

Master's Degree in Management Curriculum in Innovation and Marketing

Final Thesis

Analysis of factors influencing customers' loyalty in online grocery shopping

An analysis of the Italian market after the consequences of COVID-19

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Abstract

Customers' purchase habits are drastically changed in recent years. In particular, the impact of new technologies and the spread of Covid-19 contributed to accelerating the switch from in-store purchases to online shopping, affecting the whole Customer Journey and User Experience. On one hand, online shopping is fast and accessible, but on the other hand, users can face a lack of experience, trust, and privacy problems.

The purpose of this dissertation is to analyze if the recent pandemic and the spread of new technologies changed the willingness to do grocery shopping online and then to predict if those possible changes are going to persist.

Starting with a focus on how the Customer Journey evolved over the years, the paper continues analyzing four main theories of Consumer Behavior and their application on the e-grocery shopping sector: the Theory of Reasoned Action and the Theory of Planned Behavior, the Expectancy Confirmation Theory, and the Technology Acceptance Model.

Subsequently, the thesis continues showing data collected through an online survey distributed among Italian consumers, aiming to examine how grocery shopping habits changed due to the recent events and the customers' willingness to switch to e-grocery shopping. Data are collected, examined, and then compared with previous studies to analyze changes over time and among different countries, showing points in common and differences.

Introduction

It is now undeniable that today's society is evolving at an ever faster pace. We live in a world that is constantly evolving, changing, and developing. And with it, consumers and their habits are shifting too. Considering these changes, companies must take action accordingly, in order to respond to new market demands and customers' necessities. Therefore, all businesses, from every country and sector should consider the latest trends, emerging needs, and new customer behaviors, otherwise, their market survival will be severely threatened, benefiting all those companies that have been able to adapt their strategies and business models to the new emerging demands.

That said, considering the increasingly rapid rate of change, it is clear that nowadays predicting changes, forecasting new trends, and anticipating future consumer preferences is becoming more and more challenging and companies have to continuously carry out market analysis and monitor countless communication channels and touchpoints to stay in line with the times. Furthermore, it is necessary to consider two major forces that have shaped - and still continue to shape - these last few years: an increase in digital tools and technological skills and, secondly, the recent effects of Covid-19 pandemic.

As a matter of fact, the pandemic has generated innumerable changes, altering entire aspects of people's lives on a global scale. From the way humans relate to each other, to the way they work, from education to the arrival of new platforms for seeing each other or shopping: people's entire lives have been disrupted in a matter of months, and with them, the way they shop has been compromised too. The only certain thing is that Covid-19 has been an accelerator of change, and some companies have been able to take advantage of these new and rapid market developments, getting one step ahead of their competitors and cutting out those who have been unable - or unwilling - to play in the game.

Therefore, this paper will focus on the effects the pandemic had on customers' habits, in particular regarding the influence it had on grocery shopping habits and the willingness to do it online. Indeed, the purpose of the thesis is to investigate if the lockdown and the safety measures in Italy influenced the way consumers did online grocery shopping, the factors that shape the e-grocery channels, and the willingness to do online grocery shopping in the next future.

In order to analyze that, I submitted a questionnaire through a Google Moduli to over 270 consumers in Italy asking them demographic questions, spending habits questions, if they ever tried – at least once - online grocery shopping, and their reasons regarding this.

Then, the collected data have been analyzed and processed to verify the existence of statistical differences among the sample. All the main findings are reported within the third chapter of this dissertation, while the fourth section compares these results with previous studies carried out on similar topics. The purpose of the fourth chapter is indeed to find out similarities and differences between the results coming from chapter three and findings emerged from previous analyses carried out in different countries and/or before the spread of Covid-19. In this way, it will be possible to compare the willingness, the satisfaction, and the level of loyalty of online grocery shopping in different countries and also the difference between the situation in Italy pre and post pandemic spread. Finally, the last chapter will show conclusions, managerial implications, and suggestions for future research, reporting also some proposals that retailers could implement in order to enhance this kind of e-service.

Chapter 1 The evolution of Customer Journey over time

1.1 Things have changed

The evolution of our communities, the multicultural society, and the incremental use of technology, have an impact on the evolution of consumers' habits and lifestyles, which are evolving at an increasingly faster pace. The quicker life rhythm, the widespread of the internet, and new technologies created a proliferation of touchpoints which lead, as a consequence, customers exposed to a multitude of messages every day. Furthermore, recent events and global interconnections contribute to constantly influencing people's lifestyle and their ways of shopping. All of these developments do not exclusively involve the purchase stage; the whole customer journey has deeply changed during the years: from the initial awareness to the moment of purchase, from the evaluation to the post-purchase phase. The entire buyer journey has been impacted by these changes and, therefore, all the touchpoints of the customer journey are involved and are evolving to adapt to modern society's habits.

Companies cannot ignore those changes, they must take action and inevitably adapt their strategies in order to remain competitive in the market. Indeed, many companies adapted their business models and today our community is reached by brands in much more different ways compared to past decades. Companies can use a wider range of tools and strategies – both online and offline – to spread their messages and interact with customers compared to the past. Nevertheless, all these new opportunities to communicate and spread messages are useless if not implemented wisely.

While in the past consumer behaviors were much easier to predict, today things have changed. In the digital age, the customer journey is much more difficult to draw due to the multitude of touchpoints and the fragmented media landscape. Furthermore, while in the past the commercial communication was more unilateral and interactions among companies and customers were rare, today we are witnessing a huge change. Consumers are no longer willing to just receive messages: they are able to, they want to, and they pretend to express themselves and interact with the brands they use. Considering these important differences between the past customer path and the modern one, the customer journey management had to adapt its models over time, and for that reason, they were repeatedly revised.

The very first and the most basic model of the customer's journey is the AIDA Model. It conceptualizes the consumer path through a linear schema, representing it through a sort of linear visualization. The AIDA Model was developed in 1898 by Elmo Lewis, who attempted to explain how personal selling works, mapping a theoretical customer journey from the moment a brand obtains customer attention, to the customer purchase. The simplicity of the model explains its widespread usage and its longevity. According to the AIDA Model a sequence of four stages – Attention, Interest, Desire, and Action - drive customers from the awareness to the purchase stage. The main strength of this model is represented by its clarity and linearity. Each stage can happen only if the previous one is successfully achieved. Therefore, according to the AIDA, once companies gained customer attention, they can create a sort of interest. Then, when the level of interest is strong enough, desire in buying the product or using the service can arise and finally, the customer may take action through the purchase.

Through the years, the AIDA Model was merged with a funnel representation by William Townsend in 1924. The output of this merge was the well-known "Marketing funnel" or "Customer funnel" representation (Figure 1.1). Through this model, Townsend proposed to depict the four AIDA stages in a funnel-shaped visual model. As customers learn more about a brand or company, they move down towards the bottom of the funnel as long as they reach the purchase stage. In its book "Bond Salesman", William W. Townsend describe the model and its steps as follows: "The salesman should visualize his whole problem of developing the sales steps as the forcing by compression of a broad and general concept of facts through a funnel which produces the specific and favorable consideration of one fact. The process is continually from the general to the specific, and the visualizing of the funnel has helped many salesmen to lead a customer from Attention to Interest, and beyond."



Figure 1.1: Representation of Sales Funnel (Super Office, March 2021)

In the following years, many modifications were made to the AIDA Model, thus different alternatives arose through the 19th century. For example, in 1911 A. F. Sheldon added to the model the satisfaction stage, as a subsequent step after the action, then in 1920 H. D. Kitson suggested to include also the confidence stage between the desire and action steps obtaining a six-step model. Going through history, in 1961 Russel H. Colley proposed a further model to study consumer behavior: the DAGMAR Model (an acronym for "Defining Advertising Goals for Measured Advertising Results") in which each customer goes through four steps: Awareness, Comprehension, Conviction, and Action. This model aims to measure advertising effectiveness by mapping the states of mind that a consumer passes through after having defined the target audience and the objectives the company has to reach.

The linear representation of the customer journey - and the Sales Funnel in particular dominated the marketing theory for many years, being still widely studied. However, some critics arose around this representation over years. To start, this model does not consider what happens after the purchase stage, not including the post-purchase and the loyalty phase. Secondly, another criticism is that funnels are too linear to represent how consumers behave and make their purchase decisions. Considering how people make choices in real life, they take more unpredictable decisions, following many different paths and passing through many different touchpoints before making a final decision. A linear representation cannot fit the real customer journey. Furthermore, as highlighted before, the AIDA model was introduced by a salesman with the primary goal of increasing sales. Its roots and its purpose were to drive sales and help salespeople in the direct sales business. Nowadays, it is clear that the rise of sales cannot be the only company purpose.

Therefore, considering all of that, the consolidated sales funnel has to be adapted to today's society, to fit more the actual media landscape and customers' habits. Considering the environment in which customers make purchase decisions and evaluate brand, has dramatically changed over the past decade due to the plethora of new touchpoints, new customer journey models must be taken into consideration. Digitalization changed everything and consumer behavior continues to evolve, and as a consequence new models and theories have emerged. Those new models consider customers are no longer following a single and linear journey – from the awareness stage to the direct purchase - rather they consider that customer journeys are becoming more and more complex, less linear, and more intricate. Thus they can be considered more suitable to meet today's context.

In 2009 a study conducted by McKinsey & Company's Global Digital Marketing Strategy practice group depicted the traditional linear and hierarchical purchase funnel. Instead, they found out consumers follow a more iterative and less reductive process in which they can enter a purchase path at various points, depending on how they first interact with a given brand, product, or service. Based on those findings, McKinsey proposed the Consumer Decision Journey framework (Figure 1.2). This model aims to illustrate how consumers interact with companies and brands during their purchase decision process using a circular representation to describe the consumer path. As described by McKinsey itself, "The decision-making process is now a circular journey with four phases: initial consideration; active evaluation, or the process of researching potential purchases; closure, when consumers buy brands; and postpurchase, when consumers experience them." (Court, Elzinga, Mulder, Vetvik, 2009). This framework views the consumer decision-making process as a winding journey with multiple feedback loops rather than a linear, single uniform path to purchase based on active shopping and influenced by marketer-dominated and controlled touchpoints.

Figure 1.2: Representation of The Consumer Decision Journey (McKinsey & Company, June 2009)



The Consumer Decision Journey framework represents more precisely how consumers make purchase decisions. It better fits today's customer journey illustrating how complex and intricate are consumer decisions and many differences can be noticed comparing this model with the previous linear representation. First of all, "contrary to the funnel metaphor, the number of brands under consideration during the activeevaluation phase may now actually expand rather than narrow as consumers seek information and shop a category. Brands may "interrupt" the decision-making process by entering into consideration and even force the exit of rivals" (Court, Elzinga, Mulder, Vetvik, 2009). Secondly, while in the Townsend representation used to push customers towards products, through this model consumers are empowered and have more active control of the process. Then, another big change regards the loyalty stage: the postpurchase experience shapes consumer opinion for every subsequent decision, therefore the journey is an ongoing cycle.

Continuing the course of the Customer journey's evolution, in recent years another customer journey representation proposal was recently introduced by Google: the Messy Middle of Purchase Behavior (Figure 1.3). The name is self-explanatory: it derives from the fact consumers do not behave in a unique and well-defined way. Instead, they behave following a confusing web of touchpoints. This model shares some common

points with some already theorized customer journey models described before. However, several novel elements were identified to reflect the many different nuances of customer behavior that previous models did not fully capture. The Messy Middle Model represents the journey extremity with the trigger point and the purchase. In the messy middle, there are exploration and evaluation phases in which consumers loop until they are ready to purchase. "This process takes place against an ever-present backdrop of exposure – effectively a substrate representing all of the thoughts, feelings, and perceptions the shopper has about the categories, brands, products, and retailers. After purchase, the experience comes - with both brand and product - all of which feeds back into the sum of the overall exposure" (Rennie, Protheroe, Charron, Breatnach, 2020). Furthermore, this ultimate model proposed by Google takes a different approach, based on cognitive science aiming to understand how and why consumers behave.





Looking at these models and schemes we can say not only consumer journey is much more complicated than ever, but it actually keeps evolving and it is crucial for companies to not ignore this phenomenon in order to make wise decisions and adapt their touchpoints, strategies, and business models to the constantly evolving customers' behavior.

1.2 The consequences of new technology on customers' journey and consumers preferences

One of the main factors recently shaped our society and how consumers behave and make purchase decisions is the arrival of the internet and the digitalization of processes. Digitalization and the evolution of technology in recent years have provided numerous advantages and great convenience for people all around the world. The spread of the internet, the increasing smartphone usage, and the hyper-connected society had a huge impact on everyday life, impacting and reshaping the long-established and well-known customer behavior making it more unpredictable and less stable.

Affecting consumers' behaviors, the digital transformation is inevitably having an impact also on companies. To adapt to these changes, companies are forced to change their business models to the evolving market and customer habits in order to remain competitive. Nowadays companies can rely on many different resources - both online and offline - to analyze and reach their target audience easier and faster. Thus, the digitalization of processes gives companies an increasing number of opportunities to interact with new and existing customers and can help businesses in monitoring and enhancing the entire buyer journey: from the initial consideration to the post-purchase phase. For sure, technology innovation created on one hand risks for companies, such as an increase in competition – it is easier to compare products, to find substitutes, to have contacts with companies all around the world - but on the other hand, it also contributed in creating many business opportunities - like acceleration of market size, ease of reaching new customers and communicate with a wider audience, find new customers and new product innovation. Indeed, businesses can now rely on digital tools to better manage touchpoints, provide 27/7 support and create unique experiences always monitoring results and tackling progress.

Considering the customers' point of view, the internet arrival definitely brought many different consequences on customers' habits and preferences. It certainly empowered consumers, offering unlimited access to information and allowing them to interact with companies and other users whenever and wherever they want. Connections among users are now more immediate and powerful than ever before. Accessing the internet via smartphones, PCs, and many other different devices, consumers can research products, ask for specifications from companies, provide reviews, ask for assistance to the customer service through a chatbot, and even more. All of these consequences hardly impacted how consumer behave, their preferences, and their interactions with companies.

First of all, one of the main consequences of digitalization is that we are experiencing a decrease in consumer attention. Considering the limitless number of online resources and channels, people have an enormous amount of content to consume. However, the number of resources is now causing a content overload and, as a result, people's attention is now falling down. The Technical University of Denmark (Lorenz-Spreen, Mønsted, Hövel, Lehmann, 2019) studied the relation between the overload of online contents and the human beings attention span, focusing on the dynamics of collective attention. The research found out the increasing information flow is shortening people's attention cycles. Furthermore, the research also highlighted that "the accelerating ups and downs of popular content are driven by increasing production and consumption of content, resulting in a more rapid exhaustion of limited attention resources" and "producing and consuming more content results in shortening of attention spans for individual topics and higher turnover rates between popular cultural items. In other words, the ever-present competition for recency and the abundance of information leads to the squeezing of more topics in the same time intervals as the result of limitations of the available collective attention. A quantitative understanding of the factors behind the acceleration of allocation of collective attention has the potential to mitigate negative developments in modern communication systems caused by inflationary information flows." Therefore, the research suggests the "accelerating vicissitudes of popular content are driven by increasing production and consumption of content [...] This results in a more rapid exhaustion of limited attention resources" (Lorenz-Spreen, Mønsted, Hövel, Lehmann, 2019).

