Czech University of Life Sciences Prague

Faculty of Economics and Management

Department of Humanities

Bachelor Thesis

Home office productivity since COVID-19. A case study of the Icon Communications Centre

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Declaration

I declare that I have worked on my bachelor thesis titled "Home office productivity since COVID-19. A case study of the Icon Communications Centre" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the bachelor thesis, I declare that the thesis does not break the copyright of any person.

In Prague on 15.03.2022

Breiner Alex Urrego

Acknowledgment

I would like to thank Ph.D. Sabou John Philip for his help during my work on this thesis, also thank my family and friends for all their support throughout my studies.

Changes in Home Office Productivity caused by the Covid-19 pandemic in the E-commerce field

Abstract

This bachelor thesis studies how the changes caused by the Covid-19 pandemic affected workers' productivity in the E-commerce field after companies had to adjust to keep companies running while working from home. The research includes a literature review and a practical part.

In the literature review, the impact of Covid-19 in the E-commerce field and in home office is described as well as changes in consumer behavior and the importance of productivity. Other researches and findings from secondary sources are included.

In the practical part, the analysis will be carried out as a case study in the company Icon Communication Center, a multilingual call center specialized in inside sales and management customer experiences for B2B brands, located in Prague since 2003.

The document ends with conclusions and recommendations given by the author who aims to explore how the field of E-commerce has been impacted by home office productivity due to changes caused by the Covid-19 pandemic.

Změny v produktivitě domácí kanceláře způsobené pandemií Covid-19 v oblasti elektronického obchodování

Abstrakt

Tato bakalářská práce se zabývá tím, jak změny způsobené pandemií Covid-19 ovlivnily produktivitu pracovníků v oblasti elektronického obchodování poté, co se společnosti musely přizpůsobit, aby společnosti fungovaly i při práci z domova. Výzkum zahrnuje literární rešerši a praktickou část.

V přehledu literatury je popsán dopad Covid-19 v oblasti elektronického obchodování a v domácí kanceláři, stejně jako změny v chování spotřebitelů a důležitost produktivity. Jsou zahrnuty další výzkumy a poznatky ze sekundárních zdrojů.

V praktické části bude analýza provedena jako případová studie ve společnosti Icon Communication Center, vícejazyčném call centru specializovaném na vnitřní prodej a řízení zákaznických zkušeností pro B2B značky, sídlící od roku 2003 v Praze.

Dokument končí závěry a doporučeními autora, jehož cílem je prozkoumat, jak byla oblast elektronického obchodování ovlivněna produktivitou domácí kanceláře v důsledku změn způsobených pandemií Covid-19.

Klíčová slova: produktivita, domácí kancelář, elektronický obchod, pandemie Covid-19.

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1   Introduction and literature review

In the last years, the number of persons working from home increased as a result of employees identifying several benefits it can bring to their work-life balance and also companies finding out that having workers working from home means they don't need physical spaces such as offices, their costs reduce and can hire people from abroad. In the last years since the Covid-19 pandemic started, home office has been crucial for continuing business and companies to operate while prioritizing both employee's and customers'' health.

Companies want to grow, increase sales and be more productive which means to "work efficiently within that time to maximize output" (Psochology Today Staff, n.d.) For companies to achieve the mentioned objectives, a very important factor is that employees have to be productive because they are the most important part of the equation. According to psychologists, individuals' productivity depends on certain internal and external elements, physical such as exercise, healthy eating, and sufficient sleep and others like motivation, training, support from others and time management, just to mention some. So, high productivity means that workers will be focused on their jobs and will aim to do the work in the less time possible to get the best positive results which lead to a healthier person and contribution to the company's goals.

Of course, both home office and the traditional way of working at the office have advantages and disadvantages but as the Covid-19 pandemic has brought many changes that affected the way of life, consumer behavior, working habits and others, researches show that businesses and workers have to adapt to the new trend to cope with reality and find the best solutions.

1.1   Problem Statement

Due to changes caused by the Covid-19 pandemic, companies had to adjust in many ways, and of course workers' productivity was also affected. That is why this research has the aim to explore how the field of E-commerce has been impacted by home office productivity due to changes caused by the Covid-19 pandemic.

Researches show different outcomes in studies about whether or not productivity has improved in e-commerce companies. So, in this thesis a case study will be used to identify

how productivity was affected in a company in Prague, Czech Republic that works in the e-commerce field, therefore the problem statement will revolve around two research questions.

Research Question 1: How is productivity being redefined in the general workspaces of the E-commerce field?

Research Question 2: Is there any significant difference between productivity before and during the COVID Pandemic? If so, what are those differences and to what factors are they attributed?

1.2 Research Justification

This thesis aims to contribute to the field of e-commerce by providing more evidence on the changes that caused workers' productivity in companies in the industry due to the Covid-19 pandemic. In this case, a case study in an e-commerce company in Prague will be used as a source to answer the research questions aforementioned, determine how is productivity being redefined in the general workspaces in e-commerce and identify if productivity in workers in the e-commerce field has changed due to the Covid-19 pandemic.

2 Literature review: State of the art in Online Consumer Purchasing Behavior

2.1 COVID-19 and its impact on Home Office

2.1.1 Introduction to COVID-19

First of all, as defined by the World Health Organization (WHO) COVID-19 is an infectious disease caused by a newly discovered coronavirus, which is spread primarily through the respiratory droplets (saliva or nose discharge) when an infected person is near other people. Therefore, maintaining social distance is crucial in preventing the spread of the virus.

The COVID-19 pandemic became one of the worst outbreaks in world history over 80 million people were infected and over 1.7 million lives were lost because of the virus worldwide, as of December 26th, 2020. Furthermore, the impact of the virus has been highly asymmetric, as people from low income communities are more likely to suffer the consequences of the virus and imposed government restrictions. Therefore, increasing the relative poverty among the workers of the so-called 'informal economies. Those people often have no health care and access to medical facilities. (International Labour Organization, 2020)

COVID-19 had a massive negative impact on global economy as GDP growth rate significantly declined all over the world between April to June of 2020. The virus spread at an alarming rate and forced many countries to face severe consequences of economic recession as more and more restrictions take place and limit any economic, business, and social activities. The global GDP rate was estimated to range from -4.5% to -6.0% in 2020. While World Trade Organization (WTO) forecasted that the global trade volume of 2020 would plummet by 9.2%. And as we can see from the graph below, unemployment rates have increased across the world as many businesses were forced to shut down. Even those in the major OECD member countries, including Canada, U.S., France, Japan, and Germany. Most of the OECD states had their unemployment rates ranging from 7.0 to 8.0 % in October 2020, however, the rate was considerably lower in Japan with 3.1% and Germany with 4.5% of the population being out of work. (Jackson, et al., 2020)
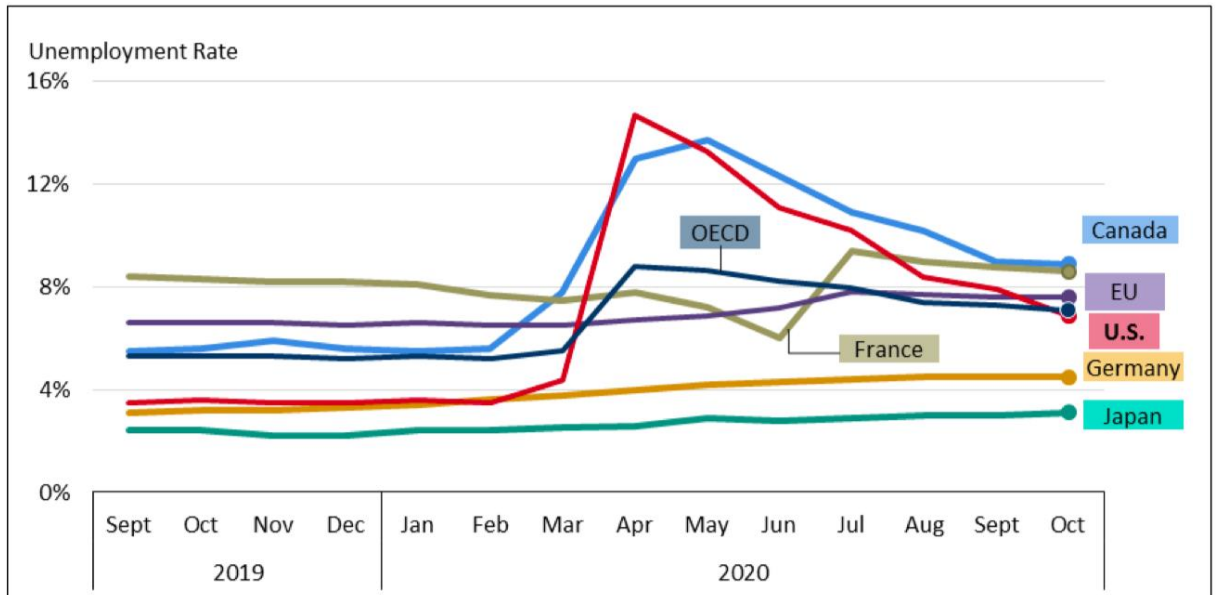
Figure 1 Unemployment Rates in Major OECD Countries

2.1.2 WTO Member Responses to COVID-19

This section will focus on the protective and preventive measures and regulations adopted by the members of the World Trade Organization (WTO) against the spread of Coronavirus. They are divided into 4 major categories: (WTO, 2020)

1. Streamlining certification procedures
2. Ensuring that medical goods are safe
3. Making food available by relaxing technical regulations
4. Addressing COVID-19 risks from international trade in live animals.

Streamlining certification procedures. The rapid spread of the virus created a high demand for many medical goods, which play a critical role in handling the COVID-19 pandemic. Therefore, the member states had to ease certain steps such as licensing, inspection and certification to ensure the sufficient supply of these medical products. However, the safety and the quality of this medical good must not be compromised, while increasing their availability in the market. (WTO, 2020) Numerous countries, for example, Qatar introduced a fiscal policy that exempted medical goods from custom duties. (International Monetary Fund, 2020)

The second measure is ensuring that medical goods are safe. This requirement for WTO members simply refers to introducing new regulations to ensure that medical equipment and other goods meet the general quality, safety or health standards. (WTO, 2020) This also implies that regulatory agencies within their respective countries monitor that there are no counterfeit medical products in the market, through technical regulations to provide proper risk management. (Jensen, et al., 2020)

The third standard among protective actions against COVID-19 is ensuring the availability of food by relaxing technical regulations. This is applying the same concept to the food products, as the first measure, which was to streamline the certification procedures for medical goods. The countries are expected to employ more relaxed technical measures in food production and inspection. As the spread of the virus has negatively affected the employment and income of many households and caused food shortages since people rushed to the stores after the announcements of lockdowns. It was important to ensure that shelves held enough of the essential food items. (WTO, 2020)

The fourth regulation aims to address COVID-19 risks from international trade in live animals. Some members of WTO imposed a ban on imports of certain exotic and wildlife animal species from countries like China, Italy, Iran and some EU countries. Some countries even restricted from the previously mentioned countries. (WTO, 2020) This is because close contact with animals poses higher risk of infection and spread of the virus. And it is also believed that the COVID-19 has emerged from zoonotic pathogens at a wildlife market in China. (Halleux, 2020)

2.1.3   Changes in Consumer Behavior due to COVID-19

Before we move on to discussing how the spread of the global pandemic has affected global electronic commerce, we have to understand how the virus changed the consumption patterns of many households across the world. This affects companies all around the world because knowing the importance of productivity of employees and companies, businesses now have to adapt their way to offer and sell products and services after consumer behavior has changed due to the pandemic.

First of all, consumer behavior includes all actions, thoughts and other psychological as well social factors that influence an individual's decision-making process in purchasing a certain good or service. Everyone has noticed the occurrence of panic buying before lockdowns and

increased sales of medical goods such as face masks, respirators, vitamins, etc., as well hand sanitizers and various kinds of disinfectants, these are just some of the basic, obvious changes in consumer behavior in response to the global pandemic.

Meanwhile, there are not yet many studies conducted to analyze the changing patterns of consumer behavior as a result of COVID-19, but valuable research has been organized by The Nielsen Company. Their study suggests 6 threshold levels of consumer behavior that were linked to the public concern about the spreading of the virus.

1. Proactive health-minded buying
2. Reactive health management
3. Pantry preparation
4. Quarantined living preparation
5. Restricted living
6. Living a new normal

Now, these changes in consumer behavior have been observed in different countries such as U.S., Spain, Italy and South Korea, which were consequential to specific public announcements and news related to the evolution of the COVID-19 outbreak.

#1 PROACTIVE HEALTH-MINDED BUYING	#2 REACTIVE HEALTH MANAGEMENT	#3 PANTRY PREPARATION
CONSUMER BEHAVIOR SHIFTS		
Interest rises in products that support overall maintenance of health and wellness.	Prioritize products essential to virus containment, health and public safety. E.g. face masks	Pantry stockpiling of shelf-stable foods and a broader assortment of health-safety products; spike in store visits; growing basket sizes.
COMMON COVID-19 EVENT MARKERS		
Minimal localized cases of COVID-19 generally linked to an arrival from another infected country.	Government launches health and safety campaign. Local transmission and / or first COVID-19 related death(s).	Small quarantines begin; borders close more broadly. Often represented by accelerating cases of COVID-19, but not necessarily by deaths.
#4 QUARANTINED LIVING PREPARATION	#5 RESTRICTED LIVING	#6 LIVING A NEW NORMAL
CONSUMER BEHAVIOR SHIFTS		
Increased online shopping, a decline in store visits, rising out-of-stocks, strains on the supply chain.	Severely restricted shopping trips, online fulfillment is limited, price concerns rise as limited stock availability impacts pricing in some cases.	People return to daily routines (work, school, etc.) but operate with a renewed cautiousness about health. Permanent shifts in supply chain, the use of e-commerce and hygiene practices.
COMMON COVID-19 EVENT MARKERS		
Localized COVID-19 emergency actions. Restrictions against large gatherings; schools and public places close down. Percentage of people diagnosed continues to increase.	Mass cases of COVID-19. Communities ordered into lockdown. Restaurant closures, restrictions on small gatherings.	COVID-19 quarantines lift beyond region/country's most-affected hotspots and life starts to return to normal.

