Role of e-commerce for the survival of food service industry during covid-19

Author
Sonia Sultana (19940809-T669)
Ashraful Islam (19890905-T818)

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Abstract

Title: Role of e-commerce for the survival of food service industry during covid-19

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Authors: Ashraful Islam and Sonia Sultana

Supervisor: Professor Akmal Hyder

Examiner: Dr. Olivia Kang

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Aim: The aim of the study is to examine the various factors involved in adopting an e-commerce platform to overcome the challenges of the covid-19 pandemic in food service industry.

Methods: For the research purpose, we have conceptually reviewed articles, books published in different journals, face-to-face interviews, and online surveys. As a methodology, we have used the qualitative method with an inductive approach. We have used primary data only from five intensive interviews in two companies located in Stockholm. We also collected data from the online survey.

Findings: Our research result was outstanding; we have found that the adoption of e-commerce for the foodservice company has a positive impact. This e-commerce platform helps to survive their business in this pandemic situation and contributes to overcome all the challenges faces by the covid-19 pandemic.

Contribution of the thesis: This study contributes to the literature of both challenges of covid-19 created by covid-19 and factors involved in adopting e-commerce platforms to overcome the challenges.

Suggestions for further research: This study is based on Sweden and we only used data from Sweden based restaurant, so, we suggest more extensive research on different type and location of the restaurant.

Key Words: Challenges of covid-19, adoption of e-commerce, online food order, health and safety, Pandemic, Social distance.
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1. Introduction

1.1 Background of the study

Pandemics seem to occur at 10–50-year intervals as a result of the emergence of new virus subtypes from virus re-assortment (Potter, 2001). Due to increase of world population, human living close to wild animal which will cause more pandemic like COVID-19 frequently in future (Naveen and Anders, 2020). We are in the middle of a pandemic and it is very hard to predict long-term effects on social and economic life. A particularly concerning aspect of the outlook is the humanitarian and economic toll the global recession will take on economies with extensive informal sectors that make up an estimated one-third of the GDP and about 70% of total employment in emerging market and developing economies (World Bank, 2020). Around the globe, societies are in lockdown, and citizens are asked to respect social distance and stay at home. As we are social beings, isolation may be harmful for us (Cacioppo and Hawkley, 2009). Many well-known companies have faced bankruptcy due to sales down.

Food-service outlets are facilities that serve meals and snacks for immediate consumption on site (food away from home) (Zeballos, 2020). This category includes full-service restaurants, fast food chains, caterers, some cafeterias, and other locations that cook, serve, and sell food for a profit to the general public. The modern concept of preparing food as a craft and a form of business can be traced all the way back to at least the 11th century with medieval guilds (Olver, 2000). Historians tell us the genesis of food service dates back to ancient times. Street vendors and public cooks (caterers) were readily available in Ancient Rome (Payne-Palacio and Theis, 2001, P-5-6). The restaurant is said to have been a by-product of the French Revolution, as we know it today. A result of the Industrial Revolution is the new food service. Technological developments have made mass food processing, rapid delivery of products, safer storage facilities, more efficient cooking appliances possible helps to grow this foodservice industry.

Foodservice industry is one of the largest in the world and the private sector's largest employer, and it continues to expand every year. It is projected that the revenue of food and beverage service activities in Sweden will amount to approximately 14,9 billion
U.S. Dollars by 2024. (Zendehroukhkermani, 2020). This industry contributes to some other related industry to grow. So, the existence of the restaurant industry is important for the local economy of a country.

Although we have faced many pandemics in past decades but, few studies have been done on the effect on the pandemic. The limited studies that do exist indicate that the major historical pandemics of the last millennium have typically been associated with subsequent low returns on assets (Jorda et al, 2020). The covid-19 pandemic outbreak has forced many businesses to close especially the foodservice business affected most. This traditional foodservice business-facing various short-term challenges such as health and safety, supply chain, cash flow, sales. However, several e-commerce - based companies have different pictures; they have seen rapid business growth during pandemic where other sectors such as tourism and hospitality have been totally demolished.

In recent years, with the rapid growth of Internet technology, the sophistication and advancement of e-Commerce have been further promoted, but the reach of e-Commerce services and applications has also been greatly expanded. Now many foodservice companies realized e-commerce adaptations will accelerate the growth of their company, and this platform can be easily adopted. The development of logistical support and simple internet contact with the customer makes this business platform more appealing to foodservice companies.

1.2 The rationale of the Study
The food service industry is one of the largest in many countries; this sector contributes to the creation of a large number of jobs in the economy. Consequently, this industry makes a particular contribution to people's socio-economic growth. A special component of the economy is employment; so, one of the major objectives of a nation is to create more jobs. The research examines the economic contribution of the foodservice industry in the economy. As an effect of the new covid-19, many restaurants face various problems and many restaurants are shutting down. Therefore, saving this industry is very important because
many people depend on this industry, the government; however, is giving support to all institutions, including foodservice company. We all know, however, that no industry will work for a long time only through government support. So, foodservice companies have to have their own strategic plan for sales growth. With concerted efforts, e-commerce adaptation may able to sustain this large industry from this epidemic. In the current context, one of the major goals of every country is to hold the economy. The subject of our thesis is so relevant to the present economic crisis therefore this paper will contribute to the current economic growth, especially the food service industries.

1.3 Purpose of the study
The purpose of the study is to examine the various factors involved in adopting an e-commerce platform to overcome the challenges of the covid-19 pandemic in food service industry.

1.4 Research question
There are two research questions have been developed to answer research topics.

RQ1: What are the challenges foodservice companies faces under covid-19?

RQ2: How different factors influence the adoption of the e-commerce platform in foodservice companies in order to address the challenges faced by covid-19?

Two broad topics were discussed in this study, such as the impact of the pandemic on the food service industry and the adaptation of the e-commerce platform to reduce business losses. During the pandemic, a food service provider such as a restaurant has to deal with numerous difficulties, such as steady economic growth, manpower maintenance, and public health issues. On the other hand, for the second question, the adoption of an e-commerce platform is very important for restaurant owners to overcome all the challenges raised by the covid-19. As they are adopting e-commerce for the restaurant business, they have to take into consideration various factors involved like implementation process, technological skills, time, and maintenance, etc.
1.5 Research methodology
We have conducted a qualitative approach for our research study and we have used primary data from various sources, such as the internet, surveys, and interviews, books, journals. We have faced some limitations during the collation of data due to the Covid-19 pandemic. We have managed to interview several Sweden-based restaurants. Also, we have done an online survey on consumer perception of e-commerce or online food order and this survey was open to everyone from all over the world.

1.6 Structure of the study
The study will provide a guide-line to adoption of e-commerce platform and meet the all challenges facing by the food service company. This research is divided into six sections; first of all we will provide introduction of the research, in the second part will illustrate theoretical discussion of the research, in third section brief explanation of Data collection method, in the fourth section Empirical Study, in the fifth section Discussion and the last section conclusion

1.7 Limitation of the Study
First of all, due to current covid-19 pandemic situation, we have faced many difficulties to arrange face to face interview with company representative for our primary data collection. Secondly, our study has only been conducted on a food service company located in Sweden. Therefore, the results of the research may not be the same for other nation. Thirdly, due to a shortage of time, we could not use as much primary data as we wanted for this study.
2. Literature Review

In a pandemic situation, it is very difficult to maintain their business activities especially in the food service industry, where the physical consumer is a central part of the business activities. So, this literature part gives the theory to improve the food service industry. We have focused on how Food Service Company faces various challenges during the pandemic and how they can maintain business growth by adopting e-commerce solutions.

2.1 Challenges of food service industry in Covid-19:

2.1.1 Maintain Operating expense

A Pew Research Center study found that nearly 1 in 4 U.S. workers are employed in industries most likely to feel an immediate impact from the pandemic. Unfortunately, the restaurant industry and its 13.4 million employees directly fall into that category (Heymann, 2020). As of April 13, on average, restaurants had laid off 91% of their hourly employees and nearly 70% of their salaried workforce. Restaurants operators have been working around the clock to adapt their restaurants to social distancing and other health and safety measures. Still, most don’t believe these changes can be sustained long term. (Novick, N, 2020). According to the James Beard Foundation's survey, restaurant owners reported their biggest cash challenges to reopening are Rent (39%), Payroll (34%) and Taxes (9%).