In this context, companies have to find a way to grab users' attention and convince them to watch, interact, and spread their communication. For this reason, businesses need to find a way to highlight themselves and to be noticed among the other players on the market. They must create impactful contents, capable to grab consumers' attention in very a limited period of time. Secondly, another important impact of technology on consumer habits is the fact the internet made the comparison of products, services, and brands extremely easy for consumers. While in the past customers used to base their purchase decisions exclusively on companies' communication, advertisements, past experiences, or Word of Mouth, nowadays users can rely on a plethora of information to compare products and make wiser purchase decisions. For that reason consumer power highly rose, making them able to collect information about products and companies from any part of the world. According to a report by McKinsey, "more than half of customers engage with three to five channels during each journey they take toward making a purchase or resolving a request" (Amar, Jacobson, Kleinstein, Shi, 2020), while according to a Google research, "the 53% of shoppers say they always do research before they buy to ensure they are making the best possible choice" and "Nearly 2/3 of shoppers say online video has given them ideas and inspiration for their purchase" (Amar, Jacobson, Kleinstein, Shi, 2020). To succeed in this comparison, first of all, companies must be present online, covering all the channels customers go through during their customer journeys. Secondly, businesses must give users the right content at the right time through the right channel. The online presence and reputation are the key to increasing the likelihood of purchase and reviews, ratings, and obviously, detailed information and contents are the tools to succeed and be noticed among the enormous amount of competitors online.

Another crucial consequence of digitalization is represented by the increasing demand for personalized products and experiences. The demand for personalized items and services rose with the advent of the internet, technology, and globalization. According to a research made by Deloitte in 2019 "empowered by social networks and their digital devices, consumers are increasingly dictating what they want, when and where they want it. They have become both critics and creators, demanding a more personalized service and expecting to be given the opportunity to shape the products and services they consume" (Fenech, Perkins, 2019). The Deloitte research found out "in some categories more than 50% of consumers expressed the interest in purchasing customized products or services. Moreover, not only would the majority of consumers be willing to pay more for customized products or services, but they would also like to be actively involved in the process". This trend is a real movement from the typical mass production – in which decreasing the cost per unit and increasing the production capacity are the driving values - to the mass personalization – in which the cost and the time to produce a single unit increase together with the perceived value for the customer. People are now looking for more customized content, product, and services and personalization has become a huge determinant of the nature of a customer experience.

This trend is also connected with the increased tendency of customer expectations towards businesses. Having many different choices, customer expectations rose and now they look for a single product that fulfills all their needs. Clients now pretend more online interactions with businesses and personalized products or experiences. Obviously, there are many different degrees of personalization marketing departments can implement, such as email and social media personalization, campaign personalization, or geographical personalization. Therefore, moving from mass production to mass personalization is not an alternative anymore. Personalized offers, products, services, and experiences are the key to differentiate products, increase customer retention, loyalty, and improve satisfaction.

Considering all of these impacts and technologies, it is possible to say "The 4th industrial revolution is becoming the new benchmark for organization [...] To maintain competitive and stay relevant in business, organization need to constantly finetune on its business strategy and process for not lacking behind due to business uncertainties and ever-changing consumer behavior" (Beer, Nohria, 2000). Therefore, understand on technology evolution that lead for consumer behavior changes remain the critical aspect for organization to better strategize marketing plan to match consumer expectation." (Hj. Ahmad, Masri, Voon Chong, Ananta Fauzi, Idris, 2020). Certainly, this is a big challenge that companies have to face and for sure there are different degrees through which businesses can adopt digital technology, such as: "the pure presentation and information (website), the sales channel functions (E-Commerce) and the business process integration (EBusiness) to new business models with virtual products and/or services" (Härting, Reichstein, Jozinovic, 2017). However, the key factor is to not stay sticky to past business models and keep evolving always following consumers' preferences and forecasting market trends.

1.3 The consequences of COVID-19 recent pandemic on Customer Journey and consumers preferences

Certainly, the growth of the internet and the new information and communication technology shaped how people behave and their purchase and loyalty habits. However, in the last two years, we witnessed another enormous event that contributed to a further change in consumer purchase behavior and deeply changed the customer journey: the COVID-19 pandemic. The state of emergency dramatically modified relationships, the way to travel, work, and meet each other. Indeed, among the limitless changes, the spread of the virus surely had an impact on how customers make purchases.

The SARS-CoV-2 was discovered in Wuhan (China) and has rapidly spread since December 2019 reaching many other countries around the globe. Since January 2020, when the WHO (World Health Organization) announced the global epidemic, the virus spread has posed significant challenges to global safety in public health. Countries reacted in many different ways to the pandemic and implemented different measures to contain the contagious: from the introduction of masks and sanitation measures to the application of entry bans and forced quarantines. Consequently, all these measures taken to limit the spread of contagious severely affected – and still affect - economies worldwide.

In particular, Italy has been hardest damaged by COVID-19. During the early days of March, the Italian government imposed quarantine orders that locked down millions of people and stopped all unnecessary companies, industries and economic activities on 21st March 2020. The mobility index data by Google for Italy shows there has been a significant decrease in mobility, which means a reduction in economic activity too. The reported decline of mobility in retail and recreation, grocery and pharmacy, transit stations, and workplaces were 35%, 11%, 45%, and 34% respectively (Rubino, 2020). Therefore, the Italian economy suffered great financial damage from the pandemic. A study conducted in Italy in March 2020, showed that about 99% of the companies in the housing and utility sector said the pandemic had affected their businesses. Moreover, transport and storage was the second most affected sector. Around 83% of companies

operating in this sector said that their activities had been affected by the coronavirus according to a report by Statista in 2020.

The spread of COVID-19 continues to threaten the public health situation severely and it consequently has a huge impact on the global economy (Mofijur, Fattah, Alam, Islam, Chyuan Ong, Rahman, Najafi, Ahmed, Uddin, Mahlia, 2021). Labor displacement, stock crashes, travel bans, limitation in public transports, business workplace, and public places closures are just some of the impacts of global lockdowns which modified society habits and made a room for "the new normality".

Nevertheless, it is clear how the pandemic had a huge impact worldwide. Covid-19 has been a threat to many people and households in any part of the world, from the developing countries to the developed ones, but it quickly became the greatest opportunity for some activities and for the development of e-commerce platforms. Considering many heads of government have decided to institute a lockdown to safeguard citizens, people were forced to stay home, many public places were abandoned, and habits twisted. But, daily needs were not changed. In this disruptive context, online shopping has saved many lives from the threat and conveniently made them purchase their necessities from home. Indeed, digital technologies and the internet offered an alternative channel for maintaining business activities, social interactions, and consumption in times of strict preventive measures.

Being forced to stay home - or not wanting to go out due to the virus' spread - the customer journey has been hardly affected by the pandemic. The lockdown and the spread of the virus forced and accelerate the transition from offline to online. Many customer journey steps that people used to take in-person, have transitioned to online and are now easily performed from home thanks to the internet. Indeed, the e-commerce channel was a crucial option for consumers due to the lockdown and its usage steadily increase both for groceries and durable purchases. According to a report made in 2021 by Insider Intelligence and eMarketer, "retail ecommerce sales grew 27,6% globally in 2020, for a total of \$4.280 trillion, representing a substantial uptick from the mid-pandemic assessment of 16,5% growth" (Figure 1.4). The higher increase was registered in Latin America, with an e-commerce growth equal to 36,7%, while in Europe the rise of the e-channel shows an increase of 26,3% according to the report.

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Figure 1.4: Retail Ecommerce Sales Growth Worldwide by region in 2020 (Global Ecommerce Update 2021, eMarketer, January 2021)



Following a survey made in 2020 by UNCTAD (United Nations Conference for Trade And Development) and Observatory NetComm Suisse, in collaboration with NIC.br, Apertamente, and Inveon, "Covid-19 has accelerated the shift towards a more digital world, changing online shopping behaviors forever". The survey was submitted to 3,697 consumers in nine emerging and developed countries (Brazil, China, Germany, Italy, the Republic of Korea, Russian Federation, South Africa, Switzerland, and Turkey) and they found out that the pandemic brought many different consequences in all the analyzed countries. According to the same research, the virus affected the whole people of the world, changing the nature of trading in all of the different types of businesses, and leading people to go digital in multiple ways (increase in time on digital entertainment sites, more frequent use of online channels for health-related information, increase in online shopping, and rise in reading online newspaper and magazine and since the outbreak of COVID-19). Furthermore, according to the study, 49% of interviewed said they are shopping online more often than before the COVID-19 outbreak, while the shift to e-commerce resulted in more pronounced for women, highly educated consumers, and people between 25 to 45 years old. (Figure 1.5)

Figure 1.5: Change in online shopping demographics since COVID-19 (UNCTAD, 2020)



Since the outbreak of COVID-19, I am shopping more often online than before.

Moreover, focusing on the European situation in 2020, being forced to acquire products online, there has been an increase in the propensity to buy online and a rise in consumers' confidence in purchasing products via the internet in the EU. According to the European Commission, 71% of consumers shopped online in 2020, while 63% were confident buying online in their home country, up 6 percentage points from 2014. In particular, Italy experienced a strong increase in the number of e-shoppers – Italian consumers who decide to buy products online grow by 2 million, reaching the total number of 27 million people in the first 2 months of the pandemic in 2019 – combined with an increased frequency of online purchase during the same period of time.

However, it is important to notice the consequences of COVID on business sales and website traffic was hardly driven by the type of product or service sold, and the increasing online shopping trend has a different impact on companies. While some sectors have been severely damaged by the virus – and the social distancing norms - others have seen a large increase. Naturally, the transport sectors, travel, and catering industries have hardly been impacted by restrictions, just think of oil and gas drilling, restaurants, and leisure facilities: extremely different sectors that demonstrate similar negative trends due to COVID-19. Meanwhile, other sectors were not impacted and others even outperformed in 2020 and 2021. Among those sectors: electronics and ICT products, pharma and healthcare products, personal care, and food and beverages. In particular, FMCG (Fast Moving Consumer Goods) and the food industry were the best performers in terms of growth in Italy, showing a 70% growth in sales of food and grocery products (Liscia, 2021). In particular, the switch from in-store to online

purchase touched the grocery sector, where store preferences had a huge change. During the lockdown, shoppers tried new ways of purchasing products and services. US grocery e-commerce household penetration increased from 13% before the pandemic to more than 31% in late March according to the report "Perspectives on retail and consumer goods" published in 2020 by McKinsey and Company. Following the report "This acceleration is likely to remain to some extent after lockdowns are over, with consumers in Asia expecting to shop online significantly more after the crisis than they did before: +15% in China, +16% in Indonesia, and +38% in India".

Now, one of the crucial questions researchers are trying to investigate refers to the "new normality", how the customer journey will evolve in the post-pandemic scenario and if online homebuying is here to stay and these new habits will stick leading a dramatic channel shift. Following the results of the UNCTAD report, more than 50% of interviewed are willing to continue to shop more often online than before COVID-19 (Figure 1.6). Moreover, according to the Raydiand report: "The State of Consumer Behavior 2021", only 46% of respondents said that given the choice, they prefer to shop in person rather than online — a 9% decline from the retail management platform builder's 2020 report, showing a progressive switch to the online option and highlighting many consumers expect to continue the digital habits that have adopted during the pandemic outbreak. However, these trends will surely depend on the evolving customer preferences, the business sectors, and on how companies will be able to adapt their strategies to emerging customer needs and wants. Therefore, new researches are required in order to discover the future of this switch and if it will be consistent in the following years.

Figure 1.6: Willingness to adopt habits started during the COVID-19 emergency outbreak at the end of this period (UNCTAD, 2020)



1.4 Omnichannel strategy: a compulsory way to stay competitive

The pandemic brought many different consequences not only in consumer behavior and in the customer journey, but also in the way companies make business. In the twisted scenario, altered by the pandemic and all its consequences, some businesses struggled to face difficulties, while others thrived and found many business opportunities. That is the case of healthcare businesses or internet-based companies, such as those linked to online shopping and education, entertainment, or remote services. Many other firms, instead had to reinvent their product, services, or even change their business model in order to face this new context. For sure, after the first period of chaos, in which consumers, companies, and even governments were not sure on what measure they should have undertaken, the discontinuity generated by the virus created an opportunity for many businesses.

This unusual scenario forced everyone to change habits and adapt to this new normality, thus companies that change their way to operate succeeded, while those that decided to stay the same faced increasing difficulties. Companies that were already planning digital transformation and had built digitalization programs accelerated their timelines, while many SMEs who had not planned any programs, were forced to invest on it and face this enormous challenge.

Therefore, this new context can be seen as a disruptive acceleration of many dimensions of complexity that organizations and management have been facing for some time: uncertainty, interdependence, speed of change, vulnerability, global competition, contraction of consumption. All of these challenges were simultaneously faced in the last years by the majority of firms. The digitalization, adaptation, and the use of digital channels to reach customers become the basic behavior to survive. Therefore, one of the main changes companies had to face was to deal with multiple channels and create an omnichannel strategy.

The omnichannel strategy is described by Rigby as "an integrated sales experience that melds the advantages of physical stores with the information-rich experience of online shopping." In 2011 Kamel and Kay add that a true Omnichannel experience infers the "desire to serve the customer however, whenever and wherever they wish to purchase

merchandise (and return it too)". Following these two statements, it is clear that the omnichannel experience is based on the integration of various channels in order to serve customers and make them able to order from multiple platforms, from any location using inventory flexibly across the multiple channels and that set a huge detachment from the multichannel concept, to which omnichannel is usually compared. Compared to the multichannel strategy, the omnichannel approach implies uniformity and coordination between all messages and communication sent to customers through the different channels, it requires a high degree of unification across customer and inventory databases, and a common supply chain to make the coordination happen. Another enormous difference between the multichannel and the omnichannel approach consists of the way customers' journey is viewed. While the first one assumes the existence of a traditional sales funnel - consisting of awareness, search behavior, purchase, and postpurchase behaviors - with a common purchase path across customers within a given target audience, the latter assumes consumers use multiple channels and touchpoints (computers, smartphones, tablets, social media, and in-store experiences at the same point in time) and that they can employ a non-linear purchase journey by rethinking a purchase option after reviewing resources from another channel.

As a consequence, the omnichannel strategy recognizes consumers often channel hop within a given transaction among many different channels and mediums: from the retail stores to the company websites, from in-store kiosks to social media and e-commerce. "These different channels and touchpoints are used constantly, interchangeably and simultaneously by both customers and firms" (Verhoef et al., 2015). Conceptually, omnichannel capabilities provide a seamless shopping experience where the distinctions between brick-and-mortar and online operations become immaterial (Ishfaq et al., 2016; Galipoglu et al., 2018). Furthermore, adopting an omnichannel strategy may imply many advantages for firms. Cao and Li in 2015 identified four main mechanisms by which cross-channel integration may affect companies' growth of sales: starting with increased trust, improved customer loyalty, higher customer conversion rates, and then greater opportunities of cross-selling. All of them represent an incredible opportunities to companies.

Thus, for sure the recent disruptive scenario and latest worldwide advents affected the whole business ecosystem, impacting companies' way to operate and how consumers behave. However, this can be seen as a great opportunity to face changes and apply new strategies following what the market requires. Understanding how e-commerce is disrupting brick-and-mortar retail supply chains will be the key factor to succeed in other emerging markets, stay competitive and be able to respond to further future market changes. Companies that do not understand those needs will be at risk of being overcome by competitors and not properly satisfying market demand.

