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What makes a good restaurant? A consultancy service using online consumer reviews.

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Laurea University of Applied Sciences

What makes a good restaurant?
A consultancy service using online
consumer reviews

Zunaira Khan
Degree Program In
Restaurant
Entrepreneurship
Bachelor's Thesis
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Laurea University of Applied Sciences Abstract

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Understanding consumer preferences is the key to success in a rapidly growing restaurant industry. Traditional approaches that rely on consumer surveys and interviews are not plausible in the age of digital revolution, when massive amounts of big data are available in the form of online reviews. However, analysing the huge data is challenging, and few experts are able to extract the needed useful information. A promising approach is to use technology to analyse the consumer reviews and obtain insights that are useful for the restaurant industry.

Technology companies can create efficient data analytical approaches, but lack the ability to interpret these insights in a way that is easily understandable by the restaurant industry. While on the other hand, the restaurant industry fails to recognize the power of consumer reviews that can revolutionize the landscape of food and beverage industry and bring value to their businesses. This thesis seeks a potential business value in interpreting and translating the analysis given by the technology companies to generate useful consumer-related insights for the restaurant industry. The thesis presents a consultancy service business that can translate the insights obtained from the technology-based review analytics for advising the restaurants to improve their consumer experience. The thesis also formulates a detailed business plan of a review-based consultancy company stating the industry, market and customer analysis.

To validate the business idea the thesis conducted a proof-of-concept study in collaboration with a tech company using publicly available consumer online reviews. The results not only validate the business idea but also demonstrate the usefulness of the consultancy service for the restaurant industry. The findings suggest that the key attributes which make a good restaurant are food, staff and service.

The thesis concludes that the consultancy service built on the online
Keywords: data analysis, consumer feedback and opinions, online reviews, restaurant industry

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1 Introduction

Today, the food and beverage industry faces a rapidly-changing environment. The frequent commoditization of restaurants and food-related businesses has intensified the competition. The consumers have increased their expectations and demand improved restaurant services, perhaps explicitly tailored to their taste, style, and needs. Therefore, it has become a fundamental requirement for the restaurants to meet consumer satisfaction and happiness.

The insights lie in a massive amount of online data that are emerging from the restaurant industry nowadays. With the increasing volume and variety of internet users globally, the consumer reviews websites such as Yelp (Yelp. Inc 2004) and TripAdvisor (TripAdvisor 2017) have become useful big-data resources. For instance, the findings from a recent study revealed that the Yelp alone consists of 11,537 restaurants and 229,907 reviews (Luca 2016). Moreover, the TripAdvisor collects more than 600 million consumers reviews and opinions; covering nearly 1.4 million restaurant worldwide (TripAdvisor 2017).

Since it has already been recognized that the big data helped understanding customer preferences for movie recommendation (Bennett and Lanning 2007)- here, it can also be explored into finding the consumers likings for personalizing food experience. This thesis, therefore, foresees an opportunity to find new business values for the restaurant industry from the large data of consumer reviews.

However, due to the enormity of size, unfortunately, a few human brains (e.g., restaurant consultant or managers) alone cannot manually analyze the huge repositories of reviews which are in the form of free texts. A promising approach is to use technology to analyze the human written texts. The technology can be used to train the computers inferring the complex meanings from the reviews,

intelligently. The power of computer that are trained intelligently can transform the data into information, and information into useful insights. This data-driven knowledge deduced from the big-data can better help the restaurants to think beyond current food services and experience. But, the awful hurdle is that how this data-driven analysis can be appropriately used giving value to the food and restaurant business.

The technology companies are passionate about building computer programs to extract insights from the reviews data available online. The companies relish in data and supplement their software with efficient analytical approaches, but, lacks to understand completely, what their clients (here restaurant industry) desire, in other words, the IT company is merely ignorant of the actual business needs of the restaurants. While on the other hand, restaurant industry lacks to recognize the power of consumer reviews that can revolutionize the landscape of food and beverage industry and bring value to their businesses. This thesis seeks a potential business value in interpreting and translating the analysis given by the tech companies, to generate useful consumer-related insights for the restaurant industry. To summarize, there is a strong need for a consultancy service business that can translate the insights obtained from the technology-based review analytics for advising the restaurants to improve their consumer experience.

To conceptualize the business idea of such a consultancy service, three components would be required: (1) online review data of consumers, (2) a tech company that builds the technology to analyze this data, (3) a consultant that converts the analysis into useful insights, (4) the restaurant.

Thus, this thesis presents the business idea of a consultancy company that provides advisory service to restaurants based on the online consumer reviews. The proof of concept POC is done with a publicly

available big data set of online consumer reviews on restaurants. Data analytics are obtained in collaboration with Waazeh.AI, an IT start-up company that focuses on developing technology to support businesses to gain value from the wealth of data available on the internet (Waazeh.AI 2017). Specifically, the start-up is passionate about building computer programs that can analyze online reviews of restaurant consumers. The interpretations of the data-driven insights as an advisory service is done by the author of the thesis.

1.1 Research Methods

This thesis combines quantitative and qualitative research methods to collect valuable data which not only provides a deeper understanding of the target market but also assists in generating a good business plan.

Qualitative research is a type of method where the results are gathered related to observer experiences, life history, feelings or day-to-day behaviors (Glesne 2015). The research method is an interactive experiment as the observer share their stories, experiences, and happenings proactively and explicitly. Nevertheless, the data collector (experimenter) usually put himself in the whole experiment with the observer.

On the contrary, Quantitative research is a type of the method where results are obtained through a principled empirical analysis of observable phenomena using statistical, mathematical, or computational techniques (Given 2008). The goal of quantitative research is to build theoretical models and hypotheses on phenomena. The data measurement is fundamental to quantitative analysis because it provides the necessary connection between empirical observation and mathematical model, thus quantifying the relationships.

Mainly the thesis conducts a survey comprising of important questions to obtain customer insights as a qualitative research method. The questions are designed to assess the importance of online reviews particularly, the value of social media in the age of technology and the demand of an advisory service based on online reviews. The questioned are asked from restaurant owners and managers using an electronic form.

As a quantitative research method, this thesis utilizes a statistical and mathematical model to identify relationships between online consumer reviews and their ratings. The analytical approach is implemented and tested on a public dataset of online reviews by an AI company. However, the results are interpreted by the author to showcase a proof-of-concept study. The consolidated outcome of the entire research aims to evaluate the feasibility of the proposed business idea.

The thesis is organized as follows: Section 2 illustrates the state of the restaurant industry in the age of technology and discusses the importance of online reviews for the restaurants. Section 3 presents the formal business plan with focus on industry, customer and market analysis. Section 4 shows the results and findings of POC study and identifies key advisory topics on which the consultancy service can be built in future. Section 6 summarizes the thought process and learning outcomes in addition to presenting the conclusions.

2 Restaurant industry in the age of technology

According to the US National Restaurant Association report, the restaurant industry reached a sale of nearly \$799 billion last year representing nearly 4 percent of the U.S. gross domestic product, and around 48 percent of total dollars spent on food in the U.S (“RsM” 2018).

Despite industry-wide growth for many years, restaurants face significant challenges in keeping pace in an ecosystem that is growing at a much-accelerated rate than ever before. Emerging consumer tastes and preferences, workforce limitations and strong competition will continue in future and certainly create a deeper divide between successful and failed restaurants. The restaurants that react in a timely, effective manner have an opportunity to flourish, while others may strive to survive.

Consumer choices and buying habits and how consumers purchase their meals has been evolved with the passage of time. Search for convenience has also augmented the continued success of the business.

Technology has become a vital tool for restaurants. The entire industry is undergoing a digital transformation. From quick-serve to fine dining, consumers are using technology to make their buying decisions. Restaurants who are investing in technologies to connect with their consumers are paving the way for success. Many restaurants are utilizing online ordering systems and e-loyalty programs to collect data on their consumers and use that for advertising.

On the other hand, 57% of consumers consider that use of technology in restaurants improves their experience ("Econsultancy" 2010). And while the introduction of apps and chatbots from restaurant chains is already a reality, this only indicates the beginning of how technology will further impact the restaurant industry in the future. It has previously been observed that the restaurants are using numerous technology-enabled services such as voice for payments and billing, wearable technology for staff and robotic service or waitress and virtual reality dining experience.

To put into the context, the technology is transforming almost every industry nowadays, and the restaurant industry is at the forefront. Thus, this thesis proposes a business idea of consultancy service augmented by the technology that enables data-driven analysis of the consumers' reviews.

2.1 Importance of customers online reviews

The Wikipedia defines “a customer review is a review of a product or service made by a customer who has purchased and used, or had experience with, the product or service.” (Wikipedia-contributors 2018)

Before the emergence of the internet (online) technology, customers could review products and services through comment boxes and service helplines. These practices are still in continuation today although online review sites have expanded considerably in contemporary years. Examining online reviews for products (e.g., movies, books, items) has been in practice for decades (Feldman and Sanger 2007). While analyzing consumer reviews on the food experience has gained much attention recently due to the increasing competition in the restaurant business.

There exist two main lines of research that uses consumer reviews. First, the methodological approach that aims to build better computer software to improve the data analytics (Asghar 2016; Xu, Wu, and Wang 2015; Yu et al. 2017; Hitesh Sajnani, Vaibhav Saini, Kusum Kumar , Eugenia Gabrielova , Prमित Choudary 2012). These approaches utilize reviews datasets to show that their computer algorithms predict better analytics as compared to existing algorithms. Though the objective of these studies is to develop better software that yields high accuracy, they fail to address the business side of the problem.

Alternatively, there is a managerial (or consultant) approach that uses the reviews to learn consumer behaviors and expectations (Han et al. 2016). This approach aims to address the business need of food and beverage industry while improving their services (Lei and Law 2015; Yang et al. 2017; Black and Kelley 2009; Parikh et al. 2014; Kim, Li, and Brymer 2016; Hu, Koh, and Reddy 2014). In this realm, a famous study by Harvard Business School finds that positive consumer reviews lead to an increased restaurant business (Luca 2016). Their study also determined whether the online consumer reviews affected restaurant demand and showed the reviews' website (Yelp.com) had formed efficiently a social network where people are encouraged to share their opinions and post detailed reviews rather than just giving ratings alone. Also, the study suggested that online consumer reviews substitute for more traditional forms of reputation. Other studies such as Groupon effect (Byers, Mitzenmacher, and Zervas 2012) and an exploration of why people use reviews (Hicks et al. 2012) suggest similar findings and explore the managerial impact of reviews on the restaurant success.

This thesis adopts the managerial approach to understanding consumer--restaurant reviews and proposes a consultancy service. The idea is validated with a POC study which is different as compared to the recent studies in several aspects: (1) The POC uses a broad set of reviews and restaurant data essentially discovering consumer experiences that are better generalizable and expect to provide results which are more interpretable. (2) This study aims to identify specific business use-cases that will be analyzed by the emerging technology. (3) The thesis interprets the advanced analytics into advisory service. The results and finding obtained from the POC combining of 1, 2 and 3 give confidence and strengthen idea to form a company. Next, the thesis presents a business plan for the company.