2.1.2 Adoption of new Technology

The Foodservice industry from all over the world faces major challenges during the covid-19 period. The restaurant is considered one of the major social meeting place, people are usually spending their time to meet each other in restaurants or pub. After the Corona effect, most of the government enforced tight restriction rules against public gatherings in a public place. In this difficult situation, because of the public health concern, many governments decide to cut down business hours and promoting citizens to work at home. For restaurants, all of them asked for decreased their businesses only in take-way; stay-at-home orders (Gursoy and Chi, 2020). To handle this situation, it does have to improve and adopt online orders to make the restaurant business sustainable. It is very difficult for traditional businesses to change with online
businesses because they will be new members of online markets. According to Mozeik et al (2009), food menus, online ordering, and reservation are assorted restaurant e-services or online services from a restaurant context and these services have two categorized, informational and transactional. Therefore restaurants must focus on the services of their deliver product and take-way orders.

2.1.3 Maintain Food Safety
Food safety is another issue in pandemic situation in the restaurants wither is it home delivery service or in restaurant services. Customer needs extra safety for their food in this situation. According to Cui and Jiang (2019), there is direct connection between the food safety information and the intention of consumer purchase. Timely food safety information to the customers is getting significant issue in social media and people are able to get the information due to the spread of the news quickly. People can share their experiences through the texts, share the picture and videos about their food purchase (Cui and Jiang, 2019).

According to Gursoy and Chi, (2020) to maintain the business, restaurants need to changes their operation in this Covid-19 environment because of their employees and customer’s health and safety issues. Such as, they can make procedure for food deliver services. So, food safety make the customers ensure about restaurants products, therefore restaurants should update about the food safety and management issues. Specially for delivery the products, the bag must have to perfect insulation to make the food right temperature. According to Edmunds (2020) the food temperature that hot product should be the above 60 degree Celsius and cold product should be the below 8 degree Celsius and restaurant should be the deliver the food within 30 minutes. He (Sian Edmunds) also mentioned that to maintain the social distancing, drivers should place the products in customer’s door, after take the food by customers they need to clean and sanitize their hand.

According to (Moy et al, 2018), there is some issues due to the not maintaining the food safety issues like foodborne disease from the contaminated food and causes the many peoples die in the world. This foodborne issues can be avoided if the food safety issues maintained properly. In many countries maintained the highly developed food safety
system such as ‘Farm to Fork’ in Europe, ‘Farm to Table’ United States (Moy et al., 2018).

2.1.4 Maintain Social distance
In this (Covid-19) time, more than 50% people not prepare for dine-in restaurants and staying in the hotels and only one of third percent people are like to eat in restaurants and stay in hotel (Gursoy and Chi, 2020). During covid-19 or pandemic everyone has responsibilities to maintain health issue. Employees and customers should follow the rules and regulation of Corona- pandemic to prevent spreading the virus. So, Social distance is very important for customers and the service provider. Due to the increasing of the pandemic situation, people prefer to order their food in their home. On the other hand, a restaurant has to provide corona guidelines for the consumer in the restaurant and the company websites.

2.1.5 Maintain Supply Chain
The Food service industry depends on its supply chain management because they usually use fresh and various processed food. COVID-19 has impacted all spheres of the global supply chain including distribution and packaging, as well as sourcing of raw materials (Choudhury, 2020). Lockdowns disrupted the transportation of packaged foods, prepared foods, and non-alcoholic and alcoholic beverages (Choudhury, 2020) whilst some companies had to close for up to two weeks for cleaning purposes (FAO and Weersink et al 2020). Highlights various eastern block countries limitation of imports and exports on food products, including rice, poultry, eggs, vegetables, fish, and fruit. (Hossain, 2020).

2.2 Factors involved Adoption of E-commerce for food service industry

2.2.1 Web based food orders and services:
According to Warlina & Noersidik (2018), a food business always follows the trend for their service system and which is implemented by technology. Web-based system facilitates the customers to order and reservation from the customers home. The
effectiveness of the restaurants web-based system gives the solution for long queue problems in restaurant (Warlina & Noersidik, 2018).

For web-based service companies have to design their important side in the online business environment and they should adapt the design on the basis of the culture and the website should be trustworthy because of the customer satisfaction time (Kedah, 2015). Customers perception depends on the website design and it’s quality. For design the website, companies need to focus on the choice, care, customization and interactivity (Srinivasan, 2002).

Online food order is one of the best ways to avoid this situation and it also help to busy people to order the food from home or their workplace. This online platform gives the opportunity to personalize and interactive marketing (Kedah, 2015). In Covid-19, online orders are the best way to avoid the physical customers.

### 2.2.2 Reduce the response time

According to Chou & Liu (1999), customers are not prefer to wait longer for their food and considered as the main priorities for fast-food restaurants. The response time in the customer service is very important. E-commerce depends on the convenience and speed. Because of the less time and fast services customer mostly choose this online method (Iqbal, Whitman & Malzahn, 2012)

According to Iqbal, Whitman & Malzahn (2012), When a company able to deliver products in a short with level of quality that time a company become a multi-channel customer service.

There is some reason why customer response time is important-

- To feel them they are important for us
- People are expected that they will get the product in time
- Come back the customer again

### 2.2.3 Method for E-commerce adoption for restaurant

Totonchi & Kakamanshadi (2011), said that it is expected that firms adopt the e-commerce for development of specific performance. To increase the sales and
marketing, coordination and efficiency of the performance a firm can adopt e-commerce in their business. Firms will be benefited more for adopt the e-commerce. Such as- low transaction cost, better communication with the partners and consumers, low cost marketing and information sharing with the consumers etc. (Totonchi & Kakamanshadi, 2011).

According to Shemi & Procter (2018), Social Media Networks (SMN) such as Facebook, Twitter, You Tube and Instagram have the effect on the developed the sales process. After their research, Facebook plays the most important role for service businesses. SMNs mainly work for businesses to make the good communications and the innovate the new markets. SMN has two types of social network (Shemi & Procter, 2018).

1. Product Client Interaction: Product client are something that you pay special attention for customers to take care and make the good impression about the companies.

2.2.4 Technological support for adopt e-commerce

Technological improvement makes companies more sales as well as to maintain pandemic situation. Restaurant can make the technology adoption theory to focus on the customers.

Technology Acceptance Model (TAM) focused on the work factors and restaurants now can apply TAM theory for increased the customer orientation (Mozeik et al, 2009).

There is two stages in TAM model.
1. Perceived ease of use (PEOU) and
2. Perceived usefulness (PU).

According to Mozeik et al. (2009), PEOU is more successful adoption theory for their saturate e-services rather than PU because of the mobile handheld and accessibility of the internet and he also mentioned that restaurants should focus on this parameters for adapt the technology. PEOU is simply described to presents the use of restaurant-based services serves intrinsic component of task orientation. Lastly, PU was more important for traditional businesses and PEOU can use in online restaurant businesses.

2.2.5 Restaurant Web-site and Design

Customers give importance to food quality, serving time and the food's authenticity. According to Kedah (2015), the four things is very important to understand the web enabling services, these are website quality, information quality, website design, payment authenticity and online security. It is really important to concentrate on
restaurant website because it makes the people interesting. If a restaurant doesn’t have their own website, they can’t make restaurants potential business (Mozeik et al, 2009).

According to Mozeik et al, (2009), there are two types website design,

1. Informational &
2. Transactional

- **Informational e-service:**
  Informational e-service is all about the restaurants information in the online. It is identified and improvement of the features that actually make the customers valuable. Also. Customers are preferred to get the information from the restaurant website.

  “Eat with their eyes and that Web sites should keep text to a minimum and ensure that important details like menus, location, hours of operation, and reviews are easy to find and quickly accessible” (Mozeik et al, 2009, p: 250).

  The restaurants present food menus, their operating time, direction and dining and order information in detailed in informational e-services. Customers typically search the information site explicitly for new restaurants before making the orders.

- **Transactional e-service:**
  When customers prefer to make orders through online or make a transaction through website it’s called Transactional e-service. It includes the carry out and take-way services, online reservation and ordering merchandise (Mozeik et al, 2009). In Covid-19 times, restaurant owner can use this transactional service to reduce the traditional customer service pressure in the restaurants. When governments impose limits on public gathering, this transactional e-service system can be a critical solution.