Figure 2 Nielsen Six Consumer Behavior Thresholds of Covid-19 Concern

From Nielsen's framework we can understand that there is no significant change in consumer reaction and consumption habits when there are only a few announced cases of COVID-19 within the country. Yet, more changes occur at the second stage, when virus caused deaths occur and the number of infected individuals' increases. That is when, citizens begin buying essential medical items for general preventive measures, such as face masks and hand sanitizers. And at the third stage, Pantry preparation, consumers begin purchasing more food products with a long shelf life, preparing their households for quarantine. (Nielsen, 2020)

Further changes in consumer behavior occur when the government imposes restrictions on public gatherings and announces lockdown. This is when we can notice an increased interest

in e-commerce, as the use of online shopping and the general use of the web increases due to individuals having to stay indoors. And at last, at the sixth stage, consumers return to their normal lives, once the measures are lifted. However, the general public exhibits a more cautious behavior related to their health. (Nielsen, 2020)

Another study organized by Hubbub in the U.K., where 2000 adults were surveyed about the changes in their eating habits throughout the COVID-19 pandemic. Some of the findings suggest that people have become more thoughtful of what they purchase, what they eat and how much food waste they produce. (COVID-19 Drives Consumer Behaviour and Agro-Food Markets towards Healthier and More Sustainable Patterns, 2020)

A quarter of the surveyed adults intend to continue shopping less frequently, even after the restrictions will be lifted. Meanwhile almost one-third will engage in meal prepping, and more people begin understanding the importance of food waste reduction, by eating leftovers and freezing dishes. A small proportion of people 4% are even considering growing their own food and practice composting. And obviously, people have gotten used to the convenience of online shopping, 10% of the people answered that they would continue doing so even after the restrictions are no longer in place. (COVID-19 Drives Consumer Behaviour and Agro-Food Markets towards Healthier and More Sustainable Patterns, 2020)

Another considerably massive research was organized in India by Kantar, known as 'Market Dynamics During COVID- 19: Indian Consumer Sentiments Analysis' (2020). The findings collected from 11,000 households in India, show that many people planned to refrain from expenditure on luxury goods and services. For example, 77% of people will not plan any vacation or holidays due to the spread of Coronavirus. And 60 to 64% of the surveyed, will not purchase cars, luxury goods, home decorations and other goods that have considerably high prices. (The New Consumer Behaviour Paradigm amid COVID-19: Permanent or Transient?, 2020)

We all clearly understand that the ongoing pandemic has caused an economic recession, increased poverty, and unemployment rates and many people around the world struggle to make ends meet, especially the citizens of developing countries. Thus COVID-19 has caused many people to reconsider their values, expenses and overall plans for the upcoming years, thus changing the global consumer behavior pattern.

As I mentioned before, companies exist to sell goods and services and make profit, several factors that can contribute to companies achieving their goals, one of them and very important is if their workers are productive. With the ongoing pandemic that started in 2019, things such as working habits and shopping habits have changed, so, it is crucial to understand what consumers want or expect from businesses now.

According to research done in 2020 by Facebook experts, the ongoing pandemic accelerated e-commerce adoption up to five years, shopping behavior changed drastically due to the lockdowns, restrictions and fear of contracting the virus. Nicola Mendelsohn, Vice President EMEA[1] at Facebook says "As shelter-in-place measures pushed people across the globe to switch from shopping in-store to online, 2020 has shouldered a decade's worth of behavior change. This mass digital education of the public has been a cross-generational phenomenon that's very quickly had a cross-category impact: digitalizing entire consumer journeys, from interest to purchase to customer experience explain how the consumer behavior will change because of the global Covid-19 pandemic including consumer´s new decision-making process, global tendencies and the new aspects that businesses will have to deal with to attract customers". (Facebook IQ Source, 2020)

Between the 1990s and before the pandemic, online shopping started attracting consumers but this shopping experience was still very low compared to purchases in physical stores. Although, between 2006 and 2010 online purchases increased, it was once the pandemic started in 2020 that online sales grew a lot. Consumers are getting used to online shopping due to the variety of options available, easy access to information and as a result of the restrictions such as lockdowns due to the ongoing pandemic. So, consumers are changing their top criteria for determining where to shop in-store according to Facebook, even though price was the main priority for shoppers it is still the key aspect for decision making to buy a product. "In fact, 74% of consumers say they are focused on getting the best price for everyday items, and 61% say they are actively seeking out deals and coupons. However, additional factors are rivaling price as people re-prioritize their shopping expectations and redefine what value means". (Facebook IQ Source, 2020). The additional factors that became more important for consumers in-store buying because of Covid-19 are safety and reliability, consumers are looking for their convenience and positive experience. For example, return

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[1] EMEA stands for Europe, Middle East and Africa.

policy is now a growth factor that is influencing where to shop, between May and August, return policy gained importance by four points in UK, India, Italy and Mexico.

Figure 3 Top criteria where to shop in-store- Source "Facebook IQ 2020"

Another aspect that is becoming notable is that people are realizing the negative economic effects that the pandemic has caused to everyone and there is a growing tendency to support local small businesses.

When shopping online, price is also the top criteria for customers but convenience and delivery time and options are becoming important as well. "Delivery time is particularly important for younger shoppers. More than seven in 10 Gen Z and Millennial consumers globally say delivery time is very important in determining where to shop online, compared with 66% of Gen Xers and 57% of Baby Boomers. Nearly Online shopping decisions are driven by convenience, customization and delivery capabilities 4 01 Shopping redefined: A reexamination of priorities is leading to complex purchasing decisions one-third (32%) of Gen Z shoppers say the option of next-day delivery increases their likelihood of making an online purchase". Shoppers are also looking for other aspects such as reputation, customer service and corporate social responsibility when buying online.

Top criteria for determining where to shop online among consumers globally:

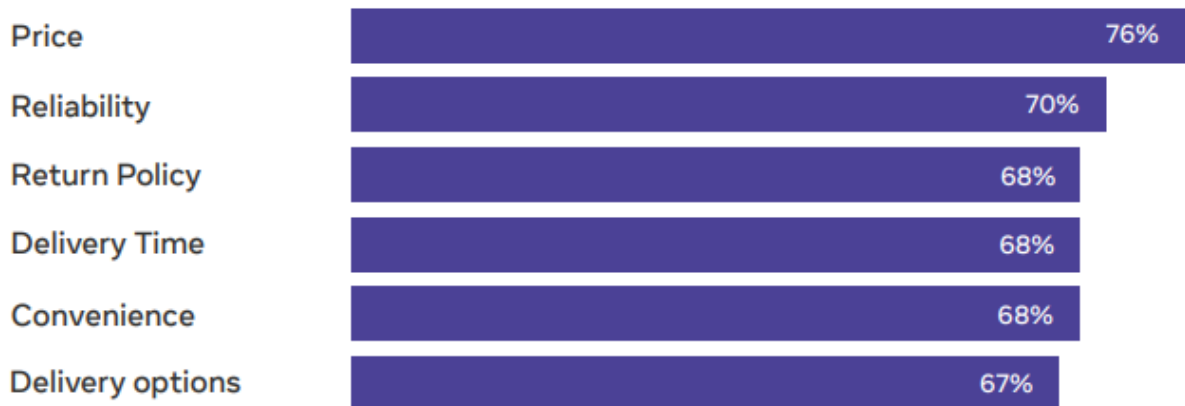|	
Price	76%
Reliability	70%
Return Policy	68%
Delivery Time	68%
Convenience	68%
Delivery options	67%

Figure 4 Top criteria where to shop online - Source "Facebook IQ 2020"

Nowadays people are looking for different aspects when they have to decide what to buy and from where, of course price is an important factor but millennials, for example, prefer brands that have corporate social responsibility and businesses that manage corporate values that match each one's beliefs. According to Facebook IQ, brand values have become nearly equally as important to consumers as the products themselves, 65% of millennials in the US and 81% in Brazil prefer to buy from companies with shared values. Sustainability is also becoming important, consumers are looking for companies that are committed to the environment and have policies that use recycled materials and are environmentally friendly. Industries in Europe started communicating users how the product they are buying has an impact on the environment, "Adidas and Allbirds are apparel stores that are pushing sustainability in the fashion market, labeling the carbon footprint of their products and creating shoes from singular materials in order to be easily recycled." (Facebook IQ Source, 2020)

2.1.4   Risks identified in consumer behavior due to Covid-19

Sometimes buyers find certain delays or complications in their shopping experience either in-store or online that make consumers abandon their shopping. Long checkouts, delays, poor customer service and unnecessary steps are some examples of barriers for customers. "Researches show that friction can cost businesses significantly, totaling an estimated $213 billion in lost US e-commerce revenue in 2019." (Facebook IQ Source, 2020)

In addition to the frictions mentioned before, there have always been risks of time and finance in the buying behavior but the Covid-19 pandemic has heightened physical and psychological risks buyers feel in the shopping experience.

The six different types of risks identified by Facebook IQ source in consumer behavior are the following:

- **Functional**

  Will the product or experience perform as I expect?
- **Physical**

  Is the product or experience potentially harmful?
- **Social**

  What will others´ perceptions of this product or experience be?
- **Physiological**

  Will this product or experience cause any emotional distress?
- **Financial**

  Will I be able to afford this product or service?
- **Time**

  How much time and effort will be needed to make this purchase?

Fears emerged as the concern of being exposed to the coronavirus, people now don't feel safe in closed spaces for long periods of time. According to the Facebook IQ source, 89% of consumers say they are at least somewhat concerned to go to a physical store because of Covid-19. Because of the high risks customers have, everybody expects retail stores to feel the same and need to implement safety measures for their clients and employees. At least stores should oblige people to wear masks and avoid overcrowding by practicing social distancing. These aspects are causing buyers to migrate and become more familiar with online shopping as a solution to give them the feeling of buying safely. Although the increasing online solutions offered recently, there is still only 27% of consumers that consider themselves as experts buying online and only 13% over the age of 55.

In the following images, it is shown the types of risks experienced globally while shopping, both in-store and online.

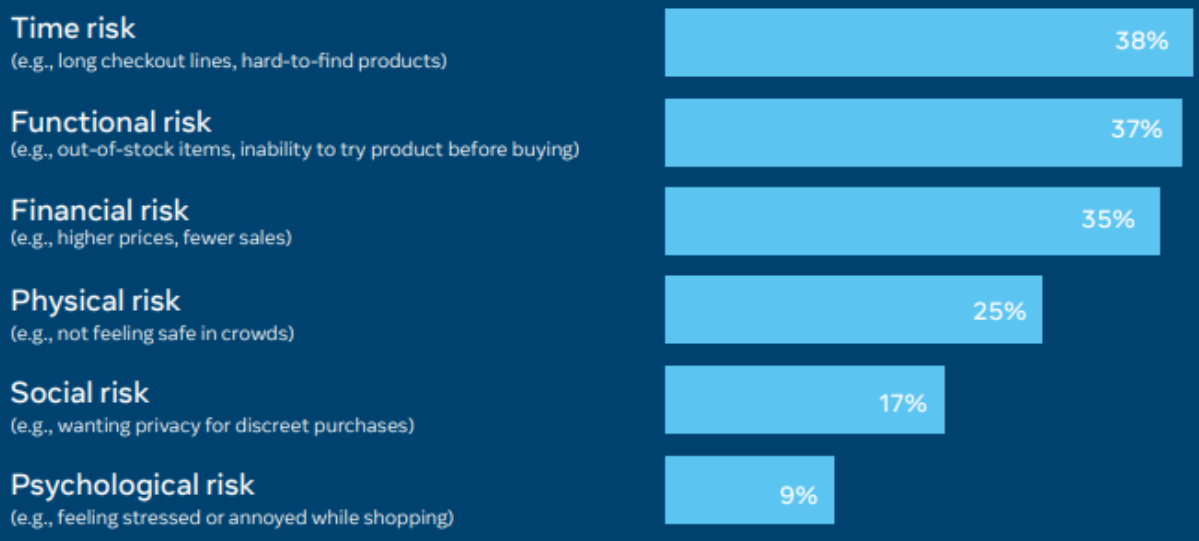## Types of risk experienced while shopping in-store among global consumers.[10]

Time risk
(e.g., long checkout lines, hard-to-find products) — 38%

Functional risk
(e.g., out-of-stock items, inability to try product before buying) — 37%

Financial risk
(e.g., higher prices, fewer sales) — 35%

Physical risk
(e.g., not feeling safe in crowds) — 25%

Social risk
(e.g., wanting privacy for discreet purchases) — 17%

Psychological risk
(e.g., feeling stressed or annoyed while shopping) — 9%

Figure 5 Types of risks shopping in-store - Source "Facebook IQ 2020"

Types of risk experienced while shopping online among global consumers.[10]

Functional risk
(e.g., out-of-stock items, lack of information on products) — 54%

Psychological risk
(e.g., not sure if product will meet expectations, hard to get used to buying online) — 44%

Financial risk
(e.g., higher prices, fewer sales) — 38%

Time risk
(e.g. long shipping/delivery, hard-to-find products) — 32%

Social risk
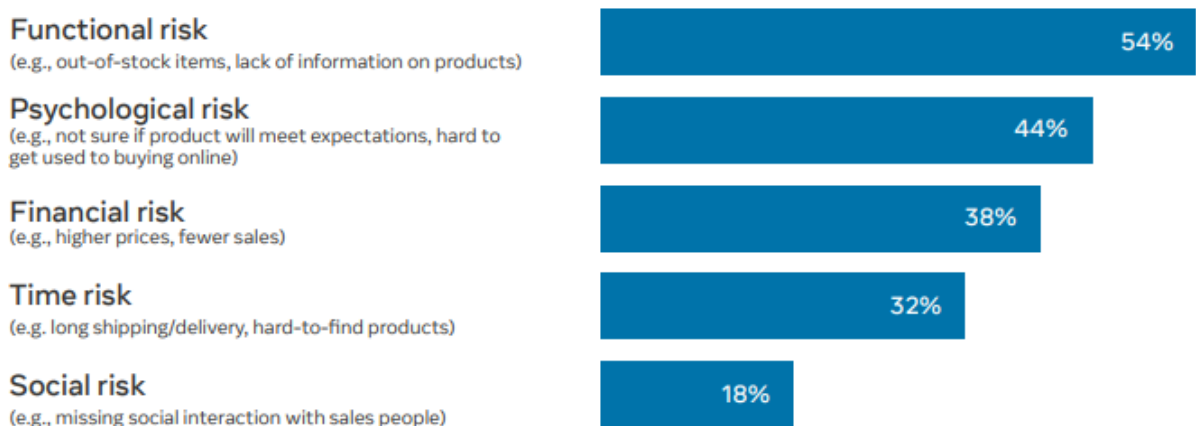(e.g., missing social interaction with sales people) — 18%

Figure 6 Types of risks while shopping online - Source "Facebook IQ 2020"

According to the Facebook IQ report, stores have to focus now on three main points: offer services to minimize physical risk in stores, create digital shopping experiences and improve delivery and returns processes. The first thing is that fear for the covid-19 virus continues and will remain for some time, that is why stores should offer services to make the shopping

experience ´´safer´´. Stores should offer customers safety measures in stores and even better, give them the chance to order online and only go to the store to pick their products, improve their online platforms and give people all the information needed for their products digitally. Also, delivery processes may be fast and efficient allowing the client to return their products obviously within the policies avoiding long processes.