3 Business Plan

There exist numerous definitions of a business plan, however, putting in more straightforward terms a business plan is a formal document that states the intended goals of a business and formulates strategies to achieve them. The essential contents of a business plan must include the long and short-term goals, the description of the services rendered to a target market, the industrial and market analysis of the business and finally, all necessary tools and resources employed to reach the initial milestone in the competition with other companies in the ecosystem (Barrow, Colin and Barrow, Paul and Brown 2012). Likewise, the process of formulating a business plan is deemed as narrating a story. The story introduces the background, the business idea, intended goals, presenting the business's components such as marketing, customer segments, target market (Finch 2013, 6). All the sections of the story should be consistent with the intended targets, to keep all plans on track and to achieve the ultimate goal.

Creating a business plan is probably the most crucial step in starting a new business or expanding an existing one. Research has also demonstrated that the lack of a well-documented business plan, results in a higher chance of failure of a company. Making a right business plan is also considered as producing a blueprint helping entrepreneurs navigate through the appropriate direction to reach his destination. It is commonly believed that having a perfect idea does not yield a good business, instead, any idea can be converted into a great business if there is a strong plan on the table (Ries 2011; Kaufman 2012; Brooks 2014).

Moreover, creating a good business plan is an iterative process. According to (Zacharakis, Andrew and Spinelli, Stephen and Timmons 2011, 42), a business plan is "a living document" which should be reviewed and updated during the lifespan of the business. This claim

is plausible because it is difficult to predict that all the plans set forth on a document will happen as proposed.

Lastly but not the least, “the real value in creating a plan lies in the process” (Scarborough, Norman M and Zimmerer, Thomas W and Naumes 1996, 30). In other words, the process of formulating a business plan and continuously improving it is considered as a learning process. While entrepreneurs are required to tackle difficult challenges such as the company ownership, fulfilling the capital requirement and evaluating the right target customer segments.

There are various formats of a business plan (Zacharakis, Andrew and Spinelli, Stephen and Timmons 2011), but some are familiar with many investors and partners and enables them to recognize the fine-grained details which they are soliciting. In practice, the business plans with alternative formats are more likely to be discarded by the stakeholders (Zacharakis, Andrew and Spinelli, Stephen and Timmons 2011, 45). This thesis primarily discussed key components of a business plan such as executive summary, service description, value proposition, core team, success factor, financial assessment, industry, customer and competitor analysis as well as a marketing plan.

3.1 Executive Summary

Consulting2.0 is a next generation consultancy company that provides data-driven advisory services to the restaurants. The company also engages newly emerging IT companies to build artificial intelligence solutions based on the data. The company will operate as bridging stone between the restaurants and IT companies, suitably located in Helsinki city center in the hub of the business district. Zunaira Khan heads Consulting2.0; a restaurant entrepreneur graduated from the Laurea University of Applied Sciences.

3.2 Services

Consulting2.0 aims to bridge the gap between the IT companies and the restaurant industry by taking a consultant approach. For example, telling the restaurant that customers are fond of some particular services which can better help the restaurants to optimize their operations to the customer needs. As the essential services, the company will give consulting to the restaurants identifying factors that can answer the fundamental questions such as:

1. How would a restaurant know what makes the consumer happy, or not happy?
2. What makes the consumers to either recommend or discourage friends and family from visiting the restaurant?
3. What restaurant services, features, and products such as food, service, ambiance, deals/discounts, worthiness or price create an attraction for the consumers?

As IT companies lack to understand completely, the requirements of the restaurant industry, Consulting2.0 will provide advisory service to them as well. Notably, the company will serve to translate the question mentioned above into formal requirements for the IT companies to find answers using the data and technology. Figure 1 summaries the company position and its potential relationship with the key customers and partners

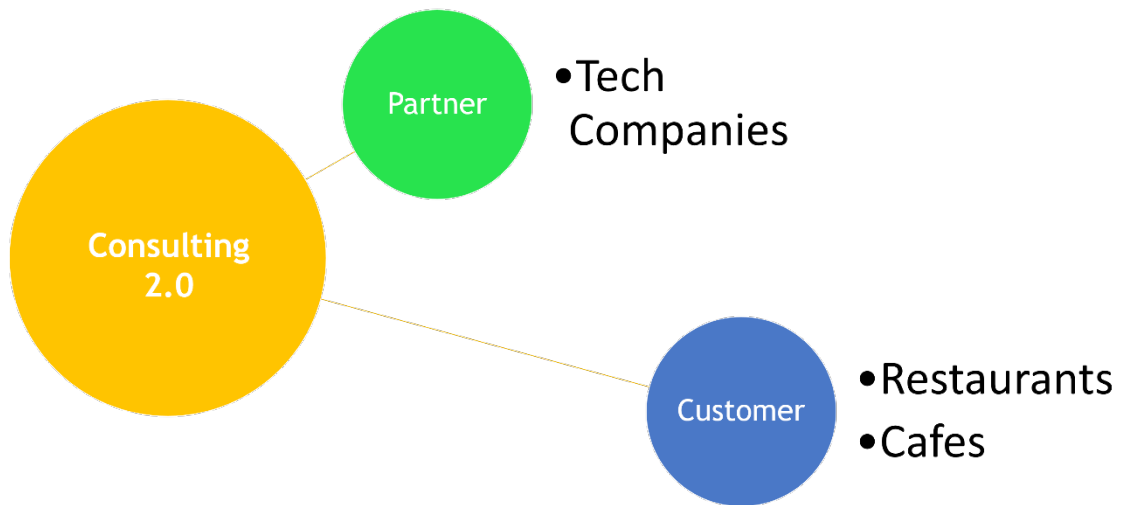


Figure 1: The Consulting2.0 Company, its partner and key customers. Primarily, the tech companies will be the key partners, while the restaurants and cafes will be the prime customers.

3.3 Value Proposition

As a consultancy service, the company will generate value :

- 1) consumers
- 2) restaurants
- 3) restaurant-related tech companies (or data analysis IT companies).

The consumers will get a better food experience (including satisfaction and happiness) at the same or even lesser price. The quality of restaurant operation will improve resulting in increased sales, more consumer base, and popularity. The IT companies will eventually receive more businesses concerning the more demands for their data-driven IT solutions.

3.4 Core Team

Consulting2.0 most valuable asset is the expertise and experience of its founder Zunaira Khan. Ms. Khan possess formal education in

restaurant entrepreneurship and has practical experience of day-to-day operations of a restaurant. Her knowledge and experience will help to design and deliver strategic plans for the consultancy service and to tackle with pressing challenge.

The company will also employ a senior IT analyst who will work with the tech companies to formulate business requirements that will be solved by the tech companies, in addition to evaluating their technological portfolios.

Consulting2.0 will also hire an assistant to help with various administrative duties around the office.

3.5 Success Factor

Consulting2.0 is anticipating unprecedented success due to the various reasons.

1. The company will fill a specific market niche in the intersection of two rapidly-growing industries: restaurant and technology. The rise of big data and artificially intelligent technologies has opened opportunities for new businesses (like Consulting2.0) to generate value for the food and beverage and tech companies.
2. Consulting2.0 will be located in an economically and technologically vibrant area where new businesses are starting at a fast rate. Mainly, technology has been the main export for Finland since a long time, and recently Finnish government took a policy initiative to develop artificial intelligence as an export by 2025, which implies a lot of government and private sector efforts will be placed into this.
3. The core team is highly qualified and skilled in the restaurant business and has good connections in technological industries.

3.6 Financial Assessment

A preliminary economic assessment identified a total of €100K capital to open the company. The money will be utilized for funding expenditures and renting office space, hiring initial employees, marketing expenses and carrying-out day-to-day operation. Particularly, the capital will be used as follows:

- Office space/accessories: €23,000
- Working Expense: €77,000 to pay for marketing, salaries, and lease costs until Consulting2.0 approaches break-even

Summary of financial projections of the company over the next five years are presented in Table 1 and illustrated in Figure 2. It is estimated that the company's revenue will rise from € 79200 in year 1 to € 1485000 in year 5, constraint upon of the number of clients. The company aims to increase the number of clients from 4 in year 1 to 15 in year 5. During the company expansion phase, more employee in particular the consultants will be hired.

Financial Assessment Summary	Year 1	Year 2	Year 3	Year 4	Year 5
Revenue (€)	79200	158400	528000	784080	1485000
Expenses (€)	71280	145728	464640	666468	1188000
Net Profit (€)	7920	12672	63360	117612	297000
Net Profit Margin %	10	8	12	15	20
Full Time Employee	2	3	4	4	5
Full Time Consultants	1	1	2	2	3
Clients Base	4	6	10	12	15

Table 1: Financial assessment forecasting of Consulting2.0 for next five years. The company aims to grow the revenue by selling consultancy service to more clients over the years.

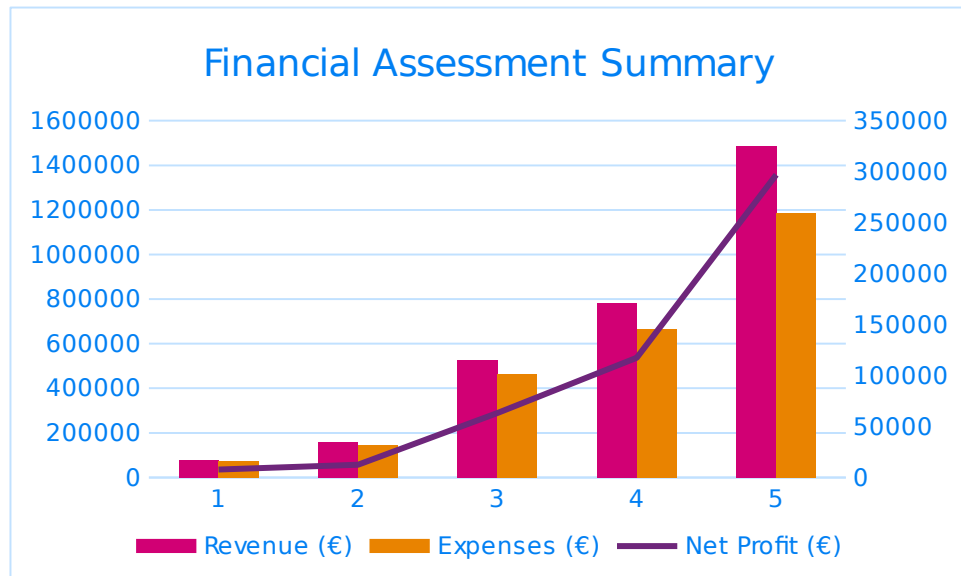


Figure 2: Financial assessment summary of Consulting2.0. As the company gets more clients the percentage difference between total revenue and net profit will increase.

3.7 Industry Analysis

David A. Aaker states in his famous book *Developing Business Strategies* that

“industry analysis is a tool that facilitates a company's understanding of its position relative to other companies that produce similar products or services” (Aaker 1992).

As Consulting2.0 lies at the intersection of three industries namely hospitality (including restaurants, cafes), management consulting and information technology as shown in Figure 3. It is very important to understand the potential economic growth and cost revenue estimates of these industries.

