# CONSUMER BEHAVIOUR AND DECISION-MAKING PROCESS OF MATURE CONSUMERS IN FINNISH RETAIL ENVIRONMENT

# University of Jyväskylä School of Business and Economics

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#### ABSTRACT

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Abstract

Population across the world is aging at a steady rate and the consumer segments consisting of mature consumers will grow larger. These segments are not only large, but also wealthy and have spare time to allocate to purchasing goods and services, making them very lucrative to marketers.

This thesis aims in building understanding on the consumer behaviour of mature consumers and their decision-making process. This will be achieved by first reviewing academic literature focusing on these topics, followed by a quantitative research on consumer behaviour and the age-related differences it possesses. The research offers insight into Finnish consumers behaviour in the context of information search, social media usage and shopping difficulties.

This thesis uses two data sets with similar surveys from years 2019 and 2020. The data was collected from Finnish retail consumers. The 2019 data set is used mainly to reach the desired research objectives. The 2020 data set is used as a complementary one for the main research questions, but it also serves as a vital part in determining recent changes in consumer behaviour due to the COVID-19 pandemic. The total number of respondents was 2156 in 2019 and 2568 in 2020 and the respondents represent an accurate geographical sample of Finnish consumers.

The results indicate that there are differences in how differently aged consumers behave. Specifically, there are differences how differently aged mature consumers behave, indicating that placing people aged 55 and above in the same segment might not be adequate to address all their wants and needs. In addition, the effects of COVID-19 on consumer behaviour were partly discovered and the results indicate that the changes are minor compared to for example, what is presented in the media.

Keywords

mature consumer, consumer behaviour, consumer decision-making process

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# TIIVISTELMÄ

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Tiivistelmä

Maailman ikärakenne vanhenee jatkuvasti ja asiakassegmentit, jotka koostuvat senioreista, kasvavat entisestään. Nämä segmentit eivät ole pelkästään suuria ihmismäärältään, vaan myös varakkaita sekä halukkaita käyttämään lisääntyneen vapaa-aikansa tuotteiden ja palveluiden kuluttamiseen.

Tutkielma pyrkii luomaan ymmärrystä seniorikuluttajien käyttäytymisestä sekä ostopäätösprosessista. Tutkimuksen tavoitteet saavutetaan laatimalla ensin aihepiirin käsittävä kirjallisuuskatsaus, jota seuraa kvantitatiivinen tutkimus kulutuskäyttäytymiseen ja siihen, millaisia iästä johtuvia eroavaisuuksia käyttäytymisessä ilmenee. Tulokset luovat myös lisää ymmärrystä suomalaisten kulutuskäyttäytymiseen, erityisesti informaation etsinnän, sosiaalisen median käyttötarkoituksen sekä ostamisen vaikeuden konteksteissa.

Tutkielmassa käytetään kahta dataa, jotka perustuvat samankaltaiseen kyselytutkimukseen ja joista toinen oli kerätty vuonna 2019 ja toinen 2020. Data kerättiin suomalaisilta vähittäiskaupassa asioineilta kuluttajilta. 2019 dataa käytetään tutkimuksen tavoitteiden täyttämiseen ja 2020 datan rooli on varsinaiselle tutkimustavoitteelle toissijainen. 2020 datalla voidaan kuitenkin pyrkiä selittämään COVID-19 pandemian aiheuttamaa kuluttajakäyttäytymisen muutosta. Kyselyyn vastaajien määrä vuonna 2019 oli 2156 ja vuonna 2020 2568.

Tulokset indikoivat, että eri-ikäiset kuluttajat myös käyttäytyvät eri tavoin. Usein markkinoinnissa seniorikuluttajat segmentoidaan yhteen segmenttiin - 55-vuotiaat ja vanhemmat. Tutkimuksen tulosten perusteella voidaan kuitenkin kyseenalaista tämä segmentointitapa, sillä segmentin sisällä olevat, eri-ikäiset kuluttajat käyttäytyivät merkittävän eri tavoin. Lisäksi tutkimuksessa käytetty data mahdollisti COVID-19-pandemian aiheuttamien kulutuskäyttäytymisen muutosten analysoinnin ja yhteenvetona voidaan todeta, että kulutuskäyttäytyminen on muuttunut jonkin verran, mutta ei läheskään niin paljon kuin yleisesti ajatellaan.

Asiasanat seniorikuluttaja, kulutuskäyttäytyminen, ostopäätösprosessi Säilytyspaikka Jyväskylän yliopiston kirjasto

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## 1 INTRODUCTION

The age structure of many developed countries has been affected by higher life expectancy and lower birth rates resulting in the rapid growth of the older people segment, that is, the people aged 55 years and older (Moschis, 2012; Yoon & Cole, 2008). The fact that people are living a longer and healthier life results in a natural change in consumer behaviour. In addition, these also affect the lifetime value of customers, which is a standard metric in marketing. Adults now spend the longest time of their lives at the later adulthood stage than in any of the other steps determined by traditional marketing. The mature segments have also grown up in a vastly different world than the current one, which might have changed how they perceive the world as well as the underlying attitudes and values they possess. Marketers can try and understand the differences in behaviour by comparing these older segments with the younger ones, but it is equally important to compare differently aged people inside the mature segments.

Many marketing researchers have ignored the older market possibly because of inaccurate stereotypes deeming them to be for example being poor and already tightly fixed on specific brands, which has resulted in a lack of marketing research in this segment (Moschis, 2012; Lian & Yen, 2014, Yoon & Cole, 2008). Luckily, the potential which the mature market possesses is being recognized by research, governmental agencies, and businesses alike (Yoon & Cole, 2008).

This thesis will aim at filling the gap in marketing research, especially regarding mature consumers or the so-called silver market. The research objective is to identify different behavioural changes in the context of consuming that can be explained by increasing age. To understand these changes, it is crucial to also understand the fundamentals of consumer behaviour, that is, how and why we consume products and services. The core areas of interest for this research lay in the information search stage of the consumer decision making process, channel preferences, social media usage and shopping difficulties. To understand how different age groups consume products and services, it is beneficial for this thesis to compare different age groups with each other and identify key differences. This means that not only would the thesis focus on ages 55+ as a homogenous group but instead compare age groups 55-64, 65-74 and 75-80 as separate segments and try to identify critical differences between each group. To highlight the differences in the consumer behaviour and buying decision process of mature and young consumers, this thesis will also compare the older segments with their younger counterparts. Even though research suggests that chronological age might be a poor variable in explaining changes in behaviour, it is commonly used in marketing research as well as this thesis, as the data collect-ed segments the respondents based on chronological age.

This thesis uses a quantitative approach and utilizes two data sets collected to investigate the consumer behaviour of Finnish consumers by Vähittäiskaupan tutkimussäätiö during years 2019 and 2020. Both data sets are large (n=2156 &

n=2568) and form a comprehensive sample of Finnish consumers. Both data sets are collected by surveys and consists of similar questions. The first data collected in 2019 has a better sample of the mature segments than the 2020 one and thus it will be mainly used to answer the research questions.

The COVID-19 pandemic grew to affect the whole world between the collection of these two data sets and has certainly altered consumer behaviour. Although the pandemic has caused widespread damage to individuals and businesses alike, it possesses a vital research topic for consumer behaviour and marketing. This is due to the fact that consuming products and services has changed fundamentally and as people have resorted in staying at home, the online aspect of buying might have spread even to those that might have resisted it in the past. Businesses have had to cope with the situation and offer new ways of purchasing to their consumers as well as come up with new and improved ways of serving their customers. The data collected in 2020 will be used to investigate the changes in behaviour that could be attributed to the pandemic.

This paper has been divided into four sections. It starts with a theoretical framework consisting of a literature review on relevant academic research. Next, data and the selected research methodology are described after which the data is analysed, and results presented. The final section consists of conclusions from the research results as well as discussion and practical implications.

The literature view was conducted with the aim of understanding what previous research has found on both mature consumers and consumer behaviour. The first chapter of it focuses on mature consumers by first exploring the mature market to understand its size and distinct features. After this, the segmentation of mature consumers is investigated with the aim of exploring alternative solutions to using chronological age. The second chapter of the literature review focuses on consumer behaviour, especially on the consumer decision-making process. The traditional five-stage model of buying decision process is used as a basis of this chapter, as it consists of the fundamental processes which are in place when consumers make decisions. However, the downside of relying solely on this model is that it fails to comprehensively explain decision making in the modern digital era. Thus, an alternative model called the customer buying path is presented and discussed. To bundle together mature consumers and consumer behaviour, the decision-making process is revisited with age related factors that might influence it. This is because aging does affect consumers in various ways and by viewing these changes in the context of decision making, they can be easily understood in practicality. The differences that cannot not be fully linked with the decision-making process yet are still important to understand are discussed in a separate chapter. In the third and last chapter of this section, the effects of COVID-19 on consumer behaviour are investigated. This is due to the timely nature as well as the relevance of the pandemic on this research. By analysing the research on COVID-19, this thesis can build understanding on the underlying topics and use them in the research conducted. Naturally, as the pandemic is so recent, there results from the literature review are limited.

Data and methodology are defined in the section following the literature review. The nature of this thesis is quantitative and two different, yet similar data sets are used for their own purposes. The more comprehensive, 2019 data set is used analyse consumer behaviour and the changes that can be attributed to aging. The chapter outlines the demographics of the survey respondents and briefly describes the data collection methods. In addition, the chosen data analysis methods are presented. This study focuses on using one way variance analysis to compare the means of different age groups to spot possible significant differences between them.

Section four consists of the results and analysis of the research conducted. The section is split into subheadings by common themes: channel preference, information source usage, social media in decision-making and shopping difficulties. Additionally, the results on COVID-19 and its effect on buying behaviour are presented. In the last section of this study, the results are discussed, and conclusions made. Practical implications are also presented at the very end.

# 2 THEORETICAL FRAMEWORK

#### 2.1 Mature consumers

This chapter focuses on building understanding on the mature market. First, we investigate why marketers should develop interest in this market. This includes the size of the segment and especially the changing population forecasts which highlight the rapid growth of mature consumers. Other lucrative aspects of the mature market are investigated, such as the wealth of the segment and customer lifetime value of mature consumers. Age as a segmenting variable is discussed and alternatives for relying solely on chronological age presented.

#### 2.1.1 The mature market

The world is aging at a very rapid rate. In 2050, 1 in 6 people in the world will be over 65 years old. This is a significant increase from 1 in 11 in 2019 (United Nations, 2019). Both the developing countries and the ones already developed will go through the longevity revolution, which raises the chance of surviving to age 65 from less than 50 percent to more than 90 percent as it already is in the countries with the highest life expectancy. (United Nations, 2019.) Figure 1 demonstrates the rapid change in population forecast by geographic regions. The slightest change in population is in Europe and Northern America, where the amount of people aged 65 years or older is estimated to grow 48 percent from 2019 to 2050. The largest growth of mature segments is estimated to hap-pen in Northern Africa and Western Asia (226%) and Sub-Saharan Africa (218%).

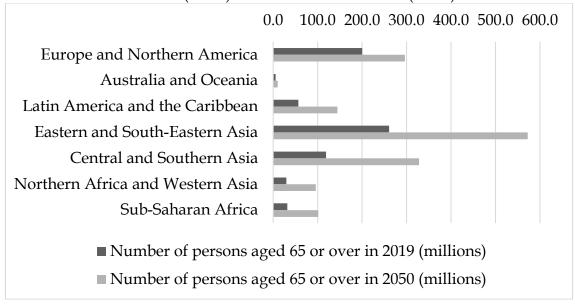


FIGURE 1 People aged 65-years or over by geographic region. (United Nations, 2019, p. 5)

In Finland alone, there are currently 1,2 million people aged over 65-years in, and it is estimated that this will grow with nearly 600,000 people by 2070, while simultaneously the number of children will decrease by 270,000 and working-aged people by 470,000 (SVT, 2018). The proportion of mature consumers can vary across populations, but generally, they represent about 20% of consumers in the developed countries (Milner & Rosenstreich, 2013). Figure 2. demonstrates the aging of population in Finland. This shift of demographics presents a significant challenge for companies and societies alike. Yet, at the same time, it is an excellent chance and opportunity to thrive. The market is currently full of opportunity for both B2C and B2B sectors as the workforce of organizations is also ageing thus the need to adapt to this constantly grows (Kohlbacher & Herstatt, 2008).

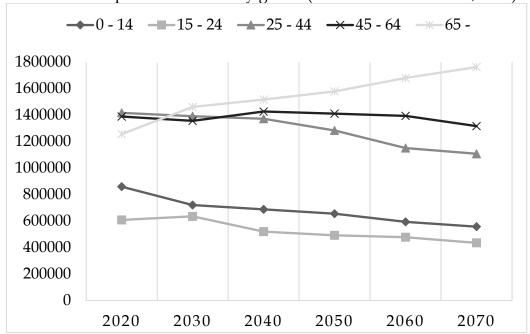


FIGURE 2 Population forecast of Finland (SVT, 2018)

Many western countries have been through a demographic breach while moving from an agrarian society into an industrial society (Kestilä & Martelin, 2019). The breach has resulted in the decline of both birth and death, gradually in-creasing the life expectancy of people due to better public health, immunizations, widely available proper nutrition, and advances in the medical field (Kestilä & Martelin, 2019; Moschis, Ferguson, & Zhu, 2011). The baby boomer generation (people born between 1944 and 1964), for example, are likely to have longer life spans than the previous generations (Hopkins, Roster & Wood, 2006). Constant technological advancement result in solutions which can be even more widely used to improve the quality of life of elder people. When observing from a business perspective, this means that there is a continually, growing number of mature consumers, and thus the segment should be ade-quately addressed. Ageing of our society makes mature consumers an im-portant potential market for future online shopping services (Lian & Yen, 2014).

In addition to the sheer size of this segment of consumers, they are also economically stable and have the disposable income to spend on goods and services (Birtwistle & Tsim, 2005; Yoon & Cole 2008). Furthermore, they also have an increased amount of time to invest in buying and consuming after their retirement (Lian & Yen, 2014). Moschis and Nguyen (2008) found that mature consumers hold the highest amount of wealth in all western nations. For exam-ple, in the US, it is estimated that mature individual's control over 70 per cent of all assets and 45-54-year-old consumers spend over 17 per cent more per capita than average, followed by 55-64-year-olds who spend 15 per cent more than av-erage (Birtwistle & Tsim, 2005). As the number of mature consumers continues to grow, the wealth of this segment will be highlighted even further. This makes the older segment very attractive to marketers. (Moschis, 2012.) Howev-er, even though age and retirement often result in mature consumers having more time and other resources for shopping, they are today a sophisticated group of consumers who do appreciate good quality, service, and convenience (Kohijoki, 2011).

As life expectancy continues to grow, mature consumers will stay in the segment for a gradually increasing amount of time, and thus increasing customer lifetime value. The lifetime value of mature consumers is highlighted even further, since it has been demonstrated previously that loyalty towards a service provider increases with age (Birtwistle & Tsim, 2005, Lipke, 2000). As more and more countries move from a developing into a developed state, an increasing number of people spend even more time of their life in the mature segments. Due to the ever-growing relevance of mature consumers, researchers are interested in how aging affects the behaviour of these consumers and how behavioural changes influence the marketing efforts needed to attract this fit and wealthy segment even better (Zniva & Weitzl, 2016).

Today's world is highly connected, and information is vast-ly available, thus these times are often called the information age. During this age, the technological capabilities of an individual can have an enormous role in consuming products and services. Whereas the last couple of generations of mature consumers have been limited with their technological capabilities, the current ones are rapidly developing their skillset. This combined with the accelerated and widespread availability of the internet, changes the online aspect of consuming from merely a tool confined to a particular group of people into a widely used tool of for all consumer groups. Additionally, this trend lowers the usage barrier for those that are not so tech-savvy. (Burkolter & Kluge, 2011.)

