutral / Indifferent

That looks good.
00
I'll order one right now!

Australian burger


This burger is made with a seasoned beef patty and served on a sesame seed bun.

Topped with:

- Lettuce
- Tomato
- Cheddar cheese
- Grilled pineapple
- Bacon
- Red onion
- A fried egg
- Pickled beets
- Chili mayonnaise

19. How does this burger sound to you overall?


Cuban frita burger


This burger is made with a spiced pork \& beef patty and served on a brioche bun.

Topped with:

- Lettuce
- Onions
- Shoestring fries
- Spiced ketchup

20. How does this burger sound to you overall?

Not good at all.

It seems a bit weird.

Neutral / Indifferent

That looks good.
00
I'll order one right now!


This burger is made with a spiced beef patty and served on a sesame seed bun.

Topped with:

- Kimchi
- Cheddar cheese
- Avocado
- Coriander
- A fried egg
- Spicy mayonnaise

21. How does this burger sound to you overall?

Not good at all.

It seems a bit weird.

Neutral / Indifferent

That looks good.
00
I'll order one right now!


This burger is made with a seasoned beef patty and served on a ciabatta bun.

Topped with:

- Pesto
- Mozzarella cheese
- Tomato
- Basil
- Balsamic reduction
- Pine nuts

22. How does this burger sound to you overall?


Not good at all.


It seems a bit weird


Neutral /
Indifferent


That looks good.

Danish bøfsandwich


This burger is made with a seasoned beef patty and served on a sesame bun.

Topped with:

- Ketchup
- Mustard
- Remoulade
- Pickles
- Raw onions
- Grilled onions
- Crispy fried onions
- Brown gravy poured over the burger

23. How does this burger sound to you overall?

Not good at all.

It seems a bit weird.

Neutral / Indifferent
$\bigcirc$

That looks good.
 right now!

Hawaiian burger


This burger is made with a spiced pork patty and served on a brioche bun.

## Topped with

- Lettuce
- Guacamole
- Grilled pineapple
- BBQ sauce
- Pickled jalapenos
- Corriander-lime mayonnaise

24. How does this burger sound to you overall?


Not good at all.


It seems a bit weird.


Neutral / Indifferent


I'll order one
right now!

American BBQ brisket burger


This burger is made with smoked beef brisket slices and served on a sesame seed bun.

Topped with:

- Smoked sausage
- Spicy coleslaw
- Bourbon BBQ sauce
- Pickles

25. How does this burger sound to you overall?


Not good at
all.


It seems a bit weird.


Neutral / Indifferent


That looks good. right now!
26. Do you have any comments about these burgers shown above?
$\square$

## DEMOGRAPHICS

Finally I need some background information about you. This data is only used to categorize your responses.
27. What is your gender?FemaleMaleOtherPrefer not to answer
28. What age group do you belong to?Below 1515-1819-2425-4445-64Over 65Prefer not to answer
29. Are you:Living aloneLiving with parentsMarried / common-lawCo-inhabitingOther (optional reply box provided)
$\square$Prefer not to answer
30. How many persons are in your household?

|  | 1 | 2 | 3 | 4 | $\geq 5$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Adults |  |  |  |  |  |
| Under 18 |  |  |  |  | $\bigcirc$ |

31. What is your employment status?StudentEmployed (full-time)Empoyed (part-time)Self-employedUnemployedRetiredOther (please specify)Prefer not to answer
32. What is your monthly household NET income level?Less than $500 €$500-999€1.000-2.999€3.000-5.999€$6.000-9.999 €$$10.000 €$ or morePrefer not to answer
33. What is your home address' postcode?
$\square$
34. (OPTIONAL)

If you want to participate in the draw for a $50 €$ gift card to the S-Group, please enter your details below. One (1) winner will be selected at random after the study is completed, and contacted by e-mail.

Name $\square$
Email $\square$