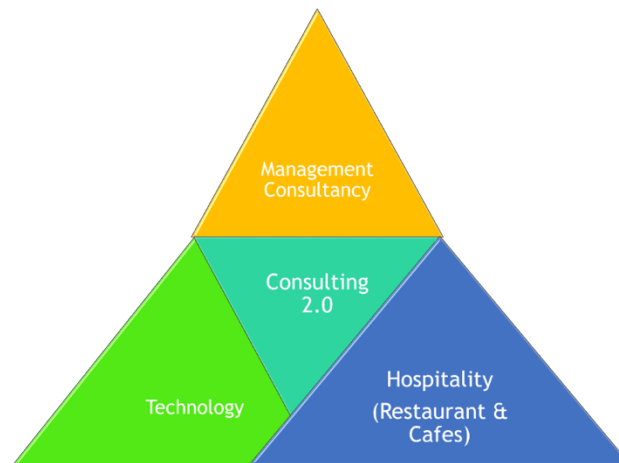


Figure 3: Ecosystem where the Consulting2.0 is interacting with key industries: hospitality, technology and management consulting.

In Finland, restaurants are placed under the hospitality industry along with tourism and leisure service sectors. It has become an increasingly important industry in terms of job creation and employment.

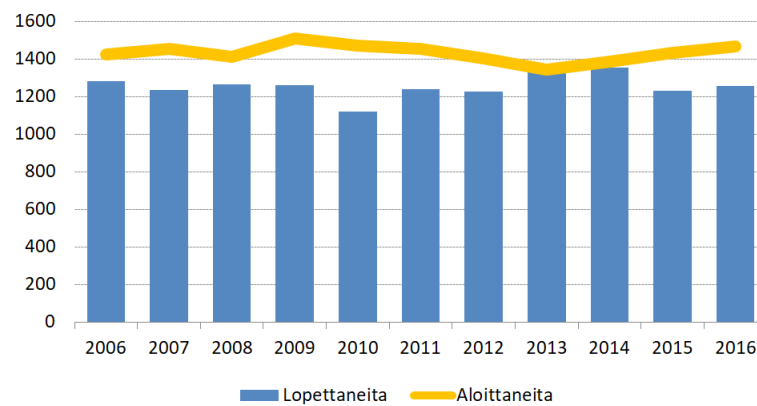


Figure 4: Number of restaurants opened as compared to the number of restaurants that were closed in Finland over the years 2006 to 2016. Lopettaneita (closed), Aloittaneita (opened), Source: ("MaRa" 2018)

The aforementioned figure presents the number of restaurants that were opened and closed from 2006 to 2016. The restaurants started in 2016 were almost 200 more than the number of restaurants that were closed, whereas for the few previous years the number has been nearly even. The figure below demonstrates the total number of

restaurants operating from 2006 to 2016. It is evident that the number of the restaurants has been growing steadily ever since 2006. In 2014, there were 971 cafes around the country, employing 2,372 people and their revenue touched 197 million euro. Fazer Cafes, a large Finnish coffeehouse chain has a yearly turnover of 36 million euro, while their competitor Cafe Picnic makes around 20 million euro annually.

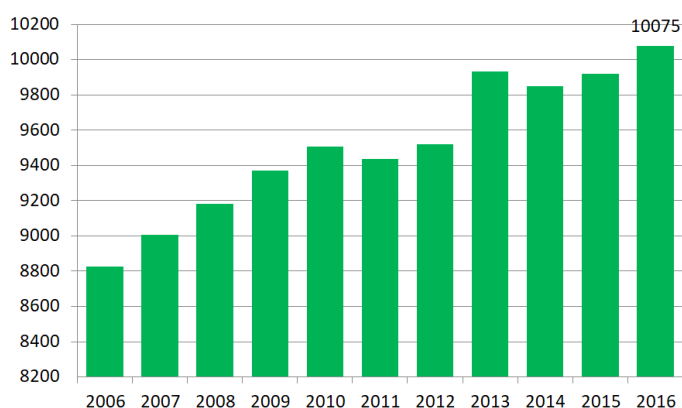


Figure 5: The total number of restaurants operating from 2006 to 2016, Source: (“MaRa” 2018). It is observed that the restaurant industry is flourishing in Finland as new restaurants are continuously opening.

The overall revenue of the Finnish hospitality industry amounts to 14.2 billion euros, accounting for 3.8% of the country's GDP, which is higher than banking and insurance or the forest industry. The businesses in the hospitality sector generate over €5.2 billion a year in taxation which is 5.4 % of the total taxes and tax-related fees collected by the Finish government. It is a leading industry for Finland, engaging more than 140,000 individuals, counting for 11 % of the million people employed in the private service sector.

On one hand, the consulting industry of Finland is also growing at a faster rate. The Finnish consulting industry amounts for more than 450 million euros which makes up 16% of the Nordic region’s revenues. The revenues in 2017 grew sharply from 1.9% to 6.8% as seen from the Figure 6.

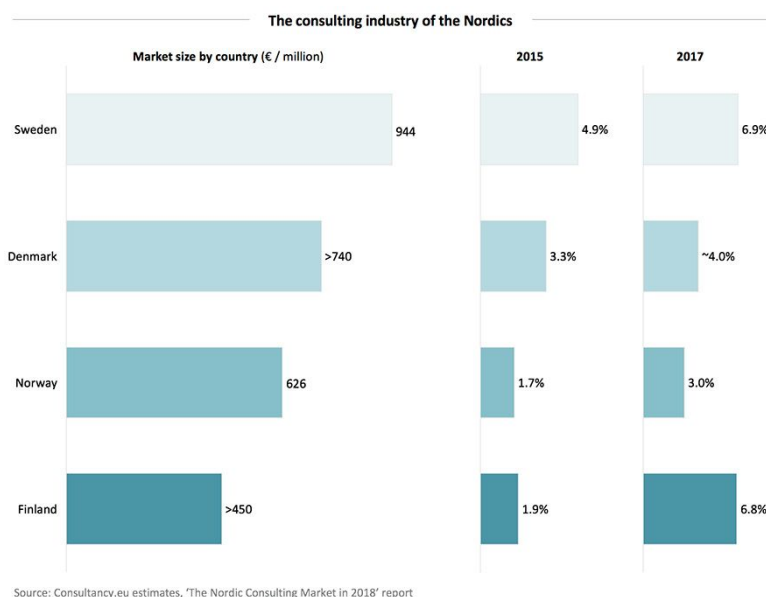


Figure 6: The consulting industry of the Nordics, Source: ("Cosnultancy Europe" 2018). The Finland consulting industry revenue increases from 1.9% to 6.8%.

On another hand, Information technology IT is an industry of enormous strategic importance for Finland. The Finnish government is putting systematic efforts for the development of new technologies fostering big data and artificial intelligence AI. The goal is to become a leading nation to export AI augmented technologies by 2025. Currently, the IT industry's enterprises in Finland engage 48,000 people and have a combined turnover of 7 billion euros ("Technology Industries of Finland" 2018).

These market analysis trends clearly demonstrate that these industries will have a prominent impact on the economic growth of the country, strongly favoring the proposed business plan and colossal success of the Consulting2.0 company.

3.8 Customer Analysis of the Restaurants

Consulting2.0 will be a consultancy service company which will use online reviews data to advise restaurants on how they can improve their consumer experience. Consulting2.0 will target restaurants that have a presence on the social networking sites such as TripAdvisor or

Yelp and primarily the focus will be on the surrounding area of Helsinki, Espoo, and Vantaa districts.

The precise classification of the restaurants based on the type of food they serve are illustrated in Figure 7. The top 5 categories of food include Local Cuisine, Cheap Eats (Fast-Food), Moderately priced, Pizza and Fine Dining.

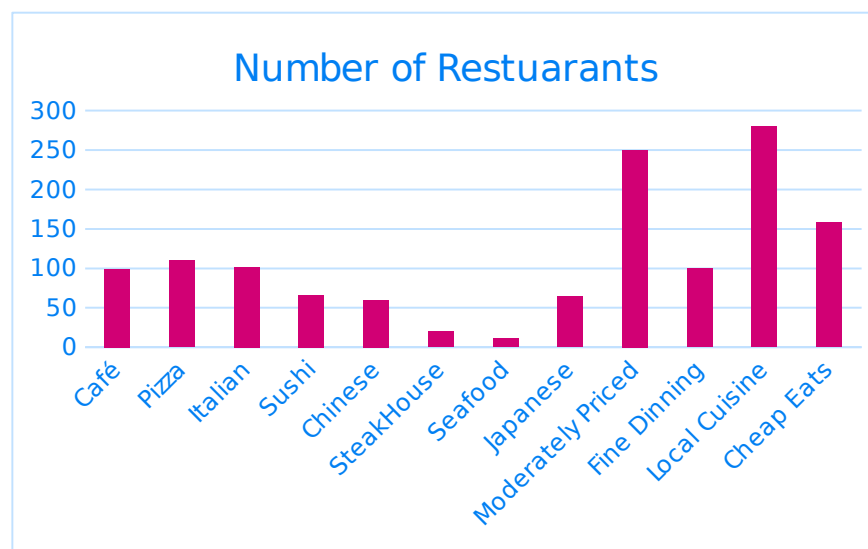


Figure 7: Number of restaurants classified based on the type of food, they serve (TripAdvisor, 2017). Local Cuisine, Cheap Eats (Fast-Food), Moderately priced, Pizza and Fine Dining are the top 5 categories of restaurants.

3.8.1 Customer Segmentation

Principally, customer segmentation in its extended context means

“partitioning of customers into segments, within which customers of similar needs are likely to exhibit similar behaviour and hence to respond alike to the marketing mix...” (Weinstein 2013)

The company will primarily target the three customer segments as shown in Figure 8 and discussed below.

1. Fine Dining

According to Cambridge Advanced Learner's Dictionary and Thesaurus, Cambridge University Press, the fine dining is defined as

“a style of eating that usually takes place in expensive restaurants, where especially good food is served to people, often in a formal way...”.

In other words, Fine dining restaurants, also known as white tablecloth restaurants, are typically expensive and lavish restaurants. As opposed to fast food, cafes or family-style restaurants, fine dining caters to upscale customers and aim to provide the most exceptional quality of food. An excellent dining restaurant has a calm and quiet atmosphere and has an elegant menu. Fine dining restaurants are usually characterized by the high degree of three factors namely food, decor and customer service. These types of restaurants are the apparent customers of Consulting2.0 since they require continuous advise maintaining their standards and full fill the needs of the restaurant clients. It is imperative for them to know what consumers think of their restaurants. As high price raise the expectation of the consumers, such restaurants seek value in understanding the expectations.

2. Local Cuisine

A local cuisine is a type of restaurants whose style of cooking is characterized by peculiar ingredients, techniques, and dishes, that is usually associated with a local culture or region (Laudan 2013). There exists a strong competition between local cuisine restaurants as these are usually many more in numbers and offer more or less the similar dishes. Consulting2.0 seek value in giving consultancy to these restaurants based on their online reviews to help them improve the customer base and consumer experience.