At first, research focusing on aging and how it affects decision making was published in the areas of gerontology and psychology. Quickly, marketers realized the need for aging related products and the huge untapped market. The influence of aging in the context consumer behaviour and marketing has been researched since 1970. The first reviews focused on the growth of the mature market (Zniva & Weitzl, 2016). The current research on the effects of aging in consumer behaviour and marketing is quickly finding new and interesting topics. For example, Barnhart and Penaloza (2003) investigated mature con-sumers with poor health who require the help of another person to consume products and

services. They suggest that there is a new and emerging group of consumers, called the elderly consumption ensemble, which consists of per-sons that help mature consumers consume. This is just one example of what future research might steer towards to.

#### 2.1.2 Age as the segmentation variable

Research most often segments mature consumers by their chronological age, meaning their age in numbers, even though it has been noted already in 1980s that this type of homogenous segmentation might reduce the knowledge about the behaviour of mature consumers (Mochis, 2012). The reason behind this is that mature consumers can have a wide variety of different backgrounds and life histories which have affected their wants and needs, resulting in varying consumption preferences (Kohlbacher & Herstatt, 2008; Mochis & Mathur, 2007; Thomas & Peters, 2009).

Most often research on mature consumers sets the chronological age of being old to 55 years or. Based on research, 55+ is the age that most old people themselves accept as being old. In addition, it is the age limit of census and people aged 55 years or older have been found to share similar values. The second most popular age group deemed "old" are those of 65 years or older. (Zniva & Weitzl, 2016.) Mochis (1998) states that choosing the right chronological age for defining old age depends highly on the topic of the research.

There are alternative ways to segment mature consumers which might have the possibility to explain their behaviour better. Birtwistle and Tsim (2005) suggest a simple solution, by stating that the mature market can be sub-grouped by, for example, employment status, ethnic group, and education. The concept of family lifecycle stages could also be suitable for segmenting mature consumers. Javalgi and Dion (1999) found that different family lifecycle stages rise differences in financial services needed. Family lifecycle stages can be split into various segments, for example, empty nest I (older married couples, family head still working) and empty nest II (family head retired) (Javalgi & Dion, 1999).

In developmental psychology, researchers segment old people into three smaller segments based on their chronological age: "young-old" (65-75), old-old (75 to 85) and very-old (85+). The young-old tend to be in relatively good health, whereas the old-old already suffer from declines relating to age and can progress into very-old rapidly. (Yoon & Cole, 2008.) Sudbury and Simcock (2009) argue that using cognitive age instead of chronological age can be useful for segmentation targeting. Cognitive age means the self-perceived age of a person, which can differ significantly from a person's chronological age. Cogni-tive age is further explained in chapter 2.2.2. when age related factors on con-sumer behaviour are discussed.

Moschis, Ferguson and Zhu (2011) claim that the basis for segmenting mature consumers relies on focusing on the psychological states, which are the manifestation of ageing processes, life circumstances and life-changing events. These three define consumers' needs and act as drivers for buying patterns. The segments derived from psychological states are called gerontographic seg-ments.

This type of segmentation is commonly used against the typical socio-demographic segmentation because it explains the differences in shopping, patronage, and consumption habits of mature consumers thoroughly. Geronto-graphic segments consists of four groups of mature consumers: (1) healthy hermits, (2) healthy indulgers, (3) ailing outgoers and (4) frail recluses. These groups and their notable characteristics can be found in table 1.

TABLE 1 Gerontographic segments (Moschis et. al., 2011, p. 789-790)

Gerontographic segment	Notable characteristics
Healthy indulgers	Socially engaged, active, independent,
	healthy, active, wealthy
	<ul> <li>Need for selective information</li> </ul>
	<ul> <li>Likely to behave like younger generations</li> </ul>
Healthy hermits	<ul> <li>Socially and psychologically withdrawn</li> </ul>
	<ul> <li>Healthy but not active</li> </ul>
	<ul> <li>Limited consumption needs</li> </ul>
Ailing outgoers	Conscious about their health, but in poor
	physical condition
	Socially active
	Active consumers, financially independent
Frail recluses	Inactive consumers with chronic health is-
	sues
	Mentally strong but prefer to stay isolated
	Most conscious about security

It is likely that consumers move from one segment to another as they age, and their psychological states change over their whole lifespan. Moschis et al., (2011) continue to explain that most older consumers used to be socially en-gaged, in good health and had experienced only a few life-changing events thus entering the later stages in life as healthy indulgers. Naturally, most of us experience life-changing events when we are chronologically older. These events change the mindsets and priorities in life, and this results in changing from the previous segment of healthy indulgers into healthy hermits or ailing outgoers. Some might lose roles in social networks, for example when retiring, but manage to stay in very good health, becoming healthy hermits. Contrarily, if experiencing significant health problems but keeping social networks intact, they will become ailing outgoers. Eventually, most mature consumers will be-come isolated and have significant health problems, thus becoming frail recluses.

# 2.2 Consumer decision-making process

Our lives in the information age revolve around the consumption of both products and services. This means that nearly all our behaviour can be observed from a marketing and consumption point of view. Consumer behaviour consists of all decision-making processes and shopping activities of consumers who are trying to address an individual or household need. It can affect consumers either directly or indirectly in nearly all aspects of our living. Decision making can be defined as the processes of gathering and processing information, evaluating gathered information, and based on this, selecting the best option to solve a problem or address a need. Most often the decision-making process is split into prepurchase, purchase, and post-purchase stages of consumption (Prasad & Jha, 2014).

For marketers, understanding consumer behaviour is critical for various reasons. Companies can outperform their competitors by understanding consumer needs and thus being able to deliver superior products and services. By analysing these needs a company can learn what, where, when and how consumers make purchase decisions and use this knowledge to improve their marketing mix. Additionally, marketers can gain a better understanding of the factors the influence buying behaviour and tailor their marketing strategies accordingly. (Pride, Ferrell & Lukas, 2017.)

Research relating to the consumer decision-making process has in-creased over the last 30 to 40 years. However, very little attention has been paid to a steadily increasing population segment, mature consumers, before the 20th century. (Zeithaml & Bitner, 2003.) As marketers have realized the importance of understanding how mature segments consume, the amount of research has rapidly grown (Beneke, Frey & Chapman, 2011; Hopkins, Roster & Wood, 2006; Myers & Lumbers, 2008; Sudbury & Simcock, 2009).

This chapter will review the research revolving around the consumer buying decision process. The classic five-step buying decision process by Kotler and Keller (2012) is used as a basis and further investigation is done on how aging influences each step of this process. An alternative process is also presented, as it can be more useful in todays digitalized world than the traditional one. Additionally, age related differences in consumer behaviour are discussed and lastly, the effects of the COVID-19 pandemic on behaviour are investigated.

#### 2.2.1 Buying decision process

To understand how consumers behave it is important to understand how the actual buying decision of a certain product or service is formed. The ways individuals evaluate and choose their purchase targets vary greatly, depending on multiple factors, such as the degree of perceived risk involved in the purchase.

There are various models presented in research describing consumer behaviour and the buying decision process (see for example, Engel, Blackwell & Miniard, 1995; Howard & Seth, 1969). Most often consumers follow a series of

stages that lead to the selection of a product or service over competing options (Fill, 2009). Kotler and Keller (2012) present that the stages leading to the decision can be split into the five-stage model of buying decision process (Figure 3.). According to the model, a typical consumer passes through five stages: (1) problem recognition, (2) information search, (3) evaluation of alternatives, (4) purchase decision and (5) postpurchase activity. The fundamental idea behind this model is that the process of purchase begins long before the actual transaction and continues past the transaction (Comegys, Hannula & Väisänen, 2006). The five-stage model is not the only model explaining decision making process and it does not apply to every purchase. Consumers might skip some stages or go through them in a different order. For example, when buying a familiar product, say toilet paper, a consumer might jump straight from problem recognition to purchase decision, as he/she knows what he/she wants to purchase. Contrarily, consumers who are making an expensive purchase such as a boat or a house, might spend extensive amounts of time other resources in each of the steps. Differences in major decisions can relate to the target of purchase, quantity, place, time, and payment (Prasad & Jha, 2014). terms



FIGURE 3 The five-stage model of buying decision process model (Kotler & Keller, 2012, Chapter 6, p. 188)

The decision-making process might be altered by different influences during each step. Price et al., (2018) grouped these into three categories: (1) situational influences such as time, reason of purchase and individual mood and condition, (2) psychological influences such as motives, attitudes, and lifestyle and (3) social influences such reference groups and social classes.

Yoon and Cole (2008) describe the five-stage model as conscious, analytical, reason-based, and relatively slow. They continue by stating that there exists another type of decision making, which is affective and experiential and is associated with intuitive, automatic, associative, and fast decisions. This type of decision making is common for people with limited processing resources, such as older consumers. Due to the decrease in processing resources, they may skip

steps on the general decision-making process and for example hop directly from problem recognition to purchase decision. Most often this skipping of steps is directed by their affective feelings towards the product or service in question (Yoon & Cole, 2008). Older consumers tend to follow the affective and experiential decision-making process because they might want to save their mental energy for more important tasks, thus not fully contributing all their cognitive resources. This leads to consumers having trouble with deliberative decision making as they age. (Hess, Rosenberg & Waters, 2001.)

The five-stage model of buying decision process starts when a consumer recognizes a problem or a need. Both internal and external stimuli can trigger this stage. Internal stimuli relate to an individual's normal everyday needs, such as hunger or thirst reaching a level of unsatisfaction and thus triggers a need that needs to be satisfied. External stimuli on the contrary can come from a variety of different sources (Kotler & Keller, 2012). Common to all of them is that they inspire the individual in question into starting their buying journey buy raising a possibility to make a purchase. Examples of external stimuli can be different ads from different sources, word of mouth or plainly just seeing something that someone else has and you do not. Both demographic (for example age and sex) and psychological factors (for example motivation) can influence this stage of the buying process (Comegys et al., 2006).

Second step of the buying process focuses on information search. Even though it might be intuitive to think that consumers in the information age spend plenty of time and effort in searching product information, it is often the other way around, partly because the online aspect of shopping offers different kinds of recommendation agents that can help reduce the number of potential products that match a consumer's need (Comegys et al., 2009). Kotler and Keller (2012) did a survey on durables and found that half of all consumers only looked at one store and only 30 percent widen their search for more than one brand. They distinguished between two levels of engagement, a milder search state called heightened attention and a more agitated one called active information search. When a person is at a level of heightened attention, they are more receptive to product information. In active information search, as the name suggests, a person spends more resources on finding more information about the product, for example by calling friends, browsing the internet, or visiting stores.

Major information sources into four groups; personal, (e.g., friends and family), commercial (e.g., ads, salespersons, packaging, displays), public (e.g., mass media) and experiential (e.g., examining and using the product). The influence of different sources varies with the product in question and the buyer's personal traits. Although most of the information a consumer receives comes from commercial sources, often the most effective ones are personal or experiential. (Kotler & Keller, 2012.)

When a consumer gathers information about a specific product, he/she learns more about competing brands and goes through a reduction process to find the most suitable one. The search process can be internal or external or sometimes a combination of these two. When using internal search, a consumer

reflects on their past experiences with a similar situation, ponder advertising information or utilizes the experiences of family and friends (Nasco & Hale, 2009). If consumers rely on external information search, they will use other consumers for information or try and find information from advertisements, the internet, or other non-personal sources (Nasco & Hale, 2009). Differences emerge with different levels of expertise. Consumers with more experience are more efficient in their search efforts and thus possess greater knowledge of all alternatives (Comegys et al., 2006).

The search process starts with all the available brands, of which the consumer will come to know of only a few, called the awareness set. The consumer has a buying criterion for the product, which reduces this set down to a consideration set in which the products fill the buying criteria. Comegys et al., (2006) found that better knowledge of the products inside the consideration set can improve its quality and thus both reduce the time spent on searching for information and improve efficiency. The consideration set is often under more investigation by the consumer resulting in a few suitable options called the choice set. It is the last set of products which ultimately lead to a decision (Kotler & Keller, 2012). The type of product or service in question affects the search behaviour of consumers. Tangible goods tend to have more search-based attributes and the need for professional and non-professional services rely more on past experiences as the source of information (Nasco & Hale, 2009). Online environments add various tools for information search and for narrowing down each set of products. They are often dynamic and will alternate the offering based on the information the consumer has already provided (Comegys et al., 2006).

Yoon & Cole (2008) compared the information search behaviour of mature and younger consumers and found out that mature consumers search for information from different sources, and they gather less information before moving to the evaluation of alternatives-stage of the buying decision process. Lin and Yen (2004) continue by stating that they also spend less time searching for information about financial products. Patterson (2007) studied mature consumer's holiday destination decision making and found that personal word-of-mouth information sources are the most important and effective. Nasco and Hale (2009) found that mature consumers consulted a few information sources when doing service decisions. When searching for information about cars, mature consumers search for fewer brands, dealers, and models (Lambert-Pandraud, Laurent, & Lapersonne, 2005). Nasco and Hale (2009) also discovered that information and search and consideration of multiple service providers decreased when the age of the consumer increased. Mature consumers tend to not compare alternatives, but instead, consult usually only one or two information sources. They rely heavily on personal sources of information as well as deem advice and requests of relatives and recommendations of salespeople as important factors affecting their decision making (Nasco & Hale, 2009; Moschis et al., 2011). In general, information search is negatively related to age in the buying decision process (Nasco & Hale, 2009).

Differences in information search between mature consumers and other age segments depend on task characteristics. For example, the number of different information sources consulted depends heavily on the service context. For example, Nasco and Hale (2009) found that medical and financial services required fewer information sources to be consulted than home services did. Differences may not emerge when consumers are performing simple tasks such as shopping for groceries. However, when the task is familiar but complex, mature consumers search for less information, partly due to their past experiences in the buying strategies and purchases of the product in question (Yoon & Cole, 2008). The reason for mature consumers' low use of resources in information search might be a result of diminished cognitive capacity. For example, their working memory might have declines, making it increasingly hard to remember possible alternative products and services (Yoon & Cole, 2008).

After a consumer has searched for information on the choice set of a product, he will face the evaluation of alternatives. They tend to set rules and attribute cutoffs for the choice set (Comegys et al., 2006). This means that when they evaluate a product or service, they tend to seek out information to judge if the product in question meets their beforehand asserted criteria. They use information effectively to form individual beliefs about the likelihood of the product meeting their specific need (Hervé & Mullet, 2009). Milner (2013) states that this step might be the most prominent one in decision making, as many consumers rely on prior knowledge and internal criteria when deciding on a purchase. The final value judgement is not an easy task and the processes that revolve around it are highly individual and vary across different product categories as well as change for a single consumer with different buying situations (Kotler & Keller, 2012).

However, there are some fundamental rules that influence the way a consumer evaluates alternatives. A consumer is always trying to satisfy a need and to do that, he is actively looking for certain benefits from the product. The product itself is seen as a bundle of different attributes and abilities that when combined can fill the need. These attributes of interest vary by product, for example, colour might be important when buying a car and weight might be important when buying a laptop. Most attention is naturally paid to those attributes that match with the desired benefits. The attributes themselves and their weighing is a result of previous experiences, beliefs and deeply rooted personal attitudes. (Kotler & Keller, 2012.) Huber and Klein (1991) found that when the reliability of an attribute that a consumer is considering is high, which is often the case when information comes from a reliable source, the cut-offs of said attribute are more severe.

Mature consumers might perceive their time horizon as limited due to their increasing age, which might change how they behave when evaluating alternatives. For example, Yoon and Cole (2008) suggest that they might put greater emphasis on emotionally meaningful goals which influence the type of information used when evaluating alternatives and in making a purchase decision.

After evaluating alternatives and having ranked their choice set, the consumer faces purchase intention before arriving at purchase decision. Purchase

intention is affected by three choice heuristics: conjunctive, lexicographic, and elimination-by-aspects (Kotler & Keller, 2012). Using the conjunctive heuristic, the consumer sets minimum requirements for the sought-after attributes and selects the first product that meets them. With lexicographic heuristic, the purchase decision leans towards the best brand based on the most important attribute. Lastly, if using the elimination-by-aspects heuristic, the consumer gradually reduces the alternatives based on the importance of attributes until there is just one option left. Consumer might use multiple heuristics to manage and reduce the number of alternatives in their choice set.