Something that is also changing in consumer behavior when shopping is that people are becoming more prepared and efficient when shopping in stores. The pandemic is teaching us to go to the stores to buy only what we need to avoid being in closed physical spaces for long periods of time. Now we go to stores knowing what we have to buy. In the chart below, we can see that in the last 6 months of 2020, most of the purchases that people do are planned compared to spontaneous purchases.
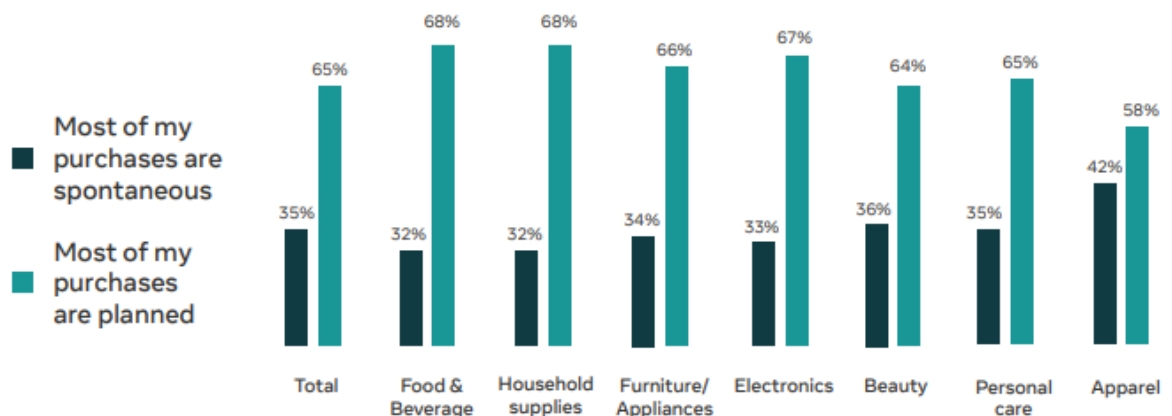

Figure 7 Spontaneous vs. Considerate purchases - Source "Facebook IQ 2020"

2.1.5 Future trends in consumer behavior in e-commerce

People are getting used to the technological advantages that are becoming "normal". For example, we know that social media and the internet usually show us several trends or types of services or products that match our previous searches, 66% of consumers say that it is the technology role to recommend products that meet in-the-moment shopping needs. "This has led to a new generation of e-commerce known as "discovery commerce"—a phenomenon where instead of people searching out a product, automation helps products find the right people." (Facebook IQ Source, 2020)

So, it is clear that social media is playing an important role in consumer behavior in e-commerce, it adds both convenience and experimental elements to the online shopping experience. According to Facebook IQ Source, the great majority of consumers (74%), say that they get shopping ideas from social media such as Facebook, Instagram, Messenger or WhatsApp.

In the next chart, we can observe how global consumers would like to discover brands or products online in the future.

How global consumers would like to discover brands or products online in the future:[11]

Products categorized by current trends	38%
Products categorized by lifestyle (e.g., athletic, new mom, etc.)	37%
A short survey that customizes a product to your needs (e.g., shampoo for your hair type)	36%
Take an image and either buy the product captured or search for similar items	35%
Curated list of products that predicts a need based on past purchase	34%
Trending products among your social circle (e.g., people you interact with the most on social media)	33%
Curated list of products that achieves a goal (e.g., decorate kid's room)	29%
A smart home device that tells you about products that might be useful or desirable to you	29%
Livestreaming with influencers using the product	24%
Livestreaming with a brand representative who recommends the right product for you	23%

Figure 8 How consumers would like to discover brands - Source "Facebook IQ"

In the report "The Future of Shopping Has Come Early", experts state that the new equations that stores and businesses have to adapt to ahs to do with loyalty, empathy and transparency. The global pandemic has changed consumers' behaviour, 60% of consumers say that because of the pandemic they have tried a new brand online and 44% of consumers in the US are planning to adapt their shopping mostly online. There has been a notorious decrease in-store loyalty from consumers globally, especially in countries such as United States, United Kingdom, Germany and India. "Globally, essential category buyers are 1.2X more likely to report being loyal to physical stores than nonessential category buyers while shoppers for nonessential goods are 1.3X more likely to be loyal to online retailers". There

have been identified what reasons make consumers repeat their purchase on an online shopping website globally, these reasons can be seen in the following chart.

Figure 9 Top reasons for making repeat purchases - Source "Facebook IQ 2020"

After analyzing the changes in consumer behaviour and future trends in online shopping the Facebook IQ Source demonstrates, we can conclude that consumers have changed drastically their ideas and aspects that attract them to the shopping experience. It is evident that people are realizing the benefits online shopping and will consider buying more frequently but companies need to adapt to the new trends. Consumers are looking for a better service, we want to find all what we are looking for to buy in our hands, we want our shopping experiences to be the less risky as possible and the core criteria for shopping decisions has changed from price and proximity to loyalty, empathy and convenience. (Facebook IQ Source, 2020)

2.2   Impact of COVID-19 on E-commerce

Undoubtedly, e-commerce is one of the few industries that has benefited from the global pandemic, aside from health care and medicine. However, it is important to remember that e-commerce itself encompasses numerous different sectors, such as online shopping sites, social media, streaming platforms, third-party online market places and so on. And COVID-

19 had different effects on these industries, some of them have enjoyed great revenue and growth while others faced losses.

The first section of e-commerce is to be discussed in online shopping. We can categorize online shopping by e-commerce shops as well as third-party online marketplaces, which have been gaining popularity during the pandemic. (Vitale, et al., 2020) And another way to differentiate online shopping is by the type of products that are sold through the web.

By the product categories, the online sellers of medical, hygienic and food products have had increased revenues throughout the pandemic. Other online sellers that benefitted from the lockdowns are food services, IT equipment and groceries. For example, according to OECD, the overall e-commerce industry of Korea has seen an increase in the total value of online transactions by almost 16% from the period of July 2019 to July 2020. However, the sales have dropped for online retailers of goods like clothing, including both formal and sports attire. The other declining sectors were those who provided services related to travel and transportation services, as well as those focused on leisure activities. (OECD, 2020)

The next sector of electronic commerce that grew during the coronavirus is E-payments methods. Online payments have become more common as sales grew through online platforms and as social distancing has begun taking place all over the world. More people choose online payments to reduce the risk of contagion. In LDC's despite the significant growth in the use of mobile banking and payments, the COD option or cash-on-delivery still remains to be an appealing choice for buyers of online marketplaces, however it is used less than the contactless, online payments, ranging from about 44% to 48%. (Vitale, et al., 2020)

The next group of businesses whose sales have skyrocketed in 2020 due to the pandemic is Digital streaming services. The best examples of which would be Netflix, Disney+ and Amazon Prime Video as well as Hulu. (Meyer, 2020) As the 2020 lockdown forced people to stay indoors, the main source of entertainment became watching tv shows and movies. Therefore, over 12 million people have signed up for one of the four giants of video streaming services. Moreover, the time spent on the streaming has doubled and viewing increased by 71% since 2019. (Rajan, 2020).

Facebook became one of the most used sales channels in LDC of Africa and Asia-Pacific since the outbreak of COVID-19. An important feature of Facebook became its marketplace,

which as had been mentioned before is a type of C2C business model. However, businesses can target consumers through Facebook as well. (Vitale, et al., 2020)

In conclusion, e-commerce has seen tremendous growth in popularity, revenue and usage since the beginning of the global pandemic in 2020. The major areas of online business that have grown are undeniably online groceries for food, beverages and medical products. Followed by the increased usage of video streaming services. However, other sectors of e-commerce that have gained advantages from COVID-19 are e-learning resources as more and more schools and higher institutions shift to distance learning. Online advertisements, video games, online training and fitness, too have gained more consumers as the world continues to social distance, and thus services become impossible to access in physical locations like gyms or offices.
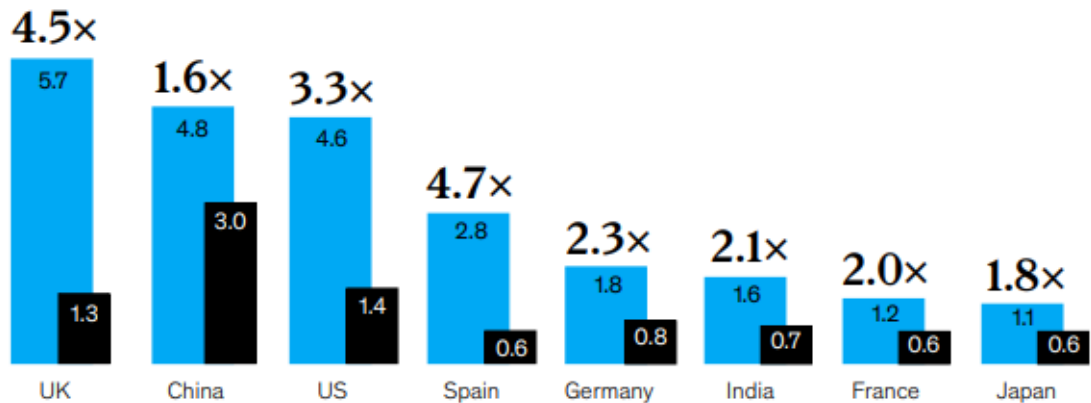
A study done in Romania with 134 companies in the E-commerce industry in the context of telework during the pandemic states that home office is beneficial for productivity perceived by employees taking into consideration employee autonomy, working conditions and life satisfaction. The study concludes that "Telework has a positive impact on the perception of labor productivity of procurement employees in e-commerce companies, in the context of the pandemic." (Bunea, 2021)

A report from the McKinsey Global Institute states that consumers are shifting to digital channels during the pandemic (2019-2020) and as a result E-commerce has grown two to five times faster than before the pandemic (average 2015-2019) in countries like the UK, China, US, Spain, Germany, India, France and Japan. Most of the consumers that caused this growth were new in buying online, for example 30 to 50% of total US consumers in July 2020 ordered groceries online for the first time. (Lund, Madgavkar, Mischke, & Remes, 2021)

E-commerce has grown two to five times faster than before the pandemic.

Year-over-year growth of e-commerce sales as a share of total retail sales, percentage point change

■ Average, 2015–19
■ 2019–20

4.5× UK: 5.7, 1.3
1.6× China: 4.8, 3.0
3.3× US: 4.6, 1.4
4.7× Spain: 2.8, 0.6
2.3× Germany: 1.8, 0.8
2.1× India: 1.6, 0.7
2.0× France: 1.2, 0.6
1.8× Japan: 1.1, 0.6

Source: Euromonitor Passport; McKinsey Global Institute analysis

Figure 10 E-commerce growth - Source "Euromonitor Passport; McKinsey Global Institute Analysis 2021"

The step-up and digitalization of businesses that want to cope with the modern world in e-commerce are trying to reduce customer contact and innovate. According to the McKinsey survey, companies digitized many activities at rates 25 times faster than before the pandemic. "Three-quarters of executives in North America and Europe surveyed by McKinsey in December 2020 said they expect investment in automation to increase through 2024." (Lund, Madgavkar, Mischke, & Remes, 2021) Actions taken by companies can produce an increase in annual productivity of 1% to 2024 if innovations take place globally in all-size companies and demand recovers. E-commerce is one of the sectors that will mainly contribute to the potential productivity growth caused by Covid-19.

Our sector analysis indicates potential for incremental productivity growth of roughly one percentage point per year through 2024.

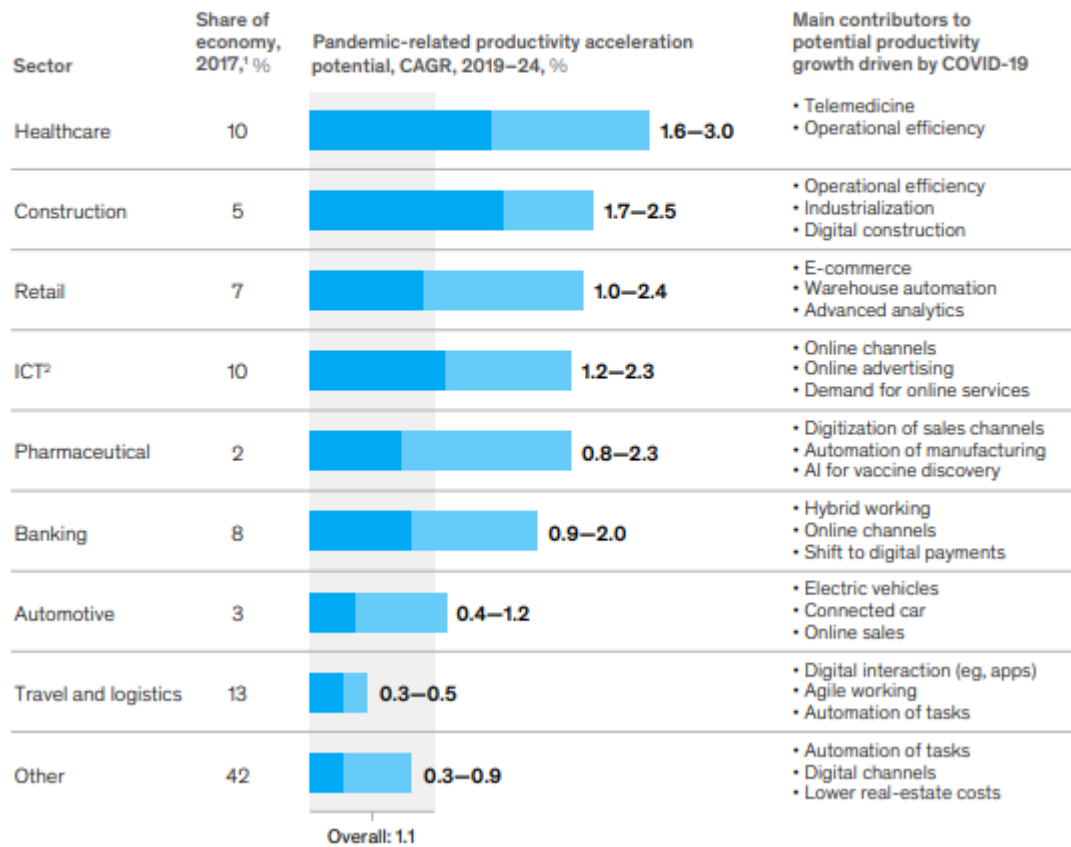**United States and Europe nonfarm business economy sectors**

Sector	Share of economy, 2017,¹ %	Pandemic-related productivity acceleration potential, CAGR, 2019–24, %	Main contributors to potential productivity growth driven by COVID-19
Healthcare	10	1.6–3.0	• Telemedicine • Operational efficiency
Construction	5	1.7–2.5	• Operational efficiency • Industrialization • Digital construction
Retail	7	1.0–2.4	• E-commerce • Warehouse automation • Advanced analytics
ICT²	10	1.2–2.3	• Online channels • Online advertising • Demand for online services
Pharmaceutical	2	0.8–2.3	• Digitization of sales channels • Automation of manufacturing • AI for vaccine discovery
Banking	8	0.9–2.0	• Hybrid working • Online channels • Shift to digital payments
Automotive	3	0.4–1.2	• Electric vehicles • Connected car • Online sales
Travel and logistics	13	0.3–0.5	• Digital interaction (eg, apps) • Agile working • Automation of tasks
Other	42	0.3–0.9	• Automation of tasks • Digital channels • Lower real-estate costs

Overall: 1.1

Figure 11 Sector analysis that indicates potential growth - Source "McKinsey Institute 2018"

2.3 Home office after Covid-19 pandemic

The term home office is clearly defined by the Cambridge dictionary as "a room or area in someone's home that they use to work at their job". (Cambridge University Press, n.d.) Home office means working from home or in a place other than an office, this trend has been growing in the last years and it became a well-known method of working for people all over the world from all ages after the Covid-19 pandemic started and almost all countries in the world imposed lockdowns.