3. Cheap Eats or Fast-Food Restaurants

“A fast food restaurant, also known as a quick service restaurant (QSR) within the industry, is a specific type of restaurant that serves fast food cuisine and has minimal table service”....(Harbury 2004)

Cheap Eats or Fast Food restaurants are generally characterized as the low-priced food (Miller 2014). There lies a challenge for these restaurants to maintain a tradeoff between the minimum quality standard and the price. Since their business model works on the principle of addressing masses by lowering the cost. Consulting2.0 believes that it is very useful for them to get advice or consulting on when and why their quality standards are degrading. What specifically the customers do not like to comprise even with the low price.

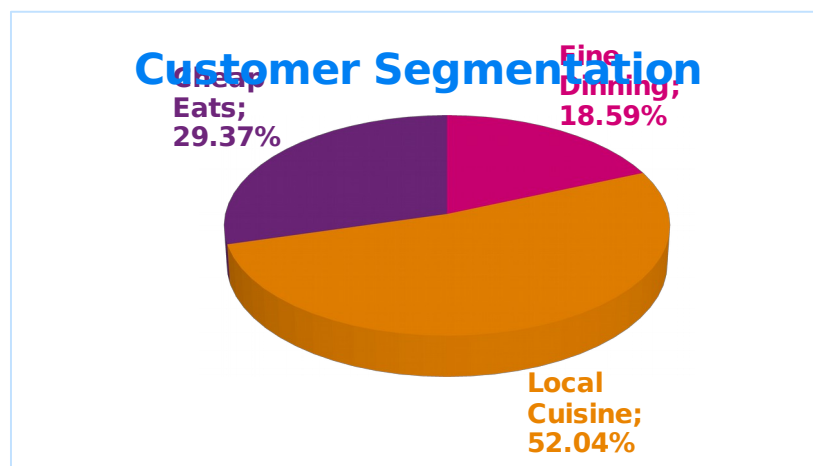


Figure 8: Customer segmentation analysis for Consulting2.0. The primary customer groups include fine dining, local cuisine and cheap eats (fast-food), where the Consulting2.0 will be selling its service.

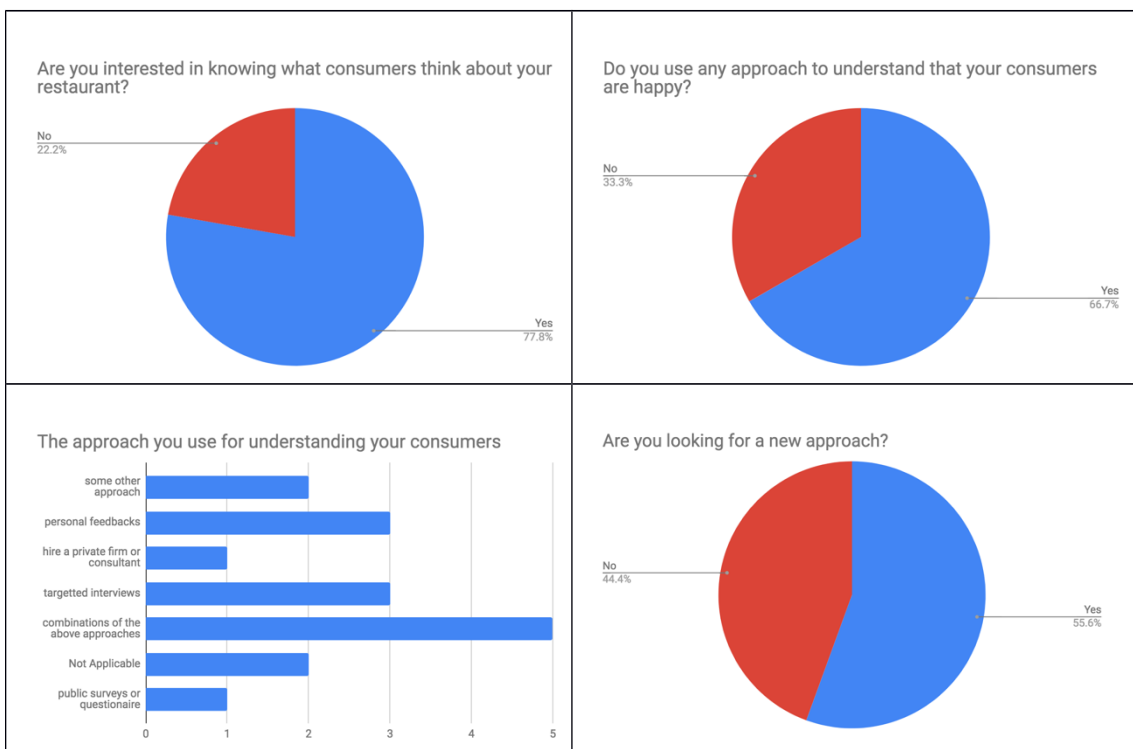
Customer Focus: Restaurants and Tech companies will be the key customers of Consulting2.0. In the first phase, the primary focus will be to serve restaurants and IT companies located in Helsinki and nearby district such as Espoo and Vantaa. In the later phases, the company will expand services to other cities in Finland followed by the expansion to Nordic countries and world-wide.

3.8.2 Customer Insights

“A customer insight, or consumer insight, is an interpretation of trends in human behaviors which aims to increase effectiveness of a product or service for the consumer, as well as increase sales for mutual benefit.” (Klepik 2014)

To gain customer insights on the proposed business idea, the thesis conducts a electronic survey requesting the restaurants (owners or managers) to give their answer on a specific set of questions. The questionnaire is included in Appendix 3 of this thesis.

A total of seven restaurants (located in Helsinki city center) agreed to fill in the survey, whose responses are summarized in the Table 2. The data were collected in accordance with the recent GDPR law by explicitly asking from the restaurants if they would like to participate (opt-in) for the survey or not and their identities are protected under strict confidentiality agreement. Thus, owing to the GDPR and the agreed privacy policy, the identities are not revealed in this thesis.



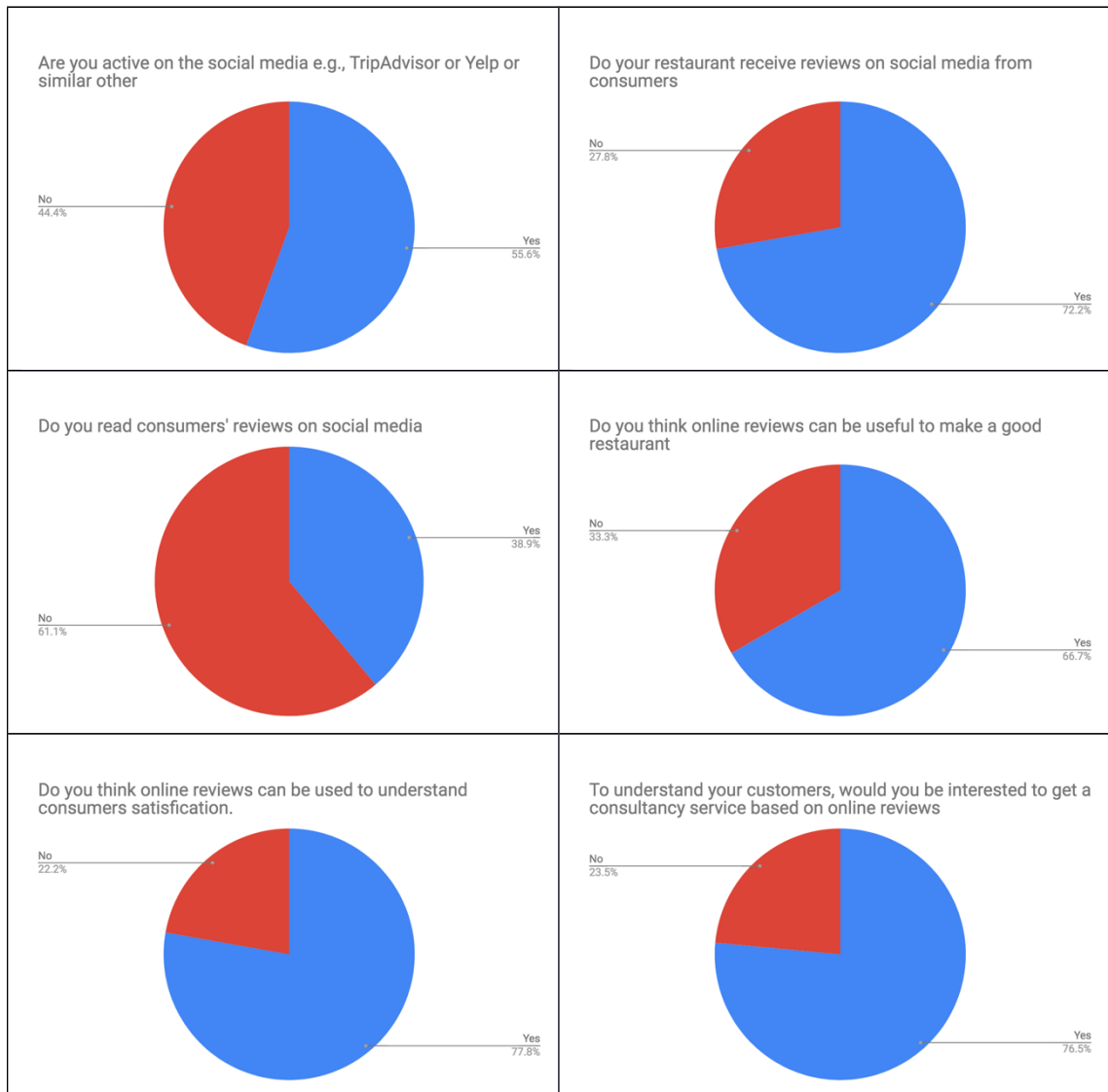


Table 2: Analysis of the insights from restaurant owners or manager on the importance of consumer reviews, social media and a consultancy service based on the online reviews.

The questions were particularly focused on estimating the importance of consumer reviews, social media, and consultancy service based on the online reviews. The analysis of customer insights identified three key observations.

First, 77% of the restaurants (who filled the surveys), are interested in knowing the preferences, satisfaction, and happiness of their consumers. 66% of the restaurants are already using various approaches such as targeted interviews, public surveys, personal

feedbacks and services of a third-party company, to understand the consumers' needs.

Second, more than 70% of the restaurants receive reviews on social media, of which ~55% have a presence on famous hospitality and tourism sites such as TripAdvisor and Yelp. Interestingly 55.6% of the restaurant are looking for new approaches to understand the consumers' preferences better. However, it was noticed that 61.1% of the restaurants do not read their reviews. This observation generated two hypotheses: (1) It may be because of the enormous volume of these reviews which cannot be interpreted by a human brain, or (2) their lack of attention to the value that these reviews can bring to their business. It turns out that the second hypothesis was rejected by gaining evidence from the answers of the last three questions and are discussed below.