Additionally, two other factors might play a role between purchase intention and decision. Firstly, the attitude of another person towards the selected product can influence the decision depending on the insensitivity of the negativity. This means that the more negative the attitude and the closer the relationship between the person and the consumer is, the more it will influence the purchase intention and vice versa (Kotler & Keller, 2012). Comegys et al., (2006) highlight that as online shopping usually happens in a more private environment, the influences of others are reduced at the point of purchase. Secondly, unanticipated situational factors, like life-changing events, can alter purchase intention. There are six different types of perceived risks involved in purchase decisions, of which one or more can intervene a decision by modifying, postponing, or avoiding purchase. The risks are functional risk (product does not perform as expected), physical risk (the product might hurt the user physically), social risk (others think the product is embarrassing), psychological risk (affects the mental health of the user), financial risk (is the product financially worth it and time risk (opportunity cost of finding another product in case of product failure). Age might also influence the behaviour of consumers in the purchase decision-stage. Yoon and Cole (2008) found that mature consumers tend to avoid making decisions by postponing a delegating them.

When consumers assume the role of a decision-maker, they should include all cues which are diagnostic or predictive of the outcome to make effective decisions. However, this seldomly happens and the process is often done sub optimally which is a direct result of decision-makers focusing on just a small number of cues. (Herve & Mullet, 2009). Even though there are many theories that explain need recognition, information search and evaluation of alternatives as prerequisites for making a purchase decision, there are occasions when none of these theories apply. These occasions are called impulse purchases and they happen when a consumer makes a purchase based solely on their emotions and impulses (Comegys et al., 2006).

The purchase process does not end when a purchase has been made but continues onward. This, the last stage of the five-step model is called post-purchase behaviour (Kotler & Keller, 2012). This is a crucial part for marketers as they need to understand their customers behaviour after the purchase if they wish that their customers return to make more purchases in the future. Post-purchase behaviour can be summarized as the result of the consumer comparing the expectations set towards the purchase in question and how it performs against

those expectations. (Comegys et al., 2006.) It can be split in to two subgroups, postpurchase satisfaction and postpurchase actions (also known as loyalty).

During this stage, a consumer is highly alert to information that might support the purchase decision made or converse. Typical actions taken by the consumer during this stage are for example, searching for information to reinforce the decision made, returning a product if expectations are not met as well as communicating with the manufacturer or reseller. Evanschitzky et al., (2004) found that the most important factor for creating satisfaction in online purchases is convenience. They investigated online purchases, in which convenience is usually highlighted when compared to offline purchases. If a consumer is dissatisfied with their purchase, they might complain about the purchase or even return it (Comegys et al., 2006). Postpurchase actions include brand preference and repurchase intention and their relationship. Some studies found that satisfaction leads to loyalty, but some have found that it is always not the case (Comegys et al., 2006). Other interesting research findings imply that loyalty has a positive effect on brand preference and that the strength of consumers brand preference has a positive relationship with repurchase intentions (Comegys et al., 2006).

## 2.2.2 Customer buying path

Although the five-stage model of buying decision process presented in chapter 2.2.1 is comprehensive, it was created before the rapid raise of the internet and the changes in consumer behaviour it brought alongside. Although the technology that we currently use daily has already existed, it is the convergence of these technologies that has had a tremendous impact on marketing. Marketing needs to adapt to the evolving nature of the paths to purchase in the current digital economy and help guiding consumers from awareness to advocacy. Customers no longer passive targets for marketing, but instead they co-create value with the companies. Customer communities are more powerful, vocal, and not afraid of big companies and brands. They love sharing stories, both positive and negative, which affect how other members of these communities perceive a brand. (Kotler Kartajaya & Setiawan, 2016.) With the development of technology, the offline and online shopping environments will coexist and converge as opposed to online taking over offline (Hwang & Kim, 2019). As a result, the future of marketing will be seamless blend of online and offline experiences.

Traditionally a consumer's decision-making process has been driven by individual preference and a desire for social approval. The importance of these two variables varies individually as well as with the industry and product category. When making a purchase decision, customers are typically influenced by three factors: marketing communications in different media, persuasion efforts from family and friends and personal knowledge and attitudes towards a certain brand. In the current, connected world, social circles are the main sources of influence for decision making because connecting individuals will help them gain and share diverse new information and ideas (Hwang & Kim, 2019). In fact, they outweigh both marketing communications and even personal preference.

Following peers and their opinions is key to the modern consumer which makes most personal decisions fundamentally social decisions. (Kotler et al., 2016.) Kotler et al., (2016) argue that the reason behind this change in decision-making is connectivity. Connectivity increases consumer's interest in social acceptance as well as makes them prone to sharing their opinions and accessing other consumer's opinions in the form of reviews. Soon everyone on the planet will be connected and with that, consumer behaviour will change as everyone can access the reviews of others, and thus possibly make better purchase decisions.

Kotler et al., (2016) go as far as stating that this is the most important change in the history of marketing. It means that a brand cannot anymore try to project itself onto the customers, but instead the customers can decide themselves how they perceive the brand. Increasing customer-to-customer interaction requires new ways of marketing (Blazevic et al., 2013). Connected customers will spot fake advertising and call out inferior quality products on the market. Connectivity reduces the costs of interacting with all the relevant stakeholders included in a decision. Although connectivity is mainly seen as a positive change, bringing plenty of protection and confidence to consuming, it also often limits an individual's ability to decide. Because of widely available reviews and opinions, many make decisions solely based on others. This is reinforced with the decline of trust in advertisements and limited time available for thorough evaluation of alternatives. (Kotler et al., 2016.)

It can be intuitive to think that connectivity and the changes in consumer behaviour it causes is limited to young and digital native consumers. But it should be noted that the young consumers often act as early adopters and inspire mature segments to adopt connectivity. Mature consumers might not have the resources to follow fast-changing consumer landscape, so instead they simply follow and rely on recommendations set by younger generations.

For companies to stand out from the competition and connect meaningfully with their customers, they need to delight them in just a few critical touchpoints, often just one. Delighting customers requires mapping out customer's path to purchase, understanding all touchpoints alongside the path and intervening during touchpoints that matter. If a customer is feeling delighted, they have an increased possibility to turn into customer advocates for the brand. As the opinion of others is often the most valued variable in making a purchase decision, these advocates are vital for success. Thus, the goal of the company should be to delight customers and turn them into advocates. (Kotler et al., 2016.)

To address the impact of connectivity on consumer behaviour, Kotler et al., (2016) formed a framework called Five A's (Figure 4). It is based on the AIDA-model by Lewis, which is widely used in describing the customer path. This traditional perspective might not fully address how consumers engage in a non-linear manner when making a decision (Hwang & Kim, 2019). Kotler et al., (2016) updated it, as AIDAs original, straightforward, and personal funnel-process is deficient for addressing changes caused by connectivity.



FIGURE 4 The Five A's (Kotler et al., 2016 p. 64)

Simplified, the modern purchase journey of a consumer starts from brand awareness and appeal which is a result of analytics-powered marketing, past experiences and recommendations from family and friends, both online and offline. The consumer then initiates further research, utilizing the reviews from other customers. If they then decide to purchase, they will experience a personalized touch from both the machine and the human interface. An inexperienced customer will then turn into an experienced customer who advocates the inexperienced. This whole journey and experience will be fed into the analytics engine which in turn will improve for the next purchase.

As the Five A's model has been found useful in analysing consumer driven influences in the decision-making process, it can help understand consumer behaviour in the modern shopping environment, where the online and offline worlds have converged (Hwang & Kim, 2019). The Five A's stand for aware, appeal, ask, act and advocate.

According to Kotler et al., (2016), the customer path starts from the aware phase, in which consumers are passively exposed to various brands based on their past experiences, external marketing stimuli as well as the advocacy of others. This exposure leads to being aware of different options that can fill the desired need or want. Consumers then process all the input gathered from the awareness phase which results in a few attractive brands. During this appeal-phase they evaluate and rank different brands based on their appeal. Appeal depends on various factors, as well as product category and industry. The individual differences in brand appeal can also be significant, for example the so-called early adopters, who usually are young consumers, respond strongly to brand appeal.

The brands that are most appealing are being investigated further in the ask-phase. More information is gathered from friends and family, the media and directly from the brands in question. During the ask-phase, consumers might also look at reviews from the internet both during an in-store visit as well as at home. A study by Google (2013) found that 84% of US smartphone users searched for price comparison and product reviews while in-store shopping. As mentioned previously, the opinions of others are often valued the most during this phase. Thus, the customer path changes from individual to social. Hwang and Kim (2019) researched the buying behaviour in the context of tourism and found that after the aware and appeal phases, consumers end up with a choice set similarly as in

the five-step decision making process. This set is under heavy investigation and social connectivity is particularly strong.

If consumers are happy with the results from the ask-phase, they decide to act. Acting is not limited to a purchase, but also includes post-purchase activities such as usage and possible complaints about the product of service. As consumers spend time in the act-phase they might develop loyalty towards the brand which might lead in them becoming advocates. Hwang and Kim (2019) found that the more connected consumers are through social media when making a purchase decision, the more likely they will write recommendations during the post-purchase stages.

Advocate-phase is the last of Five A's and during it they might share positive experiences about the brand without prompting. However, most consumers that are in this phase are passive, which means that they need to be prompted to share their experiences. Marketers should not overlook the advocate-phase, as it is often the most critical for success (Hwang & Kim, 2019).

As is with Kotler's (2012) five-step decision-making process, their Five A's are not always a straightforward funnel, but instead consumer paths might skip phases. For example, a consumer might skip the appeal-phase if they are not interested in a certain brand. But as they move directly from the aware to the askphase, they might get a recommendation from a family member which ultimately results in them purchasing the brand that was initially not appealing. Also, similarly with the five-stage decision making process, consumers might return to previous stages. This creates a feedback loop which can alter the other phases. For example, a consumer might gain new insights during the ask-phase which result in adding more brands to the awareness-list.

There are three main sources of influence during the path from awareness to advocacy. Consumer's decisions can be influenced with the combination of outer influence, others' influence, and their own influence. Outer influence, as the name suggest, comes from external sources, usually in the form of marketing communications. Other forms of outer influence include sales personnel and customer service. Others' influence is also external, consisting of the opinions of consumers close circle and family as well as from a broader community, like social media and product reviews on different platforms. Own influence is naturally internal. It is the combination of past experiences and interaction with brands, personal evaluation of them and individual brand preference. These three sources of influence are not in vacuum, contrarily they are always intertwined during the customer path. (Kotler et al., 2016.) For example, outer influence affects other's influence which can affect the consumers own influence, even without them being aware (Blazevic et al., 2013). Naturally, consumers are most open to all types of influence during the ask and act phases. During the ask phase, consumers collect information from different sources and are thus affected by both others and outer influences. When they arrive at act-phase, they reflect on their own influence.

#### 2.2.3 Age related factors

Age-related factors can be categorized according to the framework first published by Moschis (2012), which is a result of Mochis' (1998) study of multiple different disciplines, including marketing, gerontology, and social sciences. According to the framework, the aging process is grouped into three categories: (1) biological aging processes, (2) psychological aging processes, and (3) social aging processes (see Figure 4). These three are accompanied with two additional variables which further affect consumer behaviour: (4) life -events and (5) life circumstances. When the five of these are grouped together, they form age-related factors that influence how mature consumers respond to both product and service offerings. These factors were developed to assess the multidimensionality of the aging process itself, which makes using just chronological age hardly adequate.

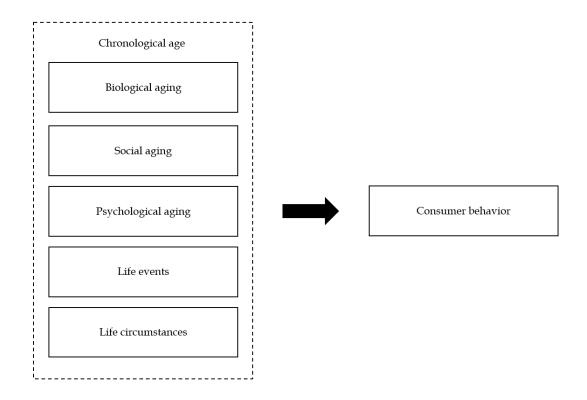


FIGURE 5 Age-related factors (Zniva & Weitzl, 2006, p. 271)

Biological aging refers to the physical changes in human body. There are numerous changes to the human body that can influence the buying journey of elderly consumer and various diseases, or conditions might have an impact on a person's physiology (Schewe, 1988). Most often, biological aging can be noticed in vision, for example, as difficulty in reading fine print, distinguishing specific colours, becoming more sensitive to glare and an increase in time required to adjust to altering light conditions (Moschis, 2012). Other senses are dulled too, as some chronic conditions might require medication which in turn can result in loss of taste and smell. Loss of hearing makes it harder to hear sounds on different

frequencies as well as distinguish certain vowels (Moschis, 2011.) Additionally, biological aging has a negative effect in dexterity, which leads to difficulty in interacting with different objects such as opening bottles and packages (Schewe, 1988). These types of physical changes can influence how mature consumers respond to products and services and they alter almost all aspects of consumer responses (Gregoire, 2003). However, mature consumers might be able to compensate the declines in their cognitive resources by utilizing their long lifetime experience when making consumption decisions (Yoon et. al., 2009).

The changes in physiology can alter consumer behaviour in various ways. De Lorme et al., (as cited in Zniva & Weitzl, 2006, p. 284) found that mature consumers with poor health have a stronger response to direct-to-consumer ads, as widely used in, for example, the pharmaceutical and financial industries. Those consumers who have experienced biological changes, such as hospitalization or hear impairment spend more on culture (Mathur & Moschis, 2005). Furthermore, declines in health highlight the importance of accessibility. This can be shown as having more problems with transporting food purchases as well as an increase in the dissatisfaction of the general shopping experience for grocery-shopping (Hare, 2003; Kohijoki, 2011). Worsley, Chun Wang and Hunter (2011) found that when shopping for groceries, mature consumers with poor health are more likely to value convenience, such as closes of the shopping location and the possibility do all their shopping in one place. Thus, lack of mobility may lead to reduced shopping motivations, social aspects of shopping and interpersonal activities (Rahman & Yu, 2019). In contrast, those consumers with good health interact more frequently with the mass media (Smith & Moschis, 1984) and are more likely to take advantage of discounts (Spiller & Hamilton, 1993).

As consumer's physiology changes due to aging, their interaction with the whole consumer environment changes as well. Changes in peripheral and central nervous systems and coordination of motor functions can lead to numerous behavioural changes. (Yoon & Cole, 2008.) Even though modern medicine is well developed, most of the declines caused by aging cannot be fully restored to the levels of younger adults. Physiological changes caused by aging affect mainly vision, hearing, and motor functions. As vision declines, the way information is presented can influence whether it is processed or not, thus marketers should focus on, for example, higher contrast advertisements if targeting mature segment. Decline in hearing results in the inability to distinguish high and low frequency of sounds as well as identifying the source of sounds in space. In practice, this means that mature consumers have an increasingly hard time in encoding information during their purchase journey. Declines in motor functions reduce the time it takes to perform tasks, increasingly so if the task in question is complex. Additionally, small objects like phones and laptops tend to be harder to use with limited motor functions. (Yoon & Cole, 2008.) Other examples of declines in physiology that affect how individuals consume include changes in information processing, memory, learning, and problem solving.

Social aging happens when people assume roles tied to old age, for example being a retiree or a grandparent. As these new roles are assumed, consumers

create new wants and needs for products and services that suit this new assumed role (Moschis, 2012.) The impact of social aging on consumer behaviour of mature consumers has not been widely researched, however some research has been done on the influence of retiring to consumer behaviour. Walker and Mackling (1998) found that when US grandmothers are shown ads which put them in a traditional role as the centre of the family, they react more positively. Wolf, Sandner & Welpe (2014) illustrate that retires who identify with their peers and change their consumption behaviour after retiring are increasingly likely to have a positive reaction towards age-based marketing stimuli. Many mature consumers are living alone during some stage of their later life, most often due to a life-changing events such as the death of a spouse or because their children have moved out. These types of changes in their personal situations and social roles influences their consumption needs and forces them to adjust their buying priorities and they might prefer for example smaller packages of food (Rahman & Yu, 2019).