**2.2.6 How Online Food Deliver System works**

An online food delivery system is a procedure for delivering the food to the customer; in another word, how the food will be delivered to the customer from the restaurant. Every restaurant need to work on improving the delivery system and how it can reduce the delivery time to reach the customer door. It is very important because it is related to food quality. According to Li, Mirosa & Bremer (2020), Online Food Deliver (FD) is included in O2O (online to offline system) system because customer orders the food in
online, prepare and deliver the customers. There are many delivery partner can be found in any city for delivery food to customer door such as Uber eats, Foodora, Deliveroo, Swiggy and Wolt. In online platforms, customers have many options from the food menu, food variety, different locations, and various payment systems. Customer can order their favorite food in the apps from anywhere in the world from pc or mobile phone if they have an internet connection.

![Diagram](image)

Figure 2: Online deliver system (Li, Mirosa & Bremer, 2020)

In graph 1, it shows that how consumers take place the order in the online platforms. First they check the restaurant menu option and check which one is better than they confirm the order the restaurants through the Online Food deliver apps. This app assigns the order to the delivery people and picks the food from the restaurants to the consumers. The last step is for writing commends from the customer about the delivery service and the quality of food from the restaurant.

According to Li, et al. (2020), Food deliver has two options for the food deliver. First one is delivering direct to the customer by their own people and second one is delivering through the apps.

The delivery system can be divided into two systems which are the direct delivery system and delivery partner. In direct system Restaurant own has its own delivery
equipment’s and employee, it is quicker but sometimes expensive. On the other hand, if
the restaurant owner chose a delivery partner they will get the commission on the basis
of the order

2.2.7 Online Customer service satisfaction:
Customer satisfaction depends on the customer services and the service quality. Service
quality plays the most important role in customer satisfaction. Service quality depends
on the product, experience, value and users (Gravin, 1984) and the other side service is
an intangible activity (Kedah, 2015). According to Kedah (2015), the main thing in
online food industry is excellent services and through the service quality companies will
get the satisfied customers as well as quality of the service gives online food companies
a positive influence.
To get a high customer satisfaction in online, deliver time is another important thing.
Delivery time is playing the efficient role for make the positive relationship between the
satisfaction and online stores (Kedah 2015). Taking too long time for deliver the
products affects the negatively in online stores. Therefore, on time food deliver and
right orders play the most efficient role to get the customers satisfaction.
The next part is after the positive customer satisfaction which is help companies to get
back the customers again. According to Suleyman (2010), customer service quality
strongly effects on the customer satisfaction. Replacement and return issues and
response time also affect the customer services. Less rated companies get less on the
other hand high rated companies high quality and high services to their customers. For
new people, they can see and understand easily which is better.
Parasuraman, Zeithaml & Berry (1988), introduced the SERVQUAL tool which is help
to measure the customer satisfaction and loyalty. They claim that
‘provides a basic skeleton through its expectations/perceptions format encompassing
statements for each of the five service quality dimensions. The skeleton when necessary,
can be adapted or supplemented to fit the characteristics or specific research needs of a
particular organization’.
It helps to measure and manage the service quality. According to Buttle (1996),
SERVQUAL uses in the hotels and restaurants, travel & tourism, hospitality, banking,
airline category dental service etc. Service quality becomes important because of the
profit, cost & customer satisfaction. Parasuraman (1988), identified 10 components in Service quality (Buttle, 1996), these are:

1. Reliability
2. Responsiveness
3. Competence
4. Access
5. Courtesy
6. Communication
7. Credibility
8. Security
9. Understandable
10. Tangibles.

2.2.8 Security for the online payment system

Trust is affected in intention to buy a product (Kedah, 2015). So, online security is very efficient to get the customers. For a companies, privacy and security should be the primary concern and it effects the positively of the behavioral intention of buying the products.

Due to the increase of e-commerce, cybercrime and other online crime is also rising. More than 87% EU people faces the online theft of money; reveal personal data (Negreiro, 2020). Internet hides the intentions and difficult to address the activities of cybercrime. “Losing money through Internet purchases due to cyber-crime affects both businesses and customers” (Apau, Korantang & Gyamfi, 2019). Sometimes companies and individual do not want to make report because they are scared about their public reputation. This type of cyber-crimes happens when customer buys from the fraud pages in online, online transfer etc.

Theory of Reasoned Action (TRA) theory is well established social psychological model, concerned the determinants intended behaviors. In Graph 2, behavioral intention is the immediate antecedent of individual behavior (Yousafzai, Foxall & Pallister, 2010). According to Apau et al. 2019, to avoid the cyber-crime from online transaction we can make the trust between online buyer and seller. TRA (Theory of Reasoned Action)
helps to understand trust between the online customer and seller and cyber-crime perception as well as predict the characteristics of users. These theories are mostly used in the e-commerce which is developed by Davis (1989). This model is identify the make the understand about the real customers and sellers in online.

In Graph 2, it shows that two behavioral intention has two determinants: 1st one is personal factor termed into attitude it can be customers buying attitude and 2nd person perception of social pressure into normative which presents the sellers attitude. Attitude refers that person’s own performance and normative subject present the set of beliefs presents by person or group (Fishbein & Ajzen, 1975). According to Yousafzai et al., (2010), after the attitude and subjective norm it comes behavioral intention (for buying and selling intention between two parties and last actual behavior (Actual sell).
In figure 3, presents the conceptual relation between the cyber-crime perception and trust between the internet medium and sellers. Trust and TRA also connected with the cyber-crime perception. To avoid the cybercrime and fraud, company can use in their restaurants. This is actually the process how is it works in the businesses.

2.2.9 Refund and return policy
A good refund and return policy can make a company more loyal to their customers in competitive market. Refund and return policy is very important for a company. Good return policy is considered one of the best policies to keep the customer satisfaction. When customer buy product from online they ordered to see the picture in website then sometimes customer doesn’t like it in real or may be company gave them wrong order and maybe it’s wrong size, color and design. Because of this reason customer prefer for refund policy. According to Du & Tong (2016), Return channel have effects on the company’s profit and there is two types of aspects:

1. Return between the manufacturer and retailers
2. Return between the consumers and retailers
For restaurant, online return policy and refund related with the customer and direct with the owner or manager of the restaurants. Refund and return policy makes the trust between the restaurant and customers.

According to Du & Tong (2016), the sales and return process presents the how companies give the priority to their customers. In his return policy he was discussed the how a company make the return policy. On the basis of Du & Tong (2016), we made the return and refund policy for the restaurant in Graph no 4. It shows that if customer wants to refund money back they have the option for in support in website design. Then they can contact the restaurant owner or restaurant manager. If the reason is valid then restaurant give the money back to their same account.
3. The Research Design, Methodology and Data Collection

3.1 Introduction

Every research must involve an explicit, disciplined, systematic (planned, ordered, and public) approach to find out most appropriate results. Qualitative research is inductive in nature, and the researcher generally explores meanings and insights in a given situation (Corbin and Strauss, 2008; Levitt et al., 2017). It refers to a range of data collection and analysis techniques that use purposive sampling and semi-structured, open-ended interviews (Dudwick et al., 2006; Gopaldas, 2016).

Research means different methods of data collection that can be chosen in order to conduct the analysis. An inductive and deductive methodology is accepted in science and quantitative and qualitative analysis approaches to support the quest to answer research questions. In this chapter, we will explain the research methodology for this study of the Role of e-commerce for survival in the foodservice industry during covid-19. We will also give an explicit discussion about the reasoning behind our choices of data collection in order to fulfill the aims of the study. Within this discussion, we have argued with the help of some scholarly evidence that underpins the choice of our research method with some of our own personal justifications.

3.2 Research design

A research design is a procedural plan that is adopted by the researcher to answer questions validly, objectively, accurately, and economically. (Kumar, 2011)

The research design is intended to provide an appropriate framework for a Study (Sileyew, 2019). It investigates local knowledge and understanding of a given program, people’s experiences, meanings and relationships, and social processes and contextual factors that marginalize a group of people (Mohajan, 2018). According to Amaratunga et al (2002), there is no best approach to research; however, it can be carried out in a variety of situations. So, we wanted to make our research design simple, therefore; we designed our research with simple questionnaires’ for both restaurant owner and customer according to the research question. We published our online survey on Facebook and arrange a face to face interview with various traditional foodservice providers.
3.3 Inductive approach
The inductive approach refers to a way of extracting raw data to analyses themes and concepts out of these (Thomas, 2006). When an inductive method is used by a researcher, they start by gathering data that is important to their subject of interest. The researcher will take a break from data collection to step back and get a bird's eye view of their knowledge after a significant amount of data has been collected. Thus, when researchers take an inductive approach, they start with a set of observations and then they move from those particular experiences to a more general set of propositions about those experiences (Decarlo, 2018). This approach is often associated with quantitative methods since it requires a larger sample size in order to be proven valid (Woiceshyn and Daellenbach, 2018).

