



Superfood in Austria – Analysis of Customer Perception and Market Dynamics in Austrian Retail, using the Example of the Avocado

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Dissertation written under the supervision of Miguel Fontes Rita

Dissertation submitted in partial fulfilment of requirements for the MSc in Management, at the Universidade Católica Portuguesa, December 2017.

Abstract

Title:

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Purpose:

The purpose of this thesis is the academic study of customer perceptions of the avocado and buying behavior in the Austrian retail market. By using the framework of the Total Food Quality Model (Brunso et al, 2002), perceptual aspects like search attributes, experience attributes, credence attributes, beliefs and familiarity, but also social and socio demographic aspects were analyzed. Results from collected quantitative and qualitative data show overlaps but also significant differences from conventional literature and market studies from similar markets. Furthermore, results show important aspects to consider for retail and connecting factors for future research.

Key Words: *Avocado, Retail Austria, Customer Perception, Total Food Quality Model*

Abstrato

Título:

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Objetivo:

A tese que se apresenta tem como objetivo o estudo das percepções do cliente sobre o abacate e qual o comportamento de compra no comércio de retalho Austríaco. Analisaram-se, com base no Modelo de Qualidade Alimentar Total (Total Food Quality Model), aspetos perceptuais tais como, atributos de procura, de experiência, de credibilidade, de convicção, familiaridade, assim como aspetos sociodemográficos. Com recurso a técnicas de pesquisa quantitativa e qualitativa, obtiveram-se resultados que, apesar de indicarem existência de algumas sobreposições, mostram diferenças significativas relativamente à literatura e estudos de mercados existentes sobre mercados semelhantes. Conclui-se que os resultados obtidos expõem aspetos importantes a ter em conta no mercado de retalho, gerando ainda alguns fatores a considerar para investigações futuras.

Palavras-chave: *Avocado, Retail Austria, Customer Perception, Total Food Quality Model*

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1. Introduction

1.1 Background to the Topic

The avocado has never been so popular. Measured by quantity, the world's appetite for this tropical fruit is bigger than ever. Throughout the world and especially in Europe, Avocado demand has risen strongly within the last years (CBS 2017). Austria almost doubled its imports of the fruit of the avocado within the first half of the year 2016 compared with the same period in 2014 (Statistik Austria, 2017). During the last 13 years, popularity of the term avocado measured by search requests in Google, centuplicated in Austria. Peaking in March 2017, avocado related search requests were 100 times higher than in March 2004 (Google Trends, 2017). Whereas in the U.S.A. market studies explicitly examine the perceptual aspects of the demand and derive detailed knowledge, related data from the European- and especially the Austrian market is rare.

1.2 Problem Statement and Research Question

Even though the avocado appears to be very popular in Austria and currently enjoys a lot of attention, academic analysis of the perceptual aspects and therefrom derived implications for commerce have not been conducted up to date. This thesis aims to examine the key attributes for the Austrian customer's perception of the avocado in the retail sector, deducting implications and feasible approaches of action from this small but steadily growing market.

1.3 Research Approach

In order to create a structure, classify and discuss findings from research and comparing them with collected data from the target market, one will use the The Total Food Quality Model as a framework (Brunsø et al, 2002). However, this thesis does not intend to test specified hypotheses and derive results and predictions by using this model, as this would exceed the scope of this thesis. The intention is to approach a certain research area from a broader perspective, deduct relevant market information and deliver a profound basis for further research. Hence, specific information from research about the customer's general perception of fruit intake, as well as the customer's perception of a more specified product basket of the

globally mostly local produced and exported tropical fruits (counting for 75% of the global fresh tropical fruit production: avocado, pineapple, mango, papaya) will be deducted (Sabbe, S 2009) and discussed with specific research about the customer's perception of the avocado in other markets with similar cultural background. The outcome of this literature discussion will be the foundation for the quantitative and qualitative data generation of this thesis.

1.4 Literature Analysis

The sources used in this thesis can be structured into four main types. The biggest portion will constitute scientific papers from international academic journals, from areas like marketing, agriculture and health. The second main type of source will be primary literature, delivering basic knowledge and definitions. Third, websites containing reports and online statistical data sources (governmental- and industry related sources) will be used to generate the most up-to-date information, needed to develop this thesis. Lastly, reports and articles from internationally renowned and often cited news sources will be used in order to obtain a further perspective to this topic.

Due to the recency of this topic, the majority of the sources is accessible online for free or on payment of a fee (e-books, chargeable Journal articles, etc.). Recognizing that specific and academic knowledge is rare, one emphasizes that used non-academic sources are from greatest possible reliability.

1.5 General Methodology

As a quantitative data collection tool, an online survey appeared to be the most promising approach to gather data. And, in order to increase the overall informative output, significance and precision, qualitative data generation will be conducted in advance with interviews. To make these data-types comparable, the methods based on the Grounded Theory by Strauss and Glaser were chosen. This constitutes a qualitative process where several views, opinions, motives and attitudes can be put in relation to the statistical data. Furthermore, this approach appears to be appropriate as it primarily doesn't claim to validate a certain theory with a biggest possible sample. In fact, it aims to create an objective view of sometimes controversial perceptions about a research topic. In point of fact, not solely quantitative data confirms a certain theory, moreover insights from theory and quantitative data are being included into the

qualitative data- generation and interpretation, respectively interviewees can be confronted with research findings during the interview. This circular process enables to potentially generate new insights and perceptions about the topic of research (Mey & Mruck, 2011).

2. Theoretical Framework

2.1 The Avocado Production and Characteristics

The avocado is a fruit from a tree that has a variable growth and development, reaching a height of 10 to 12 meters in its natural habitat (Dorantes et al, 2004). It belongs to the segment of tropical fruits. This is simply to the fact that most of the sorts are growing around the equator (23.5° north to 23.5° south). However, nowadays breeds grow further away from the equator due to breed and trade development (Schaffer & Nigel, 2013). There are more than 500 varieties. Most of them have been discarded in order to develop commercial varieties, which adapt to production in commercial scale. This thesis intends to focus on the most popular avocado variety in Europe, the Hass variety (CBI Market Information Database, 2017). Its production is very difficult and expensive, as the avocado trees are very sensible to environmental influences, need a lot of water and take a long time of approximately 8-10 years to bear fruits. Notable damages are internal damages like fungal infestation, or external damages like chilling injury (occurring at temperatures below circa six degrees). Furthermore, those damages are mostly recognizable when the fruit is ripe and therefore involve the risk that the producer cannot exactly calculate the output (Dorantes et al, 2004). This is due to the circumstance that avocados have not ripened until they are harvested. They can be held on the tree for many months after they are physiologically matured (Cargohandbook, 2017). However, the potential output in ideal conditions can be very high (between 80-100 kg per tree per year). There are two harvest periods per year (maximum and minimum) which vary depending on the geographical location of production (Dorantes et al, 2004).

The Hass avocado is a so called “farm-to-market” food, theoretically requiring no further processing, preservatives, or taste enhancers for selling to the final customer. Furthermore, the fruit’s natural skin theoretically eliminates the need for packaging and offers at least some disease and insect resistance, which gives the possibility to grow in environmentally more sustainable ways (Dreher & Davenport, 2013). In reality avocados need a lot of attention,

especially while shipping. The final quality like taste and appearance can be significantly influenced in this process (Cargohandbook, 2017).

The avocado fruit can be used and processed in many ways. Simplified, there are four main product categories where the avocado is or can be processed as an ingredient. First, the whole fruit or parts of the avocado, fresh or dried. Second, oils gained from the avocado. Third, nutritional products featuring the avocado as the main ingredient (ex. guacamole, etc.). And fourth, beauty products, containing components of the avocado.

Besides being consumed alone as snack with just a little extra seasoning or added ingredients (Hass Avocado Board 2012), the avocado is mostly prepared and eaten as a special topping to meals. Salad (39%) is the most popular dish where consumers include the avocado, followed by avocado as a single dish (25%), in sandwiches (9%), or guacamole (7%) (Hass Avocado Board 2008).

The Hass avocado consists averagely of 136 g of creamy to firm texture, covered by a thick dark green, purplish black and bumpy skin. The stony core and the skin comprise about 33% of the total fruit weight (Dreher & Davenport, 2013).

2.2 Nutritional Composition and Health Benefits of the Avocado

One can find different statements in literature about the amount of fruit per serving. However, averagely one-fifth (U.S. Nutrition Labeling and Education Act) to one-half (Health and Nutrition Examination Survey) of a fruit is used per serving. This amount of fruit contains a broad nutritional mix of ingredients. Many claimed to be very healthy and disease-risk reducing.

Among others, nutrients like vitamin C, E and B-6 and magnesium should be highlighted (avocados are one of the few foods that contain significant levels of both vitamins C and E). Especially the avocado oil consists of many, very healthy and highly concentrated acids like 71% monounsaturated fatty acids (MUFA), 13% polyunsaturated fatty acids (PUFA), and 16% saturated fatty acids (SFA), which help to promote healthy blood lipid profiles and enhance the bioavailability of fat soluble vitamins and phytochemicals from the avocado or other fruits and vegetables.

Already in the 90's results of early and smaller studies, conducted in the U.S.A., revealed that avocado enriched diets have a positive effect on blood lipids compared to low-fat, high carbohydrate diets or the typical American diet. Several other preliminary clinical studies

suggest that avocados can support weight control. One further large, randomized and long-term clinical trial found out that a moderate fat diet can be an effective part of a weight loss plan and the reduction of chronic disease risk. And, since avocados contain a combination of MUFA and Lutein/Zeaxanthin, they may contribute to eye health and help improve carotenoid absorption from other fruits and vegetables (ex. within a salad). This contributes positively to the anti-aging process (Dreher & Davenport, 2013). For example, one clinical study found out that the concentration of carotenoids in the skin is directly related to the level of fruit and vegetable intake (Rerksuppaphol & Rerksuppaphol 2006). Furthermore, in this context, research assumes a negative relationship between the concentration and amount of carotenoids and lutein consumed and risk of several types of cancer (ex. breast-cancer). However, current research conducted is still too broad (exploratory- and pre-clinical studies) and no significant and direct relationship has been found (Dreher & Davenport, 2013). From a nutrient perspective the Avocado is, and will eventually remain a “second tier fruit” as it is generally not eaten as a prime “starchy staple” food (Schaffer & Nigel, 2013).

Health is strongly linked to basic life values and purchase motives. At the same time, health is an invisible product characteristic during purchase and must therefore be derived from more concrete intrinsic and extrinsic cues. Nevertheless, healthiness is central for consumers’ perception of food products. According to EU-studies, eating healthily was already perceived to be among the top five influences on food choice in all EU-countries in the early years of 2000. Eating healthily and the perception of health is very subjective, and consumers generally seem to believe that they can change their own eating behavior sufficiently to ensure a healthy nutrition (Brunsø et al, 2002).

2.3 History of the Avocado Trade Development in Importing Countries

Historically the development of the avocado industry became relevant to this research when an association of avocado growing farmers - the California Avocado Grower’s Exchange - firstly started to promote this fruit in 1927. At this time U.S. American avocado producers were facing several problems, creating lagging sales and needed to change their strategy in order to boost sales. First, the avocado was part of the food culture of many South American countries and parts of California (due to the proximity to the border of Mexico and Mexican immigrants in California) and well known. Hence the fruit’s original name “Ahuacacuahatl” did not

negatively affect its demand. But the rest of the U.S.A. mostly did not know this fruit and how to use it (Scientific American, 2017). Due to these difficult market conditions and the quantitatively small demand, U.S. avocado producers decided to change their strategy and enhance marketing activities. As a first step the fruit's name was changed to "Avocado" (a better sounding and easier to remember derivation of the original Aztec's name) and one started to teach the market on the use and culinary opportunities of this exotic product. Further marketing efforts will have to be done, especially during the times when nutrition experts began to promote a low-fat diet. One tried to emphasize the positive nutritional effects and to draw parallels to other healthy diets which did not completely spare with fats (ex. Mediterranean Diet). The industry was still fighting lagging sales in the 90's and one decided to hire a professional marketing firm (Hill & Knowlton) trying to make the avocado an everyday and accessible item to U.S. American consumers. A turning point for the success of the avocado was the successful integration with the U.S. Super Bowl (Scientific American, 2017). The National Football League's championship game was attracting yearly millions of U.S. Americans (Tomkovick et al, 2002). A recipe contest featuring favorite recipes from NFL players and their families and many more promotional activities were introduced and the guacamole, mainly made of avocados was a huge success. Having a popular dish containing the avocado as main ingredient strengthened the avocado as a snack item, giving it the foothold it needed (Scientific American, 2017). More or less simultaneously, during the year of 1997, the U.S. government allowed controlled shipments of avocados from Mexico to the U.S.A. providing the desired avocado supply for the growing U.S. market (Arpaia et al, n.d.). Whereas new sources of avocado helped to stabilize the supply and retail prizes, the newly opened international competition ascribed higher importance to marketing activities for local avocado breeders in order to highlight their product, as avocados from the south of America pushed down prices in the U.S.A. (Carman & Saxton, 2011).