Then, to capture the positive aspect of this turbulent period, it is possible to say that this uncertainty has forced companies to innovate, invest in new technologies and adopt an omnichannel strategy in a very short period of time, speeding up what would have been a process that would have lasted decades. This situation can be seen as an opportunity for rethinking and change, at the individual and organizational level and the haste to return to the previous status can in this perspective be a risk. Companies need to listen to customer needs, offer services that meet consumer expectation, and not be afraid to innovate their processes. Following the thoughts of Roberto Liscia, President of Netcomm: "You have to offer very good products and services, but also your relationship with consumers should be excellent. [...] To be such a winning player, companies need to plan and execute more and more innovation projects among the entire value chain".

Chapter 2 Literature Review

To assess if changes in how consumers do grocery shopping are going to persist, it is necessary to previously analyze consumer behavior theoretical models and understand theories that explain how people build their habits, behaviors, and their relationship with technology.

In this chapter, I will follow a historical order to present three main theories of consumer behavior that will be useful to explain if the shift from in-person grocery shopping to online grocery shopping will be possible in Italy and its correlation with recent market changes.

The first part of this chapter is dedicated to The Theory of Reasoned Actions introduced by Ajzen and Fishbein in 1975 to study antecedents of behaviors and understand how intentions in commit a certain action arise, with a following focus on the Theory of Planned Behavior, its evolution. Then the chapter continues focusing on the Expectancy Confirmation Theory developed in 1977 by Richard L. Oliver, which aims to explain if a purchase or the use of a certain service is likely to be repeated by consumers. Finally, the literature review concludes with the Technology Acceptance Model written in 1986 by Fred Davis to describe the acceptance of information systems by individuals. Each paragraph will firstly describe the history and the development of the theory, its past applications and they will conclude with a focus on how the model can be applied on the customer loyalty in online grocery shopping.

2.1 Theory of Reasoned Action and Theory of Planned behavior

In 1975 Martin Fishbein and Icek Ajzen proposed a model to predict and explain human behavior: the Theory of Reasoned Action. As shown in Figure 2.1, according to the theory of Fishbein and Ajzen, the main predictor of human behavior is represented by the behavioral intention to emit a certain behavior which is, in turn, determined by two main factors: an attitudinal factor – the *Attitude Toward Act or Behavior* - and a social or normative factor – the *Subjective Norms*.





In their publication "Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research", Ajzen and Fishbein describe the Attitude as "a person's general feeling of favorableness unfavorableness toward some stimulus object". As a person forms beliefs about an object, he automatically and simultaneously acquires an attitude toward that object. Each belief links the object to some attribute; the person's attitude toward the object is a function of his evaluation of these attributes (Ajzen, Fishbein, 1975).

Furthermore, while some attitudes may be relatively stable over time, others may exhibit frequent shifts. At any point in time, however, a person's attitude toward an object may be viewed as determined by his salient set of beliefs about the object. Although a person may hold a large number of beliefs about a given object, it appears that only a relatively small number of beliefs serve as determinants of his attitude at any given moment (Akzen, Fishbein, 1975). Research on attention span, apprehension, and information processing suggests that an individual is capable of attending to processing only five to nine items of information at a time. (e.g., G. A. Miller, 1956; Woodworth and Schlosberg, 1954; Mandler, 1967). Therefore, at a given period of time, and with an incentive, a person usually takes into consideration a small number of beliefs, that will constitute the determinants of his attitude, while others may not be considered. Attributes that determine a person's attitude are considered "*salient*" beliefs and they can be identified by examining an individual's or a group's beliefs hierarchy.

The value of the Attitude relies on Beliefs (B) and Outcome evaluation (E). The first one refers to the beliefs a person may have in doing an action, for example before having online grocery shopping a person may believe it would allow him to save money or time. For each belief, a person will associate a certain level of strength which represents the certainty of the belief that a given action will produce a certain outcome. While Outcome Evaluation refers to the importance a person gives to the outcome's action and the respective value (positive or negative) the consumer attributes to the result of the action. Multiplying these two variables we can obtain the value of the Attitude:

$A_i = \sum B_i E_i$

By contrast, the second antecedent of intention according to this theory is represented by the Subjective Norms, which can be described as the representation of the individual's perception concerning the ability to reach those goals with the product (Salgues, 2016). They reflect beliefs that significant people would want a person to perform. Through this element, Ajzen and Fishbein consider that consumers' intention in taking a certain behavior is influenced also by Normative Beliefs and the Motivation of a person to comply with them.

Normative Beliefs (NB) refer to what other subjects tell to a person or expect that person should do. It regards people a certain person consider important or respectable, like relatives, friends, or professional figures. On the other hand, Motivation to Comply (MC) regards how much a person wants to perform what another person wants him to do.

We can represent Subjective Norms as the sum of the product of Normative Beliefs and Motivation to Comply, across each valuable person.

$$SN_i = \sum NB_iMC_i$$

According to a digression on subjective norms in the scientific literature, there are two kinds of norms: Injunctive Norms and Descriptive Norms. The first one includes what a person thinks other people think he should do, while the Descriptive one refers to the perception of what other people think a person should do, though the truth may be different. Therefore, descriptive norms are what a person thinks or notice most people do.

As anticipated, according to the Theory of Reasoned Action the Attitude toward Act or Behavior and the Subjective Norm contribute in determining Intentions which in turn determines the final Consumer behavior. The relationship between Intention and Behavior is usually very robust and given that normally Intentions are strongly correlated with behaviors, therefore they can be considered a good predictor of Behavior.

The Theory of Reasoned Action is concerned with rational, volitional, and systematic behavior (Fishbein & Ajzen, 1975; Chang, 1998), and many studies and have been confirmed this theory. However, along time some researchers criticized it because of its simplicity in describing people's behaviors. Indeed, there are other factors that influence intention to take an action and that should be considered to study consumer behavior. The main critic of this theory is that it assumes that behavior is completely under volitional control. Therefore, individuals are considered as rational human beings, always capable of developing a conscious and elaborated intention before taking action. As observed by Sheppard et al., "actions that are at least in part determined by factors beyond individuals volitional control fall outside the boundary conditions established for the model" (p. 326). For example, an individual might be discouraged from online grocery shopping if the purchase process is perceived as too complex or if it requires too much effort for the consumer, or even if the consumer does not have the resources necessary to complete the purchase (e.g. lack of technological instruments or informatic competences).

For this reason, in 1991 the Theory of Reasoned Action was revised by Adjzen, who added a third element as intention antecedent to make the model more realistic: the Perceived Behavioral Control. Therefore, it is possible to consider the Theory of Planned Behavior (represented by Figure 2.2) by Adjzen as an extension of the Theory of Reasoned Action previously represented.

The Perceived Behavioural Control (PBC) is defined as the perception of the difficulty of enacting a behavior and can be conceptualized as the consumer's subjective belief about how difficult it will be for that consumer to generate the behavior in question (refer to Posthuma & Dworkin, 2000). It represents the fact that some behaviors are outside the volitional control of human beings and they cannot take place even if there is a positive attitude towards that specific behavior and positive subjective norm. For instance, some people may decide to not purchase products online because of a lack of trustworthiness on some websites or due to some privacy problems related to the effectiveness of online payments.





The Theory of Reasoned Action and the Theory of Planned Behavior have been applied and validated in a large number of studies (refer to e.g., Sheppard et al., 1988; Ajzen, 1991; Chang,1998). Furthermore, these theories look suitable also to analyze and predict consumer behavior in online grocery shopping. People consume groceries (especially food) and engage in grocery-related activities not only to obtain some functional consequences but also to communicate with others (Douglas & Isherwood, 1996). Thus, Social Norms could be considered an important factor shaping grocery-buying behavior. This can also be considered valid when talking about online grocery shopping. Indeed, Nicovich and Cornwell suggest that there is "no doubt that the Internet is more than strictly a vehicle for communications; it has developed a social organism that is more than the sum of its parts" (Nicovich, Cornwell, 1998). Furthermore, Giese claims that "while it might have been overlooked early on, the Internet cannot now be ignored as a cultural phenomenon" (Giese, 1996). In addition, previous research (e.g., Van den Poel & Leunis, 1999) indicates that "consumers' perceived risk when considering buying online may be larger than when considering buying offline. In seeking to reduce this risk, a consumer may communicate with other consumers to obtain normative guidance. Secondly, recent research indicates that consumers perceive obstacles and difficulties in performing online shopping behavior. Even in the context of search goods (i.e. goods for which a major part of the perceived relevant attributes can be assessed before purchase), it has been suggested that "when studying consumers' Internet purchasing behavior, researchers should take PBC into consideration in that Internet shopping does require skills, opportunities, and resources, and thus not occur merely because consumers decide to act" (Shim et al., 2001, p. 413). Thirdly, because consumers may perceive both difficulties and risks when considering online grocery shopping, they can be expected to use their cognitive resources in forming beliefs toward the related attributes, which in turn may result in the development of an overall feeling (attitude) toward the behavior in question (refer to e.g., Antil, 1983; Zaichkowsky, 1985; Rossiter & Percy, 1987).

2.2 Expectancy Confirmation Theory (ECT)

Expectancy Confirmation Theory (ECT) was firstly exposed by Richard L. Oliver in 1977 who aimed to explain post-purchase behavior and post-adoption evaluation. The theory was originally applied in psychology and marketing literature, but it has subsequently appeared in other scientific fields and it is widely used to study consumer satisfaction, post-purchase behavior, and service marketing in general (Chou, HK., Lin, IC., Woung, LC. et al., 2012).

Oliver elaborated the model to explain the process through which consumers go through in forming repurchase intentions (Atapattu, Sedera, Ravichandran, Grover, 2016) describing this process through five constructs: Expectation, Perceived performance, Confirmation, Satisfaction, and Repurchase intention (Chou, HK., Lin, IC., Woung, LC. et al., 2012) as represented by Figure 2.3.

Following Oliver's theory, users evaluate to repeat purchases follows. as First of all, the customer forms an initial expectation toward a specific good or service before the actual purchase. After that, in the following stage, the person agrees and decides to purchase the product or service and consume or use it. Through this consumption or usage, the customer forms perceptions about the good and its performances, based on the experience following its initial consumption (a *posteriori* experiences). Subsequently, the consumer compares the perceived performance with the a priori expectations evaluating if those expectations are satisfied or not. In this stage, the consumer assesses if perceived performances meet the original expectation if and determines those are confirmed or not (confirmation). After that, the consumer may form satisfaction according to the level of confirmation. Finally, satisfied consumers build a repurchase intention, while dissatisfied consumers will stop the subsequent usage.

According to this theory, we can individualize three main levels of confirmation or disconfirmation.

The first one happens when a product, service, or technology artifact exceeds a person's original expectations. In this case, the level of confirmation is positive and it will lead to an increase in post-purchase or post-adoption satisfaction.

The second scenario occurs whenever a product, service, or technology artifact does not meet the person's original expectations. In this case, the confirmation level is negative, and this will reduce the post-purchase or post-adoption satisfaction. Finally, the third arises when a product, service, or technology artifact performs at the level of expectations. In this specific case, there is a confirmation of expectation, which is posited to maintain post-purchase or post-adoption satisfaction.

Following Figure 2.3, Confirmation can be represented as an antecedent of Satisfaction. According to the ECT framework, Satisfaction is one major determinant for achieving the retainment of more customers. It can be described as the situation in which the notion of customers is effective being. The term of affective being is representative of a special mental that includes emotions, feelings such as pleasure, moods, and attitude of customers.

The theory presumes that Satisfaction is a function of Prior Expectations and Posterior Dis-Confirmation (M. Atapattu, D. Sedera, T. Ravichandran, and V. Grover, 2016) and consumers decide to repeat purchases following a series of cognitive steps. Subsequently, the consumer compares the perceived performance with the a priori expectations evaluating if those expectations are satisfied or not to decide if repeat the purchase of the product or service.

Finally, following the graph, satisfaction leads to Repurchase Intention. Repurchase Intention happens whenever the knowledge contributes to the decision of continuance intention, considering that decisions are influenced by the previous experience in terms of sharing and using respectively (Siali, Shakur, Rasool).



Figure 2.3: Expectancy Confirmation Theory, Richard L. Oliver, 1977, (ResearchGate, 2006)
This framework is mediated through a positive or negative confirmation mechanism: according to the level of confirmation of expectations, the consumer will build a certain level of affection and he will be more likely to repeat the purchase. If the product or service purchased outperforms the expectations, there will be a positive confirmation, post-purchase satisfaction will perform and the consumer will repeat the purchase. By contrast, if a product or service underperform expectations, there will be a negative confirmation, post-purchase dissatisfaction will perform and the consumer will not repeat the purchase (Oliver, 1980).

Therefore, following this scheme, it is possible to apply this model to the online grocery shopping experience. Considering ECT emphasizes that customer satisfaction is eventually developed from a customer's comparison of post-purchase evaluation of a product or service with pre-purchase expectation (Siali, Shakur, Rasool), it is possible to predict when people will continue to do online grocery shopping and when they will decide to stop it.

For example, if a customer considers the delivery of groceries as one of the most important variables and he expects an excellent delivery service after he placed an order, if the delivery will meet expectations the consumer will probably repeat the purchase, while if the delivery underperforms the customer's expectations, he will probably stop to purchase groceries online or he will be likely to change supplier. The same reasoning can be done considering many different aspects or variables, such as time-saving, cost-saving, quality of the website, user experience, or the ease to place an order online.

The predictive ability of the theory is demonstrated across a number of different contexts, and a stream of literature affirms that satisfaction is a key determinant of repurchase decisions (Oliver, 1980), and continuance intentions (Bhattacherjee, 2001; Brown et al., 2012; Venkatesh and Goyal, 2010). Indeed, it has been used to study automobile repurchases, business professional services, or information system continuance among others. Therefore, the validity of this theory has been widely accepted by scholars and the following chapters will take into consideration these theoretical bases to study the adoption of online grocery shopping and repeat purchases of food and household products online.

2.3 Technology Acceptance Model (TAM)

Considering the growing development of ICT, the increasing number of people accessing the internet every day, and the impact technologies have in our society - as highlighted in the first chapter - the interest in finding models able to explain the technology acceptance and its usage rose over time.

To assess this problem many frameworks and theories were developed. In particular, in 1986 was theorized the Technology Acceptance Model (TAM) by Fred Davis that takes its origins from the previously described Theory of Reasoned Action and Theory of Planned Behaviors. The Technology Acceptance Model is considered one of the most influential frameworks among scholars and it is commonly employed for describing an individual's acceptance of information systems. Through the years it became the dominant model to investigate factors affecting users' acceptance of a certain technology. Indeed, being widely used in numerous fields, such as online education, ebanking, autonomous driving, gaming, and robotics it gained credibility over time. Furthermore, TAM has also been applied to different kinds of technologies, such as email usage, the World Wide Web, or word processor and it has been employed in different times and cultures, which gives this theory more validity and strengthens its credibility. For all these reasons, TAM has been widely accepted by scholars over these years and can be considered a valid and robust theory to study how users accept the usage of new technologies and ICT tools to do ordinary actions.

According to the Technology Acceptance Model theorized by Oliver, each human being's information system acceptance is mediated by two main variables: the Perceived Usefulness (PU) and the Perceived Ease of Use (PEOU) as illustrated by Figure 2.4. These two elements mediate the effects of external variables (involving system characteristics, developments processes, and training).