In this research, we have used the Inductive approach, because we believe this method is more logical than the deductive approach. In the theoretical portion, principles have been established and these will be analyzed with empirical observations.

3.4 Research methodology
Research methodology indicates the logic of development of the process used to generate theory that is a procedural framework within which the research is conducted (Remenyi et al., 1998). The research design is a plan of action for this study where the description of the research process, strategies, and methods are adopted. A choice of research design reflects decisions about the priority being given to a range of dimensions of the research process (Bryman, 2012, p: 46). There are three types of data collections which are in-depth, open-ended interviews; direct observations, and lastly open-ended written documents (Patton, 1987). And this data can be collected through qualitative or quantitative methods. Qualitative research reports are usually rich with description and maybe a more appropriate choice for some subjects from the reader's perspective because “if you want people to understand better…provide them with information in the form in which they usually experience it” (Cathryne and Amanda, 2006). In qualitative research, an in-depth interview is referred to as a research method that includes piloting of thorough or vigorous personal interviews with lesser units of respondents to discover individual perceptions on certain issues such as state of affairs, programs, or notions (Boyce and Neale, 2006). According to our research aim, we have
selected a qualitative research method to identify the answers to the research question of this study.

The aim and research purpose of this study is to examine how an e-commerce platform under covid-19 is adopted by the foodservice industry to survive. More specifically, this study will look at the performance of the selected topics which is an e-commerce platform. In qualitative research, there is a close relationship between the researcher’s goals and the researcher’s theoretical frames (Mohajan, 2018). So, we believe that qualitative methodology will be the best fit for examining the expected outcomes. Qualitative research is inductive in nature, and the researcher generally explores meanings and insights in a given situation (Corbin and Strauss, 2008; Levitt et al., 2017).

We have developed two research questions to answer the research topics. Based on the research type, we have chosen a qualitative research method. This method is widely used to understand the topics deeply. After this with the aid of data from the interview and an online survey, we will evaluate the data and the variables will be identified. On the other hand, to classify the findings, qualitative research attributed to broad questions will collect word data from distinct individuals and groups.

3.5 Data Source
The aim of this research is to gain a detailed understanding of the impact of covid-19 in the foodservice industry and how the adoption of e-commerce can help to survive this industry. In order to examine the effect of covid-19 and the adoption of e-commerce, we have chosen a research design based on a qualitative approach. The aim of the selected data collection is to provide insight into the opinion of the adoption of e-commerce for a foodservice company. For the research purpose, we have used both primary and secondary data to examine the research topics.
3.6 Primary data sources

The primary data were more reliable and have a more confidence level of decision-making with the trusted analysis having direct intact with occurrence of the events (Sileyew, 2019). This source is considered an original source of information. In this case, we have chosen open-ended structured interviews as it allows participants to answer as thoroughly as possible. Making use of this structure gives the respondents the opportunity to express their complete viewpoints and it provides researchers with a large amount of information (Turner III, 2010). Interview considers one of the best methods of getting information for the research work.

Our research is based on the impact of covid-19 in the foodservice industry. For this reason, we have selected several restaurants for physical interviews such as Burger King, Indian garden. We have sent around 30 invitations to the restaurant owner for face to face interview as we know personally but most of them did not agree to the face to face interview due to the effect of covid-19. Finally, we have managed 4 face to face and 6 telephone interviews. Also, we have published an online survey about the foodservice industry and online food order behavior to the consumer, which is related to the covid-19 pandemic. We have received 38 respondents from all over the world and the survey was last one week on Facebook. Since burger king is one of the largest fast-food chains in the world, we have chosen burger king to represent the fast-food chain industry. Indian Garden, on the other hand, is the largest Indian restaurant chain in the Nordic region. For all the restaurants, the interview question was the same and the venue was in Stockholm, Sweden but the online survey was open to worldwide. Also, we have used email and phone as media of communication. We asked the respondent the questions that were sent in advance and we took notes and recorded the interviews so that it could be transcribed, later on, the phone interview was identical to the face-to-face interviews. It took two weeks to collect all the data we needed for our study.
3.7 Interview

Interviews were used in order to collect more accurate information on the challenges of the covid-19 pandemic and adaptation of e-commerce for the foodservice industry. Interviews allowed the researcher to ask open-ended and follow-up questions from participants. We have chosen a structured interview for our research work. A structured interview, sometimes called a standardized interview, entails the administration of an interview schedule by an interviewer. (Bryman and Bell, 2015, P-202). The interviewer had the opportunity to ask for more clarity or more details, which cannot be done in open-ended survey questions (Lindlof and Taylor, 2011). Open-ended questions relating to Communication methods that participant liked or did not like about the adoption of e-commerce technology and the challenges under covid-19 pandemic in the foodservice industry.

The majority of the interviews have lasted approximately 50 minutes with the shortest interview lasting 15 minutes and the longest interview was about 60 minutes. There are five Individuals participant participated in the interviews from different background in the foodservice industry. The interview was based on a previously prepared question, with all participants asking the same question. The lists of all participants are given below;

Table 1: Interview information

<table>
<thead>
<tr>
<th>Interview NO</th>
<th>Name of Company</th>
<th>Name of the employee</th>
<th>Designation</th>
<th>Duration of interview</th>
<th>Type of Interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Burger King (Gamla Stan)</td>
<td>Illius Chowdhury</td>
<td>Store Manager</td>
<td>60 min.</td>
<td>Face to Face</td>
</tr>
<tr>
<td>2</td>
<td>Burger King (Gamla Stan)</td>
<td>Sabrina Hossain</td>
<td>Shift Leader</td>
<td>20 min.</td>
<td>Face to Face</td>
</tr>
<tr>
<td>3</td>
<td>Burger King (Tyresö)</td>
<td>Celine Estay</td>
<td>Store Manager</td>
<td>23 min.</td>
<td>Face to Face</td>
</tr>
<tr>
<td>4</td>
<td>Indian Garden</td>
<td>Moushumi</td>
<td>Senior</td>
<td>55 min</td>
<td>Telephone</td>
</tr>
</tbody>
</table>
The interviews were not only focused specifically on the adoption of e-commerce in the foodservice industry but also designed to look at the covid-19 effect as a whole in this industry.

For the interviews, participants were asked to share their personal opinion about the e-commerce experience and effect of the covid-19 pandemic in business. As the interviews progressed, interview questions were asked that addressed our research questions. The first research question asked, “What challenges does a traditional foodservice industry face under covid-19?”

Some interview questions that addressed this research question were “What kind of challenges will the foodservice industry face under covid-19??” or “how do you can overcome this situation?”, “is there any strategic plan taken for covid-19 effects”. These interview questions were asked to determine how participants tackle these pandemic effects to survive in this harsh business environment.

The second research question asked, “How does the foodservice industry operate under the pandemic by adopting e-commerce?” To address this, some interview questions included below:

Table 2: Interview questions and purpose

<table>
<thead>
<tr>
<th>Interview Question No</th>
<th>Research Question</th>
<th>Target research question</th>
<th>Motivation</th>
</tr>
</thead>
<tbody>
<tr>
<td>RQ-1</td>
<td>Do you think e-commerce platform can increase your sales in this Pandemic situation?</td>
<td>RQ2</td>
<td>Personal view about ecommerce</td>
</tr>
<tr>
<td>RQ-2</td>
<td>Online market adoption, is it helpful for</td>
<td>RQ2</td>
<td>Individual view about</td>
</tr>
<tr>
<td>RQ-3</td>
<td>What do you think about website design? Is it matter in your sales?</td>
<td>RQ2</td>
<td>Effect of using technological tools</td>
</tr>
<tr>
<td>------</td>
<td>---------------------------------------------------------------</td>
<td>-----</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>RQ-4</td>
<td>Does technological acceptance is important in your company? How is it works?</td>
<td>RQ2</td>
<td>Personal view of using technological tools</td>
</tr>
<tr>
<td>RQ-5</td>
<td>How was the response from the customers after open the online services in Covid 2019? (If)</td>
<td>RQ2</td>
<td>To know sales difference</td>
</tr>
<tr>
<td>RQ-6</td>
<td>Is there any difference between the online and physical sale? (In terms of dealing with the customer)</td>
<td>RQ2</td>
<td>Customer buying experience</td>
</tr>
<tr>
<td>RQ-7</td>
<td>Do online orders make customers feel secure?</td>
<td>RQ2</td>
<td>How customer react on security issue</td>
</tr>
<tr>
<td>RQ-8</td>
<td>Do you have any return or refund policy for the online sales?</td>
<td>RQ2</td>
<td>Customer policy</td>
</tr>
<tr>
<td>RQ-9</td>
<td>What is the important thing for your restaurant to improve the sales now (covid-19)?</td>
<td>RQ2</td>
<td>To know individual Sales Strategy</td>
</tr>
</tbody>
</table>

Through this interview question we have learn about the industry and how they operate the business.