Compared to the fast growing U.S. market, the development of the European market remained more or less unchanged until 2003. In the year of 2004 imports and consumption started to raise strongly, but still being far behind the U.S. American import volumes (California Avocado Society, 2007). Today Europe is one of the main importers of Avocados in the world with respectable growth rates throughout the last years. Imports of fresh avocados to the European market have increased from 186,000 tons in 2011 to 343,000 tons in 2015 (CBI Market Information Database, 2017). The Netherlands constitute one of the main importers of Avocados from outside of Europe, followed by France and Germany and the UK. Especially the Netherlands act as main distributor of Avocados within Europe, showing the highest import

and export numbers. Hence the import value of avocados has increased more than fourfold between 2008 and 2016. Whereas Mexico, the largest producer and exporter of avocados mostly serves the U.S. American market, European countries in general import avocados mainly from Peru, Chile and South Africa (CBS 2017). But also Spain within Europe (as the only significant producer in the European Union), Israel and Kenya are important producers for the European market as these countries produce counter-seasonal to the other important exporters (CBI Market Information Database 2017). When looking at future market growth estimates, a collapse of the rapidly growing market was not in sight by the year of 2015, as almost all of the main exporters representing 95% of the whole supply side, have rapidly grown between 2005 and 2014, at a compound annual growth rate of 20% in value terms (Baker 2015).

2.4 The Austrian Avocado Market and Retail Characteristics

The Austrian market grew with great extent in the last years. Was it 2.4 million kg of imported avocados between January and June 2014, Austrian merchants imported almost 3.8 million kg of avocado fruits between within the same time in 2016. Chile is since 2015 the biggest source of avocados with a share of 29% of the total market volume. Even though Spain is a small supplier to the European market, it is the third largest exporter to Austria behind Peru. And whereas the Netherlands have the highest import and export numbers on a European level, Austrian merchants import just 44,000 kg of avocados, ranking the Netherlands on the 11th place of Austrian avocado sources. In the last years several avocado exporting countries increased market shares in the growing Austrian market. Noteworthy are Mexico with an increase of +1.826,77% between 2015 and 2016, followed by Kenya with +664,68% and Germany with +606,26% (as Germany is not a producing country one can conclude that its import as well as export rate of avocado increased). Within the few avocado exporting countries with decreasing export numbers to Austria, Israel with -45,24% and Republic of South Africa with -41,45% between 2015 and 2016 should be highlighted (Statistik Austria, 2017).

Avocados as a food product are sold in wholesale and retail. Competition in Austrian retail is high, contested by just a few big retail companies and its brands and some small niche players (ex. organic supermarkets). The segment of suppliers of cheap goods (discounter) is growing strongly, also the share of private labels within retail chains is rising (Pittner, 2014). Hypermarkets (shop floor >1.000 sq) record the biggest growth rates, at cost of smaller chains with smaller shop floor sizes. Besides non-alcoholic beverages and snacks, the product segment

of organic labeled products grew the most within the last years (+16,7% from 2015-2016, overall average: + 3,8%).

57% of Austrian retail shoppers look proactively for promotions. They generally tend to remain with favored chains/brands but constantly look for promotions within the stores (42%). And, 39% of the customers plan their purchase and buy in a lower frequency (ex. weekly). In a European comparison, Austrian shoppers are slightly above the average in these aspects. Furthermore, they are more enthusiastic about health and healthy products (Nielsen, 2015).

On average, 8.47 million people were living in 2016 in Austria. This is a growth of +9,1% compared to 2010 with an estimated forecast of 9.43 million in 2030. 81,5% are younger than 64 and can be seen as potential buyers of the avocado. In general, the population of Austria gets increasingly older, estimating 22,8% to be older than 65 in 2030 (an increase of 23,3% compared to 2016) (Statistik Austria, 2016). The Austrian educational level is high. Approximately 719.000 Austrians aged between 25 and 64 have a high school degree, permitting to study on a university (2015). This is a growth of 24,2% compared to 2001 (Statistik Austria, 2015). In terms of demographic changes within Austria one should highlight that many young people move to urban areas as educational- and job employment supply is higher. All these notable demographic aspects implicate valuable information for retailers in Austria. As more people will be in an older customer segment in terms of age, one cannot consider this segment as homogenous any more and retail will have to react to this. Furthermore, more and more older singles will be future customers of retail products. Hence purchasing frequency will raise and a smaller packaging of goods will become more important. And, due to domestic movement elderly people will live on the countryside and younger people in urban areas. Progressing global movements lead to multicultural societies, especially in Austria, leading to a wider range of offered food tastes and supply (Graf & Niedl, 2013). All of these past and current developments should be considered when collecting and analyzing the collected data.

2.5 Critical Review

The nutritional and health claims of the avocado nowadays seem to be well known and are prevalent in global news coverage. Even though specific health claims need to be studied scientifically in order to clearly verify those, demand is strongly rising due to the positive image of this fruit. However, in recent years some organizations looked closer to the ecological impact

of the avocado-boom. Besides a complex and long transportation process of the fruit, avocado trees require a lot of attention and resource input, for example water (see also in chapter 2.1.1). A very often mentioned and cited report by the German weekly journal “Die Zeit” (2016) revealed that one kilogram of avocado fruits requires 1,000 liters of water input (ex. one kilogram of tomatoes requires in global average 180 liters of water input). The energy-consuming storage during a mostly long shipping process further creates a huge ecological footprint (Raether, 2016). The rapidly rising global demand leads more and more local farmers to trying to cultivate avocado trees and illegally using water resources. The resulting direct impact on local population (water shortage) and nature (deforestation) is often severe. As a first reaction to this, for instance, in 2017 Danish retail chains like Aldi Denmark ban Avocados from producers who are illegally using water resources (Carstens, 2017). However, when looking at those circumstances from a broader perspective, one can assess that the ecological footprint of any animal product is larger than the impact of crop products (avocado) with equivalent nutritional value (Mekonnen & Hoekstra, 2012).

2.6 Consumer Perception of the Avocado

In order to evaluate the consumer’s perception- and especially with regard to the avocado, many different models have been proposed in literature and have been used to explain consumer behavior related to food choices (Sabbe, 2009). **The Total Food Quality Model (TQM)** appears to be the most adequate tool as it provides a comprehensive framework for objectively analyzing and clearly mapping the process of consumer food choices (Brunsø et al, 2002). It states that consumers form quality expectations based on different attributes or cues which are individually traded-off against each other before deciding to buy a certain product. It includes food choice determinants like search, experience and credence attributes, but also attitudes, beliefs and familiarity; socio-demographics and social influences. These determinants influence the buying decision of healthy nutrition, such as the avocado (Sabbe, 2009).

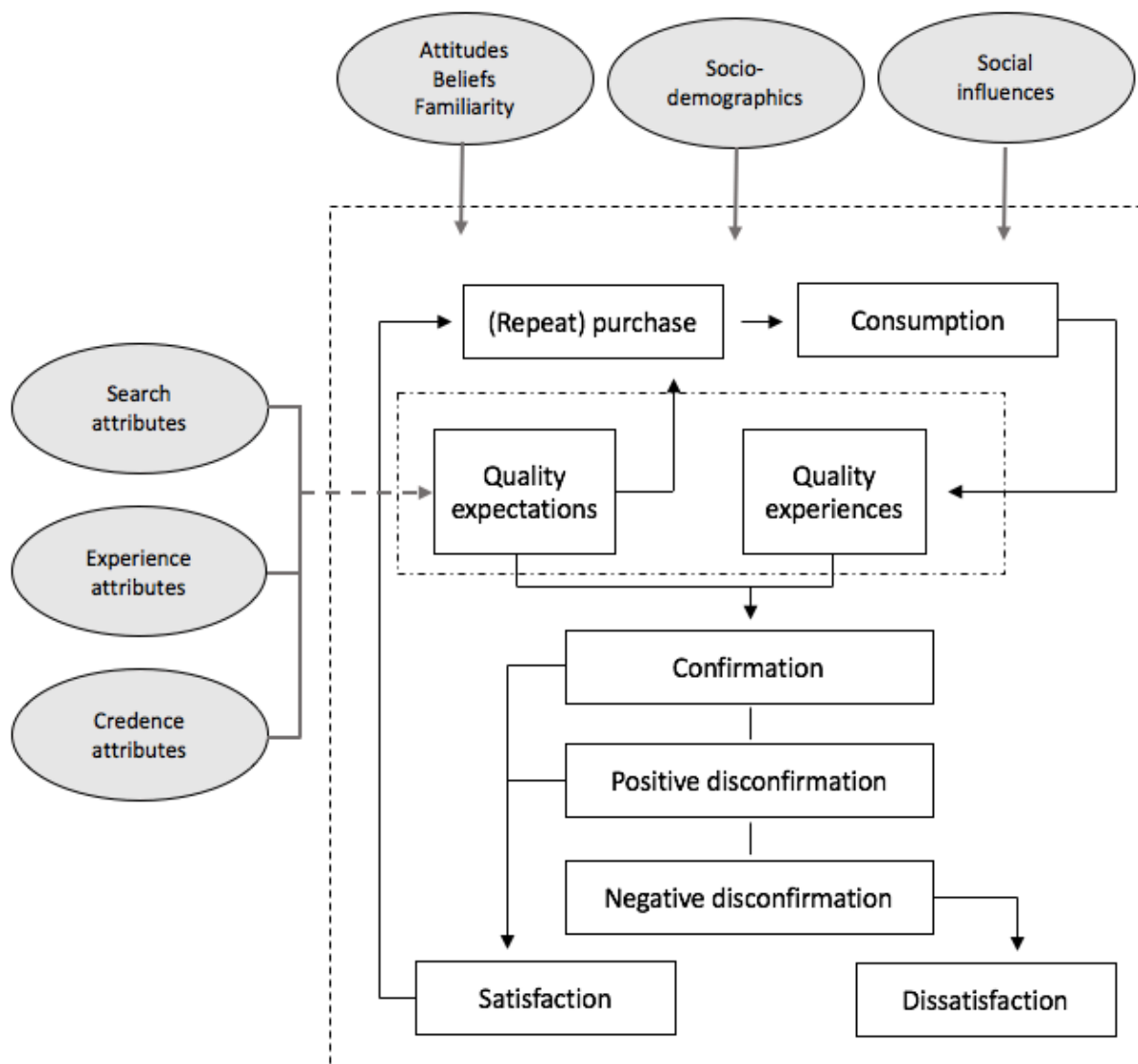


Figure 1: Conceptual Framework based on the Total Food Quality Model, modified by Sabbe (2009)

Search Attributes

Important search attributes for selecting tropical fruits (if available) are price, freshness, firmness, size, color and smell. Visually appealing fruits may contribute as main decision making attribute for purchase and consumption intentions (Dixon et al, 2004). In case of the avocado, consumers search for fruits with dark colors (dark green or brown), an undamaged peel and/or a soft structure of the fruit in case of early consumption (Hass Avocado Board 2012). Price is a rather incidental attribute and price as a barrier to purchasing avocados is low overall. It is generally more volatile among consumers with a lower usage of the avocado (Hass Avocado Board 2017).

Experience attributes

Experience attributes constitute a crucial input to a positive buying decision. Sensory appeal and experiences - such as taste and texture - are the most influential experience attributes when selecting avocados (Gamble et al, 2010). This conjuncture can generally be presumed when choosing tropical fruits (Pollard et al, 2002). Especially when consumers try fruits they are not familiar with (Sabbe, 2009). Within the European Union surveys found that “satisfaction beliefs” and “good taste” are essential prerequisites for the consumption of fresh fruits and vegetables (Pollard et al, 2002). Referring to the Hass avocado, creamy, buttery and smoothness are important sensory attributes that have both flavor and textural components. According to studies from Belgium, the avocado is mostly not part of a regular purchase. Moreover, purchase is more impulsive, triggered by the spontaneously positive consideration of search attributes like quality (ripening characteristics) and price. However, a customer’s purchase is more frequent and planned when there are further social influences and concrete ideas about usage, like recipes. Negative experiences resulted from a lack of knowledge about the products (search attributes and missing knowledge about preparation) lead to negative future purchase intentions. On the other hand, participants of those studies stated that this could be overcome by giving possibilities to taste tropical fruits via sampling or demonstrations at the place of purchase (Sabbe, 2009).

Credence attributes

Credence attributes are - alike experience attributes and in contrast to search attributes - difficult to be determined before a buying decision. Moreover, whereas experience characteristics can be evaluated after product consumption, credence characteristics are a matter of credibility and trust and nowadays credence characteristics are becoming more and more important for consumers. Therefore, producers use extrinsic information cues, such as labels to provide the customer with information about credence characteristics of a product in order to promote favorable buying decisions. Especially within the health industry, health-related qualities are mostly credence characteristics, since the consequences for one’s personal health resulting from eating a specific food is a matter of trust, and can rarely be determined by the consumer after consumption (Nilsson et al, 2004). Literature (Brunsø et al, 2002) distinguishes between two types of food labels: Process related quality labels and nutrition- and health claim related quality labels.