Psychological aging changes the psychological states of how one perceives him or herself. In other words, it consists of changes in cognition, personality, and the self (Zniva & Weitzl, 2016). Psychological aging is very personal in nature and individual differences can be substantial (Moschis, 2011). Self-perceived age or cognitive age can be surprisingly lower than the chronological age of a person (Birtwistle & Tsim, 2005). This applies widely to mature consumers, as people age very differently. It can also be the resulting effect of improved healthcare and enormous wealth which is spent on products and services that make one feel younger than they chronologically are. When comparing two 70year-old persons, one might perceive himself as being old based on different variables like health and life circumstances whereas the other might perceive himself as young based on the same individual variables. These differences naturally influence consumers responses to service and product offerings (Moschis & Mathur, 2006). This can reflect the service outcome in a negative way if senior products are offered to a person that does not deem himself as a senior, even though he might be according to his chronological age.

Cognitive age has multiple effects on consumer behaviour. In general, young-perceived age has a positive effect on the general psychological wellbeing of older consumers (Lee, 2011). Older consumers with young cognitive age are more fashion conscious (Nam et al., 2007) and less likely to accept exclusive offers (Wolf et al., 2014). Moreover, the cognitive age of an older consumer changes their attitudes. Sudbury and Simcock (2009) found that a mature consumer in the UK who has a young cognitive age puts greater importance on values such as warm relationships, fun, enjoyment, and self-fulfilment.

Old cognitive age results in declines of interests in fashion, consumption of entertainment and culture as well as participating in volunteer activities (Mathur & Moschis, 2005). Early research by Smith and Moschis (1984) showed that higher cognitive age results in a more positive attitude towards advertising in the US. If older consumers in the UK perceive themselves old, they put greater importance on values like security, being well respected, sense of accomplishment, sense of belonging (Sudbury & Simcock, 2009). Kohlbacher and Chéron (2012) illustrated

that cultural differences between the UK and Japan result in slight fluctuation in the order of importance of these values, but the same values top the list in both countries.

Life events can happen at random, like natural disasters or pandemics, or they can be expected, like retirement or the death of a spouse. They have the possibility and likelihood of altering how an individual perceives their life and can greatly affect consumers buying behaviour by, for example, changing product and service choices, nutritional intake, and self-presentation (Rahman & Yu, 2019). This is due to the reason that life events are often major, once in a lifetime events, which can force an individual to re-evaluate their goals, wants and roles in life. Different types of life events can have different weightings on how they change an individual both socially and psychologically (Moschis, 2011). For example, the death of a life partner and one's children moving out of your house are drastically different by nature and so is the re-evaluation of one's behaviour followed by these events. Life events and role transitions can create stress and ultimately lead to changes in consumption patterns and brand preferences as well as affect all the previously mentioned age-related factors (Moschis, 2012).

Life circumstances are historical and environmental factors which are likely to alter individual's mindsets (Moschis et al., 2011). They influence consumption patterns and shape shopping habits of mature consumers. Life circumstances are independent from other previously mentioned aging processes. In practice, life circumstances mean that for example, the people that are currently aged 60 have lived in a very different environment than those that are currently aged 80. The former group are so called baby boomers and have grown with a trade surplus, mass marketing and television network, which have not been available for the older generation (Kwon & Noh, 2009). This results in fundamental changes that shape how they consume products and services.

As mentioned previously in chapter 2.2.1. chronological age is often used as the standard demographic variable in explaining changes in the behaviour of mature consumers. In fact, Zniva and Weitzl (2016) found out in their research on the studies done addressing mature consumers consumption behaviour that 127 out of 128 of the studies they investigated used chronological age as the main segmentation variable explaining changes in consumer behaviour of mature consumers. Moschis (2012) suggests that although it is widely used, it has little explanatory power compared to the previously mentioned age-related factors. A 60-year-old person who has grown up and spent his/her life in the US can be healthy, has not experienced dramatic life events recently, has little to none effects of biological aging, perceives him/herself young while simultaneously being a retiree and a grandparent. Another 60-year-old person might have a very opposite life, for example having grown up and living in Eastern Europe. This person has chronic illness, has witnessed multiple dramatic life events, has declines in vision and hearing because of biological aging, perceives him/herself very old but is still working and has no children. Both persons are 60, but because of the combination of age-related factors they consume very differently. Therefore, chronological age is a bad variable in explaining the changes in the

consumption of mature consumers (Zniva & Weitzl, 2016). However, this study will still use chronological age in explaining changes in consumer behaviour, as it focuses on relatively homogenous segment, mature consumers in Finland. The group inspected in this study are all living within a same country and they are subject to the same social and political trends.

## 2.2.4 Age related differences in consumer behaviour

Although it might be a poor variable for measuring changes in the behaviour of mature consumers, research does suggest that mature consumer have different buying behaviour than younger generations (Szmigin & Carrigan, 2000). However, it should be noted that findings on the relationship between age and online shopping behaviour have been inconsistent. Some studies have shown that mature consumers are more likely to buy online than younger ones, but others discovered this to be the other way around.

Najdený et al., (2019) also found that mature consumers emphasize social interaction and strong relationships with service providers, viewing service delivery as an interactional event. In practice, this means that mature consumers are more likely to visit the service provider not only for commercial purposes, but also for the social and emotional aspects the visit can create. Thus, customeroriented personnel can have a positive impact on mature consumers evaluation of the purchase journey (Grougiou & Pettigrew, 2011). Furthermore, Rahman and Yu (2019) found that mature consumers treat shopping as physical exercise and as a deeply social activity, indicating that interaction between other people can be a critical variable in the buying decision process. Older adults have a more definite preference for department stores than other types of outlets. There is a lack of research on why this is, but Mochis et al., (2011) suggest that the reason could relate to mature consumers being more risk-averse and convenience-oriented than the younger generations. Although research suggests that they prefer to shop in a brick-and-mortal stores, their personal health might be limited and thus it would be reasonable to think they would opt in for online shopping (Rahman & Yu, 2019).

The technical aspects of modern consumption might pose challenges to mature consumers or at the very least, change how they consume. As people age, their information processing slows down when compared to younger segments (Yoon & Cole, 2008). This can mean that maintaining and manipulating multiple pieces of information in an environment that has a lot of distracting noise or other stimuli can become increasingly difficult (Yoon & Cole, 2008). Mature consumers might be hindered from trying the internet for their shopping due to many factors, even though they are generally interested in using new technologies (Yoon & Cole, 2008). It might be that websites pose a cognitive challenge for mature consumers because of confusing layout and information overload, making it hard for the user to understand all the features offered. One typical bottleneck can be the check-out processes of web stores, which can be overly complicated for mature consumers, preventing them from completing a purchase. (Kwon & Noh,

2009). As mentioned previously, mature consumers might have gathered vast amounts of experience from past purchases. This experience also applies online, where more efficient methods can reduce the amount spent on the information search stage of the buying decision process (Comegys et al., 2006).

One interesting finding from previous research is that risk and online experience have a negative effect, meaning that the more experienced mature consumers are shopping online or using the internet, the less risk they perceive (Kwon & Noh, 2009). Kwon and Noh (2009) highlight that it might be that mature internet users might not appreciate the benefits of shopping online until they have done it themselves.

Parment (2013) compared the purchase behaviour and involvement for food, clothing and cars of baby boomers and generation Y. According to his study, baby boomers' value in-store service and retail experience more than the younger generation. These two generations differ vastly in their values, personality traits and responses to various advertising (Loroz & Helgeson, 2013). Loroz and Helgeson (2013) compared these variables between the two generations and found that generation Y consumers are more materialistic and highlight the importance of brand-signalling while having lower levels of brand religion. Gen Y were also found to be more self-monitoring and are less intolerant to guilt and empathic concern. Additionally, they have more positive attitudes for advertising containing towards sex, extravagance, image, and greed than baby boomers (Loroz & Helgeson, 2013).

An interesting finding by Yoon and Cole (2008) is that mature consumers might develop greater persuasion knowledge than younger generations. Per-suasion knowledge means the tactics and methods of resisting different per-suasion attempts. Mature consumers have witnessed plenty of persuasion at-tempts during their long lifespans, which makes them more resistant to them. However, limitations in their cognitive capabilities might have difficulties in using past experiences when needed. This makes it hard to improve current persuasion knowledge especially in very dynamic environments, such as the current technological buying platforms and their advertising.

Najdený et al., (2019) found that mature consumers are one of the most price sensitive consumer groups. This aligns with a result from Rahman and Yu (2019) stating that the most important factor influencing the buying behaviour of mature consumers is price. The reason for this might be that retiring reduces the available shopping budget which makes it difficult to sustain the lifestyle that the consumer had before retirement. However, this does not alight with the fact that in the US, mature consumers are one of the wealthiest segments (Birtwistle & Tsim, 2005). Other factors influencing their consumption patterns include quality, products intended for seniors and a friendly service encounter (Najdený et al., 2019).

Birtwistle and Tsim (2005) found in his research that mature consumers try new brands openly, are more willing to seek information, are less cautious and less loyal. Lipke (2000) however, found out opposing facts in his research, which showed that loyalty increases with age, thus making the mature segment

increasingly valuable because of the huge lifetime value they can have for a company. This reason behind the inconsistent research findings might be due to different methodology, a different product or service categories or other variables researched (Burkolter & Kluge, 2011). These results are just a few examples on how different target segments can be when it comes to for example attitudes. Thus, it is essential for marketers to research into the consumption behavioural differences of each segment and find out individual preferences among these segments. By doing this, marketers can ensure long term profitability and boost value creation towards the chosen segment.

An individual buying decision is influenced by multiple factors, but there are some consistent differences in the research between chronologically different ages. For example, factors like price, durability and suitability were given different weights by different age groups when making a buying decision (Hervé & Mullet, 2009). Moreover, Parment (2013) mentions that the purchase process itself differs between these two segments and that for baby boomers this process starts with a retailer that the consumer trusts and who gives advice in choosing the right product. For Generation Y, the process skips the first part and starts with choosing a product. Intuitively, there is a difference in the technological capabilities between chronologically older and younger. Millennials tend to have a relatively high technological innovativeness, and they are born to the digital world, whereas mature consumers have low accessibility and acceptance for technology (Hur, Lee & Choo, 2017). Even though younger generations are more active online than their older counterparts, the online skills, and the use of internet by older adults are rapidly increasing (Lian & Yen, 2014). Based on study by Zniva and Weitzl (2016), increasing chronological age makes consumers perceive communication differently and changes their motivations and behaviour.

Behaviour is the product of response to earlier life experiences and the way the person has adapted to social and environmental circumstances (Moschis, 2012). Even though marketing research has recognized this phenomenon, there exists a lack of research that focuses on consumption related issues over the whole life course of consumers and thus, there is limited knowledge on changes consumers experience over time, how they respond to these changes and how early life experiences alter consumer behaviour in later life. (Moshis, 2007). Most research focusing on changes in consumer behaviour compares two chronologically segmented age groups and tries to find differences in their behaviour, rather than comparing how previous experiences affect the same group and change their consumption patterns (Moschis, 2007).

To address this issue, Moschis (2012) developed a framework called the life-course paradigm and, unlike many other approaches to the study of consumer behaviour, it offers a more contextual perspective by focusing on gradual changes over time (Moschis, 2012). The framework suggests that previous experiences create physical, social, and emotional circumstances that require the unit in question (e.g., individual, organization, family) to adapt their behaviour. These changes carry on to later life and alter how people consume and behave. The life-course paradigm can be used to guide research in development and

decline of consumer decision making skills, the effects of emotions on consumer behaviour and how age affects identity in marketing stimuli for mature consumers (Moschis, 2012).

#### 2.3 COVID-19 and consumer behaviour

The COVID-19 pandemic has changed the world we live in fundamentally. It affects our living, our buying, and our thinking. The whole retail industry is being reshaped in real time, accelerating long-term trends, like online purchasing, in weeks (Accenture, 2020).

McKinsey & Company (2020) investigated the changes in consumer behaviour due to COVID-19. They found that the impact varies significantly between different counties. Asian countries are more optimistic than European, which signals that they are further in the path to recovery. Across the globe, consumers intend to target their spending in essentials and reduce their discretionary buying. However, the Chinese plan on increasing their discretionary spending, which further highlights that they are recovering faster. Accenture (2020) conducted a similar investigation as McKinsey & Company and found similarly that consumers attitudes, behaviours and purchasing habits are changing. Accenture (2020) found that although purchases are mainly concentrated on essentials, people are shopping more consciously, buying local and embracing digital commerce.

Shift to digital has grown across countries and categories because most consumers want to keep low out-of-home engagement. For example, food and household categories have grown an average of 30 percent in online customer base across countries. Naturally, the countries that had a high level of online penetration prior to COVID-19, like China, have witnessed a more moderate growth. (McKinsey & Company, 2020.) Sheth (2020) identified immediate effects of the global pandemic on consumer behaviour and found embracing digital technology to be one of the major effects, as consumers have adopted new technologies and their applications. Digital savviness might become a necessity following the pandemic, rather than an alternative (Donthu & Gustafsson, 2020).

As mentioned in chapter 2.2.3., consumer behaviour is affected by both life events and life circumstances (Moschis, 2011). Life events happen at random, and they have the possibility to alter how an individual perceives their life. Rahman and Yu (2019) found that life events affect consumers buying behaviour by changing product and service choices, nutritional intake, and self-presentation. The pandemic is a prime example of a life event. It forces changes in behaviour due to changing legislation and possible martial law that might be in place occasionally. In practise, this means that shops might require you to wear a facemask and it might no longer be socially acceptable to spend time browsing items just for fun. Bars might be closed way sooner than normally, for example in Finland they are required to close at 23:00, as opposed to the normal business hours that last up until 05:00. The changing landscape of retail during the pandemic

naturally boosts other means of buying, in particular no-contact shopping, such as most online channels. Consumers might have an increased chance of buying online and trying out new ways of consuming.

Life circumstances are historical and environmental factors which affect consumers' mindsets. They influence consumption patterns and shape shopping habits. Considering the COVID-19 pandemic, this means that the change in consumption patterns might have carry-on effects in the future. In fact, both Accenture (2020) and McKinsey & Company (2020) found that the changes in consumer behaviour due to the pandemic are likely to remain post-pandemic. In practical terms, it can mean that people who have lived through the pandemic might differentiate in purchase behaviour from the generations that are not affected by COVID-19. For example, consumers that have previously ignored online shopping and preferred to buy in-store, might have had to try out online shopping due to the pandemic. This might have changed their behaviour in a way that they now prefer online shopping as opposed to in-store shopping. We have already witnessed the change in consumption patterns due to the pandemic, as the demand for takeout, snacks, alcohol, and cleaning products have increased due to more time spent at home (Donthu & Gustafsson, 2020). A study by McKinsey & Company (2020) found that in India, 96% of respondents had tried new shopping behaviours since the global pandemic started. Furthermore, 69-78% of these respondents said that they intend to continue with the changes after the pandemic. The percentage of respondents that have tried new shopping behaviours vary greatly between countries and European countries tend to score lower (Italy 69%, Spain 66%, UK 63%) than Asian (Indonesia 92%, China 86%) and American ones (Brazil 84%, Mexico 81%, US 73%). However, the percentage of respondents that plan on continuing new shopping behaviours has little variance between countries and most fall in between 75% and 85% percent. This proves that life changing events do change how consumers behave and those changes can be permanent.

Some research on the topic can be already found also in academic research. Sheth (2020) studied shopping habits and found that the lockdowns and social distancing mandates disrupt developed habits. As a result, consumers are learning to improvise and develop new habits. As the pandemic is bound to end someday, consumers go back to the old habits. However, it is likely that they will be modified by new regulation which affects how consumers consume products and services. (Sheth, 2020.) Laato et al., (2020) studied unusual consumer behaviour, such as hoarding toilet paper, during the early stages of the pandemic. They found that self-intention to self-isolate and the intention to make such unusual purchases are strongly linked. They also found that exposure to information overload about COVID-19 might lead to these unusual consumption decisions. Similarly, Prentice et al., (2020) investigated panic buying behaviour during the pandemic and found that there exists a connection between the timing of government measures (such as lockdowns and social distancing measures) and panic buying.