The Perceived Usefulness is defined as the degree to which a person believes that using a particular system would enhance his or her job performance (Davis, 1989), focusing on the online grocery shopping field, it is possible to analogically assume that the individual behavioral intention of online grocery shopping is represented by the fact consumers believe that the use of this system is useful in their personal life. On the other hand, the Perceived Ease of Use (PEOU) is defined as the degree to which a person believes that using a particular system would be free of effort (Davis, 1989), within an online grocery shopping context, it is possible to analogically assume that the individual behavioral intention of customers buying grocery online is represented by the fact that they are confident enough that using websites to order food or households products via the internet is easy. These two determinants are crucial in order to understand what causes people to accept or reject new information technology to do ordinary things, like online grocery shopping.

Furthermore, as represented in Figure 2.4, the PU is also influenced by PEOU because, other things being equal, the easier the system is to use, the more useful it can be (Tang, Chen, 2011). Indeed, Davis stated that PEOU has a causal effect on PU, which is confirmed by several studies (Davis, 1987; Venkatesh and Davis, 2000; Gefen et al., 2003; Rauniar et al., 2014). PEOU can have a significant direct effect on PU because, between two systems that perform the identical set of functions, a user should find the one that is easier to use more useful (Davis, 1987). In 1989, Davis found out that usefulness was linked significantly more to usage than the ease of use was. Thus, users are driven to adopt an application primarily because of the functions it performs for them, and secondarily for how easy or hard it is to get the system to perform those functions (Davis, 1989). In the first representation of TAM (Figure 2.4), PEOU and PU impact the Attitude toward Use of technologies and they are both positively correlated to it. Indeed, the more the use of technology is easy, the more consumers are willing to adopt it.

Figure 2.4: Technology Acceptance Model, Davis, 1986 (Davis, 1989).



As in the case of TRA, also the TAM, after gaining a distinct reputation, has been revised over years. Indeed, in 1996 Venkatesh and Davis proposed a revised model of TAM, identified as TAM1 (Figure 2.5) in which they omitted the Attitude. Therefore, in this new model, there is no mediation between the relation among PU and PEOU on Intention to use.

Moreover, TAM1 laid the foundation for a following and revised version of the Technology Acceptance Model. In 2000, a new version of the TAM framework was theorized by Venkatesh and Davis. The new model – identified as TAM2 - aims at seeking the critical influence factors outside of Perceived Usefulness and Perceived Ease of Use, and to enhance the adaptability of TAM (Tang, Chen, 2011).

The external variables in the TAM2 involve both *social influence processes* (subjective norm, voluntariness, and image) and *cognitive instrumental processes* (job relevance, output quality, result demonstrability, and perceived ease of use). Moreover, as individuals gained direct experience with a system over time, they relied less on social information in forming perceived usefulness and intention but continued to judge a system's usefulness on the basis of potential status benefits resulting from use. Unlike social influence processes, the influence of cognitive instrumental processes maintained significant all the time. (Tang, Chen, 2011).

Figure 2.5: Extended Technology Acceptance Model (TAM2), Venkatesh and Davis, 2000.



Subjective norms can be defined as a "person's perception that most people who are important to him think he should or should not perform the behavior in question" (Fishbein and Ajzen 1975: 302 in Venkatesh & Davis, 2000:187), *Voluntariness* is defined as "the extent to which potential adopters perceive the adoption decision to be non-mandatory" (Agarwal & Prasad, 1997; Hartwick & Barki 1994; Moore & Benbasat 1991 in Venkatesh & Davis, 2000:188), *Social influence* is defined as "influence to accept information from another as evidence about reality" (Deutsch & Gerard, 1955: 629 in Venkatesh & Davis, 2000:189), and *Images* is defined as "the degree to which use of an innovation is perceived to enhance one's status in one's social system" (Moore & Benbasat, 1991:195 in Venkatesh & Davis, 2000:189).

Then, regarding the operational definitions of the variables constructing social influence, *Job relevance* is defined as "an individual's perception regarding the degree to which the target system is applicable to his or her job" (Venkatesh & Davis, 2000:191), *Output quality* is defined as "how well does a system could perform a task and the degree to which those tasks match the job goal" (Venkatesh & Davis, 2000:191), *Result demonstrability* is defined as "tangibility of the results of using the innovation" (Moore & Benbasat, 1991: 203 in Venkatesh &Davis, 2000:192) and PEOU keep the same definition of the previous TAM versions.

In the same year, Venkatesh published an article in which he represented a new model – TAM3 – where he added two determinants of PEOU: the *Anchoring* and the *Adjustment*. The first one includes "user's initial or general belief about computer and computer usage", which includes '*Computer self-efficacy*', '*Perception of external control*', '*Computer Anxiety*', and '*Computer playfulness*'. On the other hand, the 'Adjustment frame' can be defined as "belief that is shaped based on direct experience with the target system" and it includes '*Perceived enjoyment*' and '*Objective usability*' (Venkatesh, 2000:346).

Combining the elements that influence Perceived Usefulness and those influencing Perceived Ease of Use, we can derive the final framework: TAM3, graphically represented by Figure 2.6





The focus and the integration of these TAM frameworks in this paper have done considering that the switch from in-person grocery shopping and the online one, do not only involves a change in habits and routines of consumers but it includes a radical change in the whole consumer journey and it strictly depends on the relationships between users and technology. The interaction with technologies, the users' willingness to use technological devices, and their ability to operate on the internet hardly shape their approach to online grocery shopping and the customers' williness to approach this new way to purchase foods and households products.

Many variables may influence this tendency, like age, gender, location, instruction, purchase behavior, or general shopping habits. However, the relationship between users and technology and their capability and frequency to purchase items online must

be taken into consideration in order to analyze if changes in consumers behaviors happened in those recent years due to the Covid-19 pandemic and the spread of new technologies and, if yes, to predict if those possible changes are going to persist – becoming a sort of "new normality" - or not.

Chapter 3 Grocery shopping habits: past routines and changes

After the analysis of the actual scenario, the market changes with the evolution of customers' journey in the most recent years, and the introduction of the consumer behavior theories to analyze what factors shape customer intention to behave, this chapter includes a more analytical part, in which data from a survey are shown in order to study the changes of consumers' online grocery shopping behavior in Italy and its possible evolution.

As a matter of fact, this chapter will focus on the assessment of changes in the customers' journey during grocery shopping and on what are the factors which influence the most the willingness to buy groceries online. Moreover, this section aims to show the results of an online survey distributed among consumers in Italy, present the collected results, and analyze them with the purpose to understand if there is an actual tendency to approach online grocery shopping - or not - and if this trend is going to last in the future. The survey was performed in Italy between December 2021 and January 2022, when the emergency health status was still active in Italy. In fact, in this period the number of Covid-19 infections was rising sharply and the number of positive people was significantly higher than those in the same period the previous year - even though the number of people hospitalized and the number of deaths was lower than those in the same period the year before. In sum, the questionnaire was distributed during the last big wave of contagious, when the fear of infection was still high and Italy was still facing this tragic epidemic. Considering that, the questionnaire was designed to assess how thoughts and habits changed between the periods before and during the health state of emergency, and to understand possible implications on the grocery shopping behavior of Italian customers.

Once all answers have been collected, they were analyzed and a Kruskal-Wallis Test was performed to find out statistically significant differences among the sample groups. All the answers will be reported in the Appendix at the end of this paper, while in Chapter 3 there will be reported the most significant and valuable findings, with some personal considerations which come out from the analysis of the collected data.

Subsequently, in the next chapters, there will be a comparison between the results revealed by the online survey and the output of previous studies made in different periods of time and/or different countries.

3.1 Fundamental research3.1.1 Hypothesis

To test the actual validity of what was said so far on the tendency to approach online grocery shopping and its tendency to persist in the future, I decided to distribute a survey. Therefore, to create it and to realize the questions I started defining the hypothesis and defining the main topic I want to analyze in deep.

Therefore, the purpose of the thesis is to investigate the following five main points:

- 1. Analyze if people changed their grocery shopping habits due to the recent Covid-19 pandemic;
- 2. Analyze if technologies have an impact on the willingness to do online grocery shopping;
- 3. What are the factors which impact the most the choice of doing groceries online;
- 4. What are the factors which impact the most the choice of doing groceries in person;
- 5. Analyze if consumers are going to keep doing grocery shopping online and if this trend is going to persist or not.

After defining what to analyze I assumed the following five hypothesis:

- Null hypothesis: Consumers have not changed their grocery shopping habits due to the recent Covid-19 pandemic, switching from in-person to online grocery shopping.
 H1. Consumers have changed their grocery shopping habits due to the recent Covid-19 pandemic, switching from in-person to online grocery shopping. Investigated through all questions in sections 2 and 3.
- 2. Null hypothesis: The evolution of technologies did not have an impact on the willingness to do online grocery shopping.
 H2. The evolution of technologies positively impacted the willingness to do online grocery shopping.

Investigated through questions 2.6, 2.7, 4.9, 5.1, 5.3.

3. **Null hypothesis:** Convenience, UX, trust towards the supplier, quality and variety of the products, added services, and payment security do not impact the choice of doing online grocery shopping.

H3: Convenience, UX, trust towards the supplier, quality and variety of the

products, added services, and payment security encourage the choice of doing grocery shopping online.

Investigated through questions 4.1, 4.2, 4.3, 4.4, 4.9.

- 4. Null hypothesis: Convenience, quality and variety of products, store's opening hours, and location do not impact the choice of doing grocery shopping in person.
 H4: Convenience, quality and variety of products, store's opening hours, and its location encourage the choice of doing shopping in person Investigated through questions 5.2, 5.1, 5.3.
- 5. Null hypothesis: Online grocery shopping tendency is not going to persist once the effect of the Covid-19 pandemic will be diminished.
 H5: Consumers are going to keep doing grocery shopping online and this trend is going to grow.

Investigated through questions 4.5, 4.6, 4.7, 4.8, 4.10, 5.4, 5.5.

3.1.2 Online survey

After having defined the hypotheses and decided what to investigate, I created the survey. The questionnaire is composed of five main sections, each of them dedicated to a different topic. The first one is a profiling section containing demographic questions like age, gender, status, education, and location. The second one regards the respondent's grocery habits and it includes questions related to the household's components, who usually do grocery shopping and questions about online shopping habits in general. Then, the following section is composed of a unique question, that asks if the respondent has never done grocery shopping online. According to this answer (Yes or No) the following section changes. If the respondent answer positively, the fourth section will ask him or her questions about the online grocery shopping experience, the reason why he/she choose to do grocery shopping online, the most relevant factors which influence decision, the tendency to do it, and the willingness to continue. this On the other hand, if the respondent answer negatively, the questions will focus on the factors which determine the choice of where to shop, the reason why he or she chooses do grocery shopping in person, and the willingness to continue it. to Finally, the questionnaire includes an open question, where participants can write their thoughts and comments about online grocery shopping (why it is convenient or not, advantages, and disadvantages).

Considering I did this research in Italy the survey was submitted in Italian. However, to simplify the reading, the paper reports the questionnaire in the English version, showing the five sections previously described.

Questionnaire on grocery shopping habits

Hi, I am a student in the final year of the Master's Degree in Management at the Ca' Foscari University of Venice.

I am conducting a research about how consumers' grocery shopping habits have changed in recent years and their propensity to shop online (food and/or household purchases). Every answer is important to me and completing the following questionnaire you will help me collect the data for my final thesis. It will only take 5 minutes to complete the surveyI remind you that the answers are completely anonymous and will be analyzed in an aggregate way.

Thank you so much for your help!

1. Profiling section

The answers are anonymous and will be analyzed in aggregate.

1. Age

- o <18
- o *18 24*
- o 25 35
- o *36 45*
- o **46 55**
- o **56 65**
- o >65

2. Gender

- *M*
- 0 F
- I prefer not to specify

3. Status

- o Student
- Student/Worker
- o Worker
- Housemaker
- o Retired
- \circ Unemployed

4. Higher level of education achieved

- Middle school license or lower
- High school diploma or equivalent

- o Bachelor's degree
- Master's degree or higher

5. Region where you currently live

- o Abruzzo
- o Basilicata
- o Calabria
- o Campania
- o Emilia-Romagna
- o Friuli-Venezia Giulia
- o Lazio
- o Liguria
- o Lombardy
- Marche
- Molise
- o Piedmont
- o Puglia
- o Sardinia
- Sicily
- Tuscany
- Trentino-Alto Adige
- o Umbria
- Valle d'Aosta
- \circ Veneto
- 6. How many citizens have the municipality where you currently live?
 - Less than 10,000 inhabitants
 - Between 10,000 and 50,000
 - Between 50,000 and 200,000
 - Over 200,000 inhabitants

2. Spending habits section

- 1. How many people make up your residential household?
 - 1 (I live alone)
 - o 2
 - o 3 or more
- 2. Do you personally do your own grocery shopping (buying food and/or household items)?
 - No, never
 - o Rarely
 - Yes, most of the time
 - Yes, always
- 3. How often do you usually do grocery shopping (purchase of food and/or household products)?
 - Never
 - Less than 10 times a year
 - Once a month
 - Twice a month
 - Once a week
 - \circ 2/3 times a week
 - Once a day
- 4. Who do you usually buy food products for?
 - Only for myself
 - For me and for the other members of my household
 - I do not buy food products
- 5. Who do you usually buy household products for?
 - Only for myself
 - For me and for the other members of my household
 - o I do not buy households products

- 6. Do you often purchase products online?
 - No, almost never (less than 3 times per year)
 - Rarely (4/6 times per year)
 - Frequently (1 time per month)
 - Often (1 time per week)
 - Daily (1 time per day)
- 7. What kind of products do you usually buy online?
- □ Streaming platform subscription, music, books
- □ Sports equipment and/or material for hobbies and personal interests
- □ Furniture and home furnishings
- □ Food and/or household products
- □ Technology
- \Box Clothes, shoes, and accessories
- □ Travel tickets, airline tickets, and transportation
- □ I do not purchase products online
- \Box Other items

3. Section to investigate online shopping for food and/or household products

- 1. Have you ever, at least once, shopped online? (Food and/or household products shopping)
 - o No
 - Yes

4. I have, at least once, shopped online

From this section, consider only your online grocery shopping habits

- 1. How often do you purchase food and households products online?
 - \circ Less than 5 times a year
 - Between 5 and 10 times a year

- Once a month
- Twice a month
- \circ Once a week
- \circ 2/3 times a week
- Once a day
- 2. How much does online spending weigh against total grocery shopping, in terms of cost?
 - o 10%
 - o 20%
 - o *30%*
 - o 40%
 - o 50%
 - o 60%
 - o 70%
 - o *80%*
 - o **90%**
 - o 100%
- *3.* What motivates you to do your grocery shopping online (compared to doing it in person at the grocery store)?
 - □ I only buy necessary items, avoiding impulsive purchases
 - □ Greater range of products
 - □ Lower cost (better prices and discounts)
 - □ *Time-saving*
 - □ Safety (I avoid closed and crowded places)
 - \Box Other: specify
- 4. How much relevant are the following factors to you in choosing an online vendor for your food and household purchases? Rate them from 1 to 5, where 1 = not at all important and 5 = extremely important
 - Convenience, discounts, and special offers
 - User experience and website design
 - Trust towards the supplier
 - Quality of the products
 - Added services (loyalty reward, delivery)

- Payment security
- Products' variety
- 5. Have you started to do online grocery shopping because of the recent Covid-19 pandemic?
 - No, I was already shopping online before Covid-19 habitually
 - No, I had shopped online before (but it wasn't a habit)
 - Yes, I started because of the Covid-19 (and I am now switching back to doing it in person)
 - Yes, I started because of Covid and I am still continuing doing it online
- 6. Have you increased the frequency you shop online compared to the pre-lockdown period?
 - No, it is decreased
 - No, it is the same as before
 - Yes
- 7. Have you increased the frequency you shop online compared to the lockdown period?
 - No, it is decreased
 - No, it is the same as before
 - Yes
- 8. Do you plan to continue buying groceries online once the state of health emergency is over?
 - o No
 - Yes
- 9. Please, rate your online grocery and household shopping experience by scoring the following parameters from 1 to 5, where 1 = not at all satisfied and 5 = extremely satisfied
 - Time convenience
 - Price convenience
 - Ease of website platform's use
 - Delivery services
 - Product's variety

10. In this space you can write your comments about grocery shopping online. Why do you think buying groceries and household's products online has less taken hold than buying other products online? Do you think it could catch on in the future? Why?