In the last 10-15 years, process-related quality labels have gained in popularity because of consumers’ increased awareness of food quality, food safety and sustainability issues. Without focusing too much on the product itself, process-related quality labels aim to informing the

customer about the quality of the production process of the product. However, the customer is not really able to evaluate if a food product has actually been produced under the promised conditions. Even during cooking and consumption, the customer has no possibility to determine if the product has the promised process-qualities (Brunsø et al, 2002).

Studies showed that consumers are willing to pay for improvements in the quality of the product and the environmental performance of its production method. As a result, many new process related quality labels emerged in the European market in recent years, aiming to deliver messages about the quality of the products. Often producers, or retailers form syndicates and establish and promote own labels in order to communicate with consumers. The internet and new media marketing tools allow enormous amounts of information to be accessible for a wider audience. Producers and retailers communicate more than ever with the consumer via own quality labels and aim to make the consumer believe more in a certain lifestyle than only in certain quality aspects. On the one hand own quality labels and new technological media opportunities help to communicate with the consumers on the credence level and, on the other hand, exclude competition from effectively promoting quality aspects of their products (Nilsson et al, 2004). In the U.S.A, as the market develops more and more, process related quality labels indicating organic, or GMO-free production are perceived to be more important for the avocado buyer. Whereas just a minority of the whole consumer segment put priority on these labels in 2014, the attention to those was growing rapidly in previous years (Hass Avocado Board 2014). In 2017, 44% of the U.S. consumers stated organic labeling as a reason for buying avocados. For heavy users (consumption > 2 avocados per week) organic labeling was even more important, representing 68% as reason for buying. The same development can be observed with GMO-free labeling, indicating that more consumers are familiar with this term and care about GMO-free production. In the U.S.A. 25% of the consumers express strong concerns about consuming GMO foods (Hass Avocado Board Target Audience Analysis 2017). In terms of price sensitivity, on the contrary to these research findings, Sabbe (2009) found out that Belgian consumers showed a very low willingness to pay more for fruits like the avocado with process related quality labels (even though they were seen as credible and persuasive).

Nutrition- and health claim related quality labels constitute a very important credence attribute in the buying process. Generally, one can assume that nutrition and health information increases consumers' expectations about the healthiness of a food product and provoke more positive attitudes towards it, which further influences their preferences and increases their likelihood of purchase.

Whereas nutrition claims highlight specific nutritional features of a product, typically about the presence or level of a nutrient, health claims are statements linking food components to a desired state of health. They can further be distinguished in nutrient Function Claims (describing the role of a nutrient in normal physiological growth, development and functions of the body), Other Function Claims (generally claim that nutrients or other substances may improve or modify the normal functions of the body) and Reduction of Disease Risk Claims (ex. fruits and vegetables may reduce the risk of some cancers). While studies found out that customers also seek for concise nutrition- and health claim related quality labels and those labels seem crucial within the decision making process, research also shows that just one third of consumers gets directly affected by those claims in the decision making process. However, as consumers cannot evaluate the truth of health claims, all the more of those claims need an intensive day-to-day promotion to the consumer and direct the focus to marketing activities (Williams, 2005). Latest Studies showed that consumers attribute more and more importance to nutritional benefits of their food in the decision making process. In 2017, 76% of the consumers of the avocado stated nutritional benefits as a main driver for a positive buying decision (Hass Avocado Board Target Audience Analysis 2017).

Attitudes, Beliefs and Familiarity

Cultures are a very important factor in our general food choice. Traditions, cultural values and beliefs determine our food choice and eating patterns. Former experiments showed that people usually prefer familiar food items over new varieties. However, nowadays cultural nutritional traditions in a globalized community do not restrict us severely anymore. But, many people within a culture categorically forgo certain food types with specific characteristics due to personal ideologies. Prominent examples are vegetarianism, political beliefs (customers boycott certain producers or brands due to political beliefs or concerns, or due to ecological issues like flown-in goods), or general concerns about genetic-, pesticide- or environmental residues in food items. From a socio demographic point of view one can say that, predominantly the wealthy population strongly considers personal ideology and beliefs when choosing food items. Still, one of the most important attitudes or beliefs when making a decision about food is health. Research conducted within the European Union found out that health is among the top five influences on food choices (besides price, quality, family preference, taste). Furthermore, one found out that a belief in the health benefits of fruit and vegetables may well increase its consumption and openness for new, healthy products. (Pollard et al, 2002).

Research by Sabbe (2009) showed that the avocado was known as a healthy fruit and already bought by more than half of the respondents. They have a generally positive attitude towards tropical fruits like the avocado. Moreover, the respondents believed that those fruits are nutritious, healthy, attractive, special and good tasting. Product familiarity was found to be the most significant determinant predicting purchase intention for those fresh products (even though it highly depends on consumers' product knowledge and product-related experiences). Additionally, communication about search attributes and information about preparation and health effects was desired by the respondents.

U.S. consumers link many nutritional attributes to the avocado. That avocados contain a lot of good fat, antioxidants and vitamins E and C and deliver health benefits such as heart health, healthy skin, lower and healthy cholesterol levels are just a few attributes and benefits linked to the avocado. Heavy users of the avocado generally know more about these attributes and benefits than they know about other fruits. In this context fat content and lack of availability are not strong barriers to purchase (Hass Avocado Board 2014). After all, the general consumer has grown in his or her association of many nutritional attributes with avocados over time (averagely +7% growth of knowledge about the top ten nutritional attributes of the avocado between 2012 and 2014). This increase in positive knowledge about the attributes and benefits led to the result that in 2014 avocados were perceived to be same or healthier than apples, oranges, bananas, strawberries, blueberries, carrots, broccoli, tomato, or spinach (Hass Avocado Board 2014). And this trend has further increased by 4% from 2014 until 2017 (Hass Avocado Board Target Audience Analysis 2017).

Socio Demographic Factors

When looking into common socio demographic factors, studies from the north of Europe (Finland, Baltic Countries) show that generally women and higher educated respondents consume fruits and vegetables more often. Furthermore, people from rural areas consume less fruits and vegetables (apart from Finland) than in the urban areas (Prättälä et al, 2007). In Sweden research showed that female unskilled workers consume generally more fruits and vegetables than male unskilled workers as fruits and vegetables are seen as "women's food" and pointed towards the same direction regarding education and gender (Lindstrom et al, 2001). In this context, research in the UK investigated factors affecting fruit consumption of women. Among this group of women, the higher fruit consumers were identified to be older, with a degree level of education and of higher socio-economic status (Pollard et al, 2002). Pointing towards the avocado, research from the U.S.A supports these findings. 78% of avocado consumers have a higher household income than \$25,000, 31% of households with an income

above \$75.000 represent the biggest group (Hass Avocado Board Target Audience Analysis 2017). In terms of gender, 68% of female adults buy avocado at the grocery store and/or ordered dishes with avocado in restaurants (Hass Avocado Board 2008). Generally, 66% of the respondents say that they are more likely to order menu items made with avocados. This, for example, results in a higher willingness to pay for additional avocado toppings on conventional dishes, like burgers (Hass Avocado Board 2014). In terms of age, 42% of the consumers are older than 55 years, whereas 35% are younger than 44 years. But, in terms of consumption it is clearly visible that the younger generation uses avocado much more frequently (57% of consumers under 44 years) and this at cost of the generation older than 55 years (21%).

Younger consumers with a generally lower cooking manner found recipes that use modern shortcuts like mixing prepared foods with fresh ingredients like the avocado as more approachable. Common barriers for preparing entire meals from scratch at home are time, budget and cooking skills and knowledge. Older avocado consumers and consumers with families, on the contrary, engage more in food preparation and cooking. Ability to prepare healthy dishes at home is in this situation a motivator. They furthermore are more likely to make changes in their eating habits as they are more aware of the fact that they age. On the other side, younger generations are reported to make fewer changes as they are already somewhat mindful of the importance of a healthy diet (Hass Avocado Board, 2016).

In contrast to this, Sabbe (2009) revealed that there are no significant associations between familiarity and level of education in this context. But, women living in urban areas, with travel experience in recent years (outside of Europe), showed a significantly higher familiarity with the avocado than males living in rural areas and respondents who did not travel at all. However, results showed that attitudes and preferences towards fruits generally differ very little between men and women, although women eat fruit more frequently than men.

Social Influences

Social influences can play a major role in the food decision making process. Usually many eating occasions happen in company and this may affect the types and amount of healthy nutrition consumed. People generally tend to put more effort into meal preparation (ex. adding tropical fruits and vegetables to a meal) when eating not alone (Pollard et al, 2002). In the U.S.A. people are preparing meals for up to 3 attendants show a significantly higher use of avocado. Furthermore, the more complex meal occasions, i.e. the more dishes are prepared for a meal, the higher is the possibility of using avocado (Hass Avocado Board 2008). Socio demographic studies support this statement, revealing that 68% of the U.S. avocado consumers are married or living with a domestic partner (Hass Avocado Board Target Audience Analysis

2017). Another study investigated how social networks and social support affected these differences in fruit and vegetable consumption in Sweden. The study found that low social participation (within formal and informal groups) explained some of the differences in consumption of vegetables between differing socioeconomic groups (Lindstrom et al, 2001). Desire for social membership can therefore be a crucial factor for changes in nutrition habits as people sometimes convey their membership of a particular social group through their food consumption (Pollard et al, 2002).

Sabbe (2009) states that social influences from partner, children, family, friends and colleagues at work on consumers' decision-making about avocado consumption differed significantly in gender and location. Male respondents seem to be significantly more influenced than their partner, whereas female respondents seem to be much more influenced by their social environment. Furthermore, the social environment seems to stimulate tropical fruit consumption significantly more among respondents living in urban than among those living in rural areas (Sabbe, 2009). To sum it up, positive effects of subjective norms, i.e. social pressure to perform or not to perform a certain behavior, significantly influence consumers' intention to follow a social trend (Bogers et al, 2004).

2.7 Modern Marketing as a new Factor in the perceptual Process

Reportedly consumer perception about the avocado significantly changed in the past 10 years, particularly in countries where the avocado is a mostly imported fruit with no original anchorage in the local food culture. Whereas common search attributes like quality and ripeness seem to play a minor role in the final consumer's decision making process, existing research results show that nutritional- and health benefits play a more and more important role in the general perception of the avocado and in the positive decision making leading to a purchase. People nowadays often use the avocado as a substitute for, or as a supplement to other fruits or vegetables in their nutritional mix, as knowledge about usability (recipes, etc.) is increasing (Hass Avocado Board Target Audience Analysis 2017).

Exactly in this context, global avocado trade associations put effort into new marketing- and promotional activities. Marketing activities altered from conventional advertising of the product of the avocado itself, to promoting the health benefits this fruit delivers. In the last years, the fruit of the avocado gathered the interest of many news organizations and content creators, guiding the market's attention towards the avocado. Consumers nowadays simply

place much more credibility on a news story about health and nutrition benefits of a certain product, than they do on conventional advertising with the same message. Furthermore, the distribution of information became easier and more efficient with modern communication technologies, such as the internet. All this lead to the remarkable circumstance of a simultaneous demand-, supply- and price increase in the global avocado market. This increased return of marketing activities for the producers was calculated to account between \$0,0698 and \$0,1998 per 0,45kg for a marketing contribution of \$0,025 per 0,45kg, in the U.S.A. in 2008 (net return depending on supply elasticity). In times of modern communication technologies and social media, the impact and return of these advanced content marketing activities is even harder to evaluate, as content dispersion often happens over-proportionally, without national borders (Carman, H and Saxton, R 2011).

Social media, i.e. internet platforms, where user communicate, create and share content and act as a “prosumer” (consumer + producer) are gaining more and more importance for marketers (Heymann-Reder, 2011). In this context, content marketing constitutes a powerful and necessary component of a businesses marketing activities (Nufer & Lenzen, 2017). Its aim is to educate the customer via storytelling and raise a brand’s or a product’s recognition by placing specific words or stories that resonate with a consumer and create a form of relationship with trust and familiarity (Baltes, 2015). Its popularity is too, due to the fact that it enables and engages consumers to interact with and share information. Businesses now face the opportunity to interact with customers, building more a long-term relationship rather than a once-off sale relationship or a one-way communication in advertising. The social media user and potential consumer acts as well as an intermediary to the marketer in order to successfully place and spread the promotional message. The important aspect for marketers is that people within social groups share information and trust each other. Was it just intimately the family and friends, or colleagues in times without online social media, it has now expanded to a few hundred or thousands of “intimate” social contacts (Papasolomou & Melanthiou, 2012).

According to a recent study conducted by PriceWaterhouseCoopers, 39% of the retail “shoppers” use regularly social networks like Facebook and Twitter and visual social networks like Instagram, YouTube and Pinterest to find inspiration for their purchases. Further 37% use retailer’s websites and blogs and another 32% use multi-brand websites (Maxwell, 2017).