### 3.8 Survey

Survey research is defined as “the collection of information from a sample of individuals through their responses to questions” (Check and Schutt, 2012, p. 160). This type of research allows for a variety of methods to recruit participants, collect data, and utilize various methods of instrumentation. (Julie, 2015). We have designed this survey to a deep understanding of e-commerce challenges and consumer buying behavior about e-commerce to answer the second question. The survey contains only ten vital questions about the e-commerce perspective and we made this survey very easy to understand. We
have chosen the Google Docs platform with the help of the Facebook platform so that we get respondents from all over the world as quickly as possible. We found this method very easy to access although, it is hard to get the right person for the survey due to open access.

Table 3: Survey questions and purpose

<table>
<thead>
<tr>
<th>Question</th>
<th>Survey Questions</th>
<th>Target research question</th>
<th>Motivation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQ-1</td>
<td>Do you know about e-commerce or online food order?</td>
<td>RQ2</td>
<td>Knowledge about e-commerce</td>
</tr>
<tr>
<td>SQ-2</td>
<td>How many times a month have you ordered food from restaurants using the online platform?</td>
<td>RQ2</td>
<td>Online buying behavior</td>
</tr>
<tr>
<td>SQ-3</td>
<td>Which of the following benefits do you consider when ordering food online?</td>
<td>RQ2</td>
<td>Why customer order online</td>
</tr>
<tr>
<td>SQ-4</td>
<td>Which of the following is a major problem when ordering food online?</td>
<td>RQ1</td>
<td>Major challenges</td>
</tr>
<tr>
<td>SQ5</td>
<td>Do you think e-commerce or online order can destroy the traditional restaurant business?</td>
<td>RQ1</td>
<td>Disadvantages of e-commerce</td>
</tr>
<tr>
<td>SQ6</td>
<td>Do you think e-commerce or online order can save the traditional restaurant business from covid-19?</td>
<td>RQ1</td>
<td>Customer perspective about online</td>
</tr>
<tr>
<td>SQ7</td>
<td>Do you think complete lockdown best approach to preventing pandemic like covid-19?</td>
<td>RQ1</td>
<td>Public opinion</td>
</tr>
<tr>
<td>SQ8</td>
<td>Do you think the development of logistic support being promoting more online business?</td>
<td>RQ2</td>
<td>How transportation helping to</td>
</tr>
</tbody>
</table>
3.6 Validity and Reliability

Validity explains how well the collected data covers the actual area of investigation (Ghauri and Gronhaug, 2005). Validity basically means “measure what is intended to be measured” (Field, 2005). Validity refers to the issue of whether or not an indicator (or set of indicators) that is devised to gauge a concept really measures that concept (Bryman and Bell, 2015, p.159). It has long been recognized that intelligence varies across individuals. Colloquially, we refer to someone as “brilliant” or comment that our dog is a “little dull.” While it is easy (and common) to make these kind of characterizations, it has historically been difficult to formulate a definition of this trait. (Louis and Bruno, 2017). So, it is very imported to select the right person for the data collection process. Quality of data reflects the study result and its validity. We have sent the invitation to only owner or only managerial position holder for the interview. Everyone selected for the online survey was over 18 years old and has ability to give answer to our research question.

Reliability refers to the consistency of a measure of a concept (Bryman and Bell, 2015, p.158). During collection of our secondary and primary data from different source, we have collected data from reliable source, so that data result cannot be changed over time.
3.7 Data Analysis:

Data analysis is the process of reducing large amounts of collected data to make sense of them (Barbara, 2015). Data analysis is an important task; there are many different techniques for data analysis. Most common data analysis techniques are Content analysis, Narrative analysis, Discourse analysis, Grounded theory in qualitative research. It is important for qualitative researchers to have the opportunity to share the technique they use to analysis data to add more options to our repertoire of techniques or to refresh our skills in conducting research. (Barbara, 2015). Patton (1987) indicates that three things occur during analysis; data are organized, data are reduced through summarization and categorization, and identified and linked. This data analysis technique depends on the data type. We have use content analysis technique for this qualitative research. Content analysis is a general term for a number of different strategies used to analyse text (Powers & Knapp, 2006). Content analysis is a quantitative tool, even though it also analyzes written phrases. Numbers and percentages are the products of content analysis. The purpose of content analysis is to describe the characteristics of the document’s content by examining who says what, to whom, and with what effect (Bloor & Wood, 2006).

So, the data, which is collected through interviews and an online survey, we divided the data into two parts which reflect our research questions RQ1 and RQ2. Our first research question is about challenges under covid-19. All the questions related to the question, we separated and analyzed according to the importance. And for the second question, which is the adoption of e-commerce for the foodservice industry also organized according to the importance. The online survey results of these questions are presented in the form of a bar chart where the respondent’s answers are marked according to the ranking provided by them. Also, we build a table from the result of face-to-face and telephone interviews to use data in our analytical part.
4. Empirical Study:

In this part, we will discuss about the company’s present business operation for both companies who have e-commerce experience before and who have no experience before. We have chosen two restaurants for our study, one is Burger King (Fast food chain) which has already an established e-commerce platform in Sweden and the other one is Indian Garden (Indian restaurant) facing difficulties with traditional services due to pandemic.

4.1 Case 1: Burger King

Burger King is second largest fast food Chain in the world, they are operating their business over 100 countries with over 18,000 store. (Lewis, 2017). In Sweden, Burger King has over 135 stores and the first Burger King restaurant was opened on Gustav Adolfs Torg in Malmö (burgerking.se, 2021). They have the both eat-in, take-way and deliver services for their customer. In Covid-19 they face the big loss in their businesses due to fewer customers. Most of the country has enforced locked down due to public health issue. Although, In the Sweden government did not enforce the country under lockdown but still there are restriction on public and business owner to minimize public gathering. Burger king is a multinational fast food chain and they have their home delivery service from long ago. Due to this pandemic some of the burger king restaurant ware fully closed from February to June particularly in the capital where business depends on tourist from different country. Management of burger king took this decision because of cancellation of all flights. But before February they tried to open the restaurant to give the customers only take-way and home delivery. During the pandemic some store made their sales through online and take-way service. We talked with their Manager to know about their situation in Corona time and how Corona effects their branches sales and profit and he said,

“Before Covid-19, our average sale was good and online and home deliver sales was only 15-20% but in Corona time the average sale was only 5000-7000 per month which is declined by 50/60% percent but the online orders increases”- Burger King Manager.

In June, they made decision to re-open closed restaurants again because flights were opened from July. They are maintaining the rule for Covid-19 in their services. So now they give the physical, take-way and home deliver services again. Interestingly the
percentage of online food orders is increased sharply than before. Now, customer is preferred to make the order from home to avoid the Corona infection. We asked the current situation about their sales and online orders to the manager, he described: ‘it is difficult to maintain this situation but we are trying to do our best, for customers who wants to eat in restaurants we suggest them avoid gathering and maintain the social distancing, still we are not getting our normal average sale but increasing slowly but surprisingly our online sales has increased now-a-days’.

We also talk with Burger King (tyresö) manager about the pandemic situation in their store. The manager informed us that they don’t have any online food delivery system in their branch. Due to less physical customer and sales down during the covid-19 pandemic, recently they are trying to make a deal with Foodora and UberEats for online food services. However, the Manager of burger king (Tyreso) agreed on the importance of the online food delivery system and she shared her personal judgment that 'if she had online food service before her branch could make more profit during pandemic time.'