As people are confined to their homes, online communication, entertainment, and shopping are seeing unprecedented growth. Due to lockdowns, the usage of internet and social media has witnessed extreme increases as we humans are a social species, and the current situation has made social media the main mode of being in contact with each other (Donthu & Gustafsson, 2020). Social media enables consumers to be connected globally and increases information sharing through online rating, sponsored ads, online reviews, and influencers (Naeem, 2021).

It is fair to assume that the pandemic and the increases in internet and social media usage have an effect in consumer buying decisions. As mentioned previously, the opinion of others often has the most influence on an individual buying decision and with increased time spent on social media, those opinions might be further highlighted. As consumers are spending more time online, it can be assumed they also spend more time in the information search stage of the decision-making process and that the online information channels would be increasingly used. In addition, it could be that online shopping does increase among the segments that have been previously change-resistant, that is, the mature segments.

## 3 DATA AND METHODOLOGY

This chapter outlines the chosen research method and presents the data which is used to answer the research questions. Data collection methods are explained, and the resulting research data's demographics described. In the last chapter, the chosen methods for analysing this data are justified.

# 3.1 Quantitative research

Face-to-face interviews, telephone surveys and mail surveys have been the primary data collection methods up until recently, when electronic data gathering started to surpass these traditional and resource heavy methods. Digital technologies enable large amounts of data to be obtained relatively fast and at a low cost. This is particularly useful for research that needs large amounts of numerical data to fulfil the research objectives, such as this one (Hair, 2015).

In quantitative data collection, primary data is gathered from individuals in numerical format with a structured survey. In business research, this type of research is often referred to as survey research. The data collected for this purpose can range from opinions and attitudes to general background information such as age and income. When a research requires large amounts of data, survey research is the best method. The aim of quantitative research is to systematically study a phenomenon using the collected data and the researcher has a large responsibility in converting the collected data into insights. (Hair, 2015.) The research objectives are often reached by trying to identify and confirm different connections and trends in the data collected, which can possibly be generalized to larger populations (Watson, 2016).

This study will use a quantitative approach as the data needed to fill the objectives is large and numerical by nature. Additionally, quantitative research can be used to conduct statistical analyses with the aim of providing trustworthy and generalizable results (Watson, 2016).

#### 3.2 Data collection

The data was collected by Vähittäiskaupan tutkimussäätiö during 2019 and again during 2020, by conducting a survey for consumers living in Finland. The respondents were asked to review their recent purchase experiences. Both in-store and online purchases were accepted. The purchased item could be anything except groceries. The target group for this survey were 18-75-year-old consumers living in Finland. The survey was standardized, which means that all respondents answered the same questions and in the same order. Most of the survey's

questions were answered with a 7-point Likert scale (from strongly disagree to strongly agree). The Likert scale as well as other interval scales are useful for surveys that want to investigate the respondent's attitudes, motivations, or other qualities (Joshi, Kale, Chandel & Pal, 2015). In addition, the survey had three open-ended questions which aimed to gather deeper insights on, for example, how the respondent feels being treated in store and what was the purchase in question.

The survey begins with questions about the respondent's most recently purchased item. They focus on the store which the item was bought and measure how it performed in various themes, for example, ease-of-purchase, the feelings that the store creates and NPS. The next section of the survey focuses on the store's social media presence and communication. The respondent is asked to answer for example, whether they feel that the store is somehow unique in social media when compared to its competitors and how pleased they are with the store's communication on social media. After the social media section, the survey aims to collect data on the respondent's personal values by asking them to rank different values based on the Likert scale. Then a few questions are asked about the sustainable aspects of buying, followed by a section of questions focusing on pre-purchase information search. As previously with values, the respondents must rate each type of media used as information source. Additionally, the influence of peer consumers in social media is asked. Before the demographic questions (e.g., age, location, income) the questionnaire focuses on channel preference (online vs. offline) as well as personal opinions on the difficulty of buying.

The same survey was conducted in both 2019 and 2020 and both data sets will be used in this research as it is beneficial and interesting since the 2019 data can be treated as pre-COVID data and the 2020 data as post-COVID. Given that both the survey and the demographics of the respondents are quite similar, they can be used to research differences in consumer behaviour caused by the pandemic. The main differences in demographics for the two data sets are (1) fewer responses from the two oldest age groups in 2020, (2) lower number of retired people and higher number of full-time students in 2020 and (3) bigger segment of respondents with a household size of three or more people.

The total number of respondents was 2156 in 2019 and 2568 in 2020. Respondent's gender was evenly distributed (50,8% male in 2019 and 50,0% in 2020). As mentioned previously, the main research focus was on senior consumers, although there are responses from every adult age group. Because of the lack of mature respondents in the 2020 survey, the 2019 data set is used to analyse differences based on age and the 2020 data set will be mainly used to find differences due to the global pandemic. As with most marketing research on mature consumers (Zniva & Weitzl, 2016), chronological age was used to segment respondents. Age distribution of respondents is found in table 2. The gender distribution remained nearly equal in each age segment.

TABLE 2 Demographics. (Vähittäiskaupan tutkimussäätiö, 2019 & 2020)

Age	2019 Surv	/ey	2020 Sur	vey
18-25	240	11,1 %	372	14,5 %
26-34	233	10,8 %	447	17,4 %
35-44	209	9,7 %	407	15,8 %
45-54	224	10,4 %	523	20,4 %
55-64	523	24,3 %	541	21,1 %
65-74	517	24,0 %	256	10,0 %
75-80	210	9,7 %	22	0,9 %
Total	2156	100,0 %	2568	100,0 %
Gender				
Male	1096	50,8 %	1283	50,0 %
Female	1060	49,2 %	1285	50,0 %
Total	2156	100,0 %	2568	100,0 %
Household size				
1	703	32,6 %	838	38,9 %
2	1062	49,3 %	1057	49,0 %
3+	384	17,8 %	664	30,8 %
Missing answers	7	0,3 %	9	0,4 %
Total	2156	100,0 %	2568	100,0 %
Household income				
< 20 001 €/yr	314	14,6 %	472	18,4 %
20 001 - 40 000 €/yr	535	24,8 %	578	22,5 %
40 001 - 60 000 €/yr	452	21,0 %	454	17,7 %
60 001 - 80 000 €/yr	270	12,5 %	313	12,2 %
> 80 001 €/yr	239	11,1 %	344	13,4 %
Missing answers	346	16,0 %	407	15,8 %
Total	2156	100,0 %	2568	100,0 %
Employment status				
Full-time student	119	5,5 %	343	13,4 %
Working (<= 20 hr/wk) and studying	57	2,6 %	125	4,9 %
Working full-time	779	36,1 %	1173	45,7 %
Working part-time	133	6,2 %	212	8,3 %
Unemployed	138	6,4 %	199	7,7 %
Retired	895	41,5 %	483	18,8 %
Stay-at-home mom/dad	35	1,6 %	33	1,3 %
Total	2156	100,0 %	2568	100,0 %
Region				
Helsinki-Uusimaa (Capital re- gion)	813	37,7 %	911	35,5 %
Southern Finland	443	20,5 %	548	21,3 %
Western Finland	507	23,5 %	606	23,6 %
Northern- and Eastern Finland	393	18,2 %	503	19,6 %
Total	2156	100,0 %	2568	100,0 %

The mature segments include those between 55 years and 80 years old, as 55 is often set as the chronological age of being old in the research (Zniva & Weitzl, 2016). The biggest segments that answered the survey in 2019 were 55-64 and 65-74. Together, they account for nearly 50% of all responses and thus provide a valid data to investigate the changes in consumer behaviour of mature consumers. Other demographics collected included household size (1,2 or 3+), household income, employment status, region, and municipal classification. These variables together created a geographically representative sample of Finnish consumers.

# 3.3 Data analysis

The research data was firstly coded and the "no-opinion"-type of answers were set as missing values and thus excluded from analysis as they will not contribute meaningfully to the research. Age was recoded from a scale-variable into categories (age groups) as it makes the analysis and finding trends between ages easier. The data was then analysed using IBM's SPSS-statistics software.

As most of the questions analysed were ordinal by nature and the quantity of survey responses was high, parametric tests were chosen as the main method. First, the data was described with statistical characteristics and then it was explained by utilizing mean comparisons and analyses of variances. To fill the research objectives, different age groups were compared with each question with the aim of finding out key differences between them.

## 4 RESULTS AND ANALYSIS

This chapter consists of research findings from both the 2019 and 2020 data sets. First, the channel preference of the respondents is analysed to find differences between online and in-store shopping preferences. Second, information source usage in the information search phase of the decision-making process is investigated. Third, social media usage is covered, with the aim of revealing the reasons behind reading other people's social media posts. Lastly, this chapter will focus on the perceived difficulty of purchasing from both in-store and online.

As the focus of this paper is to focus on the behavioural changes caused by age, each of the previously mentioned topics are analysed in the light of different age groups with the aim of finding statistical differences. The collected data sets also provide a lucrative opportunity to investigate changes in behaviour that might have been caused by the COVID-19 pandemic and thus comparison between the pre-COVID and post-COVID (2019 vs. 2020) data sets are done.

# 4.1 Channel preference

To create context for the actual research questions, survey respondents were asked a few background questions. These included the last item purchased, where it was purchased from, whether they prefer to buy in-store or online and which device do they prefer to do their shopping on.

When asked about their preferred shopping channel, the respondents had to choose between in-store (physical store), online or that they prefer both equally. The results and their frequencies across different age groups are presented in table 3. Additionally, the responses for both the 2019 survey and the 2020 one are presented and the yearly change can be observed. As mentioned in chapter 3.2., this paper will use the 2019 data to analyse differences based on age, as the age groups are more balanced and comprehensive.

TABLE 3 Preferred shopping channel (2019 & 2020)

Prefers shopping		N (2019 data)	% within age group	N (2020 data)	% within age group	Change %	
	In-store	Age					
		18-25	72	30,6 %	134	36,8 %	6,2 %
		26-34	71	30,7 %	108	24,8 %	-5,9 %
		35-44	58	28,3 %	116	29,1 %	0,8 %
		45-54	99	45,2 %	202	39,2 %	-6,0 %
		55-64	295	57,4 %	289	54,0 %	-3,4 %
		65-74	346	68,7 %	159	64,1 %	-4,6 %
		74-80	164	78,8 %	12	60,0 %	-18,8 %

Total	1105 (52,2%)	)	1020 (40,5	5%)	-11,7 %
Online					
18-25	48	20,4 %	56	15,4 %	-5,0 %
26-34	42	18,2 %	69	15,8 %	-2,4 %
35-44	41	20,0 %	50	12,6 %	-7,4 %
45-54	23	10,5 %	58	11,3 %	0,8 %
55-64	27	5,3 %	44	8,2 %	2,9 %
65-74	20	4,0 %	10	4,0 %	0,0 %
74-80	5	2,4 %	0	0,0 %	-2,4 %
Total	206 (9,7%)		287 (11,49	%)	1,7 %
Both equally					
18-25	115	48,9 %	174	47,8 %	-1,1 %
26-34	118	51,1 %	259	59,4 %	8,3 %
35-44	106	51,7 %	232	58,3 %	6,6 %
45-54	97	44,3 %	255	49,5 %	5,2 %
55-64	192	37,4 %	202	37,8 %	0,4 %
65-74	138	27,4 %	79	31,9 %	4,5 %
74-80	39	18,8 %	8	40,0 %	21,2 %
Total	805 (38,0%)		1209 (48,1	1%)	10,1 %

The preference for shopping in-store increases with age starting at age 45, where the preference increases strongly from the previous age groups and keeps increasing with each older age group and reaches the highest preference of 78,8% in the oldest age group. This is considerably higher than the youngest age groups, where in-store preference is approximately 30,0% from ages 25 to 44.

Contrarily to in-store preference, the preference for online purchasing has a negative relationship with age. Similarly, to the preference of purchasing in-store, the youngest age groups (20-44) seem to be quite identical, with approximately 20,0% preferring to shop online. When moving to the 45-54 age group, there is a major decrease of nearly 10,0% and the decline in preference to shop online continues until it reaches its lowest point at the oldest age group in which only 2,4% prefer to shop online.

For the last option, where respondents prefer both in-store and online purchases equally, the results are quite similar with the online preference, meaning that the relationship with age is negative and the three youngest age groups (25-44) share approximately the same preference rates.

Even through the preference rates within the three youngest age groups are quite similar in all shopping channels, the decreases when moving to the 45-54 age group differ. The difference in in-store preference is 16,9%, 9,5% for online and 7,4% for those that prefer both equally. In total, 52,2% prefer to shop in-store, 9,7% prefer online and 38,0% prefer both equally. Based on Pearson Chi-square test (Value 294,425, Sig 0.00), there exists a strong relationship between age group and the preferred shopping channels. It should be noted that the preference for purchase channel might vary greatly between different product categories and individual buying situations.

Some differences arise when comparing the 2019 data with the more recent, 2020 one. The preference for shopping in-store has decreased 11,7 points from 52,2% to 40,5%. The decrease in in-store preference has not massively increased the preference to purchase online. The increase is only 1,7 points, and rest of the decline in in-store preference has increased the preference to purchase from instore and online equally (10,1%).

## 4.1.1 In-store visits and purchase preferences

In addition to the questions in the chapter 4.1., in-store preference was further investigated with the following two questions:

- "1. How much do you enjoy visiting stores?"
- "2. How much do you enjoy purchasing in-store?"

Overall, consumers do enjoy both visiting and purchasing in-store, as can be interpreted from table 4. Means, medians, and modes are high while standard deviation is low.

TABLE 4 Enjoyment of in-store visits and purchases (2019)

	N		Mean	Median	Mode	Std. Deviation	Variance
	Valid	Missing					
1. In-store visits	2139	17	5,37	6,00	7	1,55	2,39
2. In-store purchases	2140	16	5,64	6,00	7	1,38	1,91

Based on the results presented in table 5, there are significant statistical differences (p<0,05) between age groups in the enjoyment of both in-store visits and purchases. These differences exist mainly between the oldest (55+) age groups and the youngest (26-55) groups. An interesting finding is however, that the youngest age group of 18-25 do not differ significantly between the oldest 74-80 when it comes to enjoying in-store visits and purchases.