Indeed, avocado marketers and promoters have adapted to those new and promising market circumstances and enlarged promotional activities into the modern media world. New media channels like Facebook, Instagram, YouTube, and Pinterest are being used frequently and professionally, delivering content tailored to the particular communication channel and aligned

with the user's expectation. Global avocado marketing campaigns like the "Love One Today" campaign are featured in all the important online communication channels. Owing to the traceability of success of the marketing activities in these channels, the process of this campaign has been intensively traced documented and constantly adapted and optimized in order to reach the target audience in the most efficient way (Hass Avocado Board, 2017). However, this increasing activity and media presence of topics around the avocado should not be exclusively attributed to the businesses directly profiting from avocado sales. At the present time more content producers than ever race for the user's attention as modern technologies make the market accessible to smaller content producers because of more simple and cheaper ways of distributing content. This increased informational supply within a more or less restricted market in terms of size of demand (content consumers) lead to a higher dependency of the publishers as enough funds need to be generated to survive within this difficult market. Hence media reporting and its logic changed over the last years. Media coverage more and more follows the principles of being coherently and dramatic, in a positive or negative context. One focuses on entertaining in order to keep the reader's attention high. Furthermore, one need to publish fast in order to stay in competition (Kellner-Zotz, 2015).

3. Practical Framework

3.1 Interview structure and methodology

The interview process was started in the end of October 2017, with the first interview cohort starting approximately two weeks before the beginning of the quantitative data generation via an online survey. Objectives were to gather first, qualitative information about the perception of the avocado in the target market, potentially comparable to existing literature findings discussed in this thesis. Furthermore, interviews with individuals who are professionally working with the avocado were conducted in order to obtain a further, different assessment about the consumers' perception of the avocado and market dynamics in Austria. And, one tried to derive indications about an ideal framing of the following quantitative data generation process in order to maximize the response rate while raising informative content and significance through developing further hypotheses about the interplay of various variables during the research process and including multiply combinable and applicable variables to the survey (Mey & Mruck, 2011).

The interviews were conducted in a partly-narrative way, based on a guideline according to which the interviewer structures and guides the talk (Flick et al, 2005). The guideline was relative to the perceptual framework discussed in the literature (TQM with its six key perceptual influences), but still containing enough space to obtain and focus on possible new and essential information about the perception of the avocado in the target market Austria.

After a general introduction by the interviewer, the broad structure and procedure was presented and discussed. This should give the interviewer the possibility to slightly directing the talk by referring to the discussed structure.

However, one clearly put importance to the flow of the talk, giving the interviewee as much freedom as possible within the topic and gathering as much information as possible with least necessary intrusions by the interviewer.

All interviews were held in German language and took between 30 and 45 minutes. Face to face interviews have been recorded, as well as telephone interviews. Skype interviews were not recorded, but the first protocol (notes, structured by the TQM variables) has been discussed at the end of the interview in order to clarify the interviewees statements and its purpose. The protocols and recordings have been openly decoded according to the principles of the grounded theory, structured and translated to English in order to facilitate comparability with the literature findings (Mey & Mruck, 2011). From a socio demographic point of view, one tried to interview a broad spectrum of avocado consumers, differentiating in gender, age, social background, educational- and professional aspects.

3.2 Interview Findings

When talking about search attributes, the first examined food choice determinant according to the TQM, the majority of the interviewees stated that ripeness and overall quality of the avocado is the most important factor leading to a positive buying decision. Price is included to the buying decision but respondents claimed that a perceived good quality may lead to a higher willingness to pay a higher price. When including age of the customer into this context one can see that willingness to pay for good quality seems to be higher when the customer is of a higher age. Furthermore, the average weekly avocado consumption of the respondents is approximately between 1-2 avocados. This is perceived to be a low weekly consumption level and therefore higher prices for a good quality seem to be justified by the consumer.

The vast majority of the respondents has positive experiences with the avocado and intends to buy it again. Furthermore, apart from just a few, they consume the avocado since 5 years or less. Perceived quality is on a satisfactory level and has evolved in recent years and all the avocado consuming respondents like the taste and the texture. However, individual perception about quality seems to be very different as statements about tolerated bruises of the skin and damages of the meat differentiate sometimes substantially. The majority of the respondents stated to prefer the type of the Hass avocado but, also claimed that greenskin avocados are bought when the quality seems to be better in the situational context. Furthermore, the greenskin type is offered in the majority of the Austrian retail chains and consumer preferences regarding preferred types should be further surveyed as there can be deviations from literature. Whereas various credence attributes were given a high influence in the buying decision for groceries in general, credence attributes such as process related quality labels (organic production, GMO-free production, etc.) seem to play no important role at all in the buying decision for the avocado for the majority of the respondents. The avocado is perceived to deliver a high amount of advantages so that origin-, or production characteristics, even when they are in conflict with one's principles, seem to be ignored. However, one should highlight that respondents from older generations with certain socio demographic characteristics (ex. high educational status) unanimously state that organic labels are the main influence to a positive buying decision. Avocados would not be intended to be bought if they are not organically produced, at least for certain period of time. But, if there is no organic offer at all, respondents would watch out for other credence attributes (locally produced, sustainably produced, etc.) ascribed to avocados and deviate from personal quality requirements. These findings appear to be consistent with discussed findings from Belgium (Sabbe, 2009) and the U.S.A. (Hass Avocado Board Target Audience Analysis 2017).

In terms of attitudes, beliefs and familiarity all respondents indicated that they have at least a basic knowledge about nutrition and adequate knowledge about the avocado, its benefits and its preparation. All of them state that they try, especially when eating at home, to eat healthy and follow a healthy lifestyle. In this context the level of engagement in sporting activities and the interest in dietary issues seem to play an important role. Interviewees who follow a strict diet or training plan openly question the nutritional benefits of the avocado (fat content, etc.) and actively search for substitutes. On the other hand, respondents who claim to, at least trying to live healthy, appreciate the existence of the avocado as a healthy and easy to prepare alternative to conventional food. Furthermore, level of engagement and sources of knowledge appear to be critical aspects in this context. Respondents who sourced their knowledge about

nutrition from a relevant educational background or from academic literature seem to evaluate the benefits of the avocado in a more objective and reflective way. On the other hand, respondents without professional educational background or relevant knowledge from academic literature, source their information predominantly from blogs, news or social media and do not completely objectively evaluate the benefits and possible disadvantages of the avocado according to their nutritional principles. The media's potential responsibility and reliability in this cohesion has been discussed in the literature review.

From a socio demographic point of view the interviews show results, consistent with literature but also reveal different aspects and behaviors. In terms of usage of the avocado no socio demographic differences can be detected. As far as one can draw a reliable conclusion at this point, this depicts a clear contradiction to literature findings. Even though differences in the cooking of the avocado (prepared dishes, used recipes, ingredient combinations) are visible among different generations, all respondents use the avocado uncooked, as a topping in salads or sandwiches and toasts, or process it to guacamole. Furthermore, one could not clearly find socio demographic differences when looking into daytime of preparation. Also gender differences in fruit and vegetable intake, or especially avocado intake could not be found. From a general point of view these findings are mostly in line with findings from Sabbe (2009), but this has to be further surveyed in the quantitative data generation. However, apparently female respondents tend to choose more dishes including the avocado than male respondents when eating in restaurants. Event though household income (deviated from professional- and educational status) was different among the respondents, it did not seem to influence the quantity of intake of the avocado. Relationship status seems to play an important role from a socio demographic point of view, as respondents living in relationships mutually tend to put more effort into living a healthy nutritional lifestyle and food preparation but this can be also interpreted as a socially influential factor.

Social influences appear to play an important role in the perceptual process around the avocado. Respondents stated that they changed their nutritional habits and cooking behavior due to social influences in recent years. As already discussed in literature male respondents get heavily influenced by their partner, some stated that they, in fact, got to know the avocado through their partner. Furthermore, those who claimed to got in contact with the avocado outside of Austria and Europe did the travelling with, and because of a partner. As well as in literature, cooking behavior appears to change when cooking for friends and family, especially in the context of the avocado the preparation of guacamole was a preferred dish to prepare when having company. Respondents with children stated that children do not play a direct

influence in the usage of the avocado as they do not like it but seem to indirectly play a role in the strive for a healthier nutrition lifestyle. In terms of social groups and group affiliation, respondents claimed that social media plays an important role in their life and perceive it to be a big help in terms of information generation and influence to their nutritional habits. Especially female respondents show a high participation and trust in their social media networks. And, most of the respondents indicated that they generate a lot of nutritional information from social media. Interesting in this point appears to be the shift of age groups who use social media and generate relevant information from diverse networks and platforms. In contrast to the discussed literature, also older respondents (35+ years) claim to get closer in touch with the avocado through social media or derive relevant information from social media.

From a business point of view, the avocado and its positive perception appears to deliver a lot of opportunities and benefits to the gastronomy. It is mostly used as a topping within vegetarian/vegan meals, or within cold pre-dishes. For chefs it offers the opportunity to add a neutral but flavor enhancing component to the dishes and hence directing attention to sometimes more neglected (vegetarian) dishes on the menu. Furthermore, due to the raising popularity of the avocado, one attempts to integrate this fruit to more unusual dishes like, for example desserts. Still, interviewed respondents act rather cautious with new creations containing the avocado and trust successfully tested concepts and creations from similar markets. As the avocado is mostly still a side ingredient of a dish, required quantities are not too high, and as ripeness is an essential factor for immediate processing, quality attributes are often valued higher than price. This is also a very crucial point for businesses, offering snacks (sandwiches, salads, etc.) containing the avocado. Here the avocado is used within prepared sandwiches or salads (health/fitness segment) and ripening status plays an important role. The health segment is booming in this area and the avocado is a welcomed ingredient as it delivers juiciness in a perceived healthy way (in contrast to butter or mayonnaise, which is often used within sandwiches). A perceived challenge in this context is the shelf life of the avocado as oxidation processes fastly lead to a less appealing appearance of the product and full colors and an undamaged pulp are crucial. Again, quality characteristics and security of supply are here often valued higher than price. This leads to the prodigious circumstance that more and more, especially small and medium businesses in the gastronomic sector, purchase avocados at local retail, or discount stores. Those often seem to offer best value for quality. Furthermore, respondents stated that within one of the biggest Austrian discount stores, fully ripened and pre-packed avocados are the only type which is offered all year long even though prices are

higher. The rest of the strongly rising assortment of avocados within discount stores is offered more flexible throughout the year, depending on the supply. Statements from one respondent from the area of the fruit distribution (import/export) confirm this, claiming that most of the imported ready-to-eat avocados are being sold to retail chains and that just roughly six to eight percent of the avocados were sold directly to the businesses or wholesale. However, one emphasized that in this area many intermediaries operate who make it hard to draw clear conclusions and proportions between demand rates for final- and business customer oriented avocado trade.

3.3 Questionnaire Structure and Methodology

Quantitative data were collected through an online questionnaire-based survey. This process started on November 23rd 2017. Besides including valuable information about the overall structure of the questionnaire and interrogation of relevant aspects from the previously conducted interview process, general information from literature was included in order to create a solid and reliable questionnaire, where findings can be compared with discussed literature.

Qualtrics software was used for creation and design of the online questionnaire and for online data collection and the program SPSS Statistics 23 was used for analyzing the data. Simplicity and tangibility of the questionnaire was given highest priority in order to avoid effects of fatigue at respondents and minimize cancellation rate during the questioning process. Therefore, several principles have been followed and certain questioning types have been avoided. First, too extensive sequences of questions were avoided and complex blocks of matrix questions were renounced even though one was aware of the eventuality receiving a low Cronbach's Alpha when evaluating the answer scales of the variables. Moreover, often standardized and prescribed answer options were offered in order to avoid deficient response values. In this context one attempted to create a balanced sequence of simple and direct questions, requiring respondent's answers (open or closed), but also decisions to be made, or statements to be agreed or disagreed to (Funke and Reips, 2007).

Alike the interview structure, the structure of the questionnaire was also referring to the TQM, aiming to gather attributable information in all perceptual attributes of the respondents. In total it consisted of 38 questions. These questions were segmented into four main question blocks including perceptual variables in each block. The first block (14 questions) asked for

direct information referring to the perception of the avocado, whereas the second block (9 questions) focused on general grocery shopping behavior, nutritional attitude and knowledge and generally expected quality characteristics of food. As a result of the analysis of the qualitative data and the derived importance of social media in the perceptual context, the third question block (9 questions) was mainly dedicated to the respondent's social media behavior but also further social- and socio demographic information was attempted to be extracted. The last block (6 questions) aimed to survey general information about the respondent's socio demographic background such as age, gender, profession, etc.