Third, more than 70% of the restaurants realize that online reviews can be used to understand online consumers reviews and would be interested in using a consultancy service that essentially utilizes online reviews to advise how to make a good restaurant. This analysis validates the hypothesis that these restaurants do comprehend the importance of online reviews but neither have the expertise nor resources to analyze these reviews in-house.

Hence, the customer insights obtained from this survey validates the value proposition of the proposed business idea.

3.9 Competitive Analysis

According to Entrepreneur Europe's encyclopedia, the competitive analysis means

“identifying your competitors and evaluating their strategies to determine their strengths and weaknesses relative to those of your own product or service” (“Competitive Analysis” 2010)

Consulting2.0 competes directly with any company that provides advisory services to restaurants based on data-driven analysis of the online reviews. While the company competes indirectly with any company that provides advisory services to restaurants other than the data-driven analysis. Such companies (“VSAG” 2009, “MBB” 2011, “SynergyConsultants” 2013) use traditional approaches such as surveys, targeted interviews, and other research-based techniques to infer what the customers feel about the restaurants. Based on their experience and expert opinion they formulate the guidelines to improve restaurant service. Though this approach is still applicable however requires much effort and cost and huge involvement of human resource.

On the contrary, the Consulting2.0 approach is more advanced and uses state-of-the-art artificial intelligent technologies to extract useful information from the online reviews. This can be seen as an implicit information gathering approach with negligible human resource and cost. Moreover, the chances of formulating false advice based on incorrect analysis are also minimized.

On the other hand, the IT companies can be regarded as an indirect competitor however since they are not domain experts, their chances to attract business is very less. They would require the expertise of Consulting2.0 in order to gain access to the target market and thus form a partner or collaborator relationship.

There exists no consulting company that is a direct competitor of Consulting2.0 for the case of the restaurant industry. The close matched company is the SNAPSHOT which uses social media data and network to generate profiling information of hotels only (“SNAPSHOT” 2016). Their main product is a business intelligence BI tools which help the hotels to keep track of day-to-day operations using automation.

Compared to the above-mentioned companies, Consulting2.0 has a clear competitive advantage. The company lies at the intersection of the restaurant, the IT and the consulting industries, capturing a very specific target niche. The company generates value for the customer, restaurant owners, and tech companies. The company does not require huge capital investments and can be operationalized with minimum cost.

3.10 Marketing Plan

Consulting2.0 will use numerous strategies to promote its name and develop its brand. By using an integrated marketing strategy, the company will win clients (primarily restaurants and to some extent the tech companies) to create consistent revenue streams.

The company will aim at the unique value proposition: Consultancy service based on data-driven analysis augmented by the artificial intelligent technologies.

3.10.1 Brand Promotion Strategy using Proof-of-Concept study

The company will use the proof-of-concept analysis and results as the prime source of marketing material. The proof-of-concept study is done in collaboration with a tech start-up company using the publicly available online data. The idea is to utilize the results (presented in section 5) of the POC analysis to make marketing material. The material consisting of real analysis not only helps to convince the clients but also clarifies the value for the clients. It is an effective way to conceptualize the whole business idea.

With this marketing material in-hand, the company will make targeted calls, request one-on-one meeting slots with potential clients either directly or through referrals. The company will also use the internet to publicize the brand by writing blogs and sharing the POC results through the company's website.

4 Proof-of-Concept Study

To validate the business idea of consulting service based on a data-driven analysis that is augmented by the artificial intelligent technologies, this thesis conducts a proof-of-concept study using online consumer reviews that are available from publicly available sources. The details of the analysis and practical outcome are discussed in this section.

4.1 Restaurant - Consumer Reviews

Consumer happiness is the prime driver of growth for the restaurant industry. In the age of the digital world, there is an intuitive way to assess consumer satisfaction by analyzing the massive amount of reviews available on the internet. The analysis of reviews can reveal critical factors essential to obtain consumer comfort.

4.1.1 Yelp

Yelp is an American multi-national organization established in 2004 which aimed at assisting people to locate a local restaurant based on reviews and social networking among peers (Yelp. Inc 2004).

The central goal of Yelp is to provide a platform for consumers to write a review along with giving a star-rating. The review can be a short text or free-form comment. Yelp data is authentic, up-to-date and has an extensive representation of multiple types of businesses and brands. Millions of consumers read Yelp reviews moreover, utilize ratings to choose or recommend a particular restaurant.

Studies have shown that restaurant reviews on Yelp have affected the decision-making of consumers on a food choice. For many independent restaurants, a one-star promotion drove to 59% increase in revenue (Luca 2016). With the rapid growth of consumers, the enormous potential of Yelp restaurant reviews has become a valuable insights resource.

The consumer reviews are obtained from the online Yelp Dataset Challenge that contains information for 11,537 businesses. This dataset has 8,282 check-in sets, 43,873 users, 229,907 reviews for these businesses. This thesis is only interested in the restaurant data, and therefore considered only those businesses that are classified as restaurants. This filter reduced the number of business entities to around 5,000 (Hitesh Sajnani, Vaibhav Saini, Kusum Kumar , Eugenia Gabrielova , Prमित Choudary 2012).

4.1.2 TripAdvisor

TripAdvisor, the world's most extensive accommodation and travel destination site enables travellers to experience the full potential of every tour. TripAdvisor provides consumers and travellers with the wisdom of the crowds assisting them to choose where to dine, where to stay and similar other recommendations.

yelp Find pizza, pub, Fox & Hound Near London Sign Up

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Pascal

Unclaimed

★ ★ ★ ★ ★ 21 reviews Details Write a Review Add Photo Share Bookmark

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Send to your Phone New

Henrik Ibsens gate
Nationaltheatret stasjon
Lokkeveien
Map data ©2018 Google

See all 33 photos

Mmmm.. by Maria S.

Shang A.
Oslo, Norway
0 friends
2 reviews

★ ★ ★ ★ ★ 23/11/2017
1 check-in

I love their french macaroons, I have a high expectation with their macaroons and it didnt failed me, level of laduree french macaroons which is one of the best, I had a whole kettled of hot green tea which is good for 2 but I took everything, cozy place for some pastries and afternoon tea, never tried a full meal in this place, it cost around 20kr. If one piece of macaroon (well we live in Norway) so price is normal, but its so worth it.

Was this review ...?
Useful Funny Cool

Ernest H.
Czech Republic
0 friends
1 review
2 photos

★ ★ ★ ★ ★ 20/11/2017

ANALYZED: We've seen this place on yelp but the reviews didn't catch our eyes. My boyfriend and I were looking for a good eat meal and decided to try this place freely. Oh my goodness everything was perfect. We had the spiced face emment salmon sandwich and it was the best meal I've had in Oslo. The portion was generous and the sour cream on top gave it an extra flare. Then we got macaroons and those were decadent! The service was amazing, the two girls that helped us were genuinely nice and helpful. For Norway's standard on prices, I think this place's price is fair. If I could give this place 10 stars I would.

Was this review ...?
Useful Funny Cool

Danie R.
Allston, United States
11 friends
431 reviews
473 photos

★ ★ ★ ★ ★ 9/10/2016
1 check-in

Everything was OK. We got espresso drinks and dessert. It was expensive and good. Everything was served with some kind of raspberry water, which we enjoyed as well. I liked the cheesecake, but it just seemed very small for \$13. I am aware Norway is expensive, but this seemed like a bit too much even for Norway.

Also, No Wi-Fi.

Was this review ...?
Useful Funny Cool

Figure 9: Example of restaurant data from Yelp (Yelp, Inc 2004). The exemplary data includes ratings and reviews.

Although TripAdvisor is mainly a travel and accommodation listing website, it stores more than 600 million reviews and opinions, comprising nearly 7.5 million accommodations, airlines, attractions, and restaurants, while on average getting 455 million unique visitors per month (TripAdvisor 2017).

A review dataset comprising of 18000 restaurants is available for public use. This dataset is a subset of a bigger dataset (more than 1.4

million restaurants) that was created by extracting data from TripAdvisor. In addition to reviews, the data includes detail on country-wise cuisine, rating, ranking, location and many other useful attributes (Prompt-Cloud 2018).

tripadvisor Amsterdam

About Amsterdam Hotels Vacation Rentals Flights **Restaurants** Things to do

Europe > The Netherlands > North Holland Province > Amsterdam > Amsterdam Restaurants > De Silveren Spiegel

De Silveren Spiegel

847 Reviews |
 #2 of 3,473 Restaurants in Amsterdam |
 \$\$\$\$ |
 Dutch, European, Vegetarian Friendly
Kattengat 4-6 | Centrum, 1012 SZ Amsterdam, The Netherlands |
 +31 20 624 6589 |
 [Website](#)

Certificate of Excellence

Overview

4.5 847 reviews

Excellent 80%
Very good 15%
Average 3%
Poor 1%
Terrible 1%

CUISINES
 Dutch, European, Vegetar...
PRICE
 \$\$\$\$

RATINGS
Service Food
Value Atmosphere

LOCATION
 Kattengat 4-6 | Centrum, 1012 SZ Amsterdam, The Netherla...

TRAVELERS TALK ABOUT
 "course tasting menu" (42 reviews)
 "scallops" (41 reviews)
 "loin" (10 reviews)

"Exceeded expectations . . . Every dish outstanding"
 A bitterly cold night in Amsterdam we found a warm and welcoming restaurant full of character. The decor is simple and elegant and the building is left to speak for itself. We chose the five course tasting menu at €62.50 (another €40 euros for the... [More](#)

"Worth a visit..."
 After booking online several months in advance, my husband and I went on a Monday evening in April and chose the four course menu with wine pairing. First bites were good followed by: the crab (artistically presented as a framed photo), the scallop, the beef... [More](#)

Figure 10: Example of restaurant data from TripAdvisor (TripAdvisor 2017). The exemplary data includes ratings, reviews, cuisines and services.

4.2 Analysis of the Consumer Reviews

The data analytics on the review data set will be produced in collaboration with the Waazeh AI, a start-up company focusing on developing computer and data analysis solutions for generating valuable insights and intelligence for businesses and society (Waazeh.AI 2017).

Their SNAP (Social Networking Analytics Platform) is a state-of-the-art opinion mining and text analysis platform, based on natural language processing, machine learning, artificial intelligence and big data. It features mining of social media sentiment about any discussion subject while automatically discovering new subjects on the fly. The system automatically learns the prevailing opinions from the reviews.

The platform is scalable to handle big data and flexible to customization of features and applications. The start-up is very interested in utilizing the SNAP tool for analyzing reviews for the restaurant industry. This thesis will propose specific use cases to analyze the review data where Waazeh can apply, test or even extend the SNAP tool. This thesis will receive data analytics from the Waazeh AI, which will then be interpreted into actionable business strategies for the restaurant.

The company Consulting2.0 will use these results to interpret and understand the analysis given by the technology and translate that into advisory service for the restaurant industry. The results will be used to signify the utility of the propose business idea to the consumers (i.e., restaurants)

5 Results

Data driven analysis generated two types of results. (1) key attributes that are related to all restaurants identified by the global analysis, (2) restaurant specific attributes linked to the consumer feedback on the ratings, food, service and money (value). This section presents these

results and how they can be used in a consultancy service for the restaurants.

