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The Transition from In-Person Dining to Delivery
Applications in the Post-Pandemic UK Restaurant Industry

DISSERTATION PROJECT

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Abstract

The restaurant industry's digitalisation, especially in meal delivery, has resulted in substantial changes and potential for revenue growth and development. The COVID-19 epidemic has hastened the trend towards food delivery services, with businesses adjusting to fulfil the need for safety and convenience by adopting direct-to-consumer solutions such as meal kits and subscription services. However, post-pandemic challenges such as rising costs and shifting consumer preferences necessitate long-term solutions involving all stakeholders. This research project investigates the relationship between changes in consumer behaviour and mobile device adoption in the restaurant industry, including the impact of demographic characteristics on consumer behaviour and the opportunities and challenges of FDA-style mobile apps for online food ordering and delivery platforms.

The study focuses on the UK market for online food ordering and delivery platforms and intends to give insights into new restaurant trends, changes in consumer preferences, and the advantages and expectations of consumers, and restaurants as a result of food delivery digitalisation. Overall, the research emphasises the importance of stakeholder collaboration in combating the pandemic's effects.

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1 Introduction

In recent years, the restaurant industry has experienced significant growth worldwide. However, the outbreak of the Covid-19 pandemic in 2019-2020 (ONS, 2021) forced restaurateurs to re-evaluate their expenses, streamline their operations, improve communication with employees and subsidiaries, and increase their presence on social media and e-commerce platforms (Nelson, 2021). The pandemic also necessitated a reliance on new distribution channels for food products due to health-related restrictions (Yost & Cheng, 2021). As a result, the popularity of food delivery services has surged, with many consumers using mobile applications such as Deliveroo, Uber Eats, and Just Eat to order meals (Kats, 2020). These food delivery apps (FDAs) are designed to leverage the widespread use of smartphones with mobile internet and navigation services (Kaur et al., 2020b). By streamlining restaurant logistics processes, collecting sales data, managing the supply chain, and reducing purchasing risks, FDAs have revolutionized the entire catering industry (Esposito et al., 2022). The Covid-19 pandemic has made FDAs an essential tool for food services to reach more customers in different locations, and this has increased meal delivery app subscriptions worldwide, especially in the UK (Ali et al., 2021).

At the same time, the pandemic has also changed the behaviour of food consumers. It made them look at consumption more closely and changed how and where they spend their money. It was primarily due to the economic and psychological effects of the Covid-19 pandemic (Rogers and Cosgrove, 2020). Convenience, economy, food quality, availability and delivery time have become essential for many people (IBISWorld , 2021). The use of FDA applications has increased as households, for convenience (Cho et al., 2019), have replaced meals eaten in restaurants with meals delivered by a courier (Baker et al., 2020).

1.1 Background

According to Coppola (2022), the global online food delivery sector is forecast to reach USD 770 billion in 2022, with USD 300 billion in the meal delivery segment. Furthermore, the

market is projected to generate revenues exceeding \$1.4 trillion by 2027. The food delivery market is experiencing significant and rapid changes. In the UK, takeaway food has become a prevalent form of dining, constituting a significant portion of catering services. Lock (2022) reports that pandemic restrictions have further boosted the dynamic growth of this sector, with a 42% increase observed between 2019 and 2021. In 2019, the average spending per person on takeaway food amounted to 452 British pounds, which increased to 641 pounds by 2021.

The pandemic reinforced the FDA's prevalence, during which 18.6 million British benefited from food delivery in 2020 (FMI, 2022). During this time, the popularity of restaurant aggregation platforms also increased significantly - 10.5 million users of takeaway platforms. From 2017 until 2024, this number will double to 23.1 million and 12.7 million for online platforms alone (Blumtritt, 2022). Currently, many catering businesses base their activities mainly on delivery sales (Gunden et al., 2020), although, before the pandemic, they treated it only as an addition. However, times are changing, and restaurants must follow consumer choices and new habits to stay in business.

1.2 Rationale of the study

The COVID-19 pandemic has brought about significant changes in consumer behavior, particularly in purchasing food, increasing interest in mobile digital channels for food delivery applications (Hong et al., 2021), leading to the rationale of this research to examine the effectiveness of the adoption of mobile technology in the restaurant industry, addressing the challenges and opportunities that arise. This study explores the links between changes in consumer behavior and the adoption of mobile technology in the restaurant industry, particularly in the context of FDA food delivery applications. Moreover, it seeks to analyze the hotel industry's opportunities and challenges regarding online food ordering applications. Adopting FDA-type mobile applications presents a new channel for the restaurant industry to generate additional revenue while reducing unnecessary costs, such as logistics and employment-related expenses (Panse et al. 2019). Ultimately, this study aims to shed light on the impact of mobile technology on the restaurant industry and its impact on enhancing its performance in the post-pandemic period.