3.4 Questionnaire Findings and Discussion

A total of 307 questionnaires were completed. 13 completed questionnaires stated a different nationality than Austria (Switzerland, Germany) and have therefore been excluded. In terms of gender distribution, the completed questionnaires split up in 192 female responses and 102 male responses. The mean of the age of the respondents was 29,74 and the location of residence of the respondents was distributed among 81,6% living in urban areas and 18,4% living in rural areas.

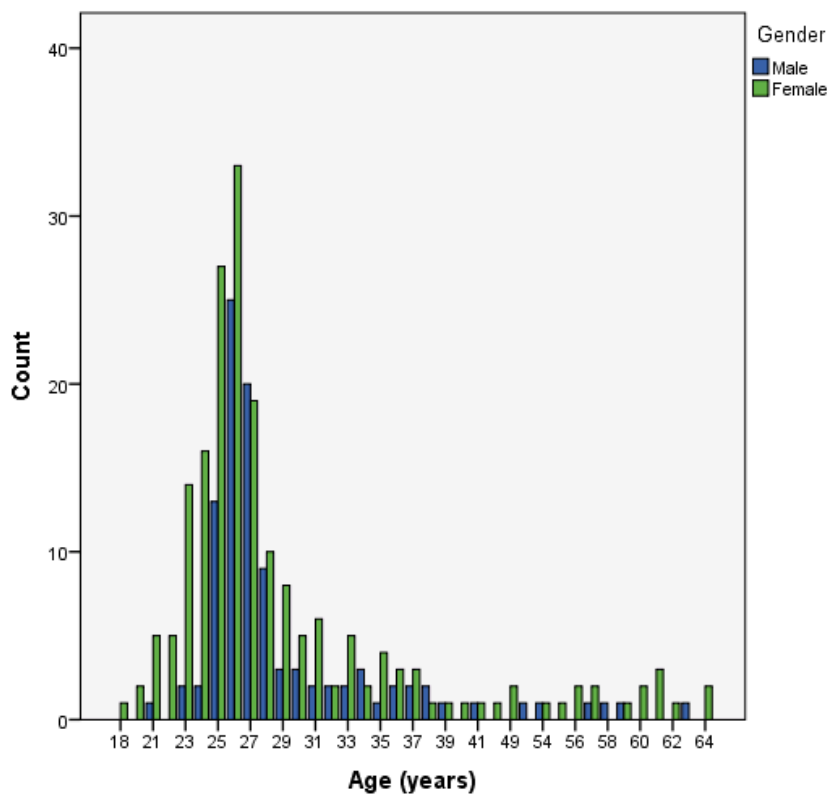


Figure 2: Age distribution of the Respondents, sorted by Gender

The avocado is consumed by 67.3% of the respondents between one and two times per week, 7.1% consume this fruit between three and four times per week and 0.7% more often than four times per week. 24,8% do not consume the avocado at all. 57% of the respondents of 30 years of age or older, consume the avocado between one and two times per week and 15.5% consume it between three and four times per week. Older respondents (50 years of age or older) show just slightly higher consumption rates but at a slightly lower frequency level. Socio demographic studies from the U.S.A., discussed in literature, found same results.

When looking at gender, general avocado consumption of female respondents is by 11.32% higher than of male respondents. Furthermore, 31.4% of male respondents stated that they do not consume the avocado, whereas just 21.4% of the female respondents claimed this. And, the amount of female respondents who consume one to two avocados per week is by 11% higher than with male respondents. These results also point towards the same direction, as findings in literature.

18% of the respondents claimed that they know the avocado for three years or less. The majority of 48.6% know the avocado between four and six years and 33.4% know the avocado longer than ten years. However, the 36.1% of the respondents stated that they consume the avocado for three years or less, or between four and ten years (33.7%). 11.2% know, but do not consume the avocado at all. Most of the respondents of 30 years of age or older, stated that they know the avocado longer than ten years (57.7% and further 40.8% know the avocado between four and ten years). Even though just 1.5% of those respondents know the avocado three years or less, 25.5% state that they consume the avocado since three years or less (average consumption time for respondents older than 30 years of age is 8 years). These results are being acknowledged by Austrian trade statistics, showing a strong increase in the imported quantities of the avocados in the last years.

The avocado appears not to be a seasonal fruit, as Austrian respondents have no preferred season of the year for buying and consuming the it. However, whereas 58.6% of the answers state to buy the avocado all the year, 26.2% prefer the avocado more in summer time.

In terms of chosen quantities at point of purchase, 36.4% buy the avocado loose, 30.6% buy the avocado in double pack (in Austrian retail, double packs of avocados are “ready to eat” products which are generally more expensive) and 18.9% chose quantities of the avocado depending on the quality of the product, examined while purchase (1.7% buy avocados in larger quantities and 12.2% do not buy avocados at all). There are no differences in buying behavior (quantity) between age groups.

As well as in literature (Sabbe, 2009), avocados appear not to be part of the regular purchase (no significant correlation of variables indicating the number of purchases and the consumption of the avocado). However, in contradiction to literature regarding the Austrian consumers in retail (Nielsen, 2015), respondents shop more often for groceries (averagely 2.67 times per week), showing no significant differences in age.

Asking about the expected quality at time of purchase, 68.3% of the respondents stated that they exclusively buy ripened avocados, ready to eat at point of purchase and only 5.5% buy unripe avocados, arguing that date of purchase and consumption are planned.

Combined with a higher shopping frequency this may indicate on the one hand that consumers evaluate the quality of avocados spontaneously at point of purchase. But, on the other hand it may also indicate that consumers are willing to pay more for avocados which are ready to eat and of a better quality. Post purchase quality evaluations of the respondents' answers showed that 32% stated that the quality of the avocados bought was generally satisfying, whereas the majority of 54,3% stated that the quality of the avocados is not always perceived as satisfying. Combining this with previous findings that a high percentage (30.6%) of the respondents buys only "ready to eat" avocados (packaged in double packs) which are usually more expensive, one may have to look for further variables explaining this circumstance. Conducted correlation analysis of quality expectation variables, perceived quality variables and variables describing the willingness to pay, one can recognize that those variables significantly correlate with each other. When deducting and testing a hypothesis, claiming that respondents who have a more overall satisfying quality perception of the avocado after purchase, also have higher quality expectations at point of purchase (i.e. they require ready to eat quality) and a lower price sensitivity in regard of the avocado, one recognized significant interrelations (Figure 3). Therefore, literature findings can be confirmed that avocado consumers rank quality higher than price, when trading-off these search attributes at point of purchase.

Correlations

		Perceived quality	Quality Requirement at point of purchase	Willingness to pay
Perceived quality	Pearson Correlation	1	,662**	,660**
	Sig. (2-tailed)		,000	,000
	N	291	290	291
Quality Requirement at point of purchase	Pearson Correlation	,662**	1	,561**
	Sig. (2-tailed)	,000		,000
	N	290	290	290
Willingness to pay	Pearson Correlation	,660**	,561**	1
	Sig. (2-tailed)	,000	,000	
	N	291	290	291

** . Correlation is significant at the 0.01 level (2-tailed).

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,748 ^a	,559	,556	,66638287

a. Predictors: (Constant), Zscore: Willingness to pay, Zscore: Quality Requirement at point of purchase

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	161,472	2	80,736	181,811	,000 ^b
	Residual	127,447	287	,444		
	Total	288,919	289			

a. Dependent Variable: Zscore: Perceived quality

b. Predictors: (Constant), Zscore: Willingness to pay, Zscore: Quality Requirement at point of purchase

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,002	,039		,052	,958
	Zscore: Quality Requirement at point of purchase	,426	,047	,426	9,005	,000
	Zscore: Willingness to pay	,420	,047	,420	8,870	,000

a. Dependent Variable: Zscore: Perceived quality

Figure 3: Correlation Analysis & Linear Regression of variables Quality Perception (dependent), Quality Requirement at Point of Purchase, Willingness to pay

When looking closer to required aspects of quality of the pulp of the avocado, requirements of the respondents are somehow inconsistent. After evaluating a picture (figure 4) of an avocado where the pulp was damaged to a certain extent, 52.9% of the respondents claimed that those types of damage are not lowering the perceived quality and 47.1% claimed that they would not use this avocado or buy this type again in the near future. To be highlighted, respondents under the age of 30 showed a higher acceptance of such damages and stated that they would buy avocados of this quality again (56.3%) whereas older respondents would not buy this type of avocado again, due to the perceived low quality (57.4%).



Figure 4: presented condition of an avocados pulp for quality evaluation by the respondent

Even though literature claims that the type of the Hass avocado is the mostly distributed and sold avocado type (CBI Market Information Database, 2017), it was detected that all retail stores which generally offer avocados, also offer other types, predominantly the greenskin type. This type is sold as a single item, or packed in larger quantities. Within the survey one tried to detect Austrian consumer preferences towards those different types in order to discover possible (local) differences to literature. However, the vast majority of the respondents indicated that the preferred type of avocado is the type of the Hass avocado (figure 5).



Figure 5: Respondents decided upon the preferred Avocado Type by clicking on it on the Heat Map. Analysis by Qualtrics Software.

When looking at the importance of the four most prominent categories of process related credence attributes in Austrian retail, no significant correlation between quantity of usage of the avocado and importance of organic labeling could be found.

But, correlation analysis between age and the credence attributes shows that age positively correlates with organic labeling on a significant level (Pearson Correlation ,159**; p-value ,006), as well as with GMO-free labeling (Pearson Correlation ,274**; p-value ,000) and with labels indicating regional production (Pearson Correlation ,207**; p-value ,000). Surprisingly age and labels indicating socially responsible produced goods (ex. Fair Trade) correlate significantly in a negative way (Pearson Correlation -,165**; p-value ,004).

A further, with those credence attributes significantly correlating socio demographic aspect is relationship status. Respondents being in a relationship or married, showed significantly higher correlation with credence all labels than singles.

And, sources of nutritional knowledge generation seem to influence the perception about process related credence attributes. The usage of books and scientific journals for generating nutritional knowledge show a significant (positive) correlation with the importance of those credence attributes, whereas usage of online media for nutritional knowledge generation just significantly correlates with the process label of GMO-free production. This may already indicate the importance of online media on quality expectations and requirements of the avocado.

Examining the perceptual part of attitudes, beliefs and familiarity with regard to the avocado, a vegetarian lifestyle does not imply a higher intake of the avocado (no detected, significant

correlation). However, respondents living a vegan lifestyle show a positive correlation with avocado consumption (Pearson Correlation ,140*; p-value ,016). But in this constellation, respondents do not seem to pay attention to process related credence attributes (no significant positive or negative correlation).

Significant socio demographic correlations have been detected between gender and avocado consumption rate and frequency (Pearson Correlation -,118*; p-value ,043).

Even though interpretations by age of avocado knowledge- and avocado usage variables would suggest a nutritional change towards more avocado consumption at older people, a positive correlation between age and avocado consumption cannot be significantly detected. Furthermore and in contrast to research findings from Belgium (Sabbe, 2009) and research from the U.S.A. (Hass Avocado Board 2008), no differences between location of living and knowledge about the avocado and avocado consumption rates have been detected. A reason for this can be the nationwide high concentration of just a few brands of retail markets with identical product assortments, all offering avocados (Nielsen, 2015).

When looking to variables detecting the respondents' social behavior, one can also draw conclusions regarding the perception of the avocado: First, avowing avocado fans who try to consume this fruit wherever they can and openly share their affection to this fruit (65.3% of the respondents), show significantly higher consumption rates of the avocado (Pearson Correlation ,304**; p-value ,000). Furthermore, those respondents negatively correlate on a significant level with the variable indicating the urge for finding new inspirations for the preparation of the avocado (Pearson Correlation -,299**; p-value ,000). This may indicate an advanced knowledge about the avocado and its preparation and also the high satisfaction with current dishes containing the avocado. Cooking behavior (frequency) also negatively correlates urge for finding new inspirations for the preparation of the avocado on a significant level. And, it significantly, negatively correlates with social media usage and behavior (Pearson Correlation -,192**; p-value ,002).

However, further variables detecting the social media usage and behavior, as well as further social variables like relationship status, do not show significant correlations regarding the amount of consumed avocados.

4. Limitations & Practical Implications

When attempting to derive significant relationships of included aspects in general, one has to highlight the low scope of the survey, negatively affecting the reliability of this thesis. Without doubt this is a main limitation of this work. Furthermore, the cursoryness of some of the compiled variables leads to limitations and low scores of reliability its scales (Cronbach's Alpha). But, as this work predominantly did not intend to deliver specific results in a certain area, it moreover aims to deliver a solid basic research, showing up differences and new characteristics the Austrian consumers perception of the avocado. Even though one was able to obtain completed online surveys from all relevant age groups, one has to point out that the average age of the respondents does not represent the average age of the Austrian Population as this is with 42.5 years more than 10 years higher than that from the survey (Statistik Austria, 2016).

However, the Total Food Quality Model (TQM) provided a very structured framework for the analysis of the customer perception of the avocado for the Austrian target market. With the gathered qualitative and quantitative data one was able to show up similarities, but also significant differences of the Austrian consumer's perception of the avocado compared to existing literature and research data.