5.1 Global Analysis of the Consumer Reviews

The data-driven analysis on the TripAdvisor dataset unveiled interesting patterns from the consumer reviews. The analysis identified 20 different but related topics from the collection of reviews independently. This thesis identifies interesting groups of restaurant attributes from these topics. The findings are summarized in Figure 11 (supplementary S-Figure 1 and S-Figure 2) summarizing attribute groups by their labels. The results suggest that food, staff and service as the leading attributes for the restaurant industry. The ultimate goal is to translate these finding into useful insights and come up with suggestions and guidelines for the restaurants (offered as consultancy). The extracted insights are

1. Consumers particularly like warm, well cooked and delicious food. The taste factor is linked to good starters menu, sauce, steak, and wine. Guest also appreciate the complimentary services in the form of bread and butter, tea, and coffee.
2. Staff is another critical hospitality attribute that is important for the consumer to choose a restaurant. Consumers admire the friendly and helpful staff. Particularly the pleasant welcome by the reception certainly adds to the satisfaction of the consumers.
3. Service matters a lot to the consumers. Restaurants that provide quick delivery the food in minutes after placing the order and do not have to wait longer, are specifically appreciated by the consumers.

4. In addition to these basic and obvious attributes, special food items such as fish, chips, sushi, pizza and wine are other menu items however much needed for the happiness of the guests.

And the subsequent consultancy advises are

1. Food is a vital attribute for the success of a restaurant. It should taste delicious, serve warmly along with complimentary menu.
2. Friendly and helpful staff leaves a good impression on the guests. Restaurant should advise their staff to be welcoming and show hospitality
3. Swift service is the key to success of many restaurants. Guests do not like to wait for long time to get the food.

An expert can also give similar advises based on his experience, but that may be biased by the subjective opinion of the expert. However, the aforementioned insights came from a data driven analysis, and consultancy service based on this analysis is extremely useful for the restaurant as the reviews are directly coming from the consumers and does not reflect any biased opinions.

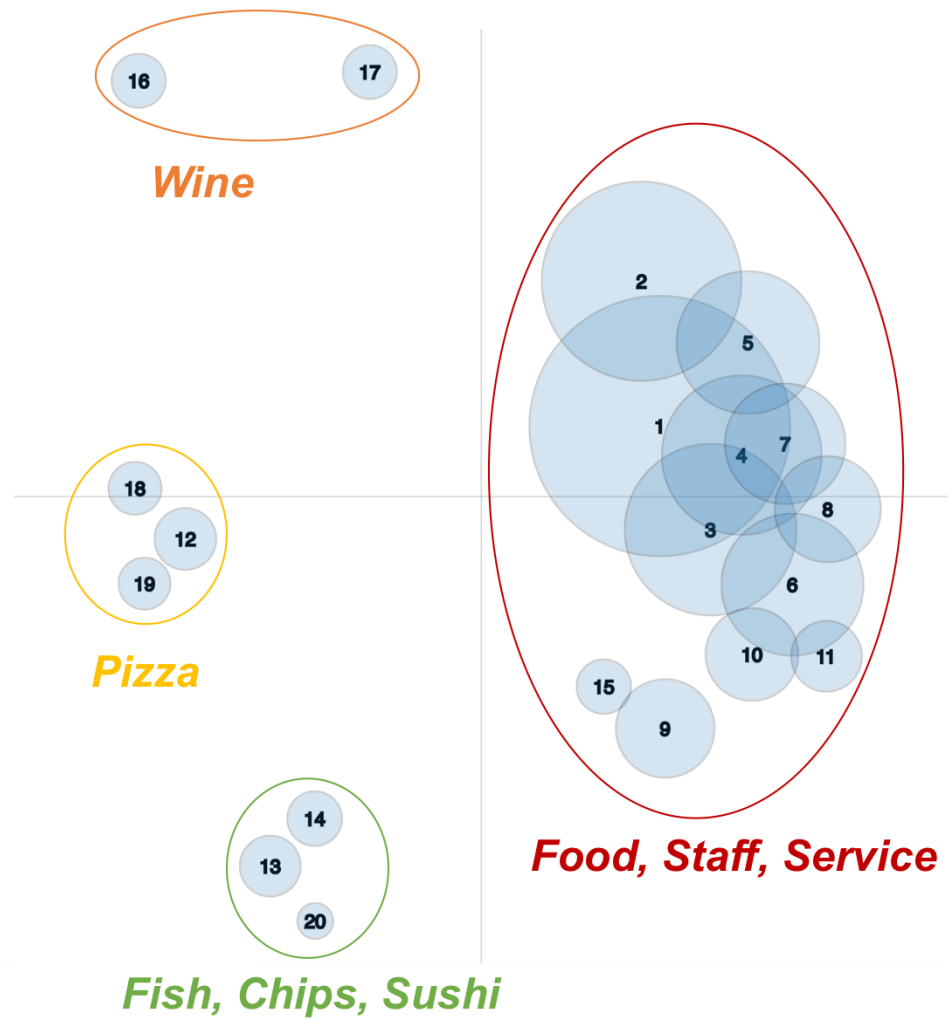


Figure 11: Restaurant attribute identified from the consumers' online reviews. The attributes are divided in four groups. The first and perhaps the largest group identifies food, staff and services attributes, while others three groups signifies special food items such as fish, chips, sushi, wine and pizza.

5.2 Restaurant-specific analysis of the consumer reviews

This thesis next analyses the restaurant attributes and consumers review or feedback and ratings. The goal here is to identify specific restaurants and their associated attributes which are linked to consumer's ratings from 1 to 5, where 1 denote poor rating and 5 represent excellent rating.

In other words, the thesis identifies the relationships between guests' reviews, their ratings and restaurant attributes. The relationships or links are shown in the form of Eye diagram that actually connects restaurant (on left) to the consumer ratings (in the middle; 1 -- 5) and their corresponding reviews mentioning key restaurant related features (on the right). From this analysis, a consultant can extract information on key attributes for a specific restaurant. Knowing these features, a consultant is able to formulate advisory service to that particular restaurant.

Let's assume "TGI Friday's - Convent Garden" restaurant requests for a consultancy service to improve their consumer experience. Figure 12 demonstrate that the restaurant has received 1 (poor) ratings by the consumers, which implies there are certain attributes which consumer don't like about the restaurant. From the Figure 12, the consultant can easily analysed that those attributes are linked to poor food quality, cost and unfriendly staff. Through the consultancy service, the restaurant would be advised to improve its food quality and especially serve properly cooked, warm food, change the attitude of the staff towards more friendliness and adjust the cost of the food so that the consumer deem value in it.

Let's consider an alternative scenario, where "Park Terrace Restaurant Lounge and Bar" ask from the consulting2.0 to provide assessment on why consumers give 5 ratings to their restaurants. Knowing those attributes, the restaurant can further improve their consumer experience and have a positive impact on their business and sales. The consultant can quickly recognise that the key to their success is the hos-

pitality of the staff. Consumers like the delightful, friendly nature of their staff which maintains healthy environment in the restaurant. In addition to staff and service, their pies are also liked by the consumers. The consultancy service would advise the restaurant to keep maintaining the great hospitality attribute as one of the success factor, while improving upon food and other attributes to further increase the consumer experience.

In this way, the restaurant specific analysis of the reviews can be used to build an advisory service, which bring great value to the restaurant industry.

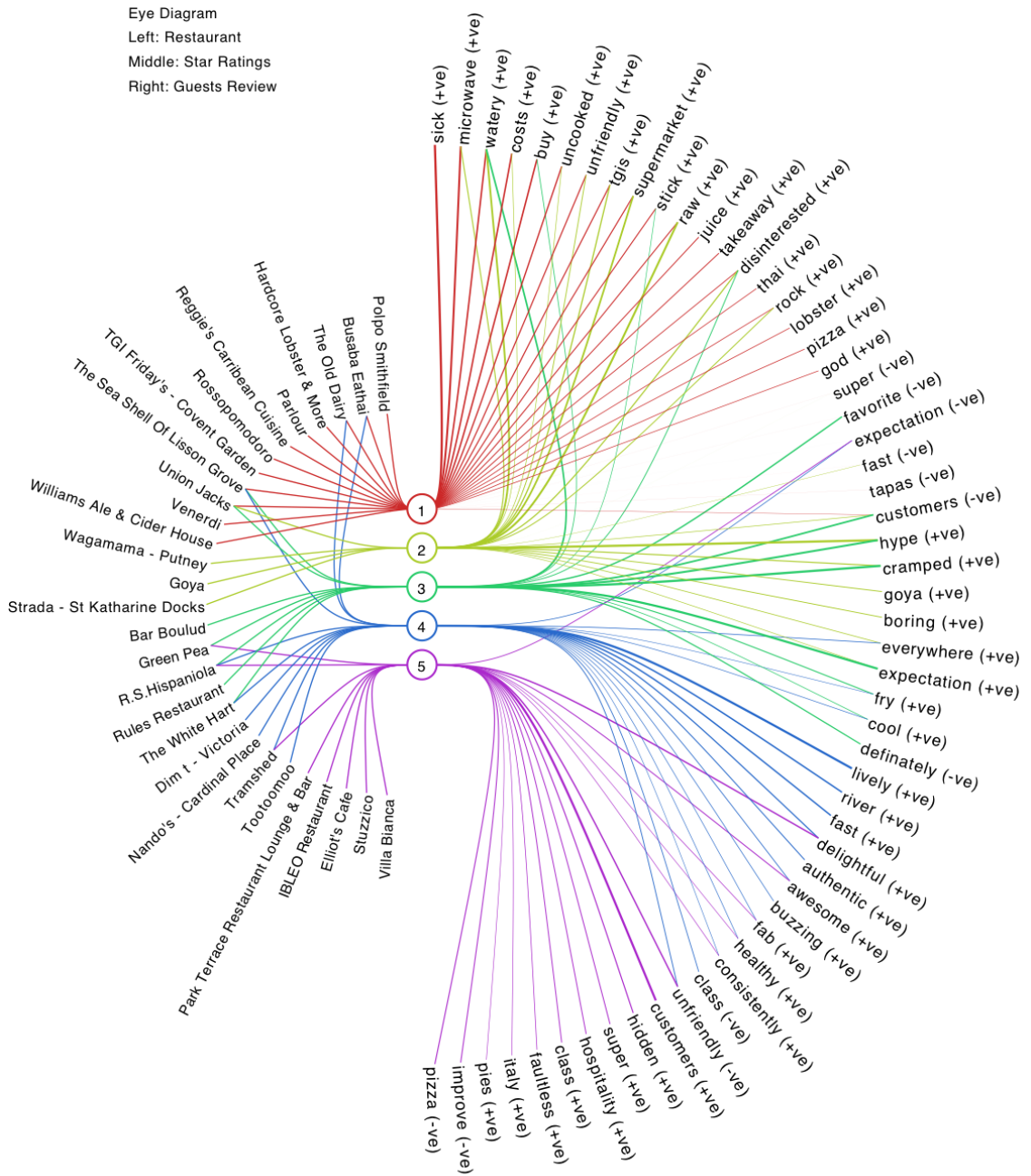


Figure 12: Eye diagram showing relationships between restaurants (on left) and the corresponding attribute from consumers' reviews (on right) and consumer ratings 1-5 (in the middle). See text for more details.