According to the PwC's US Remote Work Survey, what to do about offices and organization of workers is a large discussion after workers experienced home office for some months. As a result, companies are willing to allow more flexibility, change the company's culture and head towards a hybrid workplace where employees rotate in and out of offices. Of course at the end of 2020 when the survey was carried out, decisions were depending on the rollout of vaccines but at the time both employers and workers were expecting that begin to take place at the second hybrid workplace of 2021. (PWC, 2021)

Some important findings of the survey were:

- **Remote work has been an overwhelming success**
  The shift in positive attitudes for both employers and workers is notorious, 83% of employers say that remote work has been successful in their companies compared to 73% six months before. (PWC, 2021)
- **Workers want to return to the office more slowly than what employers expect**
  When employers were asked in July 2020, 61% anticipate that at least employees would spend half their time at the office, in July 2021 75% anticipate that half of their employees would be working at the office. (PWC, 2021)
- **Least experienced workers need to work at the office the most**
  Workers that have less professional experience between 0 and 5 years are more likely to want to be in the office more often than more experienced ones, because they feel less productive doing home office. (PWC, 2021)

When both employers and workers were asked about how they feel about productivity over prolonged work-from-home period, as it can be seen in the image below, both say that it improved having higher results from each group in June and December 2020.

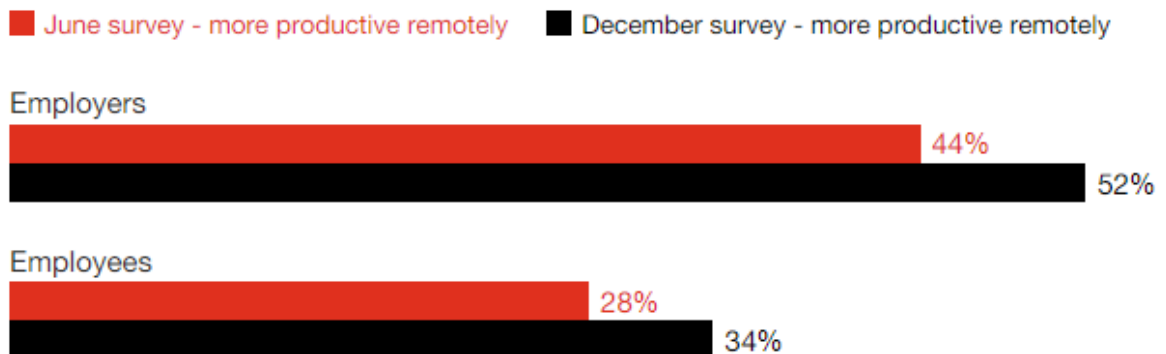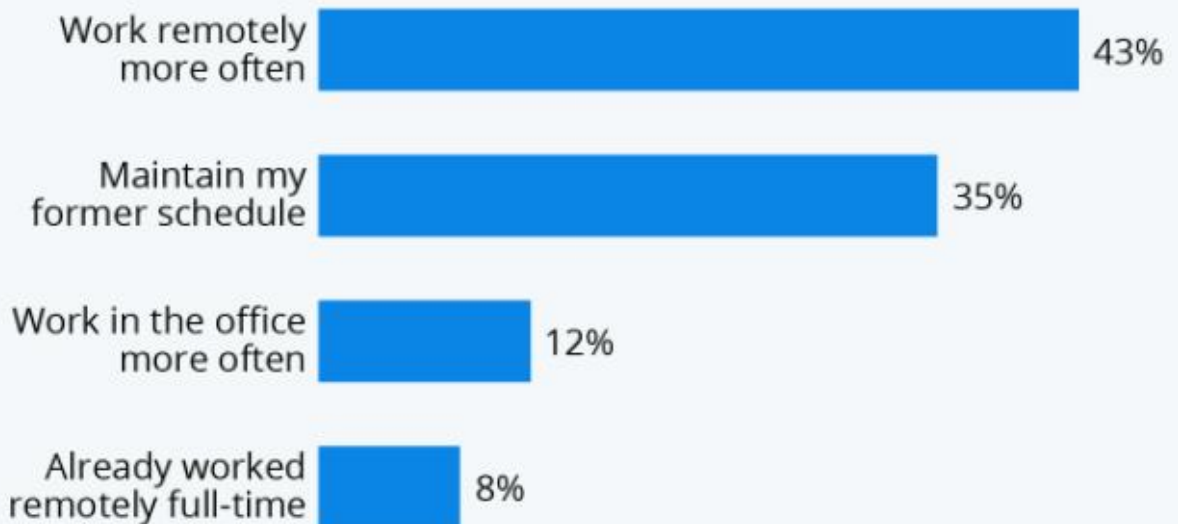## Productivity improved over prolonged work-from-home period

■ June survey - more productive remotely   ■ December survey - more productive remotely

Employers

44%

52%

Employees

28%

34%

Figure 12 Productivity improved over prolonged work-from-home period. Source: PWC Remote Work Survey

Continuing with the home office trends and preferences seen in employee's responses at the mentioned survey, another source (getAbstract) demonstrates that 43% of US full-time workers in the US would like to work from home more often after the pandemic naming the advantages like not having to commute saving time and money and added flexibility and productivity which motivates them. Also the European Commission states that "Ultimately, the spread of telework in the longer-term will depend on a broad range of factors, including its effect on productivity and working conditions, as well as its contribution to broader policy objectives such as Europe's digital and green transitions. Evidence suggests that in normal times people working from home can sustain, or even enhance, their productivity, while enjoying a better work-life balance. Yet, under the current exceptional circumstances productivity, working conditions, or both, maybe deteriorating for many workers due to, among other problems, lack of childcare, unsuitable working spaces and ICT tools." (European Commission, 2020)

Is Working From Home Here to Stay?

% of respondents who would like to change their work schedule after COVID-19 has been contained

Work remotely more often	43%
Maintain my former schedule	35%
Work in the office more often	12%
Already worked remotely full-time	8%

Based on a survey of 1,200 full-time employees in the U.S. conducted April 16-17, 2020
Source: getAbstract

NEWS 18

Figure 13 Is working from home here to stay? - Source: Statista 2020

A study carried out in January 2021 in which authors surveyed 22,500 Americans over several waves to investigate if home office will stay after the Covid-19 pandemic in the e-commerce field, show that 22% of full workdays will be shifted to home office after the pandemic ends, compared to only 5% before it started. The authors Barrero, Bool and Davis mention in their investigation a collection of secondary data in the e-commerce field, for example they state that there was an increase of 13% in productivity in randomized trials of Chinese call center workers, an 8% increase in call center workers in the US and a 4% additional increase in productivity benefits from shifting to work from any part of the world. Just to compare these figures with other fields, a report shows that chess players competing from home during the pandemic had worse performance, this can be explained because being

at home is not as beneficial for cognitively demanding tasks. (Barrero, Bloom, & Davis, 2021)

2.3.1 Advantages and disadvantages of home office

Home office advantages and disadvantages differ in each industry and sector, for example in knowledge-intensive sectors like IT people used to work from home more than in healthcare due to the characteristics of each job. It is known that remote work has increased drastically since the Covid-19 pandemic began and the trend according to the World Economic Forum (WEF) is that 44% of works in the future will be remote. In the e-commerce field, people changed their shopping habits from physical to online around the world but there are some countries like China, Vietnam and India where more than half of the respondents have increased their online shopping, in other countries like France, Canada, Australia, United Kingdom, only 20% said their online shopping increased after the pandemic. This can be explained because there are countries where consumers were already using online shopping and others that due to Covid-19 restrictions started using e-commerce as a solution. (HSBC, 2021)

As most of the e-commerce jobs in the industry can be performed from home, the most important advantages identified are savings on real state costs, potentially greater productivity ,and many more options to search for talents internationally. For workers, some of the advantages are freedom to live anywhere, better work-life balance, flexibility and saving time and money. Of course there are some disadvantages of home office for workers such as needing a good internet connection, home distractions and feeling alone. (HSBC, 2021)

Findings from another study on 10,000 IT professionals during 17 months show that productivity has declined by 8% when working from home, they were less productive and worked more hours to try to compensate. Women with children at home had a greater decline in productivity compared to men but men also suffered a decline so it might be due to demands placed on women when being at home adding the responsibility of taking care of children. Another result suggests that workers that are more adapted to the culture of the company and internal processes perform better in working from home where there is not somebody available to help and advice. (Gibbs, Mengel, & Siemroth, 2021)

It is interesting to mention that a research done by authors Bloom, Barrero and Davis in 2021 states that "working from home conditions during the pandemic has been far from ideal with children at home and shared working spaces". (Barrero, Bloom, & Davis, 2021) They also say that for mothers it is not satisfactory combining tasks at home with children and completing work from the company they work for because although they attend more but shorter meetings per day, send and receive more emails they are busy and not completely focused on their job with kids around.

2.3.2 Importance of employees' productivity in companies

Productivity can be defined from several points of view, but a general definition is that productivity refers to "the ability of an individual, team, or organization to work efficiently within that time to maximize output." (Psochology Today Staff, n.d.) It is also defined as the rate at which a person, company or country does useful work or the ability to do as much work as possible in a particular period. (Cambridge University Press, n.d.)

According to psychologists, high productivity in individuals results from a mix of factors such as personality, motivation, natural talent, training, education, environment, support from others and time management. There are physical elements that also play a role in fostering productivity in the short- and long-term, these can be: exercise, healthy eating and sufficient sleep. "An individual's productivity hinges on mental energy and a sense of internal and external motivation. It often emerges naturally from work that they find inherently meaningful or valuable. And while not everything one must do each day can hold deep personal meaning, researchers find that maintaining a focus on a larger long-term goal can help activate the drive and energy to push through more tedious day-to-day tasks." (Psochology Today Staff, s.f.)

Personal productivity reflects as a result of achieving goals and completing tasks as it is shown in the image below.
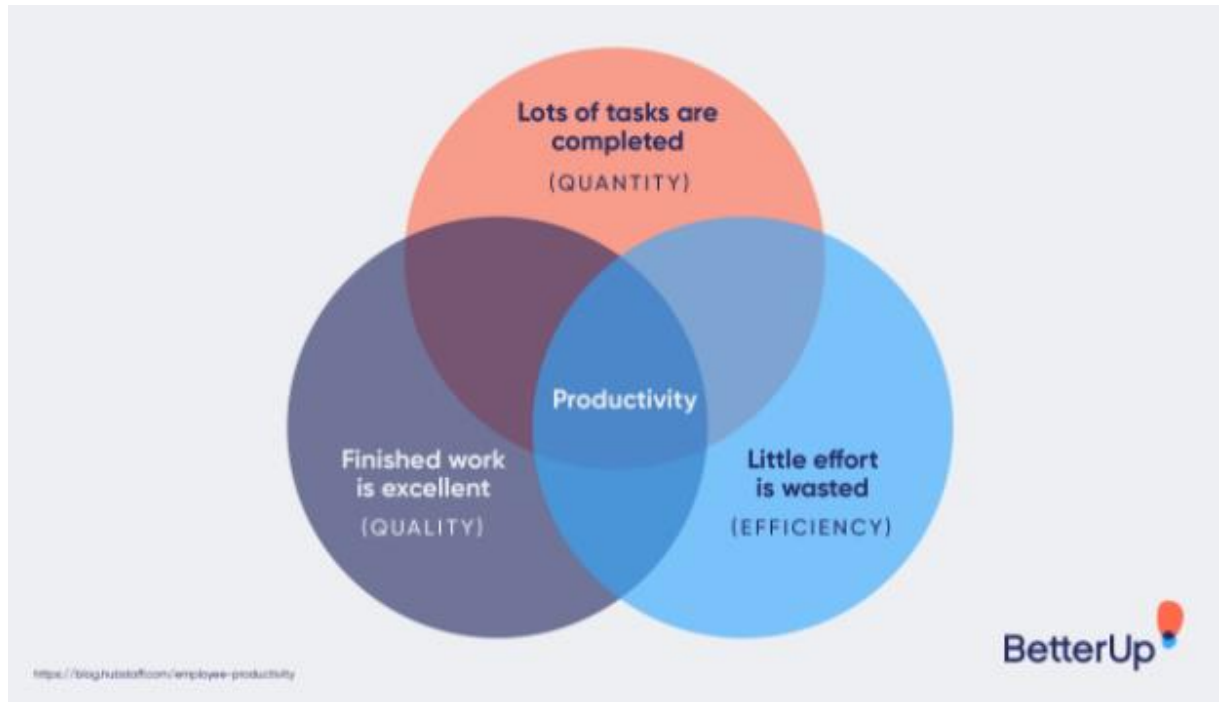
Figure 14 Personal productivity aspects - Source "BetterUp"

For companies of all sectors, it is important as an organization to be productive to achieve sales, objectives and grows but for this to happen, employees have to be motivated and be productive as well because employees' performance is critical to the overall success of companies. In the e-commerce industry, workers' productivity is also important to contribute to the overall success of companies but it is important to mention that "digital technologies have the potential to improve productivity, giving room for raised wages and living standards, better public services and greater well-being". (OECD, 2019) A study in the Netherlands shows that digital tools allows better interaction among individuals and benefits firms because they can design, produce and offer their goods and services facilitating social and economic interactions as well. The global pandemic has pushed digitalization to develop faster and also use it for more purposes which will help increase productivity for a stronger recovery with a favorable business environment and highly skilled population. (OECD, 2019)

A study that investigates the perceptions of the factors that influence the labor productivity in E-commerce under telework conditions during Covid-19 that used a sample of 134 companies in Romania states that employee autonomy, working conditions and life satisfaction are crucial factors that impact worker's productivity. Results indicate that employees that worked from home during the pandemic felt that they have more autonomy

to take decisions because there are no peers or superiors in the place so this influences positively on labor productivity. Talking about working conditions, it is clear that it is an important factor both when working at the office and from home but there is an increase in employers' interest in investing in technologies needed for home office. Also, it seems that employees in the E-commerce industry want employers to provide them with the necessary equipment and conditions to work from home. As result, "the more willing the employer is or even ensures these working conditions, the more the employee perceives to be more productive". (Bunea, 2021)

The other relevant factor in the mentioned study demonstrates that "the perception of labor productivity can be influenced by life satisfaction, the study indicating a positive relationship between the two variables. In other words, the more satisfied the employee is with his own life, the more productive he will perceive to be under telework conditions". (Bunea, 2021)

2.3.3 Types of productivity

Productivity is classified into three types, based on several factors namely, labor, capital and materials. Although it is very dynamic in meaning, I will describe them in the lines below.