TABLE 5 Enjoyment	of in-store visits and	purchases by age	group (2019)

Age group	N	Means	Age group	N	Means	Mean square be- tween groups	F-value	Sig.
_	-	-	_		-	13,598	5,769	0,000
18-25	236	5,42	55-64	521	5,50			
26-34	232	5,14	65-74	511	5,48			
35-44	208	5,03	74-80	208	5,63			
45-54	223	5,11	Total	2139	5,37			
						14,648	7,835	0,000
18-25	238	5,53	55-64	520	5,74			
26-34	232	5,40	65-74	512	5,80			
35-44	208	5,30	74-80	208	5,95			
45-54	222	5,45	Total	2140	5,64			
	18-25 26-34 35-44 45-54 18-25 26-34 35-44	18-25 236 26-34 232 35-44 208 45-54 223 18-25 238 26-34 232 35-44 208	18-25 236 5,42 26-34 232 5,14 35-44 208 5,03 45-54 223 5,11 18-25 238 5,53 26-34 232 5,40 35-44 208 5,30	18-25 236 5,42 55-64 26-34 232 5,14 65-74 35-44 208 5,03 74-80 45-54 223 5,11 Total 18-25 238 5,53 55-64 26-34 232 5,40 65-74 35-44 208 5,30 74-80	group     N     Means group     N       18-25     236     5,42     55-64     521       26-34     232     5,14     65-74     511       35-44     208     5,03     74-80     208       45-54     223     5,11     Total     2139       18-25     238     5,53     55-64     520       26-34     232     5,40     65-74     512       35-44     208     5,30     74-80     208	group     N     Means group     N     Means group       18-25     236     5,42     55-64     521     5,50       26-34     232     5,14     65-74     511     5,48       35-44     208     5,03     74-80     208     5,63       45-54     223     5,11     Total     2139     5,37       18-25     238     5,53     55-64     520     5,74       26-34     232     5,40     65-74     512     5,80       35-44     208     5,30     74-80     208     5,95	Age group         N         Means group         Age group         N         Means groups         square between groups           18-25         236         5,42         55-64         521         5,50         13,598           26-34         232         5,14         65-74         511         5,48         -           35-44         208         5,03         74-80         208         5,63         -           45-54         223         5,11         Total         2139         5,37         -           18-25         238         5,53         55-64         520         5,74         -           26-34         232         5,40         65-74         512         5,80         -           35-44         208         5,30         74-80         208         5,95         -	Age group         N         Means group         N         Means group         Square between groups         F-value tween groups           18-25         236         5,42         55-64         521         5,50         13,598         5,769           18-25         236         5,14         65-74         511         5,48         1         1         1           35-44         208         5,03         74-80         208         5,63         14,648         7,835           18-25         238         5,53         55-64         520         5,74         14,648         7,835           18-25         238         5,53         55-64         520         5,74         14,648         7,835           26-34         232         5,40         65-74         512         5,80         14,648         14,648         14,648         14,648         14,648         14,648         14,648         14,648         14,648         14,648         14,648         14,648         14,648         14,648         14,648         14,648         14,648         14,648         14,648         14,648         14,648         14,648         14,648         14,648         14,648         14,648         14,648         14,648

In the most recent, 2020 data set, the in-store preference was measured by asking the respondents: "how much do you enjoy visiting in-store during COVID-19?". The mean, median and mode all have decreased from 2019 results. The results from ANOVA test indicate that there are no significant differences between age groups (p>0.05) when it comes to enjoying in-store visits during the pandemic.

TABLE 6 In-store visit enjoyment during COVID-19 (2020)

	N		Mean	Median	Mode	Std. Deviation	Variance
	Valid	Missing					
In-store visits	2532	36	4,30	4,00	4	1,67	2,78

# 4.2 Information source usage

The survey investigated different sources consumers use when they are in the information search stage of their decision-making process. The respondents answered the question:

"How often do you search for information from the following information sources on the products which you are purchasing?"

They then ranked their usage of each information source with a 7-point Likert scale where 1 = Never and 7 = Almost always. "I do not know" answers were coded as missing values. The usage of 15 different information sources were investigated: industry magazines, newspapers, experts, brochures, Google, store websites, forums and message boards, advertisement, store employees (both chat and in-store), blogs, Facebook, Instagram, YouTube, manufacturers websites and friends.

The basic statistics for each information source can be found in table 7. The most used information sources were Google and both the store and manufacturers website. All these three are basically search engines by nature, even though websites can be used for browsing and inspiration as well. Using Google had a mean of 5,46, a median of 6 and a mode of 7, which signals that when consumers are searching for information, they most often do it via Google. Store websites are not far off, with a mean of 5,17 and both median and mode of 6. Both standard deviations and variances of these three most often used information sources are analogous, ranging from 1,54 to 1,65 in standard deviations and from 2,37 to 2,74 in variances.

The least often used information sources were in order: Instagram, Facebook, and blogs. Their means ranged from 1,78 to 2,18, with both medians and mode being 1 for each. The low numbers practically mean that these information sources are not being used at all when respondents are trying to gather insights on products. Their standard deviations are also among the lowest of all information sources (1,40-1,55).

The other information sources that fall between the top and low three presented earlier have means ranging from 2,34 to 4,27, signalling that there are differences in how recurring their usage is. The social information sources, friends, and store employees, both of follow the top three based on their means, ranking 4<sup>th</sup> and 5<sup>th</sup>, and are quite high (4,27-4,32). However, there is a difference in their standard deviations, with "friends" having a 1,50 and store employees 1,70.

Alongside the search engines and social information sources, there exists a third group that can be identified based on similar means. This group consists of marketing stimuli: brochures, advertisement, newspapers, and magazines. Their medians are below search engines and social information sources, ranging from 3,61 to 4,12 and their standard deviations range from 1,54 to 1,78.

TABLE 7 Information source usage (2019)

	N		Mean	Median	Mode	Std. Deviation	Variance
Source	Valid	Missing					
Magazines	2064	92	3,61	4,00	4	1,74	3,01
Newspapers	2097	59	3,75	4,00	4	1,78	3,18
Experts	2045	111	3,57	4,00	4	1,64	2,68
Brochures	2091	65	4,12	4,00	4	1,57	2,47
Google	2117	39	5,46	6,00	7	1,54	2,37
Store websites	2100	56	5,17	6,00	6	1,62	2,63
Forums and message boards	2059	97	2,61	2,00	1	1,70	2,91
Advertisement	2098	58	3,79	4,00	4	1,54	2,37
Store employees (both chat and in-store)	2089	67	4,27	5,00	5	1,70	2,88
Blogs	2040	116	2,18	1,00	1	1,55	2,41
Facebook	2035	121	2,18	1,00	1	1,55	2,41
Instagram	2022	134	1,78	1,00	1	1,40	1,95
YouTube	2050	106	2,34	1,00	1	1,72	2,96
Manufacturer's website	2099	57	4,59	5,00	5	1,65	2,74
Friends	2099	57	4,32	4,00	5	1,50	2,25

After analysing basic statistical numbers of the usage of different information sources, they were further analysed and compared with the respondents age groups. The results can be seen in table 8.

One-way variance analysis (ANOVA) utilizes the F-test to find differences in the variability between group means and the observations within the groups. The larger the F-value is, the further apart the group means are. The results from ANOVA alone cannot explain the differences inside age groups. As this is in the core of this research, Tukey HSD Post Hoc tests were conducted. After this, Eta squared (Eta²) was used to report the proportion of variance associated with one or more of the main effects in ANOVA. Additionally, correlations were measured and analysed between each information source and age to find out whether there exists linear dependence between the variables.

ANOVAs results signal that the usage of all information sources except "store employees" possess major statistical significances between age groups. This is based on their F-values, which are all greater than 1 as well as their significance, which is below 0,01 in each. For store employees, the F-value was just slightly above 1 (1,117) and significance p=0,350 which implies that there is no major statistical significance within the means of this variable and age groups.

In general, the F-values were very high with nearly all information sources, which means that the variances between these groups are large. In other words, the usage of nearly all information sources differs significantly between

chronologically different aged consumers. The three information sources that had the largest differences in their usage between age groups were in order: YouTube (F=77,415, p=0,000), Instagram (F=71,440, p=0,000) and forums (F=61,923, p=0,000). However, it should be noted that based on average means for each information source, these three are among the lowest used in total and Instagram being the least often used of them all. The most often used information sources in total, Google, store websites and manufacturers websites did have significant statistical differences especially between the youngest and oldest age groups, but not as much as these three.

TABLE 8 Information source usage by age group (2019)

Information source usage	Age grou p	N	Mean s	Age grou p	N	Mean s	Mean square between groups	F- value	Sig.
Magazines	_	_	-	_	_	<del>-</del>	31,603	10,798	0,00
	18-25	22 9	3,29	55-64	502	3,68			
	26-34	22 7	3,16	65-74	496	3,90			
	35-44	19 5	3,26	74-80	198	4,10			
	45-54	21 7	3,48	Total	206 4	3,61			
Newspapers							108,085	37,521	0,00 0
	18-25	23 1	3,22	55-64	507	3,81			
	26-34	22 9	2,95	65-74	502	4,30			
	35-44	19 9	3,01	74-80	207	4,65			
_	45-54	22 2	3,59	Total	209 7	3,75			
Experts							7,570	2,840	0,00 9
	18-25	22 3	3,49	55-64	496	3,64			
	26-34	22 5	3,39	65-74	484	3,73			
	35-44	19 7	3,27	74-80	202	3,72			
_	45-54	21 8	3,49	Total	204 5	3,57			
Brochures							55,217	23,870	0,00 0
	18-25	23 0	3,81	55-64	512	4,29			
	26-34	22 7	3,45	65-74	502	4,48			

	35-44	19 6	3,49	74-80	203	4,61			
	45-54	22 1	4,04	Total	209 1	4,12			
Google		1			1		38,798	17,150	0,00
	18-25	23 5	5,92	55-64	514	5,39			
	26-34	22 9	5,78	65-74	503	5,22			
	35-44	20 4	5,78	74-80	208	4,79			
	45-54	22 4	5,70	Total	211 7	5,46			
Store websites							52,559	21,099	0,00 0
	18-25	23 4	5,65	55-64	509	5,06			
	26-34	23 0	5,66	65-74	500	4,88			
	35-44	20 2	5,58	74-80	204	4,42			
	45-54	22 1	5,37	Total	210 0	5,17			
Forums							152,800	61,923	0,00
	18-25	23 0	4,10	55-64	502	2,20			
	26-34	22 9	3,35	65-74	480	2,15			
	35-44	20 0	2,90	74-80	199	2,00			
	45-54	21 9	2,52	Total	205 9	2,61			
Advertisement							7,436	3,156	0,00 4
	18-25	23 3	4,00	55-64	510	3,80			
	26-34	22 7	3,64	65-74	503	3,83			
	35-44	20 1	3,48	74-80	205	3,98			
	45-54	21 9	3,70	Total	209 8	3,79			
Store employees							3,214	1,117	0,35 0
	18-25	23 3	4,32	55-64	507	4,40			_
	26-34	22 7	4,12	65-74	498	4,21			
	35-44	20 2	4,25	74-80	205	4,14			
	45-54	21 7	4,30	Total	208 9	4,27			

							104,721	49,777	0,00 0
	18-25	23 1	3,29	55-64	501	1,81			
	26-34	22 4	3,00	65-74	475	1,75			
	35-44	19 9	2,36	74-80	194	1,75			
	45-54	21 6	2,21	Total	204 0	2,18			
Facebook							84,242	38,938	0,00
	18-25	23 1	3,33	55-64	500	1,88			
	26-34	22 5	2,69	65-74	473	1,81			
	35-44	19 7	2,23	74-80	193	1,78			
	45-54	21 6	2,22	Total	203 5	2,18			
Instagram							115,065	71,440	0,00
	18-25	23 3	3,15	55-64	495	1,40			
	26-34	22 3	2,36	65-74	466	1,35			
	35-44	19 7	1,81	74-80	193	1,47			
	45-54	21 5	1,73	Total	202 2	1,78			
YouTube							186,960	77,415	0,00 0
	18-25	23 5	3,92	55-64	498	1,95			
	26-34	22 7	3,12	65-74	476	1,76			
	35-44	19 7	2,75	74-80	198	1,53			
	45-54	21 9	2,33	Total	205 0	2,34			
Manufacturer's website							17,704	6,574	0,00
	18-25	23 2	4,69	55-64	511	4,63			
	26-34	22 6	4,70	65-74	502	<b>4,5</b> 3			
	35-44	20 2	4,82	74-80	204	3,97			
	45-54	22 2	4,78	Total	209 9	4,59			
Friends		<u></u>			<u>-</u>		13,981	6,317	0,00
	18-25	23 3	4,74	55-64	506	4,15			· ·

Based on the results of the Post Hoc test, there is significant statistical differences (p<0,05) between the usage of YouTube within nearly all age groups. A few notable exceptions can be found in the oldest age groups, as there are no significant differences between age groups 55-64 and 65-74 as well as between 65-74 and 75-80. However, there is significant difference between age groups 55-64 and 75-80, meaning that the former group uses YouTube more often as an information source than the later one. The mean differences are only 0,19 between 55-64 and 65-74 and 0,23 between 65-74 and 75-80.

Contrarily, the most significant differences are between the two youngest age groups (18-25 and 26-34) and the rest. The mean differences between 18-25-year-olds and all other groups increase linearly, starting from 0,80 between 26-34-year-olds and reaching a difference of 2,39 with the oldest age group (75-80). For the 26-34-year-old age group the differences in means are somewhat more moderate when compared to the youngest age group, but still reach a difference of 1,59 with the oldest group. By measuring the correlation (r=-,422, p=0.00) between age and the usage of YouTube when searching for information, it can be concluded that they have a negative relationship. This means that the older the consumer, the less likely they are to use YouTube as an information source.

Post Hoc results for Instagram generally follow a similar pattern as YouTube, and the most significant differences are between the youngest two age groups (18-25 and 26-34) and the rest of the groups. However, the differences in means are somewhat more moderate, and the largest difference of 1,81 exists between the youngest (18-25) and the second oldest (65-74) age groups. As with YouTube, no significant differences are found between the mature (55+) age groups. Based on means, the use of Instagram is very rare within all except the two youngest age groups, as the means for all other age groups are below 2. The correlation between the usage of Instagram and age is -,382 (p=0.00), meaning that they have a negative relationship and the older the consumer is, the less Instagram is used as an information source when searching for product information.

The third information source that had the most significant differences based on ANOVA is forums. The Post Hoc results for forums are not surprisingly very similar to YouTube and Instagram. As with them, the most significant differences are between the youngest and the oldest groups and there are little differences among the mature groups (55+). The group means range from highest the highest of 4,10 to the lowest 2,00 and the correlation between age and forum usage is -,371, following a similar pattern as Instagram.

The results from measurements of association (Eta2 ) for YouTube (0,185), Instagram (0,175) and forums (0,153) indicate that the variances are at least partly

associated with age groups. Contrarily, the Eta2 numbers for the three information sources with the least differences between age groups: store employees (0,003), experts (0,008) and advertisement (0,009) indicate that very little variances are associated with age groups. In practicality, the results mean that, for example, 18,5% of the differences of YouTube usage can be explained by age.

### 4.2.1 Information source usage of mature consumers

The means in table 5. can be used to interpret how often the mature segments, those with chronological age of 55+, use each information source. Additionally, correlations between age and each source are beneficial in understanding the effects of aging in within each source.

Google is the most often used information source for searching product information by all three mature age groups with the means of decreasing linearly from 5,39 of the 55-64 group to 4,79 of the 75-80 group. The differences in means are statistically significant (p<0.05) with the oldest age group and both the younger ones, but not between the two younger ones. The second and third most often used sources for both the 55-64 and 65-70 groups are store websites and manufacturers websites. The differences in means are statistically significant in the same manner as with Google. The most often used information sources after Google for the oldest age group of 75-80 are newspapers and brochures, with means of 4,65 and 4,61. This indicates that the most mature consumers prefer a physical information source over an online one when compared to the other mature age groups.

The correlations with age and information sources indicate that both the usage of newspapers and brochures have the most significant positive relationship with age (r=,286 and r=,223, p=0.00). Based on these, it could be assumed that behavioural changes in information source usage are significantly different between 55–74-year-old consumers and 75–80-year-olds, which signals that a single age group of 55+ consumers might be a poor variable in explaining changes in behaviour. The correlations between each information source and age also reveal a significant statistical difference between each except advertisement and store employees.

#### 4.2.2 In-store mobile search

The means and ANOVA result for in-store mobile search can be found in table 9. Overall, consumers use mobile for information search while in-store quite rarely, the mean being 3,13 on a 7-point Likert scale. However, the results from ANOVA indicate that there are significant differences between the answers of different age groups, as can be interpreted from both the F-value of 94,509 (p=0,00).

TABLE 9 In-store mobile search usage (2019)

Age	N	Mean <sup>Age</sup>	N	Mean	Mean square be-	F-value	Sig
group	1 1	group	1 1	TVICUIT	tween groups	1 varue	J.g.

In-store mo- bile usage	-						291,414	94,509	0,000
	18-25	237	4,78	55-64	516	2,74			
	26-34	229	4,23	65-74	510	2,36			
	35-44	208	3,96	74-80	208	1,93			
	45-54	223	3,26	Total	2131	3,13			

Overall, consumers use mobile for information search while in-store quite rarely, the mean being 3,13 on a 7-point Likert scale. However, the results from ANOVA indicate that there are significant differences between the answers of different age groups, as can be interpreted from both the F-value of 94,509 (p=0,00).