Without doubt the Austrian consumer behavior is somehow unique in its own kind of way. Polled consumers show a profound knowledge about nutrition and have clear quality expectations for purchased groceries. This leads to an objective skepticism towards newly introduced products, but also to an intense loyalty once new products and brands have been positively established in one's daily nutritional habits. The Austrian consumers like and value the avocado for what it is, with all the advantages and disadvantages that come with it. Therefore, it does not seem that the supply side has to adapt its products in order to meet the changing expectations of the demand side like it is currently happening in the Spanish market, where a fat reduced avocado will be introduced in 2018 due to rising customer's health concerns (Kurier, 2017), or in British retail stores, where the industry offers seedless avocados as a reaction to rising cases of hand injuries removing the stone of the avocado (ORF, 2017).

Building on the insights and results of this thesis one could conduct comprehensive surveys on price sensitivity regarding the avocado. Furthermore, interrelations between expected and

experienced quality of the avocado and the extent of the influence on the consumers' loyalty to it, can be body of a deeper research and deliver valuable insights making all the difference.

5. Sources

Arpaia, M, Bender, G, Francis, L, Menge, J, Shepherd, J & Smothers, V n.d, 'Avocado Production in California - A Cultural Handbook for Growers, 2nd edition, *The University of California Cooperative Extension, The California Avocado Society*.

Baker, P 2015, *Kenya Avocado Commodity Business Plan 2015*, International Trade Centre (ICT), Report, unpublished, to be requested at International Trade Center (<http://www.intracen.org/>)

Baltes, L 2015, 'Content marketing - the fundamental tool of digital marketing', *Bulletin of the Transilvania University of Braşov - Series V: Economic Sciences*, vol. 8, no. 2.

Bogers, R Brug, J Van Assema, P Dangelie, P 2004, 'Explaining fruit and vegetable consumption: the theory of planned behaviour and misconception of personal intake levels', *Appetite Journal*, vol. 42, p. 157-166.

Brunso, K Grunert, K 2002, *Consumers' Food Choice and Quality Perception*, vol. 77, Working Paper, University of Aarhus, Aarhus School of Business, The MAPP Centre, last access: Nov. 4th 2017, <https://econpapers.repec.org/paper/hhbaarmap/0077.htm>.

California Avocado Society 2007, *Developments in the Avocado World*, Yearbook 90: 71-76, Tel-Aviv, Israel, last access: Oct. 18th 2017, http://www.avocadosource.com/cas_yearbooks/cas_90_2007/cas_2007_v90_pg_071-076.pdf.

Cargohandbook 2017, BMT Surveys (Rotterdam)B.V., Rotterdam, last access: Nov. 7th 2017, <http://www.cargohandbook.com/index.php/Avocados>.

Carman, H Sexton, R 2011, 'Effective Marketing of Hass Avocados: The Impacts of Changing Trade Policy and Promotion/Information Programs', *International Food and Agribusiness Management Review*, vol. 14, no. 4, p. 37-50.

Carstens, P 2017, 'Dänische Supermärkte listen chilenische Avocados aus', Geo.de, 22nd March, last access: Nov. 7th 2017, <http://www.geo.de/natur/nachhaltigkeit/16027-rtkl-extrem-hoher-wasserverbrauch-daenische-supermaerkte-listen>.

CBI Market Information Database 2017, *Avocado in Germany*, CBI Product Factsheet, Centre for the Promotion of Imports from developing countries, last access: Oct. 18th 2017, https://www.cbi.eu/sites/default/files/market_information/researches/product-factsheet-avocado-germany-fresh-fruit-vegetables-2014.pdf.

CBS 2017, *Netherlands second largest avocado importer worldwide*, Statistics Netherlands, last access: Oct. 18th 2017, <https://www.cbs.nl/en-gb/news/2017/19/netherlands-second-largest-avocado-importer-worldwide>.

Content Marketing Institute 2017, Content Marketing Institute - UBM company, NY, last access: Nov. 1st 2017, <http://contentmarketinginstitute.com/what-is-content-marketing/>.

Dixon, H Mullins, R Wakefield, M Hill, D 2004, 'Encouraging the consumption of fruit and vegetables by older Australians: An experimental study', *Journal of Nutrition Education and Behavior*, vol. 36, p. 245-249.

Dorantes, L Parada, L Ortiz, A 2004, *AVOCADO: Post-Harvest Operation*, Post-harvest Compendium, Food and Agriculture Organization of the United Nations (FAO), Rome, last access: Nov. 7th 2017, <http://www.fao.org/3/a-au996e.pdf>.

Dreher, M Davenport, A 2013, 'Hass Avocado Composition and Potential Health Effects', *Critical Reviews in Food Science and Nutrition*, vol. 53, p. 738-750.

Flick, U Kardoff, E Steinke, I 2005, *Qualitative Forschung. Ein Handbuch*, Uwe Flick (publisher) in Rawohlts Enzyklopädie, Reinbek.

Funke, F Reips, U 2007, 'Datenerhebung im Netz: Messmethoden und Skalen', in M Welker & O Wenzel (eds), *Online-Forschung 2007 - Grundlagen und Fallstudien*, Herbert von Halem Verlag, Köln, last access: Nov. 26th, 2017, http://www.halem-verlag.de/wp-content/uploads/2011/05/9783938258637_lese.pdf.

Gamblea, J Harker, R Jaeger, S Whitea, A Bavaa, C Beresforda, M Stubbings , B Wohlers , M Hofman, P Marques , R Woolf, A 2010, ‘The impact of dry matter, ripeness and internal defects on consumer perceptions of avocado quality and intentions to purchase’, *Postharvest Biology and Technology*, vol 57, p. 35-43.

Google Trends 2017, Google, Menlo Park, California, last access: Nov. 28th, 2017, <https://trends.google.de/trends/explore?date=all&geo=AT&q=avocado>.

Graf, M Niedl, B 2013, Trends und Chancen für den Lebensmitteleinzelhandel in Österreich, Wirtschaftsuniversität Wien, Vienna, last access: Nov. 16th, 2017, <http://michl.priv.at/Data/marktstudie.pdf>.

Hass Avocado Board 2007, *Consumer Usage Structure & Avocado Attitude and Usage Study*, Study, last access: Oct. 27th 2017, http://www.hassavocadoboard.com/sites/all/themes/hab/pdf/research/HAB_Consumer_Usage_Study_11-08Final.pdf.

Hass Avocado Board 2012, *Avocado User Recipe Audit*, Report, last access: Oct. 18th 2017, <http://www.hassavocadoboard.com/sites/all/themes/hab/pdf/research/HAB-Avocado-User-Recipe-Audit.pdf>.

Hass Avocado Board 2014, *A look at fresh avocado consumers’ attitudes, awareness and usage*, Report, last access: Oct. 27th 2017, https://www.hassavocadoboard.com/sites/default/files/2014_hab_tracking_study_brochure_and_report_cards.pdf.

Hass Avocado Board 2016, *Digital and Social Media Influence on Shopping Behaviors*, Study, last access: Nov. 1st 2017, <https://www.hassavocadoboard.com/sites/default/files/pdf/retail/hab-for-client-2016-digital-social-media-study-final.pdf>.

Hass Avocado Board 2017, *Avocado Tracking Study*, Study, last access: Oct. 31st 2017, http://www.hassavocadoboard.com/sites/default/files/general_market_audience_tracking_study_2017.pdf.

Hass Avocado Board Sensory Research 2013, *Hass Avocado Sensory Research*, Report, last access: Oct. 18th 2017, <http://www.hassavocadoboard.com/sites/all/themes/hab/pdf/Hass-Avocado-Sensory-Research-SCAN-Panel.pdf>.

Heymann-Reder, D 2011, *Social-Media-Marketing: erfolgreiche Strategien für Sie und Ihr Unternehmen*, Addison-Wesley, Munich.

Kellner-Zotz, B 2015, Das Aufmerksamkeits-Regime: Warum die Medialisierung der Gesellschaft die Bedingungen für kritischen Journalismus verändert, no. 1, published by Goderbauer-Marchner, G for the Institute of Journalism Studies by the Universität der Bundeswehr München, last access: Nov. 12th, 2017, https://www.unibw.de/bw/institute/journalistik/fruehere-professorinnen/goderbauer_marchner/god_publicationen/index.html.

Kurier 2017, Telekurier Online Medien GmbH & Co KG, Wien, last access: Nov. 28th, 2017, <https://kurier.at/wellness/isla-bonita-bringt-fettreduzierte-avocado-auf-den-markt/291.591.879>.

Lindstrom, M Hanson, B Wirfalt, E Ostergren, P 2001, ‘Socioeconomic differences in the consumption of vegetables, fruit and fruit juices. The influence of psychosocial factors.’ *European Journal of Public Health*, vol. 11, no. 1, p. 51-59.

Maxwell, J (Global Retail & Consumer Leader PWC) 2017, 10 retailer investments for an uncertain future, total retail report, PriceWaterhouseCooper Global Research Centre of Excellence, last access: Nov. 1st 2017, <https://www.pwc.com/gx/en/industries/assets/total-retail-2017.pdf>.

Mekonnen, M Hoekstra, A 2012, ‘A Global Assessment of the Water ‘Footprint of Farm Animal Products, *Ecosystems*, vol. 15, no. 3, p. 401-415.

Mey, G & Mruck, K 2011, *Grounded Theory*, 2nd edition, VS Verlag, Wiesbaden.

Nielsen, 2015, *Handel in Österreich – Basisdaten 2015*, A.C. Nielsen Ges.m.b.H, Wien, last access: Nov. 22nd, 2017, http://www.nielsen.com/content/dam/niensenglobal/de/docs/Nielsen_%C3%96sterreich_Basisdaten_2016.pdf.

Nilsson H, Tunçer B and Thidell A 2004, 'The use of eco-labeling like initiatives on food products to promote quality assurance - is there enough credibility?', *Journal of Cleaner Production*, vol. 12, no. 5, p. 517-526.

Nufer, G Lenzen, C 2017, *Marketing mit Instagram*, No. 2017-01, Working Paper, ESB Business School, Hochschule Reutlingen.

ORF 2017, ORF Online und Teletext GmbH & Co KG, Wien, last access: Dec. 8th, 2017, <http://orf.at/stories/2418044/>.

Papasolomou, I Melanthiou, Y 2012, 'Social Media: Marketing Public Relations' New Best Friend', *Journal of Promotion Management*, vol. 18, no. 3, p. 319-328.

Pittner, M 2014, *Consumer Segment LOHAS Nachhaltigkeitsorientierte Dialoggruppen im Lebensmitteleinzelhande*, Springer Gabler, Wiesbaden.

Pollard J, Kirk SFL and Cade JE 2002, 'Factors affecting food choice in relation to fruit and vegetable intake: A review', *Nutrition Research Reviews*, vol. 15, no. 2, p. 373-387.

Prättälä, R Paalanen, L Grinberga, D Helasoja, V Kasmel, A Petkeviciene, J 2007, 'Gender differences in the consumption of meat, fruit and vegetables are similar in Finland and the Baltic countries', *European Journal of Public Health*, vol. 17, no. 5.

Raether, S 2017, 'Das Märchen von der guten Avocado', *Zeit Online*, 27th October, last access: Nov. 7th 2017, <http://www.zeit.de/2016/43/avocado-superfood-anbau-oekologie-trend/komplettansicht>.

Rerksuppaphol, S. and Rerksuppaphol, L. 2006, 'Effect of fruit and vegetable intake on skin carotenoid detected by non-invasive Raman spectroscopy', *J. Med. Assoc. Thai.*, vol. 89, p. 1206–1212.

Schaffer, B & Nigel, B 2013, *The Avocado: Botany, Production and Uses*, 2nd edn, CABI, Wallingford, UK Scientific American, a division of Nature America Inc. 2017, last access: Oct. 18th 2017, <https://blogs.scientificamerican.com/anthropology-in-practice/how-marketing-changed-the-way-we-see-avocados/>.

Sherwin, A 2015, 'This year, Pinterest recorded more than 500,000 food ideas posted as 'pins'', *Independent Digital News & Media*, December 8th, last access: Dec. 6th, 2017, <http://www.independent.co.uk/life-style/food-and-drink/news/pinterest-avocados-revealed-as-the-most-pinned-food-trend-on-the-website-a6765771.html>.

Statistik Austria 2015, *Bildungsstand der Bevölkerung Entwicklung des Bildungsstandes*, Report, last access: Nov. 16th, 2017, https://www.statistik.at/web_de/statistiken/menschen_und_gesellschaft/bildung_und_kultur/bildungsstand_der_bevoelkerung/index.html.

Statistik Austria 2016, Statistik Austria, Vienna, last access: Nov. 16th, 2017, https://www.statistik.at/web_de/statistiken/menschen_und_gesellschaft/bevoelkerung/index.html.

Statistik Austria 2017, abstract of trade records of the avocado, unpublished, acquirable at www.statistik.at.