- **Labor Productivity**

  Also called labor efficiency, this type of productivity "is characterized as genuine financial yield per work hour. Development in labor productivity is estimated by the change in monetary yield per work hour over a characterized period." (Sinibali, 2018) labor and employee productivity are not the same, the second one is characterized as an employee's yield per hour.

- **Capital productivity**

  It is the output per unit of estimation of fixed capital assets. It can be explained as the effectiveness with which fixed capital stock is utilized in a socialist economy. "It is regularly utilized in the financial examination and the detailing of creation plans and plans for capital consumptions, both for the national economy in general and for independent organizations or companies, professional associations, joint ventures or enterprises." (Sinibali, 2018) for example, countries use GDP figures to calculate the capital efficiency of the national economy all in all and independent companies use the gross output. It is important to mention that devaluation costs are included in

capital productivity and that it is inversely proportional to the ratio of capital and output.

- **Material productivity**

It is the amount of output produced in terms per unit input materials. Materials in this case are the natural resources needed. The capacity to make or produce determined output will increase its productivity if fewer trials are used to produce the same result. "Procedure inconstancy is at the base of materials overconsumption. It begins process wasteful aspects that bring about faulty production, procurement errors, faulty billing practices etc. In other words, it is a blatant wastage of resources." (Sinibali, 2018)

- **Individuals productivity**

From another point of view, there is also productivity that specifically refers to individual's productivity which "hinges on mental energy and a sense of internal and external motivation. It often emerges naturally from work that they find inherently meaningful or valuable. And while not everything one must do each day can hold deep personal meaning, researchers find that maintaining a focus on a larger long-term goal can help activate the drive and energy to push through more tedious day-to-day tasks." (Psochology Today Staff, n.d.) Factors such as personality, motivation and emotions play an important role in how people can execute tasks, of course personality for example is not easy to change there are different ways and techniques to increase productivity.

2.3.4 How to measure productivity

Before talking about how to measure productivity, I will mention why it is important to measure it. Referring to the topic of this thesis, productivity in companies is important to measure because it reflects if employees can achieve more in less time due to the higher revenues for companies when fewer resources are used.

Measuring productivity allows to see if tasks are being completed, schedule projects, have a better idea of how long each particular task will take by looking at past performances, determine if all employees are putting the same effort or only some of them are doing all the job, etc.

In companies, there are some ways to measure workplace productivity:

- **Simple productivity output**

  It is the most basic way to measure productivity, it can be applied to units made or tasks completed but is not ideal to measure more complex work.

  For example, in a factory, when the output figure is selected, the value of units produced will be a good indicator per week. The next step will be counting how many hours of labor (input figure) each worker puts into reaching the output figure. The final step, to see the result you must divide the output by the input and see a numeric value that tells the productivity per hour.

  Example: 4200 /60 = 70

  Therefore, labor productivity in this example is $70 per hour of work.

  Using this same method, to calculate employee productivity, the input figure must be the number of employees needed to complete the task and the output figure will be the amount spent to generate gods or services. (Holton, 2019)

- **360-degree feedback**

  This measuring technique is very useful in small teams where workers interact with each other constantly and are aware of others' working styles. Although it is very subjective, it gives a general idea or result of others perceptions about each person in the team. To apply this measuring method, all employees must evaluate their coworkers including people in the same area, subordinates and managers. (Holton, 2019)

- **Time tracking**

  When people or teams work outside the office or have limited contact with coworkers, time tracking is a simple and effective tool. First, it is important to choose the suitable option of time tracking tools that suit each case to see how employees are using their time. then results must be compared between employees with similar tasks to have an average and use it as a guide. (Holton, 2019)

- **Measure by profit**

  It is said to be one of the most effective tools for measuring productivity of employees and it can be used in small and medium businesses. If the revenue is

increasing, according to this technique, it means that employees are more productive. "As business consultant Roger Bryan of RCBryan & Associates says, "Watch the money, and everything will fall in line". Michael Hsu, the founder of DeepSky accounting firm, reportedly agrees to this methodology. "Results and value-add trump hours of work any day of the week" he believes". (N Task Manager, n.d.)

There are some software programs that can be very useful tools nowadays to measure employee's productivity with the help of technology, some of these are: nTask, Producteev, Atlassian, Asana, Basecamp. These programs when chosen wisely according to the needs, can manage programs efficiently, they can keep track of tasks and performance, time taken, profit and other factors that help the HR area of companies to determine how much each worker contributes to the company's success or failure. (N Task Manager, s.f.)

There are also some methods that can be used in companies of all sizes and have been useful since long time ago, these are:

- **Establish a baseline**
  Each company has to determine what it is expected from every position; what targets want to be achieved so workers will know what is expected from them The company must also know how each worker can contribute to reaching the company's goal. (N Task Manager, s.f.)

- **Carry out a client survey**
  Clients' feedback helps track down the performance employees are giving, time to time it is good to ask clients several questions about the product or service they are buying and how they feel about the employee's work. (N Task Manager, s.f.)

- **Track individual progress**
  It is important to track results and progress of each worker mostly in bigger companies to determine who is being productive and who is procrastinating or not focusing. A good and effective method is to request daily updates at the end of the day, this lets each employee work at their own pace but reminding that they have to complete tasks. (N Task Manager, s.f.)

- **Provide feedback**

Although we know that employees have to complete tasks, reach objectives and contribute to the company's goal, providing feedback is important for workers because it motivates them by letting them know how they are doing in their position, what aspects are good and what they need to improve. It also helps workers ask questions that maybe don't come up before. (Holton, 2019)

For companies, it is important as an organization to be productive to achieve sales, objectives and grow but for this to happen, employees have to be motivated and be productive as well because employees' performance is critical to the overall success of companies.

After describing what productivity is, the types of productivity and naming all the advantages that productivity has, it is crucial to understand the importance of employees' productivity in companies. There are reasons to answer why companies look for productive workers, why they want to motivate their workers and even measure productivity in their companies.

In simple words, if employees are not being productive, they are not motivated and are not connected with their objectives and tasks, this has a negative impact on the culture of the business and other workers as well. "Productivity helps to improve customer relationships. When productivity is elevated, companies will likely see their customers much happier with the turnaround time and overall efficiency. Customer satisfaction is a key component in a successful organization." (First Digital, 2021) When employees are productive, they are happy at their workplace they will be more willing to be involved in organizational activities and motivate co-workers, they are less likely to be frustrated. So, as a long term result, the importance of employees' productivity relies on achieving objectives from each worker and for the company as well which means that it will have a positive impact in business costs, saving money and time and of course greater output. (First Digital, 2021)

As we know and with years it has become more notorious, employees are the company's greatest resource so investing in them and the environment they work in will help positively the business. Some ways to increase productivity in the workplace are: train and develop employees, match tasks to skills and improve communications, just to mention some. (First Digital, 2021)

3 Practical part

In this part of the thesis, I will give detailed information about the methodology that is going to be used which is Grounded Theory and also narrative analysis and linear regression methods and why they are appropriate for this study. The analysis will be carried out as a case study in the company Icon Communication Center, a multilingual call center specialized in inside sales and management customer experiences for B2B brands, located in Prague since 2003. The guide questions for the interviews and online survey will be mentioned as well as the obtained results that will help answer the question, are workers more productive working from home?

3.1 Research Methodology: Narrative Analysis

As part of the methodology, because both quantitative and qualitative data will be collected and analyzed, I will use narrative and weighted scoring methods. These will be described below:

Narrative analysis is described as "a genre of analytic frames whereby researchers interpret stories that are told within the context of research and/or are shared in everyday life" (Allen, 2017) This method will be used to analyze data given by workers interviewed from the company Icon Communication Centre in the case study. Information given will lead to making interpretations and conclusions from answers and also comments heard in the focus group, some elements relevant to the thesis topic will be the references such as opinions about home office, productivity both at the office or working from home, preferences, etc. (Allen, 2017)

As a way to structure data for analysis, qualitative coding method will be used in this thesis. Qualitative coding is defined as "a process of systematically categorizing excerpts in your qualitative data in order to find themes and patterns" (Delve Tool, 2019). This method allows to interpret, organize and structure observations and interpretations into meaningful theories or conclusions to be critical. It also enables the author to find insights that are accurate representations of the collected data providing transparency and validity. The process of coding qualitative data involves reading through the obtained data, applying codes to excerpts or sections, conduct various rounds of coding, grouping codes according to themes and finally make interpretations that lead to conclusions of the findings. According to Delve

Tool Solutions, the way that qualitative data is coded depends on the author and the approach, there is not correct or incorrect way to code a set of data. (Delve Tool, 2019)

In this thesis, semi-structured data from the focus discussion groups and the semi-structured interviews will be coded using the qualitative coding method. Specifically, the coding method will be applied because it suits the methodology of the work, it is recommended to use when there are specific questions and topics that the author wants to ask, when conducting semi-structured interviews to multiple participants and also in focus groups. (Delve Tool, 2019) Following the steps of structural coding, after conducting the semi-structured interview and focus discussion groups where conversations were recorded to be able to make transcripts, transcripts will be read. Notes about relevant information of the topic of the thesis and the research questions such as phrases, opinions, concepts and commentaries will be coded. Finally, after reviewing the codes and information gathered, they are turned into categories to draw conclusions.

Weighted scoring method is a framework that has the aim of helping prioritize tasks or elements by assigning a numeric value based on certain characteristics according to the research study being carried out. "Weights assigned to criteria in multi-criteria evaluation has both qualitative and quantitative data to make sure that the weight is taking into account for better and more accurate decision making." (Department of Mechanical Engineering Delta State University, 2019) Weights classification can be grouped into three categories: subjective, objective and integrated, the objective weight is based gathered information from mathematical models without any consideration of the decision makers' intervention but even attempts that are done very carefully can be inaccurate. Subjective weigh determination "is based on expert opinion to get the subjective judgments, analyst normally presents the decision makers a set of questions in the process. However, subjective criteria weight determination is often time-consuming specially when there is no agreement between decision makers of the problem under consideration". (Department of Mechanical Engineering Delta State University, 2019) The integrated weighting method is based in the combination of subjective and objective weighting, it focuses on integrating experts' opinion due to their knowledge in the relevant field and information gathered from data in a mathematical form.

In this thesis, after collecting data from interviews and an online survey, the point allocating method will be used as a subjective weighting method. This simple method to determine

criteria weight consists on giving a certain number of points to each criteria according to priority, a decision-maker must allocate a certain number of points to each criterion which in total will sum up to 100. The more points a criterion receives, the more important it is for the person. (Department of Mechanical Engineering Delta State University, 2019)

So, in the case study, the persons interviewed that are the sales manager and the team leader of one campaign will be given certain aspects to put in priority order and they must give numbers to each one and sum up 100 so that I can identify what aspects of home office and productivity they consider most and least important. In the online survey, one of the questions asks to place in order of priority what aspects they think are more relevant about home office and productivity.

3.2   Analytical Framework: Grounded Theory

Grounded theory is a general research method "which guides you on matters of data collection and details rigorous procedures for data analysis. You can use quantitative data; or qualitative data of any type e.g. video, images, text, observations, spoken word etc." (Scott, 2009) It is a tool that enables the author to seek out and conceptualize structures, group behavior and social patterns which are called social processes of the area of interest or case study through comparison. Grounded theory is characterized by social processes discovered in the data, data collection and analysis that occur simultaneously and categories integrated into a theoretical framework. Once the area that is going to be studied is identified, analytical procedures and sampling strategies are used before theoretical sampling method is reached. Data collected can be both qualitative or quantitative or even a combination of both, some methods used are interviews using open-ended questions as well as observation and focus groups.   (Noble & Mitchell, 2018)

This methodology is appropriate for the thesis study carried out due to its structured but flexible methodology that allows to collect and analyze data of a specific area, in this case social behavior or social process to compare answers obtained from interviews, surveys and observation of workers of a company with other researches and studies carried out by other organizations and studies around the world which after can be interpreted.

3.3   Analytical framework 2: Statistical analysis

With recovered data mentioned from secondary sources, I will use the linear regression method to do some forecasts and estimate the trends of data given about the following statistics: Annual turnover in e-commerce in the Czech Republic from 2010 and Percentage of employed people usually working from home in Czech Republic since 2017.

Linear regression is a model for statistical analysis which "attempts to model the relationship between two variables by fitting a linear equation to observed data. One variable is considered to be an explanatory variable, and the other is considered to be a dependent variable". (YALE EDU, 2006)

In this thesis, due to the study of home office in the e-commerce field I consider important to use this model to analyze the trends for future years about percentage of employed people usually working from home in Czech Republic and the E-commerce turnover in the Czech Republic to conclude all the analysis that has also been done in the previous chapter.

According to the McKinsey Global Institute, e-commerce in countries like UK, China, US, Spain, Germany, India, France and Japan, consumers are shifting to online shopping during the pandemic in 2019 and 2020 that is why e-commerce has grown two to five times faster than before the Covid-19 pandemic started. (Lund, Madgavkar, Mischke, & Remes, 2021) As the case study of this thesis analyzes a company in Prague, Czech Republic, I estimated the growth of e-commerce in the country using the linear regression model to determine if in the country the trend will also apply.