5. I have never shopped food or households products online

- 1. For what reason?
 - □ Technical problems with payment and IT access
 - □ Greater variety of products in the physical stores
 - □ I don't trust buying food and household products online
 - □ To protect physical stores
 - \Box It is cheaper
 - □ I want to personally see the products I buy
 - D Problems related to the delivery or pickup of the products
 - \Box Other (specify)
- 2. What factors are decisive in choosing where you do grocery shopping? (max 3 answers)
 - □ Convenience, discounts, and special offers
 - □ Quality of the products
 - □ Opening Hours
 - □ Location / Proximity
 - □ Products' variety
 - \Box Other (specify)
 - 3. How much do you agree with the following sentences from 1 to 5? (where 1 = not at all agree and 5 = extremely agree)
 - Doing my grocery shopping online would allow me to save time
 - Doing my grocery shopping online would allow me to save money
 - Doing grocery shopping online is safe and easy

- 4. Do you think you might consider shopping online in the future?
 - o No
 - Yes
- 5. In this space you can write your comments about grocery shopping online. Why do you think buying groceries and household's products online has less taken hold than buying other products online? Do you think it could catch on in the future? Why?

Your reply has been recorded.

3.2 Questionnaire results and Kruskal-Wallis Test

The survey was completed and submitted by 274 people in Italy and data has been collected through the compilation of an online form. All the answers have been collected from December 12th 2021 to January 20th 2022 asking exclusively to Italian consumers via a Google Moduli form shared through social media, WOM, and e-WOM. The survey was translated into Italian to make it easier for participants to answer questions and it is reported in this dissertation in English.

In the following paragraphs are presented all the most influent results collected through the survey, while in the Appendix, at the end of the Thesis, are reported all the graphs resulting from the questionnaire.

The descriptive results presented in sections 2, 3, 4, and 5 have been subsequently performed through a statistical test to deeper analyze any difference among the answers of the segments. In particular, a Kruskal-Wallis H test has been applied to verify if there are differences among the answers of the groups of respondents that are statistically significant. The choice turned to this method of testing because of the characteristics of the variables to be analyzed. The Kruskal-Wallis Test is a rank-based nonparametric tool, which means that it elaborates data that can be somehow ranked without assuming they follow any particular distribution. Indeed, most of the questions in the survey involve qualitative and ordinal answers: two characteristics perfectly in line with this type of test.

Assumptions of the Kruskal-Wallis Test

- It assumes data comes from independent samples from independent groups. Thus, one subject can't be in one and only group.
- It assumes that the dependent variable can be measured at the ordinal or continuous level.
- It assumes that there are at least two categorial groups. The independent variable is a categorical variable with two or more values.

The Kruskal-Wallis Test was performed to investigate if there is any significant difference between the answers of two or more groups of respondents, with the final

aim of understanding if there is any statistical difference between the grocery shopping behavior of the respondents and how the online grocery shopping habits change between the population according to their demographic characteristics. To establish the groups of interest I used the first demographic section, dividing respondents by their age, gender, status, instruction level, and type of city where they live in. Finally, to determine whether to accept or reject the hypothesis, I chose to work with a significance level of p-value = 0,05.

Section 1: Demographic data

After having collected the answer, the sample is composed as follows:



Figure 3.1: Age of the sample group in percentage

Among the sample, 13 people have less than 18 years (5%), 114 respondents are between 18 and 24 (41%) representing the largest group, 46 people are between 25 and 35 years (17%), 36 consumers are in the range 36 - 45 (13%), 27 people are included in the group 46 - 55 (10%), as the group 56 - 65, and finally the group of people who are over 65 consists of 11 people (4%), the smallest one.





Male respondents represent 28% of the sample (76 people), while the majority of the respondents declared themselves to be female (192 people). Then 6 people (2%) preferred to not specify their gender.



Figure 3.3: Working status of the sample group in percentage

128 people declared to work (47%), 101 respondents are students (37%), 25 of the interviewed are both students and workers (9%), 14 people in the sample are retired (5%), 5 are housemaker (2%) and only one person declared to be unemployed (0,36%).



Figure 3.4: Instruction level of the sample group in percentage

28 people in the sample declared to have a Middle school license or lower (10%). The great majority of the sample, 130 respondents, obtained a High school diploma or equivalent (48%). Then, 42 respondents have a Bachelor's degree (15%) and 74 people (27%) reached a Master's degree or higher education level.



Figure 3.5: Region of the sample group in percentage

The great majority of the sample live in Emilia-Romagna (55%), while 17% comes from the Veneto region, 11% from Lombardia, and all the other regions are represented by percentages that are lower than 5%.



Figure 3.6: City dimension of the sample group in percentage

Finally, the last demographic data regards the dimension of the city in which the respondents live. 90 people declared to live in a town with less than 10,000 inhabitants (33%), 21% (58 people) lives in a town with a number of inhabitants between 10,000 and 50,000, the 20% (56 people) lives in a town with a number of inhabitants between 50,000 and 200,000, while 70 people live in a city with over 200,000 inhabitants (26%).

All the answers will be reported in the Appendix of this Thesis, while in the following paragraphs there will be reported only data and information that turned out to be more significant to investigate the hypothesis described above and that can be considered relevant from a statistical point of view.

Furthermore, considering the number of answers and to make the analysis plainer, I clustered people with similar demographic characteristics. Therefore, I obtained: three age groups (people between 18 and 24, people between 25 and 45, and people over 46), two gender groups (Male and Female), two status groups (Workers and Students, where the student's group also includes working students), three levels of education (Middle school, High school, and Degree) and finally the four original groups of city dimensions.

Section 2: Shopping habits

Asking questions about personal grocery shopping habits, some interesting findings come out. First of all, as represented in Figure 3.7, the great majority of people interviewed (64%) said that they always or most of the time do grocery shopping. This is positive, considering the purpose of this thesis is to investigate this phenomenon.



Figure 3.7: Do you personally do grocery shopping (buying food and/or household items)?

Then, over 40% of people declared to do grocery shopping once a week, 24% to do it 2 or 3 times a week, 11% to do grocery shopping every day, and another 11% twice a month.

Figure 3.8: Grocery shopping frequency (purchase of food and/or household products) of the sample group in percentage



Other interesting findings emerged during the survey regards the consumers' online shopping habits. Almost 40% of the sample said to frequently purchase products or services online (at least once a month), while 24% declared to buy products online once a week (or more).

Then, the questionnaire continues asking them what kind of products they mostly purchase online. As represented in Figure 3.9, the most common answer is *"Travel tickets, airline tickets, and transportation"* followed by *"Streaming platform subscription, music, books"* and *"Clothes, shoes, and accessories"* with similar frequency. On the other hand, only 1 one person out of 10 declared to usually purchase food or household products online.

Figure 3.9: Kind of products purchased online by the sample group

What kind of products do you usually buy online?	Count	%
Travel tickets, airline tickets, and transportation	159	17,93
Streaming platform subscription, music, books	156	17,59
Clothes, shoes, and accessories	154	17,36
Sports equipment and/or material for hobbies and personal interests	130	14,66
Technology	122	13,75
Food and/or household products	89	10,03
Furniture and home furnishings	44	4,96
I do not purchase products online	22	2,48
Other items	11	1,24
	Total	100,00



Figure 3.10: Kind of products purchased online by the sample group

Figure 3.11: Kind of products purchased online by the sample group



Then, the two graphs above report the distribution of question 2.7 respectively by age and genre. An interesting observation emerging by looking at the first distribution is that considering the percentage figures, respondents in the 25-45 age group tend to purchase more online compared to the other two segments. This can be attributed to the fact that they tend to have both their own financial resources and the inclination to use technology to purchase online. In particular, a greater difference can be observed in the "Sports equipment and/or material for hobbies and personal interests" and "Furniture and home furnishings" categories, while for the "Travel tickets, airline tickets, and transportation" and "Clothes, shoes, and accessories" categories the values are close to or even are overcame by - those of the 'under 25' age group. Finally, as might have been expected, the oldest group is the one that was most likely to say they do not shop online. On the other hand, the second graph shows the distribution of the answers according to gender. It is interesting to note that, considering percentage values, there are greater differences for the "Technology" category - where male respondents present a higher value - and for the categories "Food and/or household products" and "Clothes, shoes, and accessories", that have been mainly chosen by female respondents.

Kruskal-Wallis Test - Section 2

After having collected the answers, I performed a Kruskal-Wallis test on the data collected to find out if differences among demographic groups are statistically significant.

The following table shows the test for question 2.2: "*Do you personally do grocery shopping (buying food and/or household items)?*". The test highlighted a significant statistical difference in all the dependent variables among the sample.

RESULTS	P-Value	H statistic value	Significance
		(X2)	
Age	0,0002639	16,4796	p-value < 0,05
			statistically significant
Gender	0,00006	16,2094	p-value < 0,05
			statistically significant
Status	0,00002	17,8611	p-value < 0,05
			statistically significant
Education	0,0044	15,4609	p-value < 0,05
			statistically significant
City dimension	0,0002	24,0837	p-value < 0,05
			statistically significant

The test indicates that there is a significant difference in the dependent variables between the different groups analyzed. Since the p-value is lower than the α level, the null hypothesis is rejected and we can consider the differences among the groups statistically significant.

Therefore, people over 24 old, female, workers, with a higher education level, and who live in bigger cities are more inclined to personally do grocery shopping.

Following the questionnaire, I analyzed question 2.3: "*How often do you usually do grocery shopping (purchase of food and/or household products)?*" and, as with the previous question, the result of the test came out statistically significant at a p-value equal to 0.05 with all the demographic variables considered.

RESULTS	P-Value	H statistic value	Significance
		(X2)	
Age	0,004767	10,6921	p-value < 0,05
			statistically significant
Gender	0,00001	23,1513	p-value < 0,05
			statistically significant
Status	0,00244	9,1816	p-value < 0,05
			statistically significant
Education	0,0001147	18,1463	p-value < 0,05
			statistically significant
City dimension	0,00233	14,4739	p-value < 0,05
			statistically significant

The test indicates that there is a significant difference in all the dependent variables between the different groups analyzed. Since the p-value is lower than the α level, the null hypothesis is rejected and we can consider the differences among the groups statistically significant.

So, it is reasonable to consider that middle age and elderly people usually do grocery shopping more often. And the same goes for female respondents, workers, higher educated people, and consumers who live in bigger cities who, on average, purchase more often groceries and household products.

Then, it is interesting to analyze question 2.6 "*Do you often purchase products online?*". In this case, the test highlighted differences among the sample for the following variables: age, status, education, and city dimension. This means that the difference in

the responses on the frequency of purchasing products online is not driven by the gender difference, but rather by other variables.

Thus, as expected, the test highlighted that older people purchase less often products online, while young professionals (people between 24 and 45 who work) are more inclined to do it. Then, the higher the education level, the higher the frequency to buy products via the internet, and finally there is also a correlation with the city dimension where people live: consumers who live in bigger cities tend to buy more products online.

RESULTS	P-Value	H statistic value (X2)	Significance
Age	0,00058	14,9026	p-value < 0,05 statistically significant
Gender	0,12285	2,3806	p-value > 0,05 statistically not significant
Status	0,003	8,8069	p-value < 0,05 statistically significant
Education	0,00002	21,6953	p-value < 0,05 statistically significant
City dimension	0,01618	10,2995	p-value < 0,05 statistically significant

Section 3: Online grocery shopping

After the demographic part and the section related to shopping habits, a crucial question was the one asking if the respondent has ever done online grocery shopping. Considering that only 1 out of 10 respondents said to usually purchase food or household products online, it was surprising to find out that 55% of the respondents did, at least one, grocery shopping online. On the other hand, the remaining 45% have never experienced it before.

Focusing on this question, it is possible to analyze that the percentage of people who tried online grocery shopping at least once is higher in the 24 – 55 age range, while people under 25 and over 56 are less inclined to experience it. This can be explained by the fact that the 25 - 55 age group is the one that most frequently shops with its own economic resources and, at the same time, is sufficiently young to approach new purchasing methods and is inclined to change its habits.

Then, another observation regards the education level: the higher the education level, the higher the percentage of people who tried online grocery shopping. Indeed, while only 30% of respondents with a Middle school degree experienced online grocery shopping, this data increases reaching 38% among people who completed high school and it is equal to 57% among those who have a Bachelor's or a Master's degree.

Kruskal-Wallis Test - Section 3

After these considerations, the Kruskal-Wallis test highlighted that there is a significant difference considering the variable: age, status, and education. While considering gender and city dimension the test is not statistically significant due to a p-value > 0.05.

RESULTS	P-Value	H statistic value (X2)	Significance
Age	3,261e-7	29,8719	p-value < 0,05 statistically significant
Gender	0,65733	0,1968	p-value > 0,05 statistically not significant
Status	0,0003	17,2556	p-value < 0,05 statistically significant
Education	0,01897	7,9299	p-value < 0,05 statistically significant
City dimension	0,912	0,5311	p-value > 0,05 statistically not significant

The test indicates that there is a significant difference considering age, status, and education as variables. However, the test is not statistically significant for the genre and the city dimension.

Therefore, the assumptions mentioned before are correct. Age and status contribute to shaping the probability to try online grocery shopping (middle-young workers are more inclined to test e-grocery shopping) and the same is for the education level: the higher the level of instruction, the higher the probability to have tried, at least once, e-grocery shopping.

Section 4: Factors that influence online grocery shopping choice

In this paragraph, there will be reported answers from the fourth section of the online survey, which only considers the experience of people who tried at least one online grocery shopping.

One of the most interesting data that emerged from this section regards the frequency and the weight - in euros - of online grocery shopping compared with overall grocery shopping. Indeed, among those who experienced online grocery shopping at least once, it appears that only a small group of people consider it a habit. Looking at Figure 3.12, it is possible to observe that 37% of the respondents purchase food and household products online less than five times a year, 19% between five and ten times a year, another 19% once a month, 10% twice a month, 10% once a week, and 4% two or three times a week.



Figure 3.12: Online grocery shopping frequency by the sample group in percentage

Then, considering the weight of online grocery shopping, the questionnaire continues by asking how much online grocery shopping weighs against the total grocery shopping in terms of cost. Consistently to what emerged in the previous question, three people out of four declared that it weighs 40% or less, while only 25% said it weighs 50% or more in terms of money spent.