Tomkovick, C, Yelkur, R & Christians, L 2001, 'The USA's biggest marketing event keeps getting bigger: an in-depth look at Super Bowl advertising in the 1990s', *Journal of Marketing Communications*, vol. 7, no. 2, p. 89-108.

Williams, P 2005, 'Consumer understanding and use of health claims for foods', *Nutrition Reviews*, vol. 63, p. 256-264.

6. Appendix

Survey Template (translated to English)

Part 1: Please answer the following statements according to your personal experience.

Since when do you know the avocado?	<input type="checkbox"/> 1-3 years <input type="checkbox"/> 4-10 years <input type="checkbox"/> 10 or more years
Since when do you use the avocado	<input type="checkbox"/> 1-3 years <input type="checkbox"/> 4-10 years <input type="checkbox"/> 10 or more years <input type="checkbox"/> I don't eat the avocado
How often per week do you consume the avocado?	<input type="checkbox"/> Never <input type="checkbox"/> 1-2 times <input type="checkbox"/> 3-4 times <input type="checkbox"/> 5 or more times
Please click on the picture of the avocado which you personally prefer	Heat map: presented picture of greenskin and Hass avocado
In which packaging format do you buy the avocado?	<input type="checkbox"/> Loose (single item) <input type="checkbox"/> Packed in double pack <input type="checkbox"/> In bigger quantities (ex. net) <input type="checkbox"/> I don't buy avocados
In which degree of ripeness do you buy the avocado?	<input type="checkbox"/> Only ripen for immediate consumption <input type="checkbox"/> Only unripen for a controlled further ripening process at home <input type="checkbox"/> Both, depending on the supply <input type="checkbox"/> I don't buy avocados
Do you remember how much you paid for an avocado at your last purchase?	<input type="checkbox"/> Yes, it was a good price <input type="checkbox"/> Yes it was a bad price <input type="checkbox"/> I don't remember, I do not pay attention to this <input type="checkbox"/> I don't buy avocados
How much would you pay for one avocado of your expected quality (perceived ripeness)?	<input type="checkbox"/> I would pay more if the quality is satisfying <input type="checkbox"/> I would not pay more as the current price <input type="checkbox"/> I don't buy avocados
How do you generally perceive the quality of the purchased avocados? (ex. taste, ripening, damages)	<input type="checkbox"/> The purchased avocados are always from a good quality <input type="checkbox"/> The purchased avocados are sometimes from a bad quality, but mostly from a good quality <input type="checkbox"/> The purchased avocados are mostly from a bad quality, but sometimes also from a good quality <input type="checkbox"/> I don't buy avocados
Look at the presented picture. Would you buy an avocado with this quality of the pulp again?	<input type="checkbox"/> Yes. These damages can be removed and I would buy this avocado again <input type="checkbox"/> I would not buy this avocado again <input type="checkbox"/> I don't buy avocados
During which period of time do you buy the avocado?	<input type="checkbox"/> I buy it more in summer <input type="checkbox"/> I buy it more in winter <input type="checkbox"/> I buy it all year long
Where do you mostly consume the avocado?	<input type="checkbox"/> Only at home <input type="checkbox"/> sometimes at friends and in restaurants but mostly at home <input type="checkbox"/> Both <input type="checkbox"/> Sometimes at home but mostly at friends and in restaurants <input type="checkbox"/> Only at friends and restaurants
Do you actively search for new inspirations and recipes around the avocado?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> I don't eat avocados
Compared to your social environment, how would you describe yourself?	<input type="checkbox"/> I love the avocado and openly show this <input type="checkbox"/> I don't like the avocado and openly show this <input type="checkbox"/> Neither, nor

Part 2: Please answer each of the following statements according to your general nutritional perception and behavior.

How often per week do you shop for groceries?	<input type="checkbox"/> 1 time <input type="checkbox"/> 2-4 times <input type="checkbox"/> 5 times or more
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Scale: 1= Not important at all – 10= Very important)

How important are price promotions for you?	1	2	3	4	5	6	7	8	9	10
How important are products with this label? Expl.: Shown as a organic label	1	2	3	4	5	6	7	8	9	10
How important are products with this label? Expl.: Shown as a FairTrade label	1	2	3	4	5	6	7	8	9	10
How important are products with this label? Expl.: Shown as a GMO-free label	1	2	3	4	5	6	7	8	9	10
How important are products with this label? Expl.: Shown as a regionality-label	1	2	3	4	5	6	7	8	9	10

How often do you consume per week?	<input type="checkbox"/> Never <input type="checkbox"/> On 1-2 days <input type="checkbox"/> On 3-4 days <input type="checkbox"/> On 5-7 days
How often do you eat animal products per week?	<input type="checkbox"/> Never <input type="checkbox"/> On 1-2 days <input type="checkbox"/> On 3-4 days <input type="checkbox"/> On 5-7 days
Do you currently follow a special nutritional diet?	<input type="checkbox"/> No <input type="checkbox"/> Yes: _____

Part 3: Please answer the following statements according to your social media behavior.

How many hours per day are you on social media networks?	Answer in hour (1.5 for 1.5 hours): _____
On which of the following social media platforms do you have a personal profile?	<input type="checkbox"/> Facebook <input type="checkbox"/> Instagram <input type="checkbox"/> Pinterest <input type="checkbox"/> Other

Please indicate accuracy of following statements:

Scale: 1= Does not apply – 10= Does highly apply)

I am generally interested in nutrition and source nutritional information from online sources like blogs, social media networks, etc.	1	2	3	4	5	6	7	8	9	10
I am generally interested in nutrition and source nutritional information from offline sources like books, scientific journals, etc.	1	2	3	4	5	6	7	8	9	10

Do you share interesting nutritional information (knowledge, inspiration, recipes, etc.) on your social media channels?	<input type="checkbox"/> Never <input type="checkbox"/> Rarely <input type="checkbox"/> Sometimes <input type="checkbox"/> Often
Do you create and share interesting nutritional information (knowledge, inspiration, recipes, etc.) on your social media channels?	<input type="checkbox"/> Never <input type="checkbox"/> rarely <input type="checkbox"/> sometimes <input type="checkbox"/> often
How often do you work out per week?	<input type="checkbox"/> Never <input type="checkbox"/> 1 time <input type="checkbox"/> 2-3 times <input type="checkbox"/> 4-6 times <input type="checkbox"/> 7 times or more
How often do you cook per week?	<input type="checkbox"/> Never <input type="checkbox"/> 1-3 times <input type="checkbox"/> 4-6 times <input type="checkbox"/> 7 times or more
Do you cook for your partner, family, or friends?	<input type="checkbox"/> Never <input type="checkbox"/> Sometimes <input type="checkbox"/> Often

Part 4: Please answer the following statements according to your socio-demographic background.

Gender	<input type="checkbox"/> Male <input type="checkbox"/> Female
Age in years	_____
Nationality	<input type="checkbox"/> Austria <input type="checkbox"/> Germany <input type="checkbox"/> Switzerland
Place of residence	<input type="checkbox"/> Urban area <input type="checkbox"/> Rural area
Relationship status	<input type="checkbox"/> Single <input type="checkbox"/> In a relationship <input type="checkbox"/> Married
Professional status	<input type="checkbox"/> Student <input type="checkbox"/> Full-time Job <input type="checkbox"/> Part-time job <input type="checkbox"/> Currently unemployed <input type="checkbox"/> Retired

Interviews (Summarized and translated to English)

Interview 1, Nov 14th 2017:

Abstract	Sandra S, 25, international master-student, currently living in Lisbon Interview-format: face to face
Search Attributes	Ripeness is an essential factor. The avocado should not be too hard or too soft. Price can be an important factor. Is evaluated in comparison with ripeness factors. But as the avocado is bought very rarely, this is not an issue at all.
Experience attributes	Positive experiences. Likes the taste. Further, she is picky with over-spiced sauces when eating outside and that's why the more neutral tasting avocado is a good solution here. Buys 1 avocado approximately every two weeks.
Credence attributes	Credence Attributes have no influence on buying decision.
Attitudes, beliefs and familiarity	Perceives the avocado as a calorie-bomb and tries to avoid it when preparing food at home. The avocado doesn't fit to her diet (blood-type-diet) and that's why she avoids it.
Socio Demographic Factors	She started to eat the avocado when doing an exchange semester in the USA. Didn't like it before. Cooks not much at home as she lives in a big shared flat with a small kitchen. No passion for cooking. Prepares the avocado just merely at home and mostly consumes it when having food outside in a restaurant. When it is prepared at home, guacamole is made. Spontaneous selection in some (new) restaurants, planned selection in known restaurants. In a relationship, no children.
Social influences	For her the avocado was made to a brunch-thing through social media. That's why it is mostly ordered outside during breakfast or brunch. Heavy user of social media, follows several avocado related groups/pages. Shares sometimes pictures/content including the avocado. Healthy lifestyle and knowledge comes from family.

Interview 2, Nov 14th 2017:

Abstract	Pascal R, 26, international master-student, professional fitness blogger and influencer, currently living in Lisbon. Interview-format: face to face
Search Attributes	Ripeness is an essential factor. The avocado should not be too hard or too soft. Experience that avocados which are too hard in the shop do not ripe properly any further. Price can be an important factor. Is evaluated in comparison with ripeness factors. Buying decision more or less impulsive.
Experience attributes	Positive experiences. Likes the taste. Buys approximately 2 avocados per week.
Credence attributes	Credence Attributes have no influence on buying decision. The avocado is perceived to be very healthy, labels like organic or Fair Trade don't play a role at all.
Attitudes, beliefs and familiarity	Due to his educational background (fitness instructor and nutritional coach) he knows a lot about the avocado and is nutritional composition. It's not a substitute, it's more a spontaneous complement to the daily nutrition. Moreover, he primarily uses oats, etc. to gather healthy components which are similar/same tot he avocado. In his current diet it is not a part as he tries to eat as many proteins as possible.

Socio Demographic Factors	<p>Preparation depends on ripeness of the avocado. Uses it as breakfast or cold snack in between. Prepares the avocado smashed on a sandwich or sliced within salads or on sandwiches.</p> <p>When too ripened, it's used as a smash on a toast or piece of bread.</p> <p>Healthy lifestyle and knowledge due to educational background, no perceived influence from family.</p> <p>Single, no children.</p>
Social influences	<p>Follows many food/fitness related social media channels, but gets no further inspiration from social media as he knows most of the recipes. If there would be new ways of preparation, he would try them. Got in touch with the avocado through a relationship some years ago.</p> <p>Heavy user of social media. Includes the avocado in his blogs as it is very sexy right now, has a good color in order to upgrade food pics and is a valued alternative (still just features just 1 recipe with avocado).</p>

Interview 3, Nov 15th 2017:

Abstract	<p>Eva T, 25, international master-student, currently living in Lisbon.</p> <p>Interview-format: face to face</p>
Search Attributes	<p>Ripeness is an essential factor. The avocado should not be too hard or too soft. Buys just Hass avocados. As it is bought from the bulk segment (price per kg), or packed (2 avocados per pack). Price is not really given attention and calculated. Buying decision is planned as consumption is frequent.</p>
Experience attributes	<p>Positive experiences. Loves the taste and the texture.</p> <p>Experience that green skin avocados are often too hard in the shop and watery.</p> <p>Buys approximately 5 avocados per week.</p>
Credence attributes	<p>Credence Attributes have no influence on buying decision. She generally tries to use organic products (when the quality/search attributes are positively evaluated) but in her current location there are no organic avocados offered.</p>
Attitudes, beliefs and familiarity	<p>She has basic knowledge about healthy nutrition. She tries to eat healthy and therefore tries to minimize meat consumption. She lives a healthy lifestyle (Sport, nutrition, etc.) but is not too strict on it as she doesn't have weight problems. Additionally to the liking of the avocado she values the healthiness (if the avocado would be really unhealthy she probably wouldn't buy it).</p>
Socio Demographic Factors	<p>Uses the avocado sliced or smashed on bread. Mostly prepares it for breakfast. Adds it to every sandwich as it enhances the overall taste without having too much taste itself. Eva doesn't like most of the sauces as they are too spicy and salty most of the times.</p> <p>In a relationship, no children.</p>
Social influences	<p>Follows many food/fitness related social media channels, tries to get further inspiration from social media but knows most of the recipes. If there would be new ways of preparation she maybe would try them. She discovered the avocado on social media when being on a diet during her stay in the UK 5 years ago.</p> <p>Heavy user of social media.</p>

Interview 4, Nov 15th:

Abstract	Mark B, 29, owner and chef of a restaurant (mid to high price segment) in Upper Austria (Urban Area). Interview-format: Telephone
Search Attributes	Ripeness is an essential factor. The avocado should be ripen and ready for usage. Color and texture are the most important factors while being evaluated with the price. Buying decision is planned.
Experience attributes	More and more positive experiences. When texture and color are optimal then the avocado is a great addition to some meal-types. Quality is perceived to getting better and reliable and usage can be better planned.
Credence attributes	Credence Attributes have no influence on buying decision. Clients further do not ask about this. One is aware that this is a foreign fruit and doesn't have further demand when quality is right.
Attitudes, beliefs and familiarity	Perceives it to be healthy and is familiar with it due to his profession. Doesn't include it, due to own beliefs and attitudes, into personal nutrition.
Socio Demographic Factors	Uses the avocado mostly sliced as a garnish on dishes. Tries to include it to all cold vegetarian dishes like salads. Values the creamy, fatty character which are amplifying the taste (customers more and more try to avoid buttery and oily supplements like ex. herbed butter). Thinks of including it more and more in the dessert segment (due to its attributes for processing) ex. as ice-cream. Experiences that mostly women (young and middle aged) order dishes with avocado, especially when eating in groups with other women. Men usually go for the traditional, meaty dishes. Single, no children.
Social influences	Looks on social media/internet for further inspiration, but just uses recipes with a proven success (often looks for food trends in big cities, like the UK and U.S.A. as they are most likely to spill over to smaller cities like his city). Experiences that people actively try new food trends first in restaurants in order to firstly evaluate taste experiences before trying to prepare it. Communicates with his restaurants with clients via social media (menu choices, updates etc. and in this context appreciates the color of the avocado as it enhances pictures of dishes).