Burger king have their own website and customer can see their food menu and prices, about the organization, contact number. All of the branches of Burger king have their own website pages. In Burger king website, they have some parts.
1. Overview
2. Menu
3. Reviews
4. Photos
5. about their store

In website First page, they mentioned their new offer or new Burgers menu and the Covid-19 restriction which is actually focused on customers to know about their food and how they aware of this pandemic situation. Burger king app also help to customers to get the discounts and to find out the nearest place and delivery services. They give the update regularly to know about themselves. For customers, they also have the feedback system to their customers to share about information after their order. Burger king already is in the online market platforms, so they know how to take the competitive advantage. Their main competitor is McDonalds and Max. So they can see the easily which or how they works then also should maintain it otherwise their
customer will move to their competitors. For survival in the online market companies also should update their market. They are using Uber eats, Foodora to serve the products to their customers; they are using the independent FD system as they are the chain business system. They can’t the make decision by their self, all the branches should they maintain the same process in all over the country. All the Burger King maintains their delivery system through the apps. The orders come from the apps. When we visited their place we saw that the procedure how burger king maintain the FD system in their store. They have the two different monitor screen for see the orders, when it comes they have to accept it then it shows the time when delivery people will be in restaurant for take the food. After that delivery boy come in time and take the food and give it to the customers. To get the customer feedback, Burger king have the review option in their website where customers can share their experiences. For online customers, before they made the orders they can check the other customer comments. They have the offer for customer feedback; if a customer gives the feedback in their restaurant website they give them 50% discount on some specific burgers. So, customer are getting attract to give the feedback. Feedback system is very essential for restaurants, then a company know that which side they should improve.

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4.2 Case-2: Indian Garden
Indian Garden is largest Indian restaurant chain in Nordic region and this restaurant was established in 2013. According the restaurant manager ‘Franzengatan’ they have over 10 branches all over Sweden and they also have branches in Norway, Finland, and Denmark. They have traditional food menu from Indian region and their business strategy is different than other restaurant like burger king or McDonalds’ or sushi shop.
Their target customer is middle and upper income customer and customer spent long time in the restaurant. Although, they still run their business very tradition way in some branches. In Covid-19, every business faces the hard times to stay in the businesses. Restaurant business like Indian garden faces the most due to the Corona because they mostly depend on physical customer. Culture is play important role in Sweden; people are from different places here. So, running business is difficult due to mix culture in Sweden. Swedish and Indian food has different taste. Indian Restaurant faces great loss than other restaurant during the pandemic because of their less in technological solution. They have two ways to sell the products, mainly eat in restaurant and take-way system. According to Swedish rules in Corona time, make social distancing, avoid the public gathering, stay in home as much as possible, people are less interest to go in restaurant for eat. So, it is very difficult to maintain their businesses because they have the only eat in restaurant system. If they had the online food order system now may be they can handle this situation with minimum loss. Now people are preferred for online food ordering system. We tried to talk with the manager but he was busy so we talked with a senior employee from the restaurant. We asked her online food order system and gave the example of online based restaurant and she agreed with us that online delivery system have positive impact in restaurant. She (Indian garden employee) said

‘To handle this pandemic situation may be online orders can reduced our loss but we are not selling the food in online. If we have the online order system we can maintain the social distance in Covid-19 as well as to continue our sales rising. Other 5 branches in Stockholm have the online deliver system’.

We had a face to face interview with Mr. Shahadat Hossain Shiplu shift manager of liljeholmen Branch of Indian garden. He explains his online sales strategy. He said they have it in their restaurant on that branch and they have only 1 or 2 orders daily and they delivered the food to customers by their employee.

As we discussed in our theoretical part about the how important the website design for online businesses. According to Garett et al,(2016), business to consumer make the relation through the online and the website design critical for engaging the people as
well as poor website design make the ‘bounce rate’ which make the customers to decide to back from the page

For Indian Garden, we find out that they have the one website for all the branches and they don’t have their own website for their online customers. They can adopt the online market platform for sell their products. Since most restaurants are now going to use an online platform to attract clients. If they choose the online marketplace they will maintain their profit in pandemic situations.

According to Li et al., (2020), dependent food deliver system are using in the small restaurants, it decreased the cost of the organization. For Indian Garden dependent FD system will be better option if they open the online deliver system in their restaurants. In Covid-19, it is the best way to get the food without presents in the restaurants. If restaurant maintain this way, day by day the sale will rising and customers also take place the orders. On the other hand, Indian Garden has only one page for all the branches but the payment system is not clear in their other branches. If they open the online market they should be focused on the customer’s payment system also

4.3 Online Survey Result

We have published an online survey on Facebook to understand the consumer perspective about online food order and service. We have asked them about how many times they are ordered food online, what the benefits of ordering online are, what the problem is in an online order, online restaurant, and traditional/physical food order, and how online platform can save the traditional food industry in this pandemic situation. Lastly, we have asked them when customers prefer to order food online. The main purpose of this survey was to know about the online food orders from consumer experience and their expectation. Also, to know how they feel about this system and how it can be improved in the future. As the online food order system works great for many restaurants to minimize their loss, we have done this survey online to gather more information before making a decision on the adaptation of e-commerce for other restaurants; who has not implemented this system yet.
Within two days, we have 38 respondent replies in this survey. The first question was the basic question to know how many people know about the e-commerce or online food order system. It shows in result that 35 respondent answers this question out of 38 people, 97% answer is yes and 1-2% said no in this question. How many times people have done online food order in a month, they said different answer in this question. More than half of the respondent people are ordered the food through online more than 5 times in a month and the second position is 25.7% respondent people who are not ordered the food online in a month. Next topic we asked about the benefits of online food order system, 77% goes with save their time and second position is make easier order. In Covid-19 situation, only 17% or 6 people goes with health and safety issues but we thought that people will give the more priority in this pandemic situation. Customer must have to secure about their payment system. Because if customers are secure about their payment system then they will make order again. If the order is in automatic system and through the FD apps then it is more secure. The online sell is increasing in this situation, if customer feels secure in payment system they will come back again. On the other hand, Indian Garden has only one page for all the branches but the payment system is not clear in their other branches. If they open the online market they should be focused on the customer’s payment system also.
5. Discussion

The major problem people face in online food delivery system is the high price, customer needs to pay the food and delivery charge together for home delivery, there food price is higher than regular price when customer eats in the restaurant. The second thing is food quality. Quality of food is considered most important thing for business. Quality is the key point to customer satisfaction and builds long-term relationship with the customer. In our online survey we have found that consumer are worried about the food quality while they order in the online. Due to poor delivery system, delivery can be delayed which cause reduce quality of product. Some customers complain about the quality of food such as cold and messy food. So, maintain food quality is very challenging for a company. But this quality issue can be solved through proper equipment’s and training as some of the manager believes. When we have asked respondent about the negative side of online food orders like destroy of traditional market, respondent strongly agreed no and 1/3 people said may be. Large number of customer think online food order will help to improve corona situation due to maintain social distance

From our findings we can say that actually peoples take more time to trust the online food order system due to some reason. First of all, for the new people who has less technological knowledge and don’t know about payment system and applications. In Covid-19, more and more new customer experiences online food order ever than before, so, online food ordering becoming a habit for many customers, which will effect even after pandemic time.

5.1 Challenges of Restaurants in Covid-19

As we discussed before that Indian Garden has face the difficulties in their business because of the Corona virus effect. So, now we will discuss about the challenges they faces and how they can handle this situation with adopt the E-commerce in their restaurants. As we have done the interview with the senior employees of Indian Garden to know about their situation.
5.1.1 Adoption of new Technology:
To avoid the Covid-19, online food delivery is one of the best ways to tackle this situation. With the help of online apps for order the product and the direct order from the customers helps the restaurants to deliver the food to the consumer. For new online markets, restaurants can take the dependent food deliver system (Li et al., 2020) for their introduction stage they can handle the cost.

In the dependent system, employee delivers the food to the customers or they have some person to deliver products. When restaurant choose to independent food deliver system, then they can select Foodora, Uber Eats and Wolt. Burger King are using the independent method for their food deliver since they introduce in the market but in case of the Indian Garden they are using dependent deliver system. Because Indian restaurants have less transaction so they prefer for dependent food deliver system. We asked one of senior employee (Employee in Indian Garden) what should they do for increase the sale and if the sale will increase so are they changed the delivery system? She said they have to focus on the rise of online sales and may be the company will think about it later. We asked about the skills of the workers since it is not possible to implement modern technologies without a trained employee. They all accept that the implementation of online food delivery technologies is not so difficult if workers have minimal language skills. And all the training needed is offered by the supplier of e-commerce support, so they do not need to spend money on training.