Annual turnover in e-commerce in the Czech Republic from 2010 to 2023		
Time series	**Year**	**Annual turnover (in billion Czech koruna)**
1	2010	33
2	2011	44
3	2012	51
4	2013	58
5	2014	67
6	2015	81
7	2016	100
8	2017	115
9	2018	138
10	2019	155
11	2020	196
12	*2021*	*185*
13	*2022*	*200*
14	*2023*	*216*
*years 2021, 2022 and 2023 are estimates using the linear regression model		

Table 1 Annual turnover in e-commerce in the Czech Republic - Own creation - Source Statista 2020
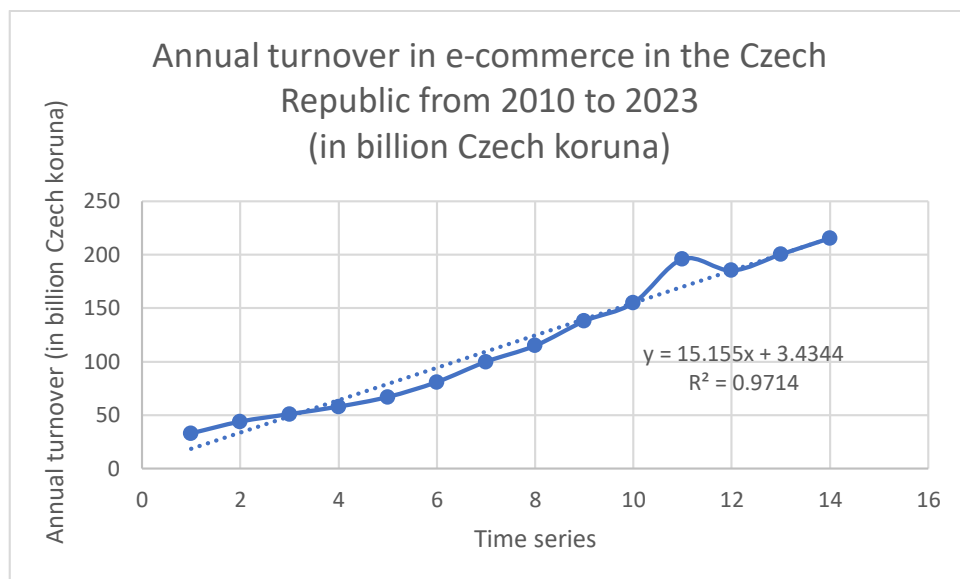
Figure 15 Annual turnover in e-commerce in the Czech Republic - Own creation using linear regression model

The estimates show that after the drastic increase between 2019 and 2020, in 2021 e-commerce in the Czech Republic decreased but in 2022 and 2023 it will grow reaching the

highest figures in history. This can be explained due to the Covid-19 pandemic lockdowns and changes that occurred in 2020 when there were lockdowns and people were recently adapting to the changes. So the trend is that e-commerce will grow almost every year in the country, this benefits the analyzed company in the case study ICON Communication Centres so they have to expect continuous growth in future years.

Another factor that was analyzed using the linear regression model was the percentage of people that works usually from home in Czechia. European Statistics show that in 2017 3.9% of employed people usually worked from home in the country (European Statistics, 2018), in 2018 the Czech Republic was below the European average but shows an increase compared to year before with 4% (European Statistics, 2018). The same source shows that in 2019 the percentage was 4.6% and according to Statista in 2020 this percentage of Czechia increased significantly reaching 7.2%. (Clark, 2021) After the linear regression model was applied, estimations show that more workers will work from home every year. Of course between 2019 and 2020 there was again a drastic increase due to the Covid-19 effects which obliged workers to do home office during lockdowns.

Percentage of employed people usually working from home in Czech Republic		
Time series	Year	Percentage (%)
1	2017	3.9
2	2018	4
3	2019	4.6
4	2020	7.2
5	2021	7.55
6	2022	8.6
7	2023	9.65
*years 2021, 2022 and 2023 are estimates using the linear regression model		

Table 2 Percentage of employed people usually working from home in Czech Republic - Own creation
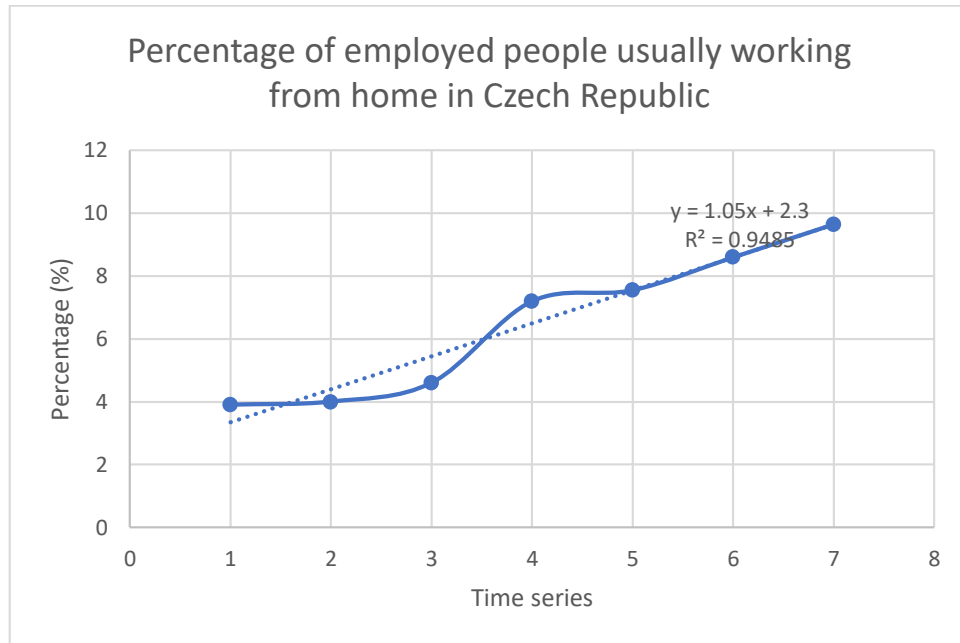
Figure 16 Percentage of employed people usually working from home in Czech Republic - Own creation using linear regression model

3.4 Data collection

3.4.1 Survey and semi - structured interviews

For this thesis, a case study will be carried out in the company ICON Communication Centre which dedicates to provide B2B inside sales and account management for companies. I will interview the sales manager of the Vonage Campaign, Juan Gonzales and the team leader of the TLC Marketing Campaign called Anastasia Levcheenko, to understand the point of view as a manager. Semi-structured interviews are a qualitative data collection strategy or method that relies on conversations in which the interviewer wants to find out information about a specific topic asking listed questions but also adding questions to the interview without a specific order or need of predetermined format. (Miles & Gilbert, 2005) I consider this method suitable for this study because their flexibility allows asking questions according to the need of the study without a specific order or format, it also is a versatile way of collecting data and an appropriate method to find out why rather than how many or how many specific questions. (Miles & Gilbert, 2005)

I will also conduct a focus discussion group with 8 workers from the sales and customer service department from the TLC Marketing Campaign to listen more opinions about how they feel experiencing home office, their productivity working from home, working preferences and if they think working from home has improved their productivity. Focus

discussion groups are a qualitative research method that involves a focus on a specific subject and an interactive discussion between a predetermined group of six to eight people. (Hennink, 2014) I think this method is applicable in this study because it allows participants express their opinions and views about a certain topic in a comfortable environment, they are guided by a moderator who helps participants feel comfortable to share their opinions without judgments. The aim of the method which is to "identify a range of perspectives on a research topic and to gain an understanding of the issues from the perspective of the participants themselves" (Hennink, 2014) complements the aim of the study which is to know how workers feel about their productivity when doing home office and their thoughts about how Covid-19 has affected the e-commerce industry.

As it was previously mentioned, qualitative coding method will be used in this thesis to organize information gathered from the semi-structured interviews and focus discussion groups. The codes and categories analyzed are: home office productivity, advantages of home office, disadvantages of home office, working habits, flexibility, improved productivity, change.

Finally, to have additional information I will complement the research with an online survey of seventeen questions to ten workers from the sales and customer service departments from the Vonage Campaign, this online survey is developed in Google forms. This information collection method has limitations because, as I mentioned, only ten people answered the online survey out to complement the responses. The limitations exist because the company does not have more workers in the customer service and TLC Marketing areas, so the responses of the two existing teams that are Vonage Campaign in the online survey and TLC Digital Marketing Campaign in the focus discussion group are analyzed. I consider Google forms a suitable and efficient platform for this case because it allows creating a survey with an unlimited number of questions, questions can have different types of responses, answers from respondents can be seen in real time, it is a free tool and can be easily sent as a link to people. It also shows responses as charts and they can be downloaded.

The guides for the semi – structured interview, topics and questions asked in the focus discussion group and questions from the online survey are detailed in the appendices. But, I will give an overview of how they will be carried out.

In the semi – structured interview, I will talk to the sales manager of the Vonage Team, Juan Gonzales and the team leader of the TLC Campaign Anastasia Levcheenko. I will start the interview asking about how long they have been working at the office, their thoughts about home office, changing working habits due to Covid-19, also I will ask if they think workers have improved their productivity since they started working from home and if the company gives flexibility to their employees, between other questions.

In the focus discussion group, I will introduce myself before explaining the thesis topic and tell them that the objective is to determine if home office improves workers' productivity or not after analyzing primary and secondary data among other aspects about working habits. Then, I will ask each interviewee to explain for how long they have been working at the company and in what area they work. Then, I will ask them what do they think about home office before and after Covid-19, if their idea of it has changed, if they have worked from home already before the pandemic or not, also I will ask them what advantages and disadvantages they consider home office has, what they think of working at the office. I will finish the discussion asking if they think home office improves their productivity or not, if they are comfortable with the flexibility the company gives and whether they consider better working at home or at the office nowadays.

The online survey will be sent to ten workers from the sales and customer service area in the Vonage campaign of the company ICON Communication Centres. The survey has seventeen questions and is developed in Google forms. Each question has either options to select or spaces to write the answers, the questions have the aim to determine what workers think about home office, if they have worked from office before the pandemic, if they think home office has increased their productivity or not, if they feel more motivated at the office and if the company they work at would not give flexibility would they look for another job? The questions also include asking their ideal balance in days of working at home of at the office and finally to order according to importance some factors they consider more or less important in home office. Also questions include asking what advantages and disadvantages they think both home office and working at the office has and what they prefer. These questions are going to let me determine if employees think that home office increases their productivity or not, their preferences and compare these results with other surveys and data obtained from other external sources.

Data collection method	Name	Job title	Role in the company
Interview	Juan Gonzales	Sales manager - Vonage Campaign	Design and implement strategic plan, set objectives and coach the team.
Interview	Anastasia Lecheenko	Team leader – TLC Marketing Campaign	Motivate and monitor the team, implement the strategic plan, provide guidance to the team.
Online survey	Rebekah Jacob	Customer care specialist – Vonage Campaign	Retain and attract customers in a high rate, give solutions to clients, meet company´s KPIs.
Online Survey	Lewis Hurst	Customer care specialist – Vonage Campaign	Retain and attract customers in a high rate, give solutions to clients, meet company´s KPIs.
Online survey	Allan Jones	Sales trainer – Vonage Campaign	Implement and evaluate training and development programs for company sales team
Online survey	Illian Ambrosio	Communications specialist – Vonage Campaign	Build and maintain business relationships with the clients, meet company's KPIs, retain and attract customers.
Online survey	Charlotte Wood	Team Leader – Vonage Campaign	Implement the strategic plan, provide support for the team, motivate the team to reach goals.
Online survey	Camilo Rivera	Communications specialist – Vonage Campaign	Build and maintain business relationships with the clients, meet company's KPIs, retain and attract customers.
Online survey	Patrick Holt	Communication specialist- Vonage Campaign	Build and maintain business relationships with the clients, meet company's KPIs, retain and attract customers.
Online survey	Nicolas Garcia	Customer care specialist – Vonage Campaign	Retain and attract customers in a high rate, give solutions to clients, meet company´s KPIs.
Online survey	Shushan Nicola	Customer care specialist – Vonage Campaign	Retain and attract customers in a high rate,

			give solutions to clients, meet company´s KPIs.
Online Survey	Fernando Torres	Communication specialist- Vonage Campaign	Build and maintain business relationships with the clients, meet company's KPIs, retain and attract customers.
Focus group	Samir Eid	Customer care specialist – TLC Marketing Campaign	Retain and attract customers in a high rate, give solutions to clients, meet company´s KPIs.
Focus group	Saleh Mohammed	Sales specialist – TLC Marketing Campaign	Perform market research, prepare sales forecasts, implement sales strategy, attract customers with offers.
Focus group	Ketevan Gvniashi	Sales specialist – TLC Marketing Campaign	Perform market research, prepare sales forecasts, implement sales strategy, attract customers with offers.
Focus group	Enrique Roca	Customer care specialist – TLC Marketing Campaign	Retain and attract customers in a high rate, give solutions to clients, meet company´s KPIs.
Focus group	Michael Brown	Sales trainer – TLC Marketing Campaign	Implement and evaluate training and development programs for company sales team
Focus group	Andres Hurtado	Sales specialist – TLC Marketing Campaign	Perform market research, prepare sales forecasts, implement sales strategy, attract customers with offers.
Focus group	Michaela valova	Customer care specialist – TLC Marketing Campaign	Retain and attract customers in a high rate, give solutions to clients, meet company´s KPIs.
Focus group	Adela Mitova	Customer care specialist – TLC Marketing Campaign	Retain and attract customers in a high rate, give solutions to clients, meet company´s KPIs.

Table 3 Interview and online survey data

3.4.2 Introducing the case study

As it was aforementioned, for this thesis, data collected from the company ICON Communication Centres will be used for the case study which is located in Prague, Czech Republic which is a multilingual BPO and call center that specializes in inside sales and

account management customer experiences for B2B brands. The company was established in 2003 in Prague and offers three main services, B2B management, B2B inside sales and BPO multilingual solutions.

As the author, I will collect data from managers and workers of the sales and customer services department from the Vonage and TLC Campaigns of the company following the Grounded Theory method to analyze data. This case study and data collection are relevant for this study because responses from workers and managers at the company will be taken into consideration to answer the main research question and determine if workers are more productive working from home, after comparing results from the interview, focus discussion group and online survey with answers from other researches, studies and surveys done by organizations.

3.5   Results and discussion

In the following lines, results and responses obtained from the interview, focus discussion group and the online survey will be mentioned.

First, in the semi-structured interview I talked to the sales manager, Juan Gonzales and also the sales team leader, Anastasia Levcheenko. Juan has been working at the company since 2012 and Anastasia since 2018, they mention that in the last years there have been many changes in terms of sales, technological advances and of course change in working habits and the way both employers and employees experience were to work at and how. Both agree that before the Covid-19 pandemic started, the company´s policy didn't include home office as an option for workers and that everybody worked in the same building but during the pandemic they had to learn as managers to work from home and also to communicate with their workers and organize how their team will complete their tasks. Juan says "years ago I wouldn't even imagine myself working from my house and even worse thinking about the company with employees who are working from home until further notice nowadays" (Gonzales, 2022) . So yes, during lockdowns everybody worked from home, only managers and team leaders went to the office somedays, last year we returned to work to the office by groups and assigning different days to come to the office but now we returned to home office full time and will continue to do so until further notice. "I can affirm that the pandemic taught us that working from home is not detrimental to the productivity of workers, but rather that

we must learn to correctly adapt communication, tasks and motivate our workers in a different way than we were used to" (Levcheenko, 2022) .

Anastasia mentions that they realized "there are advantages for the company such as costs reduction and the need of less physical space to work as a result of home office but also some disadvantages like the lack of motivation, team feeling and difficulties to train and also communicate with workers" (Levcheenko, 2022). But they say that with time, workers have learned to balance their family time and responsibilities with working hours in a better way. "the company knows and understands that it is difficult to concentrate at home when there are children involved for example" (Levcheenko, 2022) Ana says. When talking specifically about whether they think working from home increase workers' productivity or not, they say that when workers started to work from home in the beginning of 2020 it was very difficult and we were struggling reaching objectives and sales but now workers manage their time and do their work, "even most workers prefer to work some days from home but we all know the team feeling, motivation and experience from working along with others in the same area is crucial and very important for sales and it can't be fully experienced when doing home office" (Gonzales, 2022) Juan mentions.