Interview 5, Nov 15th:

Abstract	Jürgen F, 36, bakery store manager, Vienna (Urban Area). Interview-format: telephone
Search Attributes	Ripening is an essential factor. The avocado should not be too hard or too soft. Buying decision is planned but not made by himself. Instructions for usage and recipes come from management. Personally avocados should be usable when being bought – ripeness is essential as well as price.
Experience attributes	Positive experiences. (Privately) Buys about 2 avocados per week.
Credence attributes	No preferences so far. Due to regulations, especially organically labelled products need to contain just organic ingredients, but up to now there are no sandwiches in the assortment (just organic pastries). Products labelled as fitness or healthy are right no given most of the attention. Avocado is used in this segment. Personally looks for organic food, since having a child. Even though child doesn't like the avocado.

Attitudes, beliefs and familiarity	<p>Cannot tell about customers. But in the end they value the avocado as they buy it.</p> <p>Avocado is very healthy and should be included into everyone's diet. Furthermore, it is simple to prepare and a healthy variation.</p>
Socio Demographic Factors	<p>Professionally he uses the avocado sliced in sandwiches. The avocado makes especially "healthy" and often dry sandwiches more juicy and likable for the customer. In classic sandwiches one often uses mayonnaise, butter or margarine to get this effect. In healthy sandwiches this is not accepted by the customer. Critical point here is that the avocado changes the color when being exposed to air. Therefore, sandwiches need to be wrapped in foil and/or sold fast after preparation. Customers from every age buy sandwiches with avocado, but they have to have money as in the healthy segment and especially sandwiches containing the avocado, prices are high.</p> <p>He mostly uses avocado when preparing nachos and guacamole at home, his wife uses it for breakfast (on toast) or as a snack. They buy it, but not too often as it is perceived to be higher priced.</p> <p>Married, one child, no high school degree.</p>
Social influences	<p>As he is doing fitness on a regular basis he follows many celebrities in this field on social media. From there he gets his knowledge about food and nutrition (articles, blog posts, videos, etc.) and trusts this information.</p> <p>Main influence is his wife and social media. No influence towards the avocado from the rest of his family, most of them barely know the avocado.</p>

Interview 6, Nov 16th:

Abstract	<p>Alexander C, 23, Consultant, Vienna (Urban Area).</p> <p>Interview-format: Face to face</p>
Search Attributes	<p>Ripening is an essential factor. The avocado should not be too hard or too soft. Price is an important factor. Is evaluated in comparison with ripeness factors. Buying decision is impulsive, i.e. he would eat 10 per week when they are in promotion and of a good quality.</p>
Experience attributes	<p>Positive experiences. Loves taste and texture.</p> <p>Buys between 1-3 avocados per week.</p>
Credence attributes	<p>No preferences or influence.</p>
Attitudes, beliefs and familiarity	<p>He has basic knowledge about healthy nutrition. As he is doing fitness at least 3 time a week (with a plan) he tries to optimize nutrition (high protein, etc.). Was already on several diets. Knows about the fat content of the avocado but is not too strict with fat and therefore avocado with its good fats is perceived to be good as it is not eaten with a high frequency.</p>
Socio Demographic Factors	<p>He uses it as breakfast or cold snack in between. Prepares the avocado smashed on a sandwich or sliced within salads or on sandwiches.</p> <p>He gets all the nutritional/diet knowledge from the internet. He and his girlfriend and both try to eat more healthily when preparing meals at home (are both on diets in frequent time intervals).</p> <p>University degree, in a relationship, no child</p>

Social influences	As he is doing fitness on a regular basis he follows many food and fitness blogs in this field on social media. From there he gets his knowledge about food and nutrition (articles, blog posts, videos, etc.) and mostly trusts this information (even though he is critical). Main influence is his definitely social media (he is mostly responsible for food preparation). No influence towards the avocado from the rest of his family, but early influence on dietary issues.
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Interview 7, Nov 16th:

Abstract	Julian H, 27, Regional Manager Retail, Linz (Urban Area). Interview-format: Face to face
Search Attributes	Ripeness is an essential factor for customers, but all types of avocados are successfully sold. Price is perceived to be essential to customers but one is able to offer very competitive prices. Indeed, price and offered quality direct many caterers and chefs to his supermarkets. Supply of avocados (variety, quantity) has strongly been expanded in the last years. However, there is just one avocado product type which is in the product range all year: the pre-packed (two units) avocados, ready to eat. The rest (greenskin and Hass avocados in different quantities) are offered when there is enough supply.
Experience attributes	Positive experiences.
Credence attributes	No recognizable preferences or influence to his customers.
Attitudes, beliefs and familiarity	Health food is becoming a booming trend and more and more important to the discount segment in retail. Discount shoppers seem to be willing to pay more and more for healthy food.
Socio Demographic Factors	In Austria customers from all socio demographic backgrounds buy in discount stores. Purchases are planned and customers are loyal. No perceived significant socio demographic differences among avocado shopper. No specific data available.
Social influences	N.A.

Interview 8, Nov 16th:

Abstract	Astrid H, 27, University Professor, Linz & Dresden (Urban Area). Interview-format: Telephone
Search Attributes	Ripening is an essential factor. The avocado should be ready to eat and should not contain bruises on the outside. The avocado should not be too hard or too soft. Price not an important factor.
Experience attributes	Generally positive experiences. Negative experiences with some sorts of avocados (brown stains, etc.) but quality and offered varieties are experienced to be much better than years ago. Buys about 1-2 avocados per week.
Credence attributes	Big influence. Tries to buy just organic products.

Attitudes, beliefs and familiarity	Has deep knowledge about healthy nutrition. Has never been on a diet, is convinced that an appropriate amount of sport and a balanced nutrition is key for a healthy life. Knows about the fat content of the avocado but is not too strict with fat and therefore avocado with its good fats is perceived to have a positive influence.
Socio Demographic Factors	She uses it primarily for cold dinners (usually doesn't eat snacks between breakfast, lunch, dinner) Prepares the avocado smashed on a sandwich or sliced within salads or on sandwiches. However recently she started to experiment and actively search for new recipes. Got in touch with the avocado before the 2000's but didn't buy it as there were not many recipes featured in books/magazines and quality was not good. University degree (PhD), married, 2 children, 2 grandchildren
Social influences	Main social influence is the family where such topics are discussed as well as books/magazines. Not a user of social networks.

Interview 9, Nov 16th:

Abstract	Nora H, 35, Accountant, Linz (Urban Area). Interview-format: Telephone
Search Attributes	Ripeness is an essential factor. The avocado should be ready to eat and should not contain bruises on the outside. The avocado should not be too hard or too soft. Price not an important factor.
Experience attributes	Generally positive experiences. Buys approximately 4 avocados per week (for two persons).
Credence attributes	Big influence. Buys just organic products.
Attitudes, beliefs and familiarity	Has basic knowledge about nutrition. Has never been on a diet, is doing little sport. Is convinced that a conscious food intake is essential. Knows about the fat content of the avocado but is not too strict with fat and therefore avocado with its good fats is perceived to have a positive influence.
Socio Demographic Factors	She uses it just for cold guacamole. She is not cooking much, it is her husband who cooks and brought the idea about avocado. They got in touch with the avocado 2 years ago when they made a Mexican tapas evening for friends. Her husband got his recipe from Jamie Oliver (online) and since then they just prepare the avocado with this recipe. Her kids would never try it because of color and texture. University degree (Mag.), married, 2 children
Social influences	Main social influence is the family where such topics are discussed as well as books/magazines. User of social networks (Facebook, Instagram). Does not share/create food-relevant content on her own. Also doesn't read too much about it on social media (follows mostly fashion and parenting related blogs and pages).

Interview 10, Nov 24th:

Abstract	Marian D, 27, Fitness Coach/Bike Courier, Linz (Urban Area). Interview-format: skype
Search Attributes	Does not consume the avocado.
Experience attributes	negative experiences. Boring taste, often too hard.
Credence attributes	Would be important, but as long as the avocado cannot be grown locally he won't buy it
Attitudes, beliefs and familiarity	He has advanced knowledge about healthy nutrition. As he is doing fitness at least 5 time a week (with a plan) and tries to optimize nutrition. Tries to live vegetarian and invest a lot of time to find local produces. Du to budgetary constraints and because he enjoys sport in the nature, he tries to find many nourishments in the nature on the countryside (nuts, mushrooms, fruits, etc.).
Socio Demographic Factors	He gets all of the up-to-date nutritional/diet knowledge from the internet. He generally tends to question many news in the internet and is open minded for critical articles in every extent. He and his girlfriend both try to eat clean/healthy when preparing meals at home. Mostly eat at home. No high school or higher degree, in a relationship, no child
Social influences	He follows just a few fitness- and nutrition related blogs/pages on social media. He is not a heavy user of social media and he mostly uses it to get "alternative" news which he perceives not to get on the common news portals. Still, he recommends the avocado to his clients, when being asked about it but emphasizes that there are more sustainable ways to get nutritional components similar to the avocado. But he acknowledges that the avocado is, from a nutritional point of view, a great nourishment for people who want to eat healthier and reduce bad fats in their nutrition. Furthermore, it is very easy to buy and prepare the avocado nowadays and therefore is great for people who want to change their lifestyle towards a healthier direction (in the beginning of their process, later he think that they should also think more about their ecological impact of their diet).

Interview 11, Nov 24th:

Abstract	Larissa R, 26, physiotherapist, Linz (Urban Area). Interview-format: Skype
Search Attributes	Ripening is an essential factor (perception that most of the avocados in the supermarket are ripe or almost too ripe). The avocado should not be too hard or too soft. Price can be an important factor. But as the avocado is consumed deliberately, willingness to pay is higher.
Experience attributes	Positive experiences. Loves the taste. Buys 2 avocados per week.
Credence attributes	Organic labelling is the most important factor for a positive buying decision (much more important than price).
Attitudes, beliefs and familiarity	She has professional knowledge about healthy nutrition. (Healthy) Nutrition was always a very present part of her life. Tries to live very healthy. Beliefs that the avocado is very valuable for her as a woman due to the fact that she eats not much meat and tries to avoid animal fats wherever she can.
Socio Demographic Factors	Prepares the avocado mostly at home sliced or smashed (depending on ripeness), guacamole when friends come over. Gets less knowledge and inspiration from the internet because of little usage of social media. Mother is nutrition coach, hence those topics have been discussed and present ever since. University degree, partner, no child

Social influences	<p>Does not/less follow nutritional content on social media.</p> <p>Still, he recommends the avocado to her clients, when being asked. Thinks that especially for people who want to eat better and are just starting it off with a little knowledge, the avocado and knowledge about the avocado are a good introduction into the whole topic. It is more easy to buy and prepare the avocado nowadays.</p> <p>Discusses nutritional topics during her everyday work with colleagues who are also specialized on nutrition.</p>
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Interview 12, Nov 30th:

Abstract	<p>Michaela H, 46, commercial agent for avocado import and distribution, Munich.</p> <p>Interview-format: telephone</p>
Search Attributes	<p>Distributing ripened and packaged avocados to Austria. One is a main supplier to retail chains. Price is essential for commercial and gastronomic clients, but delivery reliability, ripeness and quality is recognized to be more important to customers.</p> <p>One cannot reliably say how much of the marketed avocados go to the gastronomic industry and how much goes to retail as in this business many agents and sub-distributors are engaged.</p> <p>One sell 6-8 percent to gastronomic businesses or wholesale for business clients but these numbers are not significant due to the various intermediaries and coalesced channels of distribution.</p>
Experience attributes	N.A.
Credence attributes	Not important, quality attributes are most important.
Attitudes, beliefs and familiarity	N.A.
Socio Demographic Factors	N.A.
Social influences	N.A.