Post Hoc results show that these significant differences exist between all groups, except 26-34 and 36-44, where no significant differences were found. The correlation between age and information search with a mobile device while instore is -,47, which means that there exists a negative linear relationship between them and that the older the person is, the rarer in-store mobile usage might become. Measures of association (Eta<sup>2</sup>) is 0,21, which means that the differences in in-store mobile usage can be explained with age at least partly.

# 4.3 Social media in decision-making

The following questions were used to analyse how respondents use social media and what are the reasons behind their usage:

The first question was split into four sub questions: (1) to make the right choice when selecting a product or a brand, (2) to gather insight on what kind of products and brands make a good impression on others, (3) to gather information about products and brands and (4) to get confirmation on my purchase decision. The second question was selected as the results can be used as a good indicator of the general effects of social media on buying behaviour. The descriptive numbers for each question can be found in table 10.

The mean for the influence of social media on buying decisions is 2,37 across all respondents, signalling that it does not have a huge influence. This is further reinforced by looking at the median and mode, which both are on the low end of the scale used. Observing the reasons why respondents read other people's social media posts, it can be seen that the key values are quite identical to the overall influence of social media on buying decisions. The means, medians and modes are quite low, and the standard deviations do not vary significantly, except between (3) gathering information and (4) confirmation on purchase decision. The results from comparing the four reasons for reading other people's social media posts suggest that they do it the most because they want to gather information

<sup>&</sup>quot;I often read other people's social media posts..."

<sup>&</sup>quot;How much does social media influence your buying decision".

and the least because they want to gather insights on what kind of products and brands make a good impression on others.

TABLE 10 Reasons for reading other people's social media posts (2019)

	N		Mean	Median	Mode	Std. Deviation	Variance
	Valid	Missing					
1. To make the right choice when selecting a product or brand	2088	68	2,33	2,00	1	1,69	2,85
2. Impression on others	2084	72	2,12	1,00	1	1,64	2,68
3. Gathering infor- mation	2082	74	2,53	2,00	1	1,80	1,81
4. Confirmation for purchase decision	2080	76	2,51	2,00	1	1,21	3,26
How much does SoMe influence your buying decisions	2086	70	2,37	2,00	1	1,59	2,53

There are significant differences between different age groups, which can be found from the results for ANOVA and its Post Hoc test (Table 11). All four reasons (1-4) and the general influence of social media on buying decisions have high F-values (55,247-72,892) and p-values of 0.00. The largest F-value being in the general influence of social media on buying decisions and the lowest in (4) confirmation on purchase decision.

The influence of social media on buying decisions has the most significant differences between the two youngest age groups (18-25 and 26-34) and the rest (p=0.00) there is also significant statistical difference between these two. The means fall below 2,00 starting from age group 55-64, indicating that the use of social media might be very low. In addition, there are no significant differences between the older age groups (55+). Looking at the means, it can be observed that the mean for the influence of social media on buying decisions decrease with age. This is further reinforced by observing the correlation with age (r=0,38, p=0,00) which indicates that there is a negative relationship between them.

All four examined reasons for reading other people's social media posts follow a similar trend, where the two youngest age groups have significant differences with all other groups and the older groups do not differ from each other. The main differences are in the youngest age group, in which the results become insignificant when compared to the older ones. For (1), the differences between groups become insignificant from age group 45+, for (2) 55+, for (3) 45+ and for (4) 45+. All the reasons also correlate almost identically with age, ranging from 0,34 to -0,35, which suggests that when consumers age, the usage of social media declines. The measures of association range from 0,14 to 0,16 and thus age can be used at least partly in explaining the differences in these variables.

TABLE 11 Reasons for reading other people's social media posts by age group (2019).

Reasons for reading SoMe posts	Age group	N	Means	Age group	N	Means	Mean square between groups	F-value	Sig.
1. To make the right choice when select product or brand		_		_	_		152,806	63,347	0,000
product of brand	18-25	236	4,02	55-64	504	1,86			
	26-34		2,77	65-74	498	2,02			
	35-44		2,36	74-80	204	1,90			
	45-54		2,21	Total	2088	2,33			
2. Impression on others							149,897	66,494	0,000
	18-25	234	3,76	55-64	506	1,71			_
	26-34	224	2,74	65-74	499	1,75			
	35-44	199	1,99	74-80	202	1,80			
	45-54	220	1,97	Total	2084	2,12			
3. Gathering information							164,157	58,952	0,000
	18-25	237	4,22	55-64	503	2,04			
	26-34	226	3,12	65-74	497	2,18			
	35-44	197	2,53	74-80	202	2,06			
	45-54	220	2,41	Total	2082	2,53			
4. Confirmation for chase decision	r pur-						155,596	55,247	0,000
	18-25	237	4,11	55-64	500	2,02			
	26-34	227	3,15	65-74	496	2,12			
	35-44	198	2,61	74-80	203	2,09			
	45-54		2,38	Total	2080	2,51			
General influence chase decision	of SoMe	in p	ur-				152,522	72,892	0,000
	18-25	243	3,91	55-64	502	1,93			_
	26-34	227	3,11	65-74	499	1,98			
	35-44	203	2,46	74-80	201	1,85			
	45-54	220	2,26	Total	2086	2,37			

# 4.4 Shopping difficulties

To measure whether age does complicate buying, the following questions were picked from the data and analysed:

<sup>&</sup>quot;How difficult do you find online shopping?"

"How difficult do you find shopping in general".

By examining the means in table 12, consumers seem to not perceive either one to be very difficult. Online shopping does have a slightly higher mean and both larger standard deviation and variance.

TABLE 12 Shopping difficulties (2019)

	N		Mean	Median	Mode	Std. Deviation	Variance
	Valid	Missing					
Online shopping	2079	77	2,60	2,00	1	1,77	3,14
Shopping in general	2129	27	2,45	2,00	1	1,52	2,31

Table 13 shows the means for each age group and the results from ANOVA. Based on the F-value being low (1,102) and p>0,05, there are no significant differences between age groups when it comes to shopping in general. On the other hand, based on the same metrics, there are significant differences in how difficult different age groups deem online shopping. According to the Post Hoc test, the oldest two age groups have significant differences with nearly all other age groups. The younger age groups (18-54) do not have notable differences between them. It is worth noting that age groups 55-64 and 65-74 have very little statistical difference, whereas they do with the oldest (74-80) group. This implies that shopping online becomes significantly more difficult when consumers move into the oldest age group. Difficulties in shopping online has a negative correlation with age (r=-0,21) which is quite identical with the correlation in the social media usage investigated in chapter 4.1.

TABLE 13 Shopping difficulties by age group (2019)

Age group	N	Means	Age group	N	Means	Mean square be- tween groups	F-value	Sig.
Online shopping		_	_	_	_	70,125	23,789	<,001
18-25	237	2,29	55-64	510	2,64			
26-34	232	2,22	65-74	481	2,93			
35-44	208	1,92	74-80	191	3,61			
45-54	220	2,31	Total	2079	2,60			
Shopping in general						2,544	1,102	0,359
18-25	237	2,35	55-64	518	2,49			
26-34	231	2,61	65-74	505	2,47			
35-44	208	2,35	74-80	206	2,51			
45-54	224	2,33	Total	2129	2,45			

It seems that the pandemic has generally lowered the perceived difficultness of online shopping, as can be interpreted from the descriptive statistics found in table 14. All the basic statistical numbers have decreased from the previous data set and the respondents generally do not view online shopping difficult at all.

TABLE 14 Shopping difficulties during COVID-19 (2020)

	N		Mean	Median	Mode	Std. Deviation	Variance
	Valid	Missing					
Online shopping	2317	251	1,85	1,00	1	1,37	1,87
Shopping in general	2524	44	2,23	2,00	1	1,49	2,23

# 4.5 COVID-19 and buying behaviour

The effects of COVID-19 were partly investigated in some of the previous sections, for example in the context of preferred shopping channel. It was found that the preference for shopping in-store has decreased by a significant amount, although the preference did not fully shift to online channels. This chapter will investigate further changes in consumer behaviour that might have occurred due to the pandemic. In order achieve the desired results, the following questions from the 2020 data set are analysed:

Consumers have not drastically shifted their purchasing to online or increased their social media usage, as can be seen from table 15. It was found in chapter 4.1.1. that consumers have not fully changed their channel preference from instore to online due to COVID-19 and these results are in line with that, as online purchases have increased minorly. Social media usage has increased more than online purchases, which was expected, as more time is spent home due to possible restrictions. However, both have high standard deviation and variances, indicating that individual results can vary significantly.

<sup>&</sup>quot;During COVID-19, I have purchased more online than before".

<sup>&</sup>quot;During COVID-19, my social media usage has increased".

TABLE 15 Increases in online purchases and social media usage during COVID-19 (2020)

	N		Mean	Median	Mode	Std. Deviation	Variance
	Valid	Missing					
Purchased more online	2515	53	3,04	2,00	1	2,15	2,14
Increased social media usage	2485	83	3,39	3,00	1	2,14	4,56

The result from ANOVA indicates that there are significant differences (p<0.05 and F>1) between age groups in how they have increased both their online purchasing and social media usage (Table 16).

Post Hoc results for increased online purchases signal that the differences in age group do not have a clear trend. As opposed to most of the variables analysed in this paper, there are no differences between how much the youngest (18-25) and the oldest (74-80) have increased their online purchasing. The most significant differences are between 45-54-year-olds and all other groups except the oldest as well as the 26-34 group and age groups 55-74. In general, it seems that the younger age groups have increased their online purchasing more than their older counterparts. It should be noted that the sample size for age group 74-80 is very limited and thus hinders the analysis.

TABLE 16 Increases in online purchasing and social media usage by age group (2020).

Age group	N	Mea ns	Age group	N	Means	Mean square between groups	F-value	Sig.
Purchased more	online					123,816	28,552	0,000
18-25	369	3,61	55-64	529	2,43			
26-34	435	3,73	65-74	248	2,23			
35-44	398	3,34	74-80	21	3,05			
45-54	515	2,83	Total	2515	3,04			
Increased social	media	_				201,468	49,312	0,000
usage								
18-25	369	4,71	55-64	527	2,78			
26-34	430	3,93	65-74	246	2,55			
35-44	389	3,37	74-80	18	2,50			
45-54	506	3,05	Total	2485	3,39			

Social media usage has increased the most for the youngest age groups and does correlate negatively with age. The post hoc results indicate a significant difference between both 18-25 and 26-34 age groups when compared with the rest of the groups.

### 5 DISCUSSION

The last chapter of this thesis discusses both the theoretical and the managerial contributions it has created. This chapter will focus on answering the research questions set at the beginning of this study which further guide the managerial contributions presented. The limitations of this study are discussed, and future research topics proposed.

### 5.1 Theoretical contributions

The study set out to find differences in consumer behaviour that might be a result of aging. This was achieved by first conducting a literature review in academic research in mature consumers and consumer buying decision process and then by analysing survey results from a consumer behaviour survey (n=2156). Additionally, the data from a similar survey conducted a year after the original one (n=2568) was analysed with the aim in investigating yearly changes in behaviour as these two years, 2019 and 2020, were very different in nature because of the global pandemic, COVID-19, which assumably influenced how people consume products and services.

Based on the literature review, the mature market is much larger and important than current academic research realizes (Lian & Yen, 2014; Moschis, 2012; Yoon & Cole, 2008). The world is aging at a rapid rate and the longevity of human life is expanding across all continents (Moschis, 2012; Yoon & Cole, 2008). The mature segments grow especially rapidly in Africa and Asia as people can live a more prosperous lives and reach maturity (United Nations, 2019). The literature review conducted also focused on the consumer decision making process as it provides a useful framework for understanding consumer behaviour. The consumer decision-making process is a widely used tool to build understanding on why and how individuals consume and can help in guiding marketing communications and improve sales. Thus far, the most often used framework has been Kotler & Keller's (2012) five-stage decision making process, which has been updated by Kotler et al., (2014) to address the rapidly evolving online-aspect of consuming.

To find differences in consumer behaviour that can be attributed to age, the research selected key questions from the survey for further analysis. First, channel preference was analysed, that is, whether respondents prefer buying in-store, online or from both equally. Second, the usage of different information sources was analysed. Thirdly, social media usage was researched by investigating the reasons behind reading other people's social media posts. Lastly, perceived difficulty of shopping was analysed. These questions were selected as they were deemed the most useful ones regarding what was found in previous research and the research questions of this study.

In general, the popular opinion might imply that the older the consumer, the more they prefer shopping in-store. In addition, Rahman & Yu (2019) found that mature consumers might prefer to shop online as some of them treat shopping as physical exercise. The findings comply with both the intuition and previous research, as it was found that the preference to shop in-store increases with age, starting from age 45. Contrarily, preference to shop online decreased with age, starting similarly to in-store preference, at age 45. In literature, the most often used age to segment consumers into the mature segment was 55 (Zniva & Weitzl, 2016). In the context of preferred shopping channel, the mature segment starts at age 45, based on the significant decline in online preference as well as increase in in-store preference. This is an interesting finding, as 45-year-olds are most often not perceived as old. However, as Moschis et al., (2011) research on age-related factors on consumer behaviour suggest, the 45-year-olds might have been the last generation to live their youth without wide access to the internet and the world of online shopping, which could explain their preference in in-store purchasing. In contrast, the current 35-year-olds spent their twenties in the 21st century and thus are partly grown during the widespread of online services.

By comparing preferred shopping channel results with the more recent, 2020 data, it was found that the preference for shopping in-store had generally decreased significantly. This could be because of COVID-19, which might cause consumers to avoid physical stores as, for example, they might think that the risk of infection is increased when visiting them. Shopping in-store is not as pleasant as it used to be, as for example individuals are recommended to wear a facemask during in-store visits. There can also exist immense social pressure for shopping, and spending time in store might be perceived as ignorant by others. Interestingly, the decrease in in-store purchase preference did not massively increase the preference to buy online, which one might intuitively think. Furthermore, the increase in online shopping is only minor when compared to McKinsey's (2020) report on changes in consumer behaviour, which might be explained with the exclusion of grocery shopping from this survey data, as according to the McKinsey report was the fastest growing online category.

Enjoyment of both in-store visits and purchases were analysed and the results between the 2019 and 2020 data compared. The findings suggested that consumers enjoyed both visiting in-store more in 2019 than in 2020, most likely due to how the pandemic has altered buying. Although the enjoyment had declined, the mean, median and mode were still high, indicating that consumers do enjoy visiting stores even though their health might be at risk. The research found that aging does not affect in-store enjoyment significantly, meaning that both the young and mature segments enjoy visiting stores equally.

It was found in the literature review that during the consumer decision-making process, the opinions of others often possess the most significance in a single purchase decision as they are heavily interested in social acceptance (Hwang & Kim, 2019; Kotler et al., 2016). When analysing the usage of different information sources, the paper found that, contrarily, the opinions of others were not the most sought after at least in the information search phase of a decision-

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making process. However, it should be noted that the survey did not actually measure opinion of others per se, but instead this was interpreted from the information sources titled as "store employees" and "friends". These sources were not among the most used ones in any age group, but most often ranked in between the lowest used and most often used sources. This finding was further enforced when the paper investigated the reasons for reading other people's social media posts, which indicated that in general, consumers read them most to gather information on products and the least because they want to know what kind of products and services do create a good impression on others.

Results show that the most used information sources for mature consumers was Google, which indicates that mature segments do know how to conduct search online and acknowledge its benefits. Moschis (2012) argued that because our individual lives are vastly different and there are various variables along our lives that influence our behaviour, segmentation by chronological age might not be a good variable in explaining differences in our behaviour especially in later life, where these changes have had a compound effect. This was found in various results, where the results of age groups inside the mature segment of 55-80 differed significantly. For example, information source usage was nearly identical between groups of 55-64 and 65-74 but differed significantly between the oldest group of 74-80. All these groups used Google the most, but the second and third most used sources for the younger two age groups were store and manufacturers website, whereas they were newspapers and brochures for the oldest group.