Finally, when talking about future trends they agree that home office is a trend that will not disappear in the future, otherwise it will increase and that workers feel happy when the company gives flexibility and opportunity to manage their own time. Juan states that "yes, home office will be the new method of working for the majority of our employees". (Gonzales, 2022)

Each of the interviewees was asked to give a qualification to each factor, these factors are advantages of home office, the greater the qualification to the factor the more important is considered to them and it must add 100. Results can be seen below.

Answers – Juan Gonzales

Factor	Qualification
Less commute stress	20
Save money	30
Flexibility	30
More decision autonomy	5
Better work-life balance	15
Total	100

Table 4 Answers 1 from semi-structured interview – Own creation

Answers - Anastasia Levcheenko

Factor	Qualification
Less commute stress	20
Save money	20
Flexibility	40
More decision autonomy	10
Better work-life balance	10
Total	100

Table 5 Answers 2 from semi-structured interview - Own creation

As evidence from the PwC source Remote Work Survey demonstrates, 44% of employers said that productivity improved over the prolonged work-from-home period in June 2020 and it increased to 52% the same questions for employers in December 2020. On the recent research done by Mercer, an HR and workplace benefits consulting firm, 60% of employers say they are letting parents adjust their schedule to let them accommodate their caregiving responsibilities during the day but they affirm that "sustaining this level of flexibility at scale will require a transformation of people, processes and infrastructure to ensure that employers maintain—or enhance—the employee experience in a flexible environment and deliver key outcomes such as engagement and productivity." (Maurer, 2020)

Another important factor to mention is that 83% of employers said in January 2021 that remote work has been successful for their company but they anticipated that workers would like to return to offices faster than what employees want. So, I can assume that employers

are continually changing or adapting their minds about having their employees working from home because of the drastic change due to the pandemic, although home office has been increasing in the last decade was a huge change for everybody. As Lauren Mason, a principal and senior consultant at Mercer said "Historically, there has been a perception in many organizations that if employees were not seen, they weren't working—or at least not as effectively as they would in the office," (Maurer, 2020) But companies are realizing the due to the ongoing pandemic they have to adapt to the reality and also are seeing that workers prefer flexibility and working from home at least some days of the week so the right balance has to be found to maintain or increase workers motivated that do their job, enjoy working and increase productivity because the trend is that home office is here to stay.

Productivity improved over prolonged work-from-home period

■ June survey - more productive remotely   ■ December survey - more productive remotely

Employers

44%

52%

Employees

28%

34%
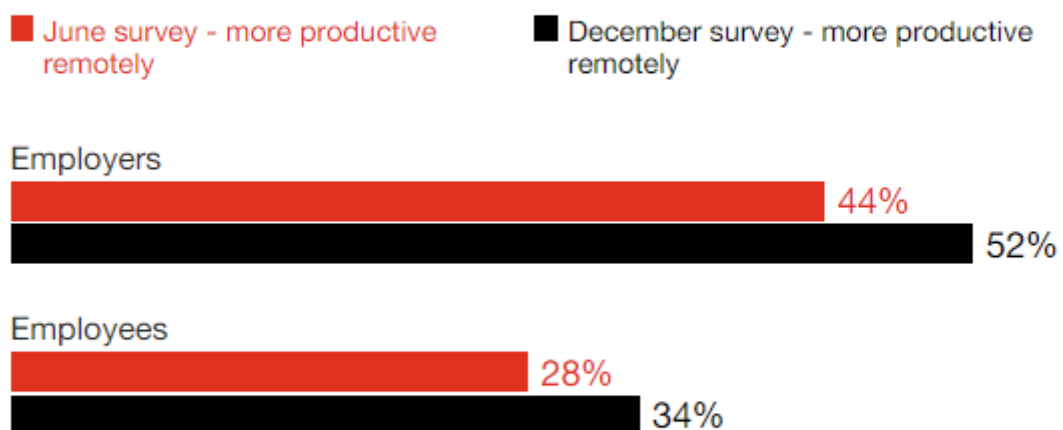
Q: Which of the following best describes your productivity working remotely compared to before COVID-19?
Q: How has average employee productivity changed (compared to pre-COVID-19)? (Responding 'more productive' and 'much more productive')
Source: PwC US Remote Work Survey
June 25, 2020, Base: 118 US executives, 1,200 US office workers
January 12, 2021. Base: 132 US executives, 1,200 US office workers

Figure 17 Productivity improved over prolonged work-from-home period - Source " (PWC, 2021)"

As the report from the McKinsey Global Institute says, consumers are shifting to digital channels, it occurred during the pandemic between 2019 and 2020 when E-commerce grew between two to five times and it will continue to do so (Lund, Madgavkar, Mischke, & Remes, 2021). The good thing is that the company ICON Communication Centre is adapting

to the trends to compete in the market and continue to be a solution for other companies as the interviewees say.

After analyzing the given results in the table, the interviewees mention as the most important advantages of home office, the factors flexibility and saving money. From the point of view of manager or leader the fact that the company saves money when workers are working from home is obvious, sources like First Tech Digital mention the same that employers see as an advantage that costs in rents for physical space and others in the office decrease which is beneficial for the company. Less commute stress and better life-work balance is qualificator as the second more important factors for Juan and Anastasia and the last one is decision autonomy. I think that saving money is an important advantage for both companies and workers about home office. Companies don't need so much physical spaces when workers are working from home and workers save money and time because they don't need to commute from home to work every day and even clothing can be more informal from home if there are no virtual meetings in the day. For workers it can be stressful to travel every day to get to the office on time, so when workers stay at home full time or at least some days of the week they may feel that stress is less than going to the office.

Continuing, the focus discussion group that I conducted was carried out with some workers from the Company ICON Communication Centre from the sales and customer service departments of the TLC Marketing Campaign. First, everyone introduced themselves saying for how long they have been working at the company and the area they work at, more than half of the workers told they have been at the company for less than a year and others have been working there between one and three years. When I started asking about their working experiences before and after the pandemic, only one person said that he used to work at home office full time and the rest said that before the pandemic they worked at the office but everyone agreed that the Covid-19 pandemic obliged companies to apply home office as a working method during lockdowns because there was no other option and that now the company is being more flexible than before with their employees.

In the discussion, the majority of workers say that they like more the way companies are treating employees now because they are given more days to work at home than before or even are working every day from home, which is the case of the company actually, and this allows them to manage their own time Saleh Mohammed says, "Since the Covid-19 pandemic started, we have more flexibility to work from home during lockdowns and we

can spend more time with our families, save money and time and also learn from taking autonomous decisions". (Mohammed, 2022)   When asking about the advantages and disadvantages for both home office and working at the office, surprisingly workers from the sales department and the ones that work at the customer service area had different opinions. Workers from the sales department say they prefer to work more days of the week at the office and fewer days from home because they feel a lack of motivation and team feeling frequently when doing home office. They say that being around coworkers encourages them in a positive way and they feel lonely at home, but they also mention that with time they have improved their working habits and organized to keep communicating between themselves using social media apps and meeting platforms. Ketevan Gvniashi says "As a sales specialist I agree with my coworkers, we had difficulties when we started working from home because we weren't used to work at our owns and I felt unmotivated but then we started to organize with the team having meeting or calls to keep updated and help each other" (Gvniashi, 2022)   On the other side, workers from the customer service department say they prefer to work more days from home or even every day because they are more comfortable and at a quieter place which helps them with their tasks. The majority agree that working at the office sometimes distracts them and have difficulties concentrating but from home they even attend more clients because there are no distractions. Samir Eid mentioned "I know that being at the office feels different because we feel part of the team but when I work from home I realize that I can attend many more costumers because there are no distractions of conversations that distract me". (Eid, 2022)

Some workers of the group mentioned that they also felt lonely and missed being around coworkers to help each other and receive immediate help and responses from the supervisor but it is not every day. When asking if they think home office has increased their productivity or not, more than half of people from the group say yes arguing that they feel more productive because they feel more autonomous, they can manage their own time, their work-life balance has improved and also they save money and time but they miss the team feeling. People that voted for no, argue that they are not against working from home but they prefer to work more days of the week at the office and one or two days at home. At the end of the discussion they told me they are comfortable with flexibility that actually the company gives their workers but they hope they can return to the office at some point but keep the flexibility to do home office some days of the week. Persons from the group that have kids agree that working from home has been difficult at the beginning but they are happy now because they

can spend more time with their family and that is one factor that maybe if the company eliminates the option of working from home may cause them to look for another job.

I assume that workers after experiencing home office have realized that flexibility gives them the opportunity to be more autonomous and take decisions on their own, saving time and money from commuting, spend more time alone or with their family, aspects that encourage them to discover that mentally they feel less stressed and they can manage their work-life balance in a better way. The majority of workers from the focus group haven't experienced working from home before so it was a new habit for them and it was positive because they also realized some advantages of working at the office such as feeling alone and missing coworkers but they learned how to solve problems on their own and understand that balancing work and personal life in a good way improves their health.

Finally, the online survey was answered by ten people, six of them had between 21 and 25 years old and the other four were between 41 and 51 years old. Their job positions at the company vary, they mention they work as team leader, customer care specialist, sales trainer and communications specialist. Most of the workers (83%) have been working at the company for less than one year and only 17% worked between one and four years.

Questions 2 and 3 from the survey which ask if once the pandemic started they started working from home and if before the pandemic started how often they used to work from home, show that the majority (66.7%) started working from home once the Covid-19 pandemic started in 2020 as a result of obliged lockdowns in the country and in the world. It is important to mention that before the pandemic started 50% or workers never experienced working from home and just 33.3% worked sometimes at home and 16.7% worked from home every day. This shows that people that never worked at home changed their working habits as a result of the pandemic. Answers can be seen in the chart below.

2. Once the Covid-19 pandemic started, did you start working from home?

- Yes
- No

33.3%

66.7%
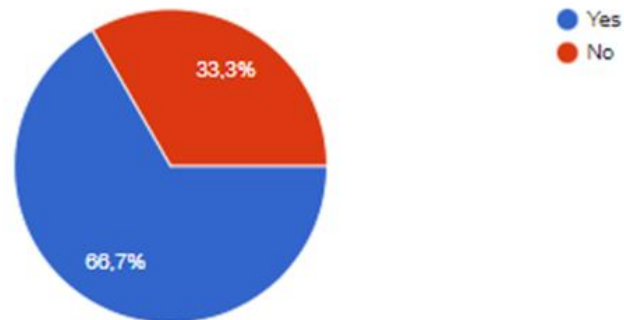
Figure 18 Own creation - data from an online survey

3. Before the Covid-19 pandemic started, how often did you work from home?

- Never
- Sometimes
- Always

33.3%

16.7%

50%
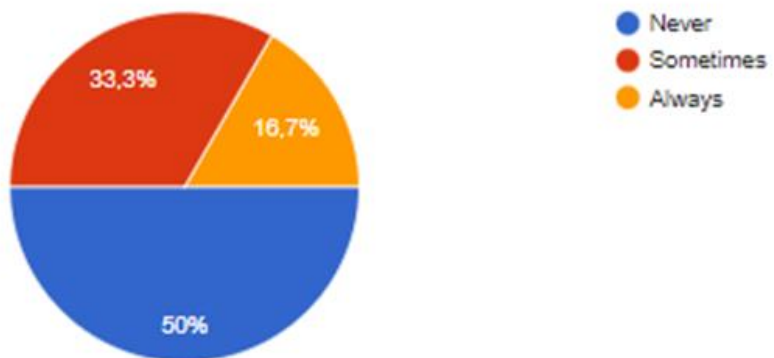
Figure 19 Own creation - data from an online survey

Question 4 asks if working from home has increased their productivity, an important number which is the majority (62.5%) says that yes, working from home increases their productivity. I consider it relevant to talk along about answers from questions 6 and 7 which also talk about productivity and motivation, question 6 asks if they believe working from home weakens their productivity and the majority tells that no, it doesn't and when asked in question 7 whether they feel more motivated when working at the office responses show 50% for yes and 50% for no. The HR and workplace consulting firm, Mercer, states that 94% of 800 employees said that productivity was the same or higher working remotely than at the office before the pandemic and 65% of workers say to the IPSOS Survey that they feel

more productive with a flexible work schedule (IPSOS Global Advisor, 2021) (PWC, 2021). So, I can conclude that workers feel that working from home does increase their productivity because their motivation is the same at the office or at home but they also feel that working from home doesn't affect negatively their productivity, on the contrary, it enhances it. In other words, I thing that productivity has been redefined in the general workspaces of E-commerce because the physical space in which workers develop their activites doesn't affect their motivation as the answers show but they do feel their productivity increases at home.

4. Has working from home increased your productivity?
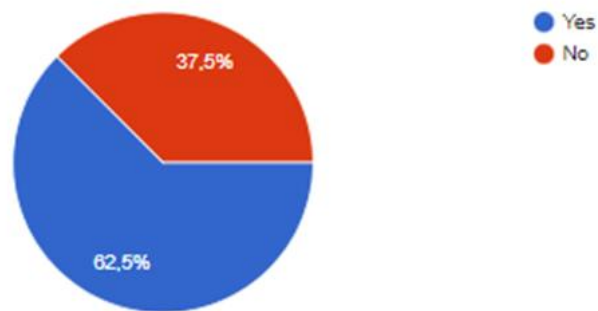
Figure 20 Own creation - data from online survey

7. Do you feel more motivated when working at the office?

6 respuestas
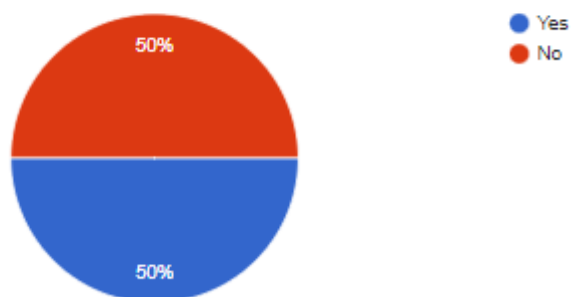
Figure 21 Own creation - data from online survey

6. Do you believe that working from home weakens your productivity?
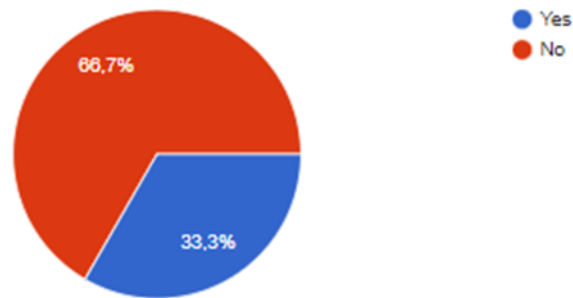
Figure 22 Own creation - data from online survey

Continuing talking about how and why workers may consider that working from home increases their productivity, the main advantages of home office they mention in question 9 and the most important aspects of home office in question 17 are: flexibility, saving money and time and fewer distractions.