5.1.2 Maintain Food Safety:
For online order in Covid-19, food safety is the major issue. Customers have to feel the secure of the restaurants products what actually they order and how it will come. Because of food safety reason, if restaurant can assure quality of food and maintain food safety it will help to make long-term relationship with the customer. Chi & Gursoy (2020) discussed (in theatrical part) the process of online deliver system, how actually delivery people should go without meet the people. For this situation Indian Garden chooses the dependent deliver system, in that situation they understand their people how to deliver the food. But in case of Foodora and Uber Eats etc. restaurants actually doesn’t know how they deliver the products to their customers. But food safety issue is
the major part in this situation. There are two parties involved in online food delivery, one who prepares the food at the restaurant and another party who delivers the food to the customer's door. So, if any food safety happens, it is difficult to separate who is liable. The restaurant owner agreed that all parties need to work together on this issue; food processing zones need to be sanitized; kitchens and employees need to be aware of health and safety issue. Even, the delivery person and delivery equipment need to maintain health and safety.

5.1.3 Maintain Social Distance
E-commerce helps the people to make the social distances. For those who doesn’t want to miss their favorites food during this pandemic time. They can place the order through the online. As Indian Garden is a traditional restaurant so they are still allows the customer in the restaurant but if they take the online platform they can maintain the social distance. On the other hand, Burger king is selling the mostly in online in some branches. Different restaurants maintain a different method for maintaining social distance. Indian garden is considering a big restaurant and they have platty space and due to covid-19, they have fewer customers than before. They did not put any sign on the table; they don’t need it actually because the waiter normally decides where the guests will seat. But, burger kings have a different strategy. They have marked on the table where guests can seat. Also, they have used warning signs in the different places in the restaurant.

5.1.4 Maintain supply chain
During the lockdown, most of the resultant faced difficulty to get the supply for the restaurant. Different Restaurant uses different ingredient for their recipe and these supplies come from the local and international market. We talk to Mrs. Moushumi Akhter representative of Indian Garden, says their most of the ingredient comes from Bangladesh and India and they have faced difficulty to get their supply after a few months later during covid-19. Due to lockdown, in Bangladesh and India, all supply delayed receiving which makes their business hamper. The same problem has faced by burger king also during covid-19.
5.1.5 Maintain operating expense

The picture was not the same for every company, large company manage to survive than a small company. An as large company has large working capital and has many branches they can make a balance. Employee salary is considering the largest portion of operating expense in any business. Burger King has over 100 stores in Sweden, so, they exchanged employees between stores to keep the operating expense down. Although, the Swedish government plays an important role in the company's survival. But small company mostly relayed on government support and insurance company for the operating expense.

5.2 E-commerce adoption for restaurants

5.2.1 Web based order & service:

Website design plays the important role for online businesses. For open a website in restaurant, there are two types of steps, Informational and transactional (Mozeik et al., 2009). For opening online order system restaurant should have the website design where customer first will get the informational topic like food menu, ingredient, type of products and restaurant contact information and in second part transactional information where they get transaction related information how they make orders payment system etc. Both parts are important for making the website design.

Employee of Indian Garden shared that she knows about the website design how it effects on the businesses. She shared that Information of product, location, delivery policy, returns policy and business should be in the website design and they also have it but it is not well developed for attract the customers. Burger king has the well-established website for individual branch and they have their menu, information of product, result policy in their website.

We asked about the major problem in online food ordering system, most of the people went with the food information. So, we can understand the view from the customer how much important the website for the customers
5.2.2 Response time
To get back the customer, decreased the response time one of the most important issue. 73% people makes the order online because of save the time rather than in other issues (according to our survey result, Q:4).
Reduced the response time depends on the delivery time, how fast they deliver the products to their customers. This issue will attract to the customers to avoid the present in restaurants in this pandemic situation if restaurants focus in the delivery time.

5.2.3 Technology development for adapt e-commerce:
Technological support is important for every sector. For adoption the online market technology support is also important. Employee (Indian Garden) said that online order balance the pandemic situation, technological development will make useful the online ordering system (Interview: 1, Q: 4).
Technology Acceptance Model (TAM) which have two stages PEOU and PU. According to Mozeik et al.(2009), perceived ease of use is successful theory, Indian Garden take this theory for online order system they can be more successful because PEOU is task-oriented program and it’s suited in restaurant businesses.
UTAUT (Integrated Theories of Technology Expectance and Use) theory are preferable for the Burger King to get the more customers. This theory makes the analysis of business, performance expectation and social influences and how it effects on the restaurants. It also makes the price value analysis. For competitor this theory helps to get the more focus on the technology side.

5.2.4 Restaurant Website and Design
Website design make the effects on the restaurants sales because people can access the product information, location and delivery process but in our restaurant, they are not much aware about this as well as haven’t upload all the information in website according to interviewee 1 and Interviewee 2 (From Burger king) also agree with that restaurant website design does attract the customers. But Burger king have the all information in their website.
Informational website design helps the customers to get the information about the restaurant, food, location and delivery system and transactional design makes the booked and orders. Both of them are similar important for make the online orders.

5.2.5 Online Food Deliver System:
As we discussed before that Burger king uses UberEats, Foodora & Wolt (independent delivery system), how this system works shows in Graph 1 from customers to restaurants. After the payment from customers, restaurant start work for deliver the products and the riders collects food from restaurants and deliver to the customers. But Indian Garden uses the direct delivery system to the customers and then the delivery system is different direct restaurant to customers only.

5.2.6 Online Customer Satisfaction:
Burger king have the feedback system to know about the quality or service from the customer. For new restaurant, feedback system should be the part of this. Parasuraman (1988) suggest SRVQUAL to measure the customer satisfaction. Indian Garden, there is no feedback option. Customers can directly say to the restaurant about the food quality or service quality.
The comments and feedback system shows in graph 1, how customer give their comments after deliver the products to the restaurant and Online FD, this feedback help the restaurants and riders to make the service better.
To get the feedback from the customers, restaurant also can make improve their response time and decreased delivery time. For choose the dependent FD system they get reduced the delivery time. Because that situation, delivery people only deliver that customers so it takes less time.

5.2.7 Security for the online payment system
To avoid the cyber-crime from third party, restaurant can adopt the Theory of Reasoned Action (TRA) theory which is shows in Graph 2 because it included the customer and company’s trust, crime’s perception attitude and perception behavior, norms. So, restaurant can adopt this theory decreased the cyber-crime.
Burger king uses the apps that deduct the money from the customer account after asking them and customer can trust it. Or if there is any unpleasant thing or may be the wrong payment they have the option for money back. According to Interviewee 1, as long as third party are not interfere in the payment method then it is ok. TRA method actually works to understand the intention of the customer behavior. It included the information about the payment related. There is some steps how it make the secure the sale then restaurant avoid the third party.

5.2.8 Refund and Return Policy
We asked to Interviewee 1 to know about the return and refund policy they have it or not, she answered only the coupon or discount system but Burger have the refund and return policy if they have the wrong orders or something wrong in the food on that time customer can get the money back. In Graph 4 shows that the sales and return process how it works in after the food deliver. Burger king uses e-mail, phone, website, and physical service to get feedback from their customers.

Lastly, this discussion part gives the difference between the Burger King and the Indian Garden online order system; how online order works in two companies. Burger King has faced a different situation and Indian garden because they had an e-commerce platform before the pandemic. On the other hand, the Indian Garden did not have experience with online food delivery before this pandemic effect.
6. Conclusion & Recommendation

6.1 Conclusion

The business climate has changed due to the effects of the covid-19 pandemic, particularly in traditional foodservice companies faces various type of challenges. Restaurants were mostly dependent on visiting by the physical customer before the covid-19 pandemic. After lockdown or restriction on public gathering whole restaurant business collapsed in many countries. Although, the government in Sweden did not enforce lockdown and the restaurant was open but sales were fallen down almost in every restaurant. In addition, food service is one of the largest private sectors which contribute to the local economy in many countries. Therefore, the purpose of the research is to examine how foodservice companies apply e-commerce to overcome the effect of covid-19.

In order to answer our two research questions, we have gathered primary data from different reliable sources. And all the data we have used passes through its validation method to make this research acceptable to every reader. Our first question explains about various challenges faces by the foodservice industry. This research identifies some major challenges faces by the foodservice industry during the covid-19 pandemic. There are a number of challenges such as food safety, social distance, food quality, supply chain management, sales continuity, and operating funds. Due to sales down, its effects on all other functions of this process. Food safety and food quality have been affected by the lack of delivery person for online home delivery and long queue in the service point due to social distance. Most of the organizations run by fewer employees, therefore, the quality of service has declined. Sales are the most important element in the business function because it generates funds for all the other elements to keeps runs. Due to covid-19, almost every restaurant declined sales and it causes a fund crisis for them. Also, we have found that the supply chain has been destroyed and the Food Company faces a struggle to gets supplies.