Shopping difficulties were investigated because of findings in the literature, which stated that aging can cause a wide range of declines in how humans' function and alter how consumers consume and behave (Gregoire, 2003; Moschis, 2012; Schewe, 1988). These changes were found to be often highlighted in the digital aspects of buying (Yoon & Cole, 2008). Findings from the results suggest that in general, consumers do not perceive shopping difficult and there are no age-related differences. However, the were significant differences in how differently aged consumers perceive online shopping, although none of the groups perceived online shopping as difficult. As with most other variables measured, the most significant differences were between the youngest and the oldest age groups. Similarly, to the previously discussed information source usage, there were no differences in how age groups 55-64 and 65-74 perceive online shopping, but both had significant differences when compared with the oldest age group of 75-80. This implies that shopping online becomes significantly more difficult when consumers move into the oldest age group.

The results showed that the perceived difficulty of online buying has decreased between years 2019 and 2020. This could imply that businesses have adopted to the pandemic well by providing their customers a properly designed and executed shopping experience. It could also be that the most change-resistant stores have been forced to become, for example omnichannel and thus improved the general shopping experience of their customers. Interestingly, the perceived difficulty for shopping in general has also decreased, which is surprising given

that shopping during the pandemic can be more restricted which would intuitively mean that it would be perceived as more difficult.

# 5.2 Managerial contributions

The findings of this thesis demonstrate that the mature segments consist of people with differing consumer behaviour and shopping preferences. These segments will become even more significant in the future, as the world population ages. In addition, they have resources such as money and time to spend on products and services that fill their needs. These combined with the growing rate of technological capabilities makes the older segments very lucrative to marketers.

The research found that consumer behaviour of mature consumers can differ significantly between people aged 55 and 80. By segmenting mature consumers in just one group of people aged 55 and above, these behavioural differences between differently aged consumers might go unnoticed and thus hinder, for example, marketing performance. For example, it was found that shopping difficulties arise when consumers reach age 75 and people younger than 75 practically have no difficulties. By using just one segment of 55+ and offering them services or products that ease their shopping, most of the targeted consumers do not perceive the offering valid for them. Marketers should try and utilize more sophisticated methods in segmenting their customers. This could mean, for example, that they need to investigate the life circumstances and life events of their customers in order to understand them holistically and recognize the variables that alter between desired segments.

Additionally, it was found that consumers of all ages enjoy visiting physical stores more than purchasing online, even midst a worldwide pandemic. This means that visiting in-store is a major part of the overall customer experience and thus it should be addressed accordingly. It is known fact that the so-called showrooming is growing its popularity especially with the younger consumer segments. By understanding the reasons behind visiting stores, marketers and business owners can guide their customers alongside the buying decision process and maximize the chances of getting the sale, even though it might happen in another channel.

#### 5.3 Limitations and future research

The data collected consisted of only Finnish consumers, although the theory was mainly from outside Finland, meaning that there exists a possibility that the research findings differ from the theoretical frameworks because of cultural differences in consumer behaviour. The data used was also collected prior to writing the literature review, which resulted in the usage of survey questions that did not

fully align with the desired research objectives and thus hinder the value of the findings.

Although the literature suggested that using chronological age might not be the best variable in finding differences in how mature consumers behave, it was still used to analyse the data because of its ease of use and the scope of this thesis. Future research might focus on investigating behavioural changes based on for example, household size or average income in addition to age. The decision-making models used in this research might have already be outdated, as consumer behaviour in the digital age evolves very rapidly. These models should be revisited more often to address the growing need for understanding consumer behaviour in the digital age.

Consumer behaviour is very context driven. This means that for example, the preferred purchase channel might vary greatly between different product categories and individual buying situations. For example, individuals might prefer to buy a car in-store as opposed to ordering it online. Contrarily, contact lenses might be preferred to be purchased online as opposed to visiting an optician. This fact was not addressed in this study as the data was not sorted by product categories, although it excluded groceries.

The study found that people do still prefer to visit stores as opposed to using solely online channels and thus the reasons for visiting these stores should be further investigated as they can provide crucial understanding on how to further improve the brick-and-mortar businesses.

As the COVID-19 pandemic has altered the consumer behaviour of many consumers, it is still too early to fully investigate these changes. It is especially interesting to investigate whether this altered consumer behaviour will persist, or revert to the earlier, pre-COVID behaviour. It might also be that there is a leap in especially how mature segments have used online channels during the pandemic and marketers would benefit in researching and comparing the online aspects of consumer behaviour pre- and post-COVID-19, especially in the mature segments.

### REFERENCES

- Accenture. [online]. How COVID-19 will permanently change consumer behavior. [Referred 12.02.2021]. Available at: <URL: <a href="https://www.accenture.com/fi-en/insights/consumer-goods-services/coronavirus-consumer-behavior-research">https://www.accenture.com/fi-en/insights/consumer-goods-services/coronavirus-consumer-behavior-research</a>>
- Arora, N., Robinson, K., Charm, T., Ortega, M., Staack, Y., Whitehead, S., & Yamakawa, N. 2020. Consumer sentiment and behavior continue to reflect the uncertainty of the COVID-19 crisis. McKinsey & Company, July.
- Barnhart, M., & Peñaloza, L. 2013. Who are you calling old? Negotiating old age identity in the elderly consumption ensemble. Journal of Consumer Research 39 (6), 1133-1153.
- Birtwistle, G., & Tsim, C. 2005. Consumer purchasing behaviour: An investigation of the UK mature women's clothing market. Journal of Consumer Behaviour 4 (6), 453–464.
- Blazevic, V., Hammedi, W., Garnefeld, I., Rust, R. T., Keiningham, T., Andreassen, T. W., & Carl, W. 2013. Beyond traditional word-of-mouth: An expanded model of customer-driven influence. Journal of Service Management 24 (3), 294-313.
- Burkolter, D., & Kluge, A. 2011. Online consumer behaviour and its relationship with socio-demographics, shopping orientations, need for emotion, and fashion leadership. Journal of Business and Media Psychology 2 (2), 20-28.
- Comegys, C., Hannula, M., & Väisänen, J. 2006. Longitudinal comparison of Finnish and US online shopping behaviour among university students: The five-stage buying decision process. Journal of Targeting, Measurement and Analysis for Marketing 14 (4), 336-356.
- Donthu, N., & Gustafsson, A. 2020. Effects of COVID-19 on business and research. Journal of Business Research 117, 284–289.
- Engel, J. F., Blackwell, R. D., & Miniard, P. W. 1995. Consumer Behavior. 8th Edition, Forth Worth: Dryden Press.
- Evanschitzky, H., Iyer, G. R., Hesse, J., & Ahlert, D. 2004. E-satisfaction: a re-examination. Journal of Retailing 80 (3), 239-247.
- Fill, C. 2009. Marketing communications: interactivity, communities, and content 5<sup>th</sup> Edition, Harlow, England: Prentice Hall/Financial Times.
- Grougiou, V., & Pettigrew, S. 2011. Senior customers' service encounter preferences. Journal of Service Research 14 (4), 475-488.
- Google. [online]. How mobile is transforming the shopping experience in stores. [Referred 12.2.2021] Available at: <URL: <a href="https://www.thinkwith-google.com/marketing-strategies/app-and-mobile/mobile-in-store/">https://www.thinkwith-google.com/marketing-strategies/app-and-mobile/mobile-in-store/</a>>
- Hair Jr., J.F., Money, A.H., Samouel, P., & Page, M. 2015. The essentials of business research methods. 3<sup>rd</sup> Edition. New York, NY: Routledge.
- Hare, C., Kirk, D., & Lang, T. 1999. Identifying the expectations of older food consumers. More than a "shopping list" of wants. Journal of Marketing Practice: Applied Marketing Science 5(6/7/8), 213–232.

- Hess, T, I., Rosenberg, D. C., & Waters, S. J. 2001. Motivation and representational processes in adulthood: The effects of social accountability and information relevance. Psychology and Aging 16, 629-642.
- Hervé, C., & Mullet, E. 2009. Age and factors influencing consumer behaviour. International Journal of Consumer Studies 33 (3), 302-308.
- Hopkins, C. D., Roster, C. A., & Wood, C. M. 2006. Making the transition to retirement: appraisals, post-transition lifestyle, and changes in consumption patterns. Journal of Consumer Marketing 23 (2), 87-99.
- Huber, J. and Klein, N. 1991. Adapting cutoffs to the choice environment: the effects of attribute correlation and reliability, Journal of Consumer Research 18 (3), 346–357.
- Hur, H. J., Lee, H. K., & Choo, H. J. 2017. Understanding usage intention in innovative mobile app service: Comparison between millennial and mature consumers. Computers in Human Behaviour 73, 353-361.
- Javalgi, R. R. G., & Dion, P. 1999. A life cycle segmentation approach to marketing financial products and services. Service Industries Journal 19 (3), 74-96.
- Joshi, A., Kale, S., Chandel, S., & Pal, D. K. 2015. Likert scale: explored and explained. Current Journal of Applied Science and Technology 7 (4), 396-403.
- Kestilä, L., & Martelin, T. 2019. Suomen väestörakenne ja sen kehitys. Suomalaisten hyvinvointi 2018. Helsinki: Terveyden ja hyvinvoinnin laitos, 26-45.
- Kohijoki, A. M. 2011. The effect of aging on consumer disadvantage in grocery retail services among the Finnish elderly. Journal of Retailing and Consumer Services 18 (4), 370-377.
- Kohlbacher, F., & Herstatt, C. 2008. The silver market phenomenon: business opportunities in an era of demographic change. Berlin: Springer Science & Business Media.
- Kohlbacher, F., & Chéron, E. 2012. Understanding "silver" consumers through cognitive age, health condition, financial status, and personal values: Empirical evidence from the world's most mature market Japan. Journal of Consumer Behaviour 11 (3), 179-188.
- Kotler, P., Keller, K. L., Ancarani, F., & Costabile, M. 2012. Marketing management. 14<sup>th</sup> edition. Welwyn Garden City: Pearson Education.
- Kotler, P., Kartajaya, H., & Setiawan, I. 2016. Marketing 4.0: Moving from traditional to digital. Hoboken, New Jersey: Wiley.
- Kwon, W. S., & Noh, M. 2010. The influence of prior experience and age on mature consumers' perceptions and intentions of internet apparel shopping. Journal of Fashion Marketing and Management 14 (3), 335-349.
- Lambert-Pandraud, R., Gilles L., & Lapersonne, E. 2005. Repeat purchasing of new automobiles by older consumers: empirical evidence and interpretations. Journal of Marketing 69 (2), 97-113.
- Lian, J. W., & Yen, D. C. 2014. Online shopping drivers and barriers for older adults: Age and gender differences. Computers in Human Behaviour 37, 133-143.
- Lipke, D. J. 2000. Pledge of allegiance. American Demographics 71 (49), 40-42.

- Loroz, P. S., & Helgeson, J. G. 2013. Boomers and their babies: An exploratory study comparing psychological profiles and advertising appeal effectiveness across two generations. Journal of Marketing Theory and Practice 21 (3), 289-306.
- Mathur, A., & Moschis, G. P. 2005. Antecedents of cognitive age; A replication and extension. Psychology and Marketing 22 (12), 969–994.
- Milner, T., & Rosenstreich, D. 2013. A review of consumer decision-making models and development of a new model for financial services. Journal of Financial Services Marketing 18 (2), 106-120.
- Moschis, G. P. 1998. Marketing to older consumers: A handbook of information for strategy development. Westport, Connecticut: Quorum Books.
- Moschis, G. P., & Mathur, A. 2006. Older consumer responses to marketing stimuli: the power of subjective age. Journal of Advertising Research 46 (3), 339-346.
- Moschis, G.P. & Mathur, A. 2007. Baby boomers and their parents: surprising findings about their lifestyles, mindsets, and well-being. Ithaca, New York: Paramount Books.
- Moschis, G. P., & Nguyen, H. V. 2008. Affluent mature consumers: Preference and patronisation for financial services. Journal of Financial Services Marketing 13 (3), 259-267.
- Moschis, G. P., Ferguson, J. L., & Zhu, M. 2011. Mature consumers' selection of apparel and footwear brands and department stores. International Journal of Retail & Distribution Management 39 (10), 785-801.
- Moschis, G. P. 2012. Consumer behaviour in later life: Current knowledge, issues, and new directions for research. Psychology & Marketing 29 (2), 57-75.
- Naeem, M. 2021. Do social media platforms develop consumer panic buying during the fear of Covid-19 pandemic. Journal of Retailing and Consumer Services 58, 1-10.
- Najdený, R., Križan, F., Bilková, K., Madajová, M. S., & Gurňák, D. 2019. Consumer behaviour of seniors visiting shopping malls: case study from Bratislava. Folia Geographica 61 (2), 126-143.
- Nam, J., Hamlin, R., Gam, H. J., Kang, J. H., Kim, J., Kumphai, P., & Richards, L. 2007. The fashion-conscious behaviours of mature female consumers. International Journal of Consumer Studies 31 (1), 102-108.
- Nasco, S. A., & Hale, D. 2009. Information search for home, medical, and financial services by mature consumers. Journal of Services Marketing 23 (4), 226-235.
- Parment, A. 2013. Generation Y vs. Baby Boomers: Shopping behaviour, buyer involvement and implications for retailing. Journal of Retailing and Consumer Services 20 (2), 189-199.
- Patterson, I. 2007. Information sources used by older adults for decision making about tourist and travel destinations. International Journal of Consumer Studies 31 (5), 528-533.

- Prasad, R. K., & Jha, M. K. 2014. Consumer buying decisions models: A descriptive study. International Journal of Innovation and Applied Studies 6 (3), 335.
- Pride, W., Ferrell, O., & Lukas, B. 2017. Marketing principles. South Melbourne, Victoria: Cengage Learning.
- Rahman, O., & Yu, H. 2019. Key antecedents to the shopping behaviours and preferences of aging consumers. Journal of Fashion Marketing and Management 23 (2), 193-208.
- Schewe, C. D. 1988. Marketing to our aging population: Responding to physiological changes. Journal of Consumer Marketing 5 (3), 61-73.
- Sheth, J. 2020. Impact of Covid-19 on consumer behavior: Will the old habits return or die? Journal of Business Research 117, 280-283.
- Sudbury, L., & Simcock, P. 2009. A multivariate segmentation model of senior consumers. Journal of Consumer Marketing 26 (4), 251-262.
- Väestöennuste. 2018. Suomen virallinen tilasto. Helsinki: Tilastokeskus.
- Szmigin, I., & Carrigan, M. 2000. The older consumer as innovator: does cognitive age hold the key? Journal of Marketing Management 16 (5), 505-527.
- Thomas, J. B., & Peters, C. L. O. 2009. Silver seniors: Exploring the self-concept, lifestyles, and apparel consumption of women over age 65. International Journal of Retail & Distribution Management 37 (12), 1018-1040.
- United Nations, 2019., Population division, world population ageing 2019, United Nations, New York.
- Wolf, F., Sandner, P., & Welpe, I. M. 2014. Why do responses to age-based marketing stimuli differ? The influence of retirees' group identification and changing consumption patterns. Psychology & Marketing 31 (10), 914-931.
- Worsley, T., Chun Wang, W. and Hunter, W. 2011. Baby boomers' reasons for choosing specific food shops. International Journal of Retail & Distribution Management 39 (11), 867-882.
- Yoon, C., & Cole, C. A. 2008. Aging and consumer behavior. In C. P. Haugtvedt, P. M. Herr, & F. R. Kardes (Eds.), Handbook of consumer psychology, 247–270. New York, NY: Taylor & Francis.
- Yoon, C., Cole, C. A., & Lee, M. P. 2009. Consumer decision making and aging: Current knowledge and future directions. Journal of Consumer Psychology 19 (1), 2-16.
- ZeithamI, V. A., & Bitner, M.J. 2003. Services marketing: Integrating customer focus across the firm. New York: McGraw-Hill.
- Zniva, R., & Weitzl, W. 2016. It's not how old you are but how you are old: A review on aging and consumer behaviour. Management Review Quarterly 66 (4), 267-297.