Subsequently, going through the following questions related to the motivation of doing online grocery shopping, it emerged that the most frequent reasons are: convenience in terms of time (mentioned by 37% of the sample), followed by the greatest variety of

products (17%) and by convenience in terms of cost and safety (both of them have been mentioned by 15% of the sample, as represented by figure 3.13).





Then, the questionnaire continues investigating the relevance of seven factors in choosing an online vendor for grocery shopping. These factors are: Convenience, discounts, and special offers, User experience and website design, Trust towards the supplier, Quality of the products, Added services (loyalty, reward, delivery), Payment security, and Products' variety. Answers are represented by graphs below showing their relevance of them on a scale from 1 to 5.



Figure 3.14: Factors influencing online vendor choice



Figure 3.15: Factors influencing online vendor choice User experience and website design

Figure 3.16: Factors influencing online vendor choice Trust towards the supplier



Figure 3.17: Factors influencing online vendor choice *Quality of the products*





Figure 3.18: Factors influencing online vendor choice *Added services (loyalty reward, delivery)*

Figure 3.19: Factors influencing online vendor choice Payment security



Figure 3.20: Factors influencing online vendor choice Products' variety


Looking at these graphs it is evident that some factors play a greater role for respondents than others. Indeed, if we consider the sum of the number of responses for values 4 and 5 (which mean that the respondents consider the given factor of great importance), we note that the factors with the highest values are "Quality of the products", "Payment security" and "Trust towards the supplier" with values equal to 76,72%, 72,41%, and 68,97% respectively. On the other hand "User experience and website design" and "Added services (loyalty, reward, delivery)" show the lowest values, while the remaining factors: "Convenience, discounts, and special offers" and "Products'variety" surprisingly place themselves in the middle of the ranking.

A very interesting result for this paper regards the questions related to the changes in grocery shopping behavior due to Covid-19, the differences among behaviors before, during and after the lockdown, and the willingness to continue doing online grocery shopping and its relation with past behavior and Covid-19 new habits. The results of these questions are shown in the following pages, from Figure 3.21 and Figure 3.24.



Figure 3.21: Changes in grocery shopping behavior due to Covid-19

As shown by the graph overhead, 21% of respondents were already habitually doing online grocery shopping (among those who experienced at least one online grocery shopping). 32% already did online grocery shopping before the pandemic – even if it was not a habit – and almost a half, the 47% of the respondents, experienced this

method of purchase for the first time in 2020 due to the pandemic and the lockdown safety measures. Among them, the majority, equal to 31% of the total, decided to switch back and do grocery shopping in person as before safety Covid-19 measures, while only 16% of the total respondents are now continuing buying grocery products online.

Then, I decided to investigate the frequency of online grocery shopping in the period pre, during, and post lockdown in Italy in March 2020, to analyze how the phenomenon changed.



Figure 3.22: Changes in the frequency of online grocery shopping among the period of pre and post lockdown in Italy

Figure 3.23: Changes in the frequency of online grocery shopping among the period of lockdown in Italy and the period after



As could be expected, the "*Yes*" answer presents greater value in the first graph, meaning the great majority of people increased the frequency of online grocery shopping during the lockdown compared with the previous period. Then, this tendency decreased and stabilized, as we can see in Figure 3.23. Indeed, 42% of respondents declared the frequency they buy food or household products online after the lockdown is the same compared with the period of lockdown, which means that for those people this habit has become established, while almost 1 over 3 people declared decreased the frequency.

Finally, I wanted to investigate if people were satisfied with this new habit and their willingness to continue - although not on a regular level – doing online grocery shopping. As presented in Figure 3.24, 9 out of 10 people declared they plan to continue buying groceries online once the state of health emergency will be over. Thus, we can consider this as a parameter of satisfaction of the service and a sort of indicator to evaluate the possible increase in online grocery shopping in Italy.





Finally, considering what emerged from this section, it is possible to assume that a significant number of respondents approached online grocery shopping for the first time during the period of lockdown in Italy pushed by the health state of emergency. However, this activity did not automatically become a consolidated habit and it still represents, for the majority of the sample analyzed, a small percentage of the total expense, both in terms of frequency and in terms of cost.

Notwithstanding, the pandemic surely had an impact on customers' behaviors even in how they do grocery shopping and we can consider it an initial push for the introduction of the adoption of this trend that has the potential to grow in the next future. Indeed, it is possible to forecast an increase in this phenomenon in the next years considering that what influences the most people in doing online grocery shopping is the time-saving factor and not the higher level of safety due to avoiding crowded and closed shops.

Kruskal-Wallis Test - Section 4

Analyzing data from section 4, the Kruskal-Wallis test reported other statistically significant differences in question 4.1: *"How often do you purchase food and household products online?"*.

RESULTS	P-Value	H statistic value	Significance
		(X2)	
Age	1,2e-11	48,1976	p-value < 0,05
			statistically significant
Gender	0,00061	11,7549	p-value < 0,05
			statistically significant
Status	0, 3135	1,0159	p-value > 0,05
			statistically not significant
Education	0, 46257	1,5419	p-value > 0,05
			statistically not significant
City dimension	0,00443	13,0995	p-value < 0,05
			statistically significant

The test highlighted that there is a significant difference considering the variables: age, gender, and city dimension. While considering the status and the level of education the test is not statistically significant due to a p-value > 0.05. Before excluding these variables completely, it should be considered that the level of significance could be compromised by the limited number of people tested. The p-value actually, does not present abnormally high values, and repeating this test on a larger sample might reveal significant differences.

However, the test highlighted that older people are less inclined to purchase food and household products, while women are statistically more likely to do it, and also people who live in cities with a higher number of citizens. I assume that this may be explained by the stronger presence of online delivery services, the greater number of retail shops offering this kind of option, and the greater likelihood of buying products online.

Afterward, analyzing every single factor that contributes to shaping the choice of the online vendor, the following results came out applying the Kruskal-Wallis test to question 4.4.

Convenience, discounts, and special offers

RESULTS	P-Value	H statistic value	Significance
		(X2)	
Age	0,46147	1,5467	p-value > 0,05
			statistically not significant
Gender	0,6418	0,2164	p-value > 0,05
			statistically not significant
Status	0,12818	2,3144	p-value > 0,05
			statistically not significant
Education	0,19942	3,2247	p-value > 0,05
			statistically not significant
City dimension	0,63564	1,7058	p-value > 0,05
			statistically not significant

User experience and website design

RESULTS	P-Value	H statistic value (X2)	Significance
Age	0,27041	2,6156	p-value > 0,05 statistically not significant
Gender	0,49725	0,4608	p-value > 0,05 statistically not significant
Status	0,03971	4,2302	p-value < 0,05 statistically significant
Education	0,01269	8,7346	p-value < 0,05 statistically significant
City dimension	0,2532	4,0776	p-value > 0,05 statistically not significant

Trust towards the supplier

RESULTS	P-Value	H statistic value	Significance
		(X2)	
Age	0,27485	2,5831	p-value > 0,05
			statistically not significant
Gender	0,86392	0,0294	p-value > 0,05
			statistically not significant
Status	0,86392	0,0294	p-value > 0,05
			statistically not significant
Education	0,98092	0,0385	p-value > 0,05
			statistically not significant
City dimension	0,44519	2,6709	p-value > 0,05
			statistically not significant

Quality of the products

RESULTS	P-Value	H statistic value	Significance
		(X2)	
Age	0,71799	0,6626	p-value > 0,05
			statistically not significant
Gender	0,93409	0,00068	p-value > 0,05
			statistically not significant
Status	0,52873	0,3968	p-value > 0,05
			statistically not significant
Education	0,25661	2,7204	p-value > 0,05
			statistically not significant
City dimension	0, 47422	2,506	p-value > 0,05
			statistically not significant

Added services (loyalty reward, delivery)

RESULTS	P-Value	H statistic value (X2)	Significance
Age	0,4485	1,6037	p-value > 0,05 statistically not significant
Gender	0,09199	2,8392	p-value > 0,05 statistically not significant
Status	0,18904	1,7251	p-value > 0,05 statistically not significant
Education	0,58631	1,0678	p-value > 0,05 statistically not significant
City dimension	0,50188	2,356	p-value > 0,05 statistically not significant

Payment security

RESULTS	P-Value	H statistic value	Significance
		(X2)	
Age	0,46629	1,5259	p-value > 0,05
			statistically not significant
Gender	0,62219	0,2428	p-value > 0,05
			statistically not significant
Status	0,96985	0,0014	p-value > 0,05
			statistically not significant
Education	0,85566	0,3118	p-value > 0,05
			statistically not significant
City dimension	0,173	4,9836	p-value > 0,05
			statistically not significant

Products' variety

RESULTS	P-Value	H statistic value	Significance
		(X2)	
Age	0,91591	0,1757	p-value > 0,05
			statistically not significant
Gender	0,87677	0,024	p-value > 0,05
			statistically not significant
Status	0,52462	0,4048	p-value > 0,05
			statistically not significant
Education	0,03749	6,5673	p-value < 0,05
			statistically significant
City dimension	0,05721	7,5138	p-value > 0,05
			statistically not significant

Looking at the results of the test, what immediately stands out is that there are not many statistically significant differences among the factors considered in question 4.4. As reported above, this could be explained by the small sample size and, by repeating this test on a larger sample size in the future, it may turn out that these variables are, instead, statistically significant.

However, the test reported significant differences among the variable status and education evaluating the website UX – workers and people with higher education consider the online experience more important than the others - and among the level of education considering products' variety – also in this case, people with higher education level attributed higher scores. Then, taking into account all the other factors, the null hypothesis is accepted and I cannot consider the differences among the answers of the respondents' group as statistically different.

Finally, another decisive point for research purposes is question 4.8: "*Do you plan to continue buying groceries online once the state of health emergency is over?*".

RESULTS	P-Value	H statistic value	Significance
		(X2)	
Age	0, 93498	0,1345	p-value > 0,05
			statistically not significant
Gender	0,5488	0,3595	p-value > 0,05
			statistically not significant
Status	0, 39509	0, 7232	p-value > 0,05
			statistically not significant
Education	0,90186	0,2066	p-value > 0,05
			statistically not significant

City dimension	0,5899	1,9166	p-value > 0,05
			statistically not significant

The test demonstrates that there are no statistically significant differences among the answers of the different demographic groups considering all the variables and a significance level equal to 0,05. However, the p-value levels shown in the table are not excessively high and these results might be compromised by the small sample group analyzed.

Section 5: Factors that influence in-person grocery shopping choice

The last section of the survey only considers people who never experienced online grocery shopping, analyzing what factors drove this decision. Starting with the first question, indeed, I asked participants the reasons they never did online grocery shopping. The results are shown in Figure 3.25.





The most important factor that prevented people from doing online grocery shopping is the desire to see products to buy. Indeed, participants declared they prefer to purchase products they see in person, instead of looking at them through a screen (reported by 34% of people). Then, the following factors, both selected by 16% of respondents – a clear gap from the first one – are the willingness to protect physical stores and the lack of trust in buying food and household products online (which recall and can somehow be linked with the intention to see products in person expressed by the first factor). Then, 11% of people declared to have problems related to the delivery or pickup of the products, and 8% prefer buying groceries in person because of the greater variety. Finally, 6% of people consider doing grocery shopping in person cheaper and, another 6% expressed some technical problems related to online payments or internet access.

To understand why people still prefer doing in-person grocery shopping, I asked them what factors are decisive in choosing where they do grocery shopping (Figure 3.26).



Figure 3.26: Factors decisive in choosing where to do grocery shopping

Surprisingly, the most important factor is the "*Location/Proximity*", mentioned by 29% of respondents. This means that for the respondents it is extremely important that the route to the supermarket would not take too much time. A problem that can be overcome by doing grocery shopping directly from home. Then, the following factors preventing online grocery shopping are the "*Quality of the products*" and the "*Convenience*" in terms of cost (people choose supermarkets that offer products with a greater quality/price). Finally, 15% expressed "*Products' variety*" as a dominant factor and 9% consider "*Opening Hours*" a key factor to decide where to do grocery shopping.

Subsequently, to analyze the willingness to switch to online grocery shopping I asked people how much they agree with the following statement:

- Doing my grocery shopping online would allow me to save time
- Doing my grocery shopping online would allow me to save money
- Doing grocery shopping online is safe and easy

The results are shown on the following page.



Figure 3.27: Doing my grocery shopping online would allow me to save time

Figure 3.28: Doing my grocery shopping online would allow me to save money





Figure 3.29: Doing my grocery shopping online is safe and easy

Looking at these three figures, as might be expected, people who never experienced online grocery shopping do not show a strong level of agreement with these sentences. However, the statement that collected the highest level of approval is the first one "Doing my grocery shopping online would allow me to save *time*" where 47% of people agreed (namely, they chose 4 or 5 as level of agreement). On the other hand, the last two figures clearly show a strong disagreement among the respondents, who do not think switching to online grocery shopping will allow them to save money and do not think this operation is easy nor safe. Thus, in conclusion, these two factors can be considered as the key reasons they never experienced this new way of shopping.

Finally, to conclude the survey, I asked people if they might consider online grocery shopping in the future and, despite previous results, the 61% positively answered, showing a possible increase in the tendency of this phenomenon and a willingness to approach this new way of shopping.





Focusing on this last question it is important to notice that, among those who have never done online grocery shopping, there are higher positive response rates for the lower age groups, and this suggests a further potential increase in this phenomenon in the future.

Kruskal-Wallis Test - Section 5

Finally, I proceeded by applying the Kruskal-Wallis test on question 5.3: "*How much do you agree with the following sentences from 1 to 5? (where 1 = not at all agree and 5 = extremely agree)*" for each statement of the question. The results are shown in the following tables.

RESULTS	P-Value	H statistic value (X2)	Significance
Age	0,20014	3,2175	p-value > 0,05
			statistically not significant
Gender	0,60249	0,2713	p-value > 0,05
			statistically not significant
Status	0,72254	0,1261	p-value > 0,05
			statistically not significant
Education	0,90362	0,2027	p-value > 0,05
			statistically not significant
City dimension	0,61327	1,8077	p-value > 0,05
			statistically not significant

Doing my grocery shopping online would allow me to save time

Doing my grocery shopping online would allow me to save money

RESULTS	P-Value	H statistic value	Significance
		(X2)	
Age	0,94165	0,1202	p-value > 0,05
			statistically not significant
Gender	0,02253	5,2045	p-value < 0,05
			statistically significant
Status	0,56794	0,3261	p-value > 0,05
			statistically not significant
Education	0,23514	2,8952	p-value > 0,05
			statistically not significant
City dimension	0,55526	2,0835	p-value > 0,05
			statistically not significant

Doing grocery shopping online is safe and easy

RESULTS	P-Value	H statistic value	Significance
		(X2)	
Age	0,00398	11,0541	p-value < 0,05
			statistically significant
Gender	0,88529	0,0208	p-value > 0,05
			statistically not significant
Status	0,91694	0,0109	p-value > 0,05
			statistically not significant
Education	0,00867	9,4947	p-value < 0,05
			statistically significant
City dimension	0,04274	8,164	p-value < 0,05
			statistically significant

Surprisingly, the test did not highlight any significant difference among the answers of the different demographic groups regarding the first statement. This means that the sample's opinion of the assumed e-grocery time-saving is almost homogeneous across demographic groups.