If we look at our second research question which is how foodservice companies do consider different factors involved in adopting e-commerce platform to minimize the challenge created by the pandemic in foodservice industry. Adoption is a process where
a different component needs to work together. First of all, management has to identify its real importance and its ability to acquire. We have interviewed five branches of burger king and Indian garden restaurants and got the result from one online survey that adaptation e-commerce would be the best solution for foodservice Companies to keep the sales growth during this pandemic. Although, we have agreed on the importance of e-commerce adoption, but it is not easy to implements. Particularly many traditional business owners have less knowledge about advanced technology. We have found that many restaurant branches of Indian garden still run by tradition way. Therefore, the food service provider required technological knowledge about website, online payment, security, delivery partner.

The restaurant that used first time e-commerce for their business has a different result; they have faced some difficulties such as order management for the delivery, time management, and lack of technical efficiency. However, we have found interesting results in consumer buying behavior on e-commerce experience in the online survey. Most of the consumer all over the world aware of e-commerce and had experience with e-commerce shopping before. The consumers believe this industry will grow in the future and have a positive impact on traditional foodservice companies. On the other hand, the restaurant representative agrees that with the help of an e-commerce platform, this traditional foodservice company can survive during a pandemic like covid-19. Although, they have reported daily sales have been a decline by up to 50% in many restaurants. The adoption of e-commerce is strongly linked to the survival of the traditional foodservice industry.

This research helps to adopt e-commerce in new foodservice companies and those who still follow the traditional business system. We recommend to the Indian Garden, to establish their online ordering system, website, and secure payment services so that they can make the trust to their customers. In this pandemic condition, the customer who wants to stay home and enjoy favorite food, it can be possible through an e-commerce platform. An E-commerce platform works as a connector between consumers and foodservice providers. Finally, this e-commerce platform has its positive effects on social and economic development in a country.
6.2 Implications of the study

Our research topic is very relevant to the present time, pandemic still exists, and many countries under a lockdown or restrict on public movement. We believe our research can be used for managerial purposes, specially for the foodservice industry or restaurant business. This research has depth in adoption factors involved for e-commerce platform; therefore, the manager can make a decision on the adoption of e-commerce for the business. Also, managers will know various challenges which cause by the covid-19 pandemic.

On the other hand, this study can be used for academic purposes. The student will be benefited who wants to further study this topic. This research has a very common interesting subject which is very useful for the general consumer such as health and safety, online ordering, security, internet. Moreover, as this is an interesting and important topic, everyone will be benefited from all levels of society.

6.3 Limitations of the study

Nowadays, E-commerce is a very common topic. There are many studies have been conducted on this subject previously. So, we did not face any problem with finding the required secondary data for our research work. But primary data is imported and not easy to collect. Due to the covid-19 pandemic, we have faced difficulty to arrange as many face-to-face interviews and survey as we wanted. For this reason, we have less primary data for our research.

In addition, quantity of data for research work is a vital issue; due to time limitation we could arrange data from different location. We have only used data from Sweden based Food Service Company; although, e-commerce and pandemic effects are global. Therefore we don’t know what challenges faces by other parts of the world and how they manage to adopt e-commerce during this pandemic.
6.4 Suggestions for Future Study

We have found these research topics are very relevant to the present situation. We have noticed how the world economy collapsed due to pandemic effects. We have tried to find out the various challenges the food industry faces during the pandemic. And, how these Challenges of covid-19 can be overcome by the adopting of an e-commerce platform. However, due to time limitations, we have done our study on a small scale; so, there will be room for further study on this broad topic. As we are already declared, our research was based on the Swedish market and we have used only two companies to complete this study, therefore this study cannot give a real picture for the whole industry by this small study. Therefore, we have some suggestions for future study on this broad and important topic for future researchers. To make this research more interesting, the future researcher can use more data from different restaurants and locations.
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Appendix: 1

Interview Company: Indian Garden

Interview Questions for Indian garden employee

1. Do you think e-commerce platform can increase your sales in this Pandemic situation?
   Ans: Yes.
2. Online market adoption, is it helpful for restaurants in this pandemic situation?
   Ans: Yes
3. What do you think about website design? Is it matter in your sales?
   Ans: Yes, Information of product, location, delivery policy, returns policy and business.
4. Does technological acceptance is important in your company? How is it works?
   Ans: Yes, online order balancing sales during covid-19 due to restriction on public gathering.
5. How was the response from the customers after open the online services in Covid 2019? (If)
   Ans: Response has increased during covid-19
6. Is there any difference between the online and physical sale? (In terms of dealing with the customer)
   Ans: Yes, online customer gets less information about product. Physical customer can any kind of information about product, business etc.
7. Do online orders make customers feel secure?
   And: Yes, although third party handle payment issue for restaurant
8. Do you have any return or refund policy for the online sales?
   Ans: Yes, sometime offer coupon and discount some case.

9. What is the important thing for your restaurant to improve the sales now (covid-19)?
   Ans: Food and service quality and emphasize on take away and online sales

10. What strategic plan have you taken for sales growth during covid-19 effects?
    Ans: cut down labour about 30% and promoting online sales.

**Appendix:2**

Interview Company 2: Burger King

Interview question for Burger king Employee

1. What you think about the physical and online food orders? Which is better?
   Ans: According to me, both depends on the situation. Sometimes physically order make the good relations with the organization and the customers. In the opposite side, I can say that for now online orders is better for us because we can make the distance from our customers and they able to order the food from home

2. Are the Website Design attract the customers?
   Ans: Yes.

3. How many percentages of orders do you get in your physical store every day?
   Ans: now, we have 60-70% physical order out of hundred

4. How many percentages of orders do you get in your online store every day?
   Ans: the rising percent is double from before

5. Do you think, online customers are satisfied in online orders?
   Ans: yes. If they are satisfied with their food and quality
6. Which way you are using for online orders and delivery?
Ans: Ubereats, wolt, Foodora

7. Do you have anything special for customers payment security?
Ans: Customer payed for food from their phone. If they ordered from the website, then we can assure them.

8. Do you have any return and refund policy in online services?
Ans: yes, if customer are not satisfied and want money back, they can call us or email us. we will response.

9. As Burger King maintaining the online services before this pandemic situation, so do you have any recommendation for new online restaurant service?
Ans: for new online restaurant businesses, they have to maintain the quality of their product, and the secure payment system and the response time.
Online survey: Facebook

Online Survey result on the adoption of E-commerce in the restaurant industry
2. How many times a month have you ordered food from restaurants using the online platform?
37 responses

3. Which of the following benefits do you consider when ordering food online?
37 responses

- Easy to make order: 14 (37.8%)
- Low Price: 4 (10.8%)
- Health and safety: 7 (18.9%)
- Save time: 27 (73%)

https://docs.google.com/forms/d/1pc2EYJyeQaOUL7-anHCoYe_cy6fCyK-eRLzgoV5m3TknxVd8d#responses
4. Which of the following is a major problem when ordering food online?

- High price: 26.7%
- Food Quality: 40.5%
- Long delivery time: 16.2%
- Difficult to order: 4.3%
- Food information: 0.8%

37 responses

5. Do you think e-commerce or online order can destroy the traditional restaurant business?

- Yes: 78.4%
- No: 16.2%
- Maybe: 5.4%

37 responses
6. Do you think e-commerce or online order can save the traditional restaurant business from covid-19?
36 responses

7. Do you think complete lockdown best approach to preventing pandemic like covid-19?
37 responses
8. Do you think the development of logistic support being promoting more online business?
36 responses

- Yes: 83.3% (31 responses)
- No: 13.9% (5 responses)
- Maybe: 2.8% (1 response)

9. Do you think the trend of buying online depends on the income of the buyer?
36 responses

- Yes: 61.1% (22 responses)
- No: 16.7% (6 responses)
- Maybe: 22.2% (8 responses)

https://docs.google.com/forms/d/1qz2EYJyqQavULTa-6HCye_cjy5CyKx-6RLzg3VPrmTtIA/edit?response
10. Do you think the use of e-commerce in the restaurant industry will increase in the future?

36 responses

- Yes: 97.2%
- No: 2.8%
- Maybe: 0%

https://docs.google.com/forms/d/1qz2EYJyoQavLT-anHCye_cy6OycXl-cRLzgV/Fm3TkA/edit#responses