When asking workers about the disadvantages they have experienced when working from home in question 8, they mention that loneliness and the lack of team feeling is a disadvantage which is also mentioned in question 5 when I asked them if they mess being around coworkers when working from home. It seems that being around coworkers is really important for some people to feel like part of the team, other disadvantages workers mention is boredom, lack of efficiency when solving problems and inability to focus when relatives are around. In the IPSOS Survey, 52% of the global average strongly and somewhat agree they miss being around coworkers. (IPSOS Global Advisor, 2021) Also the advantages of working at the office mentioned in question 16, show that being around coworkers helps people feel better as being part of the team, they also feel that the proximity with others help solve problems better and faster because the team leader is there in person to assist or colleagues who also help to solve problems and even learn from each other. So, boredom, feeling lonely and difficulties when solving problems can be considered the main disadvantages of home office. On the other hand, the main advantages of working at the office after reviewing answers from question 16 are team feeling, better and faster way to solve problems and motivation because they enjoy the atmosphere.

To determine the importance of home office as a new working habit, in question 10, I asked if they would consider looking for another job with the same salary and responsibilities if their employer would eliminate the option of working from home, responses show that the majority (80%) would consider looking for another job and only 20% would stay if their employer would not allow working from home. According to the IPSOS Global Survey, if employers expect workers to work away from home full time, 12% would strongly agree to consider looking for another job, 18% somewhat agree, 33% neither, 17% somewhat disagree and 20% strongly disagree. (IPSOS Global Advisor, 2021)

10. If your employer would eliminate the option of working from home, would you consider looking for another job with the same salary and responsibilities?
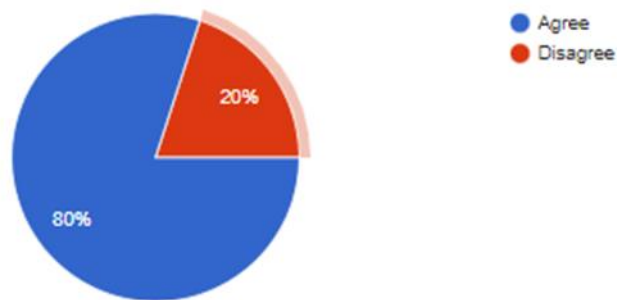
Figure 23 Own creation - data from online survey

It is important to mention that all the interviewees answered that the company still allows to work from home and when asked about what their ideal balance of working at the office and working from home would be in question 11, answers show that working 5 days at the office is not the ideal balance for anyone, 50% would prefer working 1-2 days at the office and the other days at home, 33.3% would like to work at home every day and 16.7% would like to work 3-4 days at the office. So, it will have a negative effect on the productivity and motivation for the company to eliminate the option of working from home because answers from the PwC US Remote Survey demonstrate that over half of employees want to work remotely three or more days per week. (PWC, 2021)

11. What would be the ideal balance between working at the office and from home once the Covid-19 restrictions have been lifted?

- 5 days per week at the office
- 1-2 days at the office
- 3-4 days at the office
- 0 days at the office

33,3%

16,7%

50%
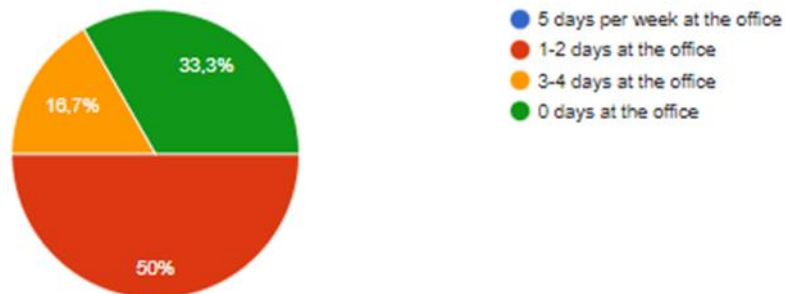
Figure 24 Own creation - data from online survey

In the theoretical part of the thesis, it was mentioned that there are different methods to verify that employees are completing their tasks and objectives because employers may feel that workers are not being productive, to answer this I asked some of the following questions. When asking in question 13 if workers believe if completing tasks is easier when working at the office of at home, 50% say that both are the same. And when asked if their employer applied some method to make sure they are completing their tasks when working at home, everybody mentions at least one method such as check tasks list, checking results on contracts, KPI's, constant communication verbal and written, so it means that tasks being completed can be easily tracked by employers by applying different methods that suit best in each case.

3.6 Limitations

I consider it relevant to mention that the investigation of the case study has a limitation in terms of the number of online surveys carried out. This type of information collection was carried out in a complementary way to the interviews and focus discussion group since it was sent to only 10 people. It is worth mentioning that these 10 people correspond to all the workers of the sales and customer service department from the Icon Communication center company of the Vonage campaign and that the focus group was applied with all the workers of the sales and customer service department of the TLC Marketing Campaign.

3.7 Recommendations and Conclusions

After having carried out all the theoretical and practical research in this thesis, in the following lines I will mention the conclusions reached and certain recommendations. To write conclusions and recommendations and organize gathered information, questions and topics for this semi-structured interview and focus discussion groups were coded using the qualitative coding method for narrative analysis, results shown in this section were coded and relevant themes found were: home office productivity, advantages of home office, disadvantages of home office, change, working habits and Covid-19.

Undoubtedly, e-commerce is one of the few industries that has benefited from the Covid-19 pandemic, aside from health care and medicine. (Vitale, Cyron, Michaud, & Riegel, 2020) As a result of lockdowns and restrictions to protect the population's health, consumers around the world shifted to digital channels during the pandemic between 2019 and 2020 which caused E-commerce to grow two to five times faster than the five previous years (2015 – 2019). (Lund, Madgavkar, Mischke, & Remes, 2021) So, according to these sources and data from Statista in the field of E-commerce in the Czech Republic, the estimations made using the linear regression method show that in 2021 there was a little decrease compared to the year before because of the drastic increase caused by the pandemic but years 2022 and 2023 will reach the highest figures ever reported since data from 2010 and the trend is that E-commerce will continue growing in the future. The interviewee Anastasia Levchenko from the ICON Communication Centre says that she believes home office is a trend that will not disappear in the future.

Referring to working habits, I concluded that they did change as an effect of the pandemic in the field of e-commerce because the interviewees Juan and Anastasia from the Icon Communication Center company said that they believe working habits changed since both the company and the workers had to quickly adapt to working from home every day during several months in 2020 and again now in 2021 as an effect of Covid-19. In addition, 66.7% of workers from the company that answered the online survey assured that they started to work from home once the pandemic started and 50% never worked from home before. Also, in the focus group, participants said that they consider their working habits have changed because they feel more organized now that the company gives flexibility to do home office and digital platforms and apps help them to communicate with each other.

Continuing on the subject of change in working habits, after analyzing data from European Statistics and Statista, it is evident that the number of people who work from home has been

increasing in the last six years in the world. Specifically talking about the Czech Republic, there was a significant increase of employed people that work usually from home between 2019 (4.6%) and 2020 (7.2%). After using the linear regression model, estimations show that home office in the country will continue to increase each year. This conclusion is supported also by the preferences of workers that demonstrate that after the Covid-19 pandemic is contained, they want to continue working from home more often. For example, based on a survey of 1.200 full-time employees in the US 43% want to work remotely more often and 8% are already working remotely full time. (Statista Resarch Deparment, s.f.) Workers that answered the online survey say that the ideal balance of working at home and at the office will be 1-2 days at the office (50%) and 33% said that the ideal balance will be 0 days at the office.

It is important to mention that eliminating the option of working from home can be a cause for workers to consider looking for another job, according to the IPSOS Global Survey, if employers expect workers to at the office full time, 12% would strongly agree to consider looking for another job, 18% somewhat agree, 33% neither, 17% somewhat disagree and 20% strongly disagree. (IPSOS Global Advisor, 2021) And when workers from the ICON Communication Centre were asked, 80% agreed that the would look for another job with the same salary and responsibilities if the company doesn't give flexibility. So, I would recommend that companies in the E-commerce field study the ideal balance to give workers flexibility to work at least 1 or 2 days of the week from home, after analyzing whether each job position has "cognitively demanding tasks or not". I mention this last condition because surprisingly workers from sales department and the ones from customer service area in the ICON Communication Centre company have different opinions and preferences on how many days they would like to work at home. workers from the sales department prefer to work more days at the office and fewer days from home because they feel a lack of motivation and team feeling frequently when doing home office. But workers from the customer service area prefer the opposite due to lack of concentration in the office and saving time and money when they stay at home and evidence from a call center in China demonstrates that "home is not an ideal place to develop cognitively demanding tasks". (Barrero, Bloom, & Davis, 2021)

Finally, to answer the research questions about how is productivity being redefined in the general workspaces of the E-commerce field and if there is significant difference between

productivity before and after the pandemic and what factors are they attributed, several reasons have been identified which I mention below.

The main advantages of home office identified from the semi-structured interviews, online survey and focus discussion groups were saving money and time, increase in productivity, flexibility, less commute stress and better work-life balance. According to other sources like HSBC, better work-life balance, flexibility and saving time and money are also the main advantages adding the advantage of freedom to live anywhere. (HSBC, 2021) A study done in Romania with 134 companies from the E-commerce industry concludes that "Telework has a positive impact on the perception of labor productivity of procurement employees in e-commerce companies, in the context of the pandemic." (Bunea, 2021) and that the factors that influence this are autonomy, working conditions and life satisfaction. On the other hand, when talking about productivity, findings from another study on 10,000 IT professionals during 17 months show that productivity has declined by 8% when working from home, they were less productive and worked more hours to try to compensate.

When referring specifically about whether home office has increased worker's productivity, the majority of workers from the case study answered "Yes" (62.5%), 66.7% answered that they don't believe working from home weakens their productivity but when they were asked if they feel more motivated working at the office 50% voted for no and 50% for yes. Also the interviewees said that when the Covid-19 pandemic started it was very difficult to communicate and continue with tasks when doing home office but with time employees have adapted and organized better. So, I can assume that home office does increase workers' productivity because there are many advantages that both workers and employers consider relevant but each company must determine the best measures and policies that adapt to each department and type of job.

The main disadvantages of home office mentioned in the interviews, focus group and online interview are loneliness and lack of team feeling. Adding to the disadvantages of home office in the E-commerce field, HSBC mentions that some disadvantages identified are needing a good internet connection, home distractions and feeling alone. (HSBC, 2021) Findings from another study on 10,000 IT professionals show that Women with children at home had a greater decline in productivity compared to men but men also suffered a decline so it might be due to demands placed on women when being at home adding the responsibility of taking care of children. Another result suggests that workers that are more adapted to the culture of

the company and internal processes perform better in working from home where there is not somebody available to help and advice. (Gibbs, Mengel, & Siemroth, 2021) It is important to mention that Anastasia in the interview told that she knows it is difficult to concentrate at home when there are children involved and workers also mention this in the focus group that having kids and working from home has been difficult to balance at first but now they are happy because they can spend more time with their family.

So after analyzing the evidence I conclude that loneliness and lack of team feeling are the main disadvantages of home office in the field of E-commerce and people that have children might organize themselves to balance working and taking care of their children so this doesn't become a problem in their development at work. I recommend that companies in the E-commerce field train their workers better in terms of internal processes, share their culture and add to their tasks activities that encourage teamwork and communication so that employees don't feel alone when they have doubts and questions. Experience and the time each employee has in the company are not relevant factors that affect productivity negatively.

I add to the conclusion that productivity has been redefined in the general workspaces of e-commerce as evidence shows, of course there are some exceptions that show the opposite but in less proportion and specifically on IT workers. Both workers and employers after experiencing almost for two years the effects of the Covid-19 pandemic such as changing or adding home office as a working habit have realized that there are main advantages like increase in productivity, flexibility, saving money and time and better work-life balance. The disadvantages of home office are loneliness and lack of teamwork but this can be solved if the company encourages teamwork and communication, define the optimum flexibility that adapts better to their company and departments in terms of how many days employees can work from home and also provide them better working conditions both at home and at the office.

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6 Appendix

Interview protocol (questions)

- How long have you worked in the company?
- What is your role at the company?
- What is the objective of the company?
- What do you think about the change in work habits caused by the Covid-19 pandemic?
- What do you think about home office? Do you think your thought about this has changed in the last few years?
- Do you think that your employees have increased their productivity since they started working from home?
- What is the company's position on the flexibility of working from home?
- Do you think that home-office is a trend that is here to stay?
- Do you think that for your employees it is important that the company offers the possibility of working from home?
- 17. In you have to give numbers to each of the following factors as advantage of home office, what do you think is more important for the company?
  (the higher the number, the more important. The total sum must give 100)

Factor	Qualification
Less commute stress	
Save money	
Flexibility	
More decision autonomy	
Better work-life balance	
Total	**100**

Focus discussion group

Guide topics and questions

- How long have you been working at the company?
- What do you think about home office before and after Covid-19
- Have you worked from home before the pandemic or not
- What advantages and disadvantages you can name of home office
- What advantages does working at the office has?
- Do you think home office has improved your productivity?
- Are you comfortable with the flexibility the company offers to employees?
- Give each factor a qualification (the higher the number, the more important and must sum up 100) for the following aspects or advantages of home office.

Survey Form

- Age
- What is your job position?
- 1. How long have you been working at the company?
- 2. Once the Covid-19 pandemic started, did you start working from home?
- 3. Before the Covid-19 pandemic started, how often did you work from home?
- 4. Has working from home increased your productivity?
- 5. Do you miss being at the office around your coworkers when working from home?
- 6. Do you believe that working from home weakens your productivity?
- 7. Do you feel more motivated when working at the office?
- 8. Name a disadvantage you have experienced when working from home
- 9. What is the main advantage of home office?
- 10. If your employer would eliminate the option of working from home, would you consider looking for another job with the same salary and responsibilities?
- 11. What would be the ideal balance between working at the office and from home once the Covid-19 restrictions have been lifted?

- 12. If you worked from home during the pandemic, is there any method your manager applied to make sure you have completed your tasks? If yes, can you explain it?
- 13. Do you believe that completing tasks is easier when working at the office or at home?
- 14. Does your company still allow you to work from home?
- 15. Do you think your working habits have changed due to the Covid-19 pandemic? If yes, can you explain how?
- 16. Name an advantage and a disadvantage of working at the office
- 17. Write from more important to less important the aspects you consider are an advantage of home office.   Example: 4,2,3,1,5
   1. Less commute stress
   2. Save money
   3. Flexibility
   4. More decision autonomy
   5. Better work-life balance