On the other hand, it is possible to notice a statistically significant difference in the answers of male and female respondents in the second statement: according to men, online grocery shopping can lead to greater cost savings. Finally, the third sentence "Doing grocery shopping online is safe and easy" is the statement which provided the most interesting results. Indeed, the third table shows a statistically significant difference among the variable: age, education, and city dimension. Thus, as expected, people between 24 and 46, with higher education and who live in bigger cities are more likely to consider buying groceries online safe and easy.

Considering the last question analyzed in section 4, it is interesting to notice the differences with the equivalent question in section 5. Thus, I applied the Kruskal-Wallis test to question 5.4: "*Do you think you might consider shopping online in the future?*" and the results are reported in the following table.

RESULTS	P-Value	H statistic value (X2)	Significance
Age	0, 00296	11,6418	p-value < 0,05 statistically significant
Gender	0,01399	6,0388	p-value < 0,05

			statistically significant
Status	0,0992	2,7183	p-value > 0,05
			statistically not significant
Education	0,71454	0,6722	p-value > 0,05
			statistically not significant
City dimension	0, 73158	1,2897	p-value > 0,05
-			statistically not significant

In this case, it emerged that age and gender are two statistically significant variables. Thus, among those who never tried online grocery shopping, younger people – especially those between 25 and 45 - and those who declared themselves as female, are more willing to experience online grocery shopping in the future.

3.3 Data discussion

In conclusion, analyzing what emerged in sections 3.1 and 3.2, the questionnaire revealed some important crucial points. It is possible to say that the pandemic concretely gave a boost to the initial usage of online grocery shopping and many people in Italy purchased food and household products from home for their first time during the initial period of lockdown in March 2020. However, this phenomenon did not completely enter the consumers' minds as a habitual behavior and, considering the majority of the sample analyzed, it still represents a limited percentage of the total grocery shopping. Notwithstanding, it is possible to notice some differences among the sample analyzed and a few considerations came out from the observation of the demographic groups and the factors considered in the questionnaire.

First of all, as expected, people under 46 years old usually buy more products online compared to those who are in the oldest age range, and we can find the same correlations with respect to workers, people with higher education, and people who live in cities with more habitats. However, not all types of products bought online are purchased with the same frequency. Indeed, changes in the kind of products acquired online emerged and it is possible to notice some differences in the purchase iteration according to demographic characteristics. Indeed, focusing on groceries, only one person out of ten declared to regularly buy food and/or household products online, and the percentage is higher among females and people between 25 and 46. Moreover, even if the 55% of the respondents declared that they did, at least once in their life, online groceries is more statistically frequent among people between 25 and 45, who work and who have and higher education level.

Following the main findings of the survey, it is possible to assume that the lockdown strongly impacted on the behaviors of many consumers, changing – among others – their way to do grocery shopping. However, it is clear that among those who tried, at least once, online grocery shopping this purchase method still represents a small percentage both in terms of frequency and total expense. In fact, 56% of people declared to do it less than 10 times a year and 50,8% stated it represents 20% or less of the total amount spent on groceries and household products.

However, it is reasonable to assume that we have assisted an initial push toward the increase of this phenomenon. Indeed, as happened with other aspects of daily life - such as the introduction of remote working, the rise of online shopping, or an increase in video calls - it is possible to infer that Covid-19 and the related lockdown in Italy have helped to introduce online grocery shopping into people's lives, and this trend may take hold further in the future, until becoming the new normality.

An important element in support of this is that respondents declared that the factor which has influenced the most the choice of doing grocery shopping online is the less amount of time needed. This is important because this factor is not related to a higher level of safety or lockdown measures. Therefore, it is possible to imagine a rise in this phenomenon in the next years, even once the state of emergency will be over. In addition, considering that people overall scored positively their experiences doing online grocery shopping - especially the convenience in terms of time, added services linked to the online grocery shopping, and the ease of use of the platform – the assumption of a future rise of it still seem to be feasible. Furthermore, another clue that might recall a future increase in online grocery shopping comes from the fact that nine respondents out of ten said they plan to continue buying groceries online also once the state of emergency due to the Covid-19 pandemic will be over.

On the other hand, analyzing the answers of those who never tried online grocery shopping, 64% of respondents declared that the most important factor which impedes their choice is that they want to personally see the products they want to purchase. Thus, to persuade these people in trying online grocery shopping, suppliers should invest in making the experience the more realistic as possible, offering a wider range of and inserting as much information and images products as they can. Furthermore, from the survey emerged that the location or proximity is the factor that shapes the most the decision where to do grocery shopping. This means that the time to reach the store is a key element for consumers, which could be enhanced by doing grocery shopping directly from home - or wherever the consumer is. Moreover, even if people who never bought groceries online did not think this way of shopping is safe or easy (that was especially expressed among respondents who have a lower education level and live in smaller cities), almost 50% of them agreed with its capability to save time. Finally, the most crucial question that suggests a probable

increment in online grocery shopping is related to the respondent's willingness to test it in the future. In fact, over 60% of them declared they are likely to try it in the future and, among those, the Kruskal-Wallis test highlighted a higher willingness among younger people and female respondents. Thus, this target is the one that is more suitable and inclined to try online grocery shopping in the next years, and the one that supermarkets and retailers should target in order to increase their sales.

Finally, it is important also to consider what people expressed at the end of the questionnaire, in the open-ended question where I asked them to write their thought about online grocery shopping.

For sure, an important aspect that emerged from people who declared that have experienced online grocery shopping at least once, regards the ease of transportation (some products like detergents, bottles of water or canned goods are quite heavy and more difficult to carry) and the possibility to do it wherever and whenever you want, saving time and effort. Below are some answers in support of the above.

"For me it is a considerable time saver, in my family there are 2 adults and 3 children. Being able to do the shopping in the evening sitting on the couch, without having to drag the kids along with us or fit the shopping in between our work shifts, avoids queues at the checkout, bad weather, and traffic... in short, I can't give reasons why everyone doesn't do it!"

"An aspect that is important to my lifestyle is the great time-saving! You make a list of what you need and with just one click everything comes home! Priceless!"

"I can do my grocery shopping in the evening, while watching a TV series, without wasting time on an activity I do not enjoy."

"Online shopping is always useful even for those who do not use it as often as I do. In case you are sick and don't have time to go, it is very useful."

"I love shopping online and I always try to evangelize my contacts. I think it will catch on in the future. In general, I think that one truck carrying 10 groceries saves 10 fewer cars on the road."

Then, others mentioned they recognize the advantages of online grocery shopping, but they still prefer to buy fresh food in person because they want to personally see what they purchase and its quality.

"Personally, I prefer to buy all household products and foodstuffs such as pasta, tea, and coffee online, because taking them home saves me time and a lot of effort in loading and unloading them,

while I prefer to buy all fresh products at farmers' markets or supermarkets to better see the quality and the possibility of choosing the freshest one."

"I hate going shopping at the supermarket, the thing that bothers me the most is the queue at the till, I love shopping online for, time and effort saving, the only thing I don't like is not seeing the fresh produce in person makes me more reluctant to buy it."

By contrast, those who never tried online grocery shopping, in the last question mentioned doing grocery shopping could represent a way to socialize, while others expressed some difficulties related to the delivery of the items.

"Shopping at the supermarket or in a shop is an opportunity to get out of the house, to socialise, to see people and outdoor areas, and in this time when we have suffered from pandemic-related restrictions, it allows us to preserve habits that we had before the pandemic, typical of a free and less restricted life"

"I think there is an issue related to the type of product, particularly if we are talking about groceries. Also, as far as delivery to some areas other than cities is concerned, it is even more convenient in terms of time, to travel and physically do the shopping"

"I would only change my habits for health reasons, i.e. if I was no longer able to go shopping. For many people of my age, over 70, giving groceries is also a reason to get out of the house and meet people"

"Difficulty in delivering fresh produce compared to other products."

"Having time slots for picking up groceries from the supermarket would help. Not all supermarkets offer this service and I would not want to spend more on groceries just to have this comfort."

However, some respondents do not exclude the possibility to experience online grocery shopping in the future, especially considering its capability to save time, compared to the classic way of shopping.

"As I have never shopped online, I am not familiar with the procedures, but I do not exclude shopping online in the future, mainly as a time-saving matter"

"I believe that many people have been used to shopping in physical shops and therefore have never thought of switching to online shopping (like me). However, I might change my mind in the future to save time and money and switch to online shopping."

To conclude, what is clear is that the pandemic has played a pioneering role in paving the way for this new shopping model but, due to the nature of this business and the Italian context, it is unlikely that online grocery shopping will become an established habit in the short term.

Actually, taking a broader perspective, it is important to consider how significant and deeply rooted the cuisine culture in Italy is, and how much Italian consumers value their diet and the food they consume. Grocery shopping, cooking, serving quality food, and enjoying it together are part of the country's tradition, which is why buying quality and selected products play an important role for consumers. Buying tinned, packaged, canned or non-fresh groceries online is comprehensible. However, the same is not true with fresh products such as fruit and vegetables. Therefore, for these kind of products, it is more unlikely that online purchasing will become established in the short term. Then, it must also be considered that the regular use of online purchasing platforms has arrived in Italy later compared to other countries, where it has been an established practice for longer. This is why many consumers are still not used to shopping online regardless of whether it is for food or other products. Thus, more experience and expertise are needed in order to make this а common habit. In addition, the geographical conformation of the country - with small towns located far from major cities and often difficult to reach - can lead to transport limitations. Infrastructure and logistics should therefore be reviewed and improved in order to offer an efficient service throughout the entire country. In fact, centralized hubs may not be compatible with the configuration of Italy's geography and some products may not be suitable for sorting and delivery due to their perishability.

However, given the ever-changing environment, the increasing technological development, and the effects of the pandemic, it is likely that this new form of shopping for food and household products will become more established in the coming years. Indeed, it is important to consider that today's young people are more inclined to shop online and digital purchasing procedures no longer represent a barrier for this target group.

Furthermore, the increasingly fast pace is forcing people to find an ideal equilibrium between their work and private life. Many time-consuming and repetitive activities could therefore be replaced by less wasteful alternatives to improve people's work-life balance. And online grocery shopping could be one of these activities. Certainly, for this to happen, it will be necessary for supermarkets and large retailers to continue to invest in increasing product availability, improving the user experience, and especially enhancing services related to the distribution and delivery of fresh products.

Chapter 4 Comparison with previous studies

Many scholars in the past have investigated the likeability of the adoption of e-grocery shopping among consumers, intending to find out whether this type of business would have a chance to expand in the future and whether it would be possible for consumers to become loyal and regularly use this kind of service. Therefore, after having analyzed the data emerged from the survey, I was interested in comparing the main findings of the questionnaire with what previous researchers have found analyzing similar topics and contexts.

Then, the purpose of this chapter is to investigate and compare data and considerations reported in Chapter 3, with some similar research carried out in other countries or, by contrast, compare the findings of my questionnaire with previous studies performed in Italy in a different context - for example, considering differences between the period pre and post Covid-19.

The final aim, thus, is to find out common points and differences among different studies, to find out if the consumers' willingness to approach online grocery shopping is higher in certain contexts or if it became more attractive after the recent pandemic and the ongoing technological development.

In particular, the first part of the chapter will focus on the differences among studies made in different locations, analyzing both European and extra-European countries, while the second paragraph will focus on the Italian context, mentioning some studies performed in the last five years.

4.1 Online grocery shopping in different contexts

"The global online grocery market size is expected to reach USD 2,158.53 billion by 2030, forecasting an estimated growth of around 25% by 2030 with respect to 2022". That is what emerged from a study executed by the GlobeNewswire in 2022. However, it must be considered that not all nations have the same level of usage of this kind of service. Indeed, while some countries are more receptive to this type of grocery shopping (such as the US, UK, Canada, or North Korea), others are more unwilling and present lower loyalty rates in terms of online shopping and e-grocery. Of course, this cannot be explained through a single factor. Instead, these differences should be attributed to a multitude of elements, such as different habits, level of country development, more or less stable internet connections, and different food traditions, which play an important role in the usage of this kind of channel.

Considering the European market – according to a survey undertaken by Global Market Insights in 2019 - "the online grocery market accounted for above 30% of share". However, it must be considered that the market share considerably differs from one country to another. In particular, two main points emerge looking at Figure 4.1. The first - and most obvious - is the projected rising trend over the next several years, which affects all states (though to different degrees). The second concerns the disparity in the adoption of e-grocery services. Despite the progressive willingness to adopt online channels to regularly buy groceries, some countries (such as the UK and Germany) are clearly more inclined than others (like Italy). Considering that these data are expressed in absolute terms, it is not surprising to note higher values for the UK, France, and Germany (which are countries with both a higher number of inhabitants than Italy and a high technological propensity). However, the data related to Spain - a country with fewer inhabitants than Italy and similar food consumption habits - are unexpected. Indeed, its values, even though they are quite similar to those of Italy, are still higher both in the historical data and in the forecasts. Finally, with regard to the data concerning Russia, although absolute levels shown in Figure 4.1 are higher than in Italy, it must be considered the significantly larger number of inhabitants. In light of that, it is evident that the use of digital platforms to purchase groceries is not particularly common in Russia (neither when looking at historical data, nor in forecasts).



Figure 4.1: Europe Online Market Size by country, 2016 – 2026 (Global Market Insights, 2019)

Then, considering that nowadays e-grocery shopping is still limited in Italy, it is fascinating to analyze the situation in different contexts, where the level of development and the employment of technologies to buy items online differ. As mentioned before, one of the most mature markets in Europe from this perspective is certainly represented by the UK, which even 15 years ago, in 2007, was considered to have one of the most developed e-grocery markets globally. This level of development inevitably contributes to creating a virtuous circle, through which competition among retailers is raised and the general level of services became higher.

According to a research performed in 2008 in the United Kingdom, it emerged that egrocery shopping is mostly triggered by some important situational factors (e.g. having a baby or health-related problems), which can surely stimulate people to change their behaviors or lifestyles. Evaluating that, the recent Covid-19 pandemic may be considered an important situational factor, which has driven millions of English people to change their consumption habits and increase their adoption of online services dedicated to e-grocery shopping. Indeed, according to a research carried out by Statista in 2022 on the UK market, "the penetration rate of British individuals shopping online for food and other groceries has nearly tripled since 2015. Even though online grocery and food store sales had been growing with each passing year, the value of online sales suddenly spiked in 2020—the first year of the pandemic, due to lockdowns and stay-athome advisories" while since Covid-19 spread, e-grocery stabilized "and now serves as a readily available option for shoppers regardless of how they choose to do their groceries".



Figure 4.2: Monthly online sales of food stores in the UK from Jan 2020 to Jun 2022

Source: Office for National Statistics (UK) • Figures are non-seasonally adjusted.

Share of total food sales performed online

However, despite the lockdown period and a drastic change in consumers' lives, a sudden and complete switch to online grocery shopping is not expected. By contrast, according to several studies conducted in the UK market, doing grocery shopping "goes hybrid": people prefer keeping both online and offline options as feasible alternatives to buy groceries.

Even people who regularly use technology to purchase items prefer to mix these two kinds of channels and they still continue to shop in-person certain products. Thus, "overall findings suggest that the adoption of the online mode of shopping is complementary to buying in stores, rather than substitutive" (Hand, Riley, Harris, Singh, Rettie).