6 Conclusion

6.1 Learning outcomes

The thesis proposed a unique business idea of providing advisory service through data-driven analysis of guest's reviews. The thesis followed a simple thought process. First, the thesis motivated the need to analyze the online guest reviews and identified the business value for the hospitality and accommodation industry that would come by analyzing the guest reviews. Secondly, the thesis described the theoretical framework of big data, computational and statistical methods as well as reasoning the managerial approach to bridge gap between the tech companies and the hotel industry. Third, this thesis presented the results and analysis of a proof-of-concept study validating the whole concept. Finally, the thesis suggested guidelines for the hotel industry that were extracted from the analysis of the online guest review.

This thesis yielded several learning outcomes:

First, it has increased my theoretical as well as practical knowledge in numerous interdisciplinary subjects such as the restaurant industry, data analysis, technology, and consultancy.

Second, while doing this thesis, I learned how to write a business plan for a company. What are the practicalities to consider when starting a new business and how can the challenges be tackled efficiently? How to interact and communicate with customers?

Third, I also discovered how to work in a truly interdisciplinary topic. While doing the POC study, I collaborated with a tech company and learned various new emerging topics in technology (for instance data analysis, artificial intelligence) as well as learned how to transfer domain knowledge on the restaurant industry.

Fourth, I enhanced my skill to become a restaurant consultant that provides consultancy service based on online consumer reviews.

6.2 Summary

This thesis presented an idea of a consultancy service based on the data-driven analysis of online reviews. The thesis also proposed a business plan for a company that would sell this type of consultancy. An indispensable component of the business plan is the customer insights that were obtained through a survey conducted with local restaurants, and their responses validated the significance of the proposed idea.

Furthermore, to show the utility of the business idea, the author (as a future consultant and founder of the Consulting2.0 company) conducted a proof-of-concept study in collaboration with a tech start-up company. The purpose of the POC was to show the practical utility of a consultancy service that is based on the analysis of the consumer reviews.

The POC identified several known key attributes such as food, staff, service that are linked to the success of the restaurant industry. The thesis demonstrated that the consultancy service based on online reviews can better help to understand consumer preferences, and finds answers to questions such as what consumers particularly like or dislike about restaurants, how can restaurants improve their consumer experience and lastly what makes a good restaurant. The business plan and the POC results signify that consultancy service offers excellent value to the restaurant industry.

References

Printed sources

Aaker, David A. 1992. *Developing Business Strategies*. New Jersey, United States: Wiley Publisher.

Asghar, Nabiha. 2016. "Yelp Dataset Challenge: Review Rating Prediction." arXiv:1605.05362.

Barrow, Colin and Barrow, Paul and Brown, Robert. 2012. *The Business Plan Workbook*. London, United Kingdom: Kogan Page Publisher.

Bennett, James, and Stan Lanning. 2007. "The Netflix Prize." *KDD Cup and Workshop*, 26 (5): 3-6.

Black, Hulda G., and Scott W. Kelley. 2009. "A Storytelling Perspective on Online Customer Reviews Reporting Service Failure and Recovery." *Journal of Travel and Tourism Marketing*, 42 (19): 6-8.

Brooks, John. 2014. *Business Adventures: Twelve Classic Tales from the World of Wall Street*. New York, United States: Open Road Media Publisher.

Byers, John W., Michael Mitzenmacher, and Georgios Zervas. 2012. "The Groupon Effect on Yelp Ratings." In *Proceedings of the 13th ACM Conference on Electronic Commerce*, 26 (5): 248-249.

Feldman, Ronen, and James Sanger. 2007. "The Text Mining Handbook: Advanced Approaches in Analyzing Unstructured Data." *Imagine* 34 (5): 410-411.

Finch, Brian. 2013. *How to Write a Business Plan*. London, United Kingdom: Kogan Page Publishers.

Given, Lisa M. 2008. *The Sage Encyclopedia of Qualitative Research Methods*. Washington DC, United States: Sage Publisher.

Glesne, Corrine. 2015. *Becoming Qualitative Researchers: An Introduction*. New Jersey, United States: Pearson Publisher.

Han, Hyun Jeong "Spring," Shawn Mankad, Nagesh Gavirneni, and Rohit Verma. 2016. "What Guests Really Think of Your Hotel: Text Analytics of Online Customer Reviews." *Cornell Hospitality Report* 16 (2): 3-17.

Harbury, Katharine E. 2004. *Colonial Virginia's Cooking Dynasty*. Carolina, United States: University of South Carolina Press.

Hicks, Amy, Stephen Comp, Jeannie Horovitz, Madeline Hovarter, Maya Miki, and Jennifer L. Bevan. 2012. "Why People Use Yelp.com: An Exploration of Uses and Gratifications." *Computers in Human Behavior* 28 (6): 2274-2279.

Hitesh Sajnani, Vaibhav Saini, Kusum Kumar, Eugenia Gabrielova, Prमित Choudary, Cristina Lopes. 2012. "Classifying Yelp Reviews into Relevant Categories." Mondego Group, California, United States: University of California Press.

Hu, Nan, Noi Sian Koh, and Srinivas K. Reddy. 2014. "Ratings Lead You to the Product, Reviews Help You Clinch It? The Mediating Role of Online Review Sentiments on Product Sales." *Decision Support Systems* 57 (1): 42-53.

Kaufman, Josh. 2012. *The Personal MBA: Master the Art of Business*. London, United Kingdom: Portfolio Publisher.

Kim, Woo Gon, Jun Justin Li, and Robert A. Brymer. 2016. "The Impact of Social Media Reviews on Restaurant Performance: The Moderating Role of Excellence Certificate." *International Journal of Hospitality Management* 55 (1): 41-51.

Laudan, Rachel. 2013. *Cuisine and Empire: Cooking in World History*. California, United States: University of California Press.

Lei, Simon, and Rob Law. 2015. "Content Analysis of Tripadvisor Reviews on Restaurants: A Case Study of Macau." *Journal of Tourism* 16 (1): 17-28.

Luca, Michael. 2016. "Reviews, Reputation, and Revenue: The Case of Yelp.com." *SSRN Electronic Journal* 12 (3): 20-23.

Miller, Tim. 2014. *Barbecue: A History*. The Meal S. Cambridge, United Kingdom: Rowman & Littlefield Publisher.

Parikh, Anish, Carl Behnke, Mihaela Vorvoreanu, Barbara Almanza, and Doug Nelson. 2014. "Motives for Reading and Articulating User-Generated Restaurant Reviews on Yelp.com." *Journal of Hospitality and Tourism Technology* 5 (2): 160-76.

Ries, Eric. 2011. *The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses*. London, United Kingdom: Crown Books Publisher.

Scarborough, Norman M and Zimmerer, Thomas W and Naumes, William. 1996. *Effective Small Business Management*. New Jersey, United States: Prentice Hall Publisher.

Weinstein, Art. 2013. Chapter 1 Market Segmentation: An Overview. Handbook of Market Segmentation: Strategic Targeting for Business and Technology Firms. Seattle, United States: Routledge Publisher.

Xu, Yun, Xinhui Wu, and Qinxia Wang. 2015. "Sentiment Analysis of Yelp's Ratings Based on Text Reviews." 2015 17th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing (SYNASC) 17 (1): 117-120.

Yang, Sung-Byung, Sunyoung Hlee, Jimin Lee, and Chulmo Koo. 2017. "An Empirical Examination of Online Restaurant Reviews on Yelp.com." International Journal of Contemporary Hospitality Management 29 (2): 817-839.

Yu, Boya, Jiaxu Zhou, Yi Zhang, and Yunong Cao. 2017. "Identifying Restaurant Features via Sentiment Analysis on Yelp Reviews." arXiv:1709.08698.

Zacharakis, Andrew and Spinelli, Stephen and Timmons, Jeffry A. 2011. Business Plans That Work: A Guide for Small Business. New York, United States: McGraw-Hill Publisher.

Electronic Sources

Competitive Analysis. 2010. Entrepreneur Europe. Accessed 12 September 2018.

<https://www.entrepreneur.com/encyclopedia/competitive-analysis>.

Consultancy Europe. 2018. Consulting Industry of Nordics | Scandinavia Expands to €2.8 Billion. Accessed 02 September 2018. <https://www.consultancy.eu/news/1044/consulting-industry-of-nordics-scandinavia-expands-to-28-billion>.

Econsultancy. 2010. Four Ways Technology Could Impact Restaurants in the Future. Accessed 05 September 2018.

<https://econsultancy.com/four-ways-technology-could-impact-restaurants-in-the-future/>.

Klepik, Jure. 2014. What Are Consumer Insights and How Do They Impact Marketing Effectiveness? Huffington Post. Accessed 02 October 2018. https://www.huffingtonpost.com/jure-klepik/what-are-consumer-insight_b_5906624.html.

MaRa. 2018. Restaurants in Finland. Accessed 02 September 2018. <https://mara.fi/toimiala/tilastoja-ja-tutkimuksia/yrittamista-koskevattilastot/ravintoloiden-maaran-kehittyminen>.

MBB. 2011. MBB Hospitality. Accessed 10 September 2018. <http://www.mbbmanagement.com/>.

Prompt-Cloud. 2018. Restaurants on TripAdvisor. Kaggle Inc. Accessed 25 February 2018. <https://www.kaggle.com/damienbeneschi/krakow-ta-restaurans-data-raw>.

RsM. 2018. Top Trends in the Restaurant Industry to Watch in 2018. Accessed 05 September 2018. <https://rsmus.com/what-we-do/industries/consumer-products/restaurant/top-trends-in-the-restaurant-industry-to-watch-in-2018.html>.

SNAPSHOT. 2016. Hospitality's Data Platform. Accessed 12 September 2018. <https://www.snapshot.travel/>.

SynergyConsultants. 2013. Restaurant Consulting Firm. Accessed 10 September 2018. <https://www.synergyconsultants.com/about-restaurant-consulting-firm/>.

Technology Industries of Finland. 2018. Information Technology Industries. Accessed 04 September 2018.

<https://teknologiateollisuus.fi/en/technology-finland/information-technology-industries>.

TripAdvisor, Media-Center. 2017. TripAdvisor Fact Sheet. TripAdvisor Inc. Accessed 25 February 2018. <https://www.tripadvisor.com/>.

VSAG. 2009. Consultants, Restaurant and Hospitality. Accessed 10 September 2018. <https://www.vsag.com/>.

Waazeh.AI. 2017. Social Networking Analytics Platform. Accessed 23 February 2018. <http://waazeh.ai/>.

Wikipedia-contributors. 2018. Customer Review --- Wikipedia The Free Encyclopedia. Accessed 05 October 2018.

https://en.wikipedia.org/w/index.php?title=Customer_review&oldid=862263821.

Yelp. Inc. 2004. About Yelp. Copyright © 2004–2018 Yelp Inc. Accessed 25 February 2018. <https://fi.yelp.fi/helsinki>.

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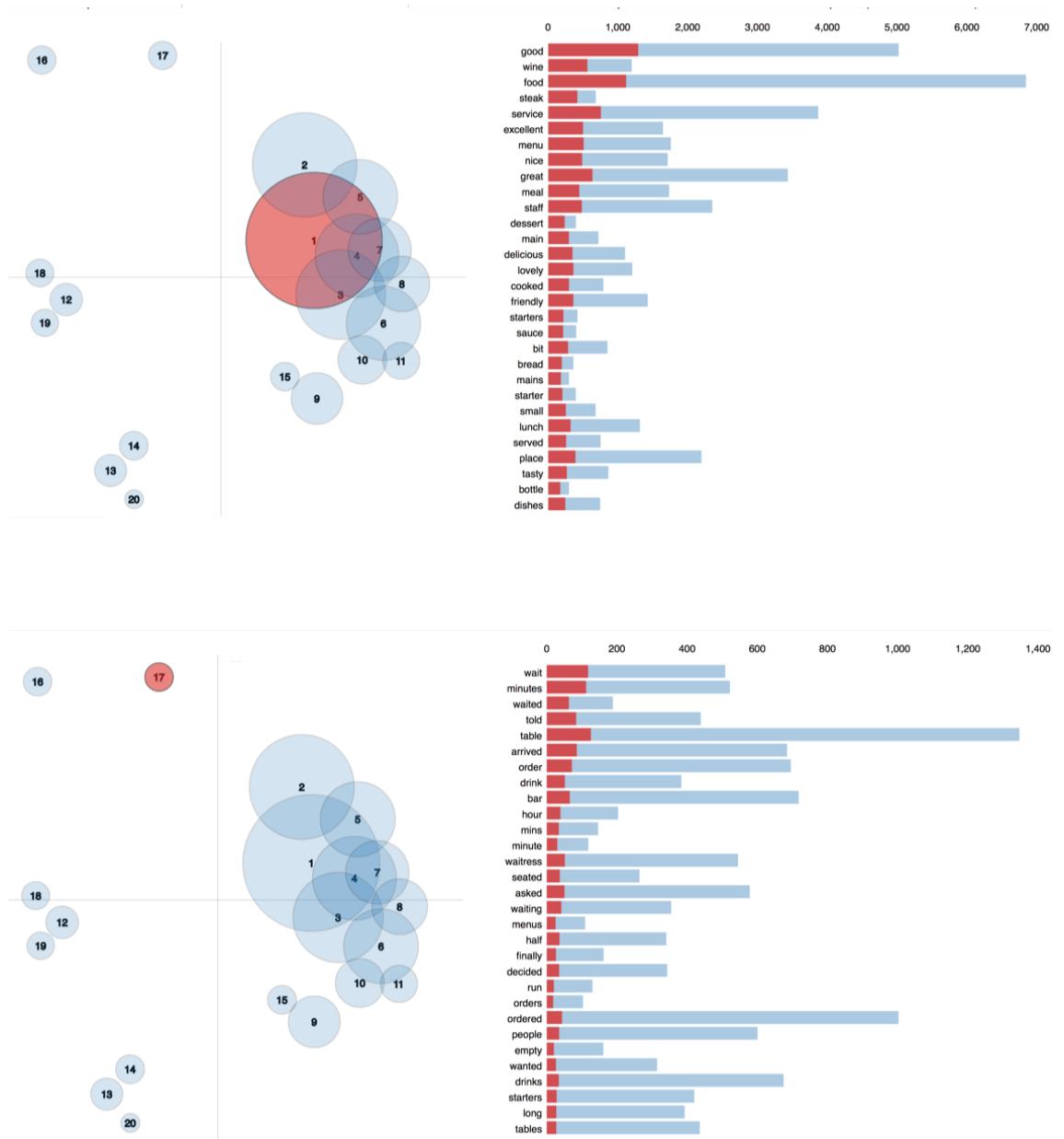
Appendices

Appendix 1: S-Figure 1: Restaurant attribute related to food, staff and services mentioned in the consumer reviews.

Appendix 2: S-Figure 2: Restaurant attribute related to fish, chips, sushi, pizza and wine mentioned in the consumer reviews.

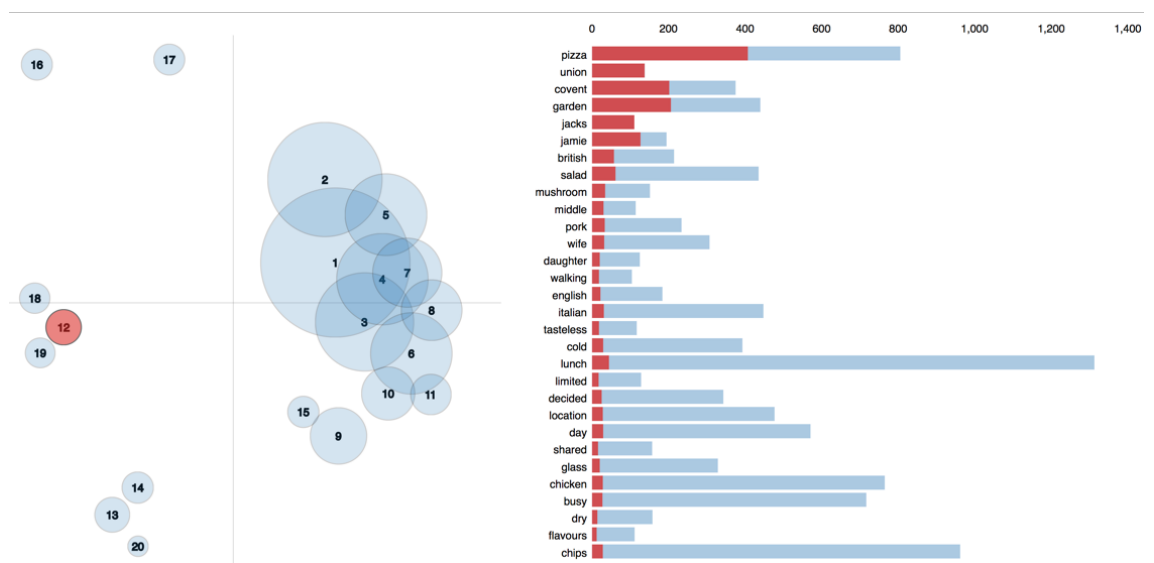
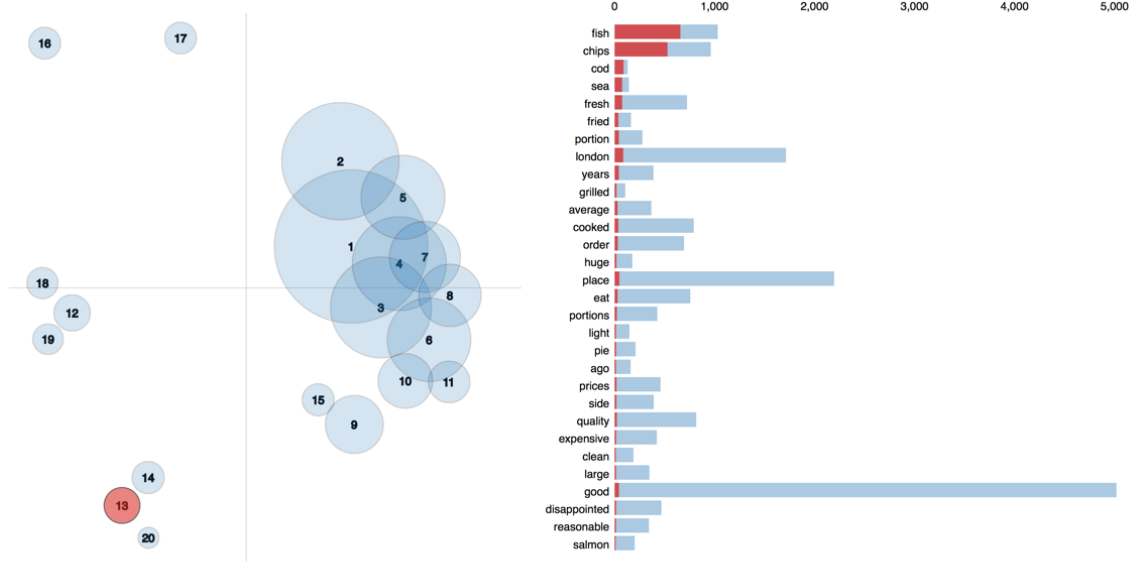
Appendix 3: Survey to perform a customer analysis and to identify the potential value proposition of the business ideas.

Appendix 1: Key attributes identified from the global analysis of the reviews



S-Figure 1: Restaurant attribute related to food, staff and services mentioned in the consumer reviews.

Appendix 2: Key attributes identified from the global analysis of the reviews



S-Figure 2: Restaurant attribute related to fish, chips, sushi, pizza and wine mentioned in the consumer reviews.

Appendix 6: Survey to perform a customer analysis and to identify the potential value proposition of the business ideas

What makes a good restaurant? A consultancy service using online consumer reviews.

Thank you for agreeing to take participate in this important survey estimating customer needs and value proposition for the Consulting2.0 company. Today we will be obtaining your thoughts and opinions to better serve you in the future. The survey should not take more than 5 minutes to complete. Be assured that all answer you provide will be held in severest confidentiality and will be GDPR complaint.

1. Email address *

2. Do you agree to take part in this survey sent to you by Consulting2.0? The data collected will be used to for internal research only to assess the value proposition of the company

Mark only one oval.

- Yes
 No

If "Yes" to the above question the proceed, otherwise press submit to exit the survey.

3. Are you interested in knowing what consumers think about your restaurant?

Mark only one oval.

- Yes
 No

4. Do you use any approach to understand that your consumers are happy?

Mark only one oval.

- Yes
 No

5. If 'Yes' to question 2, then choose the approach you use for understanding your consumers, otherwise choose 'not applicable'

Mark only one oval.

- public surveys or questionnaire
 targetted interviews
 personal feedbacks
 hire a private firm or consultant
 combinations of the above approaches
 some other approach
 Not Applicable

6. Are you looking for a new approach?

Mark only one oval.

- Yes
 No

7. Are you active on the social media e.g., TripAdvisor or Yelp or similar other

Mark only one oval.

- Yes
 No

8. Do your restaurant receive reviews on social media from consumers

Mark only one oval.

- Yes
 No

9. Do you read consumers' reviews on social media

Mark only one oval.

- Yes
 No

10. Do you think online reviews can be useful to make a good restaurant

Mark only one oval.

- Yes
 No

11. Do you think online reviews can be used to understand consumers satisfaction.

Mark only one oval.

- Yes
 No

12. To understand your customers, would you be interested to get a consultancy service based on online reviews

Mark only one oval.

- Yes
 No

Privacy Policy

This privacy policy sets out how Consulting2.0 uses and protects any information that you give by filling this survey. Consulting2.0 is committed to ensuring that your privacy is protected.