Similar thoughts also emerged in Chapter 3's findings, where people who did online grocery shopping at least once admitted that it does not represent a significant percentage of their total grocery expense both in terms of frequency and amount of money spent. By contrast, analyzing what emerged from the Statista research previously mentioned, it resulted that "more than half (56 percent) of grocery shoppers in the UK aged 16 to 24", while in findings shown in the previous chapter the target which resulted more likely to adopts e-grocery shopping resulted to be workers between 24 and 45. Then, another point regards the willingness to continue using the web to buy

food and household products once Covid-19 has subsided. Asking people in the UK in 2021 if they would continue buying groceries online, one consumer out of three answered positively – even if not as frequently – and under a fifth said not having the intention to continue in the post-pandemic period. These results partially diverge from my questionnaire, where the percentage of respondents willing to continue buying groceries online was significantly higher.

However, an even more interesting context to consider regards the German market, in which online grocery shopping is not as developed as in the UK. Indeed, while in United Kingdom online grocery represented the 3% of the total British food retailing in 2008, in Germany it barely amounted to 0,2% of the total revenue of German food retail in 2011 and around 80% of German consumers have never experienced it in the same year.

Considering that, it is interesting to evaluate the findings of a research undertaken in 2017 focused on the German market and compare it with what emerged in Chapter 3. Through a questionnaire, the German study found out that 57,1% of consumers actually consider the idea to do online grocery shopping and young professionals and working mothers are the groups that present the higher willingness to adopt this kind of service. Similar findings emerged in my survey too, in which female workers between 25 and 45 seem to be the better target.

Then, keeping going with the German research, it resulted that the two main motives influencing e-grocery adoption are time-saving and lower physical stress – out of these, only the former is confirmed by the results of my research, while the stress coming from buying groceries did not represent a motivation to approach e-grocery among Italian consumers.

Moreover, same as reported in the previous chapter, it emerged that some items look more problematic to buy online. "The vast majority of German consumers, for example, show no reluctance to shop for toiletries, snacks, candies or beverages", but fresh, chilled products and diaries look more problematic to buy according to German consumers.

By contrast, getting far from the European context, the situation becomes more different. In China, for example, online shopping dynamics are more common and e-grocery is slowly becoming increasingly popular. Suffice it to say that already in 2015,

the total transaction value was about 600 billion USD yet. However, not only the dimension of the market is different, but also the dynamics. For example, while in US online shopping is mainly done through the store's official sites - like Walmart.com - in China the e-commerce retail industry is mainly represented by two leading companies: Alibaba and JD.com Inc., which together account for more than 80% of the market share (The Canadian Trade Commissioner Service, 2016). Furthermore, Chinese consumers can access a greater variety of products and they can also rely on a larger group of e-retailers with diversified characteristics which can ensure a more complete service and product offer (Zheng, Chen, Zhang, Wang).

Notwithstanding these marked differences, it is possible to notice some similarities between what emerged in the previous chapter and the Chinese market. A study executed in 2019 confirmed the reluctance of consumers in purchasing fresh food online and it also supports the correlation between higher education levels and higher willingness to use e-grocery services.

However, the main factors which impede them to buy groceries online are quite different from the ones previously presented. Indeed, according to the same research, Chinese consumers declared "lack of trust in online vendors, inconvenient access to the Internet, smartphone, or computer, and inconvenient access to online payment tools" as the main reasons discouraging them from conducting online shopping. That is quite different from what emerged in my research, where the main reason why people never experienced online grocery shopping regards the need to personally see products".

Finally, after having considered similarities and differences among e-grocery shopping in several countries, it is important to take into consideration that the willingness to buy groceries online depends on many different factors. For sure countries like the UK, where online purchases are more common and where people have already internalized those dynamics, are more willing to present higher likability to buy groceries online. Then, the retailers' capability to manage deliveries and the higher level of competition obviously play an important role in this phenomenon. Finally, also internet access shape the adoption of these services, and countries where internet connection is faster and it is easier for consumers to surf the web, are more willing to present a higher percentage of online grocery shopping purchases. "Therefore, to allow as many people as possible to benefit from this service, government policies should be aimed at ensuring that as many households as possible have access to sufficiently fast and stable internet and are taught the digital skills needed to shop and pay online".

4.2 Online grocery shopping in Italy

The Italian market has always looked unwilling towards online grocery shopping and Italian consumers seem less inclined to try this kind of service compared to other European or non-European countries. Indeed, according to a research published by Statista, "in 2019, in Italy, less than 10% of consumers bought food or groceries online, compared to 25% in Germany and 36% in the Netherlands". However, some changes occurred and this market niche is slowly making inroads even in Italy. Indeed, according to Statista, the Italian e-grocery market value reached 2.5 billion euros in 2020.

For sure the pandemic opened doors to this type of grocery shopping and many Italian consumers experienced it for the first time due to the lockdown. In fact, during the pandemic, food deliveries and online retailers had a massive increase during the lockdown and in April 2020, some of the most important Italian retailer chains like Esselunga and Conad reported "the highest increase in their user base" according to a research carried out by Statista. "The downloads of the Esselunga app grew by 45% compared to January of the same year, while Easy Coop and Supermercato24 saw their installation base increase by 19,9% and 15,9%, respectively." (Statista, 2022).

Considering the above, it is interesting to focus on previous studies undertaken in Italy and observe if any substantial difference emerges comparing them with the results shown in the previous chapter. Therefore, I started comparing my findings with what has been highlighted by other Italian researchers. Thus, a group of Italian scholars performed in 2018 a research to investigate e-loyalty antecedents in B2C grocery shopping. According to the data that emerged, some similarities can be noticed. In fact, as reported in the study published in 2018: "in Italy, the trust placed by a consumer in an e-commerce site should be considered as a top priority," and companies must make investments that comfort consumers and encourage them to make their first purchase (Cyr et al., 2009; Wells et al., 2011).

This is also supported by my research, where it turned out that Italian consumers rate payment security as one of the most valuable variables in the process of e-grocery shopping and they are particularly sensitive about the privacy and the safety of payment during the purchase of groceries via the internet. Furthermore, another point in common regards the limited importance of the user experience and the website design. In fact, as shown in the study: "website design, unlike in other, more developed, online contexts, does not contribute to a satisfying purchase experience". Similar findings emerged from the survey previously reported in Chapter 3. Consumers do not evaluate it as a key variable and they prefer an online retailer over another because of other parameters, like the Products' quality, Payment security – as underlined before – and the Trust towards the supplier – which can be linked to the need for greater security as well.

Thus, we can infer it is important to create an easy-to-use website, where people do not have to spend too much time to understand how to place an order, but at the same time retailers should not commit excessive resources in implementing it, because consumers – differently from other sectors – do not consider it as a high-value factor. Rather, it is important to ensure users about the security of the site and payment methods, offering them a wide choice of consolidated payment methodologies, which are considered safe and reliable among Italian consumers (e.g. PayPal or Satispay). This could contribute in facilitating the entire process of buying products online, making it also more immediate.

Going on and comparing my findings with other works, in the next paragraph I will take into consideration a research carried out in 2020 aiming to investigate the level of satisfaction in using online grocery retailers during the pandemic among Italian consumers.

According to this study: "people having familiarity with buying food online, that have a higher educational level and consider food online channels easy to use, appear more satisfied for the food online shopping experience". Indeed, it is possible to notice that this research not only is somehow in agreement with the findings coming from my questionnaire, but they also complete each other. As a matter of fact, findings shown in Chapter 3 report that people with lower education levels are less inclined to try online grocery shopping, while the research previously mentioned found that they are also less likely to be satisfied by it.

Furthermore, also this study mentions "time-saving" as one of the most important drivers in choosing e-retailers. "The opportunity of saving time by purchasing food products online, compared to traditional channels, is perceived as an advantage or an incentive by consumers" (Alaimo, Fiore, Galati) and the study confirms the findings shown in the third chapter.

To conclude, it is clear that the Italian market is still well behind in this respect and more investments are needed in order to push consumers to try this type of solution. However, it must be said that the pandemic has significantly pushed this type of service forward and, considering the forecasts and what has emerged in my research and from other studies, there is a concrete potential for e-grocery shopping to become established in Italy. Certainly, in order for this to happen, companies will have to carry out more market research to investigate consumer preferences and - at least in the initial phase – they should focus their investments and communications on the most profitable target.

Chapter 5 Conclusions and managerial implications

After having analyzed the global situation and the Italian progress concerning online grocery shopping, it is now clear how it can be already considered an established trend, which is increasingly gaining strength among consumers all around the world. The recent pandemic, distancing measures, and the increasing need to find balance among the never-ending everyday tasks, are pushing toward this trend, which has experienced an important rise in recent years.

According to Global Marketing Insights forecasts, "the global market share for online grocery exceeded USD 190 billion in 2019 and is set to grow at nearly 28% CAGR through 2026 with rising urbanization and thriving e-commerce sector in developing economies" while considering exclusively the European market, the "online grocery industry held over 30% share in 2019 and will gain substantial growth due to the presence of leading retail grocery chains and the recent concerns about the COVID-19 pandemic".

E-marketplaces and big players are experiencing huge growth in terms of sales in these years. And not surprisingly, "Amazon's grocery business growing 45% in the US market and 80% in the UK" according to a Slackline research. Thus, considering the forecast and the increasing market potential, big players – like Amazon, Alibaba Group, and JD.com - have already started to invest in this kind of business. However, also "more local" businesses need to invest in that in order to stay competitive in the market and gain an early advantage over their competitors. Nevertheless, to become pioneers in this niche market, retailers must rethink the overall grocery supply chain, reduce delivery timelines, increase website security, and offer an overall more efficient service.

That is the only feasible way through which e-grocery shopping will catch on, consumers will start purchasing groceries via the web more frequently, competition will increase and the general level of this service will improve: in a kind of virtuous circle that will benefit the entire community. The development of this service, in fact, will have a positive impact on several actors in society in many different ways.

First of all, it will influence consumers. As mentioned in the survey, through online grocery shopping, people have the opportunity to save time and enhance their work-life balance. Then, they will also have the capability to save money thanks to easier price comparison and a reduction in impulsive buying (typical of in-person purchases).

Secondly, online grocery shopping would obviously benefit retailers. Indeed, by diminishing the number of people purchasing inside the store, supermarkets will have the opportunity to improve their organization at the point of sale, pay more attention to theft or illegal action in the shops, digitalize sales, and reduce costs related to staff and stores.

Finally, also the overall society will surely benefit from this emerging trend. Indeed, if significantly fewer people go grocery shopping, it is reasonable to assume that there will be a fair reduction in congestion, reduced traffic jams, and lower CO2 emissions. Furthermore, it is also necessary to remind that increased use of this service still contributes to maintaining safety standards, and preventing the spread of viral diseases like Covid-19.

Then, also the findings that emerged from my research, reported in Chapter 3, revealed that the lockdown period and safety measures in Italy had an impact on changing consumer behaviors, impacting the grocery shopping purchase channels too. However, due to several factors – such as a strong need for payment security, the deeply rooted cuisine culture, the desire to see products in person, and a lack of experience in buying products online – Italy is still way behind other countries (European and non-European) in the adoption of this kind of service. Hence, to boost this service in Italy, some managerial implications resulted from this research.

Firstly, it is necessary to *raise awareness* among society about the benefit of e-grocery shopping, to highlight all the advantages people can obtain from adopting this kind of service.

Secondly, considering e-grocery shopping is still a niche market and people did not already internalize it, it is crucial to *focus on consumers with a higher potential*. Thus, companies should initially focus their initiatives on those consumers who are

more likely to adopt e-grocery shopping, in order to target those who might become pioneers in the adoption of online platforms to do grocery shopping. Analyzing the findings gathered through my questionnaire, we can see that young workers – between 25 and 45 years old - women, people with a high level of education, and those who live in big cities are more inclined to purchase groceries online. Furthermore, some demographic variables appear somehow correlated with one another and it is possible to notice a link between Age and City dimension and between Education and Status. Then, retailers must invest in gaining consumer trust, offering people impeccable services, high-quality products, and guaranteeing secure payment methods – which all represented key factors according to respondents who already experienced online grocery shopping. For example, supermarkets could invest in making the online experience more realistic by offering a wider range of items and inserting as much information and product photos as they can or by adding reassuring methods of facilitate purchases, like payment to the PayPal option. Finally, it occurs to *rethink the entire business model*, without considering e-grocery shopping as a "b class" way of purchase, instead as a new feasible road that will gain more and more importance in the next future.

To conclude this analysis, it is necessary to say further studies need to be undertaken and deeper research should be carried out in order to better understand priorities among consumers. Indeed, it would be interesting to deeper analyze preferences concerning retailers, delivery options, or consider other variables to better segment the market. Furthermore, more sophisticated research that considers a wider sample could highlight more correlations among variables.
Appendix

Here are reported all the answers that emerged from the submission of the questionnaire.

Section 1



Livello di istruzione conseguito

274 risposte



Regione in cui vivi attualmente 274 risposte



Quanto è grande il comune in cui vivi attualmente? 274 risposte





Section 2

Quante persone vivono nel tuo stesso domicilio? 274 risposte



Ti occupi personalmente di fare la spesa (acquisto di prodotti alimentari e/o per la casa) ? 274 risposte



Quanto spesso fai la spesa (acquisto di prodotti alimentari e/o per la casa)? 274 risposte



Solitamente per chi acquisti prodotti alimentari?

274 risposte



Solitamente per chi acquisti prodotti per la casa? 274 risposte





Fai spesso acquisti online? 274 risposte





Che genere di prodotti sei solito acquistare online?

274 risposte



Section 3

Hai mai fatto, almeno una volta, la spesa online? (Intesa come acquisto di prodotti alimentari e/o per la casa)

257 risposte



Section 4

Quanto spesso acquisti prodotti alimentari e/o per la casa online? 116 risposte



Quanto pesa, in termini di costo, la spesa online rispetto al totale della spesa? 116 risposte



Cosa ti spinge a fare la spesa online (rispetto a farla di persona al supermercato o in un negozio fisico)?

116 risposte





Quanto sono rilevanti per te i seguenti fattori nella scelta del fornitore online per l'acquisto di prodotti alimentari e per la casa? Valuta da 1 a 5, dove 1 = per nulla importante e 5 = estremamente importante

Hai iniziato a fare la spesa online a causa della recente pandemia Covid-19? 116 risposte



Hai aumentato la frequenza con cui fai la spesa online rispetto al periodo pre-lockdown di Marzo 2020?

116 risposte



Hai aumentato la frequenza con cui fai la spesa online rispetto al periodo di lockdown di Marzo 2020?

116 risposte



Pensi di continuare ad acquistare online prodotti alimentari e/o per la casa anche una volta che lo stato di emergenza sanitaria sarà finito?

116 risposte



Valuta la tua esperienza di acquisto online di prodotti alimentari e per la casa, assegnando un punteggio da 1 a 5 ai seguenti parametri, 1 = per nulla soddisfatto e 5 = estremamente soddisfatto



Section 5

Per quale motivo?

142 risposte



Quali fattori sono determinanti nella scelta del luogo dove fare la spesa? (max 3 risposte) 142 risposte



Quanto sei d'accordo con le seguenti frasi da 1 a 5? (1 = per nulla d'accordo e 5 = estremamente d'accordo)



Pensi di poter prendere in considerazione l'idea di fare la spesa online in futuro? 142 risposte



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