Giving customers the ability to order food and pay for it using a smartphone app offers restaurants a tool to increase loyalty and build relationships (Tabor, 2020). In addition, using the FDA mobile application, it is possible to collect helpful information for further ongoing analysis, such as customer product preferences (Gupta, 2019).

The United Kingdom was chosen as the context of the study, as the number of users of the FDA smartphone application in this country is expected to increase shortly. At the moment, it is estimated about 6 million downloads (Coppola, 2023). In addition, the size of the market for online food ordering and delivery platforms in the UK grew by an average of 29.4% per year between 2018 and 2023. Eventually, it reached £3.3 billion in 2023 (IBISWorld, 2021). It will increase soon, especially in well-urbanized cities (Bissell, 2020).

1.3 Aim and objectives

The aim of this paper is to examine the transition from in-person dining to delivery applications in the post-pandemic UK restaurant industry, exploring the drivers of this change, the challenges faced by the industry, and the opportunities presented by this shift.

Introduction: The COVID-19 pandemic has caused significant disruption to the UK restaurant industry, forcing many businesses to close their doors or drastically alter their operations. One of the most notable changes has been the transition from in-person dining to delivery applications, as consumers have shifted their preferences towards more convenient and contactless options. This paper will examine the impact of this transition on the industry, exploring the challenges and opportunities presented by this shift.

Drivers of change: The pandemic has accelerated the adoption of delivery applications in the UK restaurant industry, with consumers seeking out more convenient and contactless options. Additionally, the rise of third-party delivery platforms has made it easier for restaurants to offer delivery services without the need for their own delivery infrastructure. This has led to an increase in competition and the need for restaurants to differentiate themselves in a crowded market.

Challenges faced by the industry: While the transition to delivery applications has presented opportunities for the industry, it has also created significant challenges. Restaurants must adapt their menus and operations to suit the demands of delivery, and there is a risk of

losing the in-person dining experience that many consumers value. Additionally, the fees charged by third-party delivery platforms can be high, eating into restaurant profit margins.

Opportunities presented by the shift: The shift towards delivery applications has also presented opportunities for the industry. Restaurants can reach a wider audience through delivery, including customers who may not have previously visited their physical locations. Additionally, the use of data analytics and customer feedback can help restaurants tailor their menus and operations to better meet the needs of their customers.

Conclusion: The transition from in-person dining to delivery applications in the post-pandemic UK restaurant industry has been driven by consumer demand for more convenient and contactless options. While this shift presents challenges for the industry, it also presents significant opportunities for restaurants to reach new customers and differentiate themselves in a crowded market. By adapting their menus and operations to suit the demands of delivery, and by leveraging data analytics and customer feedback, restaurants can position themselves for success in the post-pandemic landscape.

The goals of the following work are:

- Exploring the relationship between changes in consumer behavior and the adoption of mobile technology in the restaurant industry in the post-pandemic period.
- Investigating the impact of demographic characteristics such as gender, age and education on consumers' willingness to buy food via mobile applications.
- Analyzing the opportunities and challenges facing the restaurant industry in connection with the adoption of FDA-type mobile applications for online food ordering and delivery platforms.
- Explore how the use of FDA mobile apps can help restaurants increase customer loyalty and collect valuable information for ongoing analysis, such as customer product preferences.
- Study of the UK market for online food ordering and delivery platforms, including size and pace and potential for further growth

1.4 Research questions

The intention of this work is to address existing knowledge, which has been collected in trade journals and published in research, and to provide answers to the following questions:

- What new restaurant tendencies arise in the aftermath of the pandemic?
- How have consumer preferences changed recently and what impact does this have on the situation of restaurants?
- What benefits can the restaurant count on and what can the customer expect thanks to the digitization of deliveries?

1.5 Dissertation Structure

This dissertation has been organized into five chapters.

The first chapter explains this research project's rationale, context and potential contribution. In addition, research objectives and questions will be included here, which will be answered later in work.

The second chapter provides a critical discussion of the evidence from secondary sources. The literature review on the subject will analyze the current research on the issue; it allows us to state the state of research (and knowledge) regarding the developed matter and the existing gaps in this area. The literature analysis will present both the current state of knowledge (and research) in a given field and the issues and methods of other research so that they constitute the background for the considerations.

The third chapter concerns the research methodology conducted on a randomly selected sample of respondents. The characteristics of the research group, structure and data collection procedure were made here.

The fourth chapter summarizes the research results conducted on a group of respondents. First, the characteristics of the target research group to which the survey was addressed will be briefly presented. Finally, the research results will be presented, the hypotheses will be verified, and the methodology will be summarized. This chapter analyzes and discusses the results of basic research.

The fifth chapter of the dissertation will be the final summary of the substantive content. It will contain conclusions from the entire work and the desirability and possible possibilities of continuing further considerations on the research subject.

2 Literature review

2.1 Introduction

The impact of digitization on the restaurant industry and food delivery market is expected to bring about significant changes in the coming years (Gagnon, 2022a). The COVID-19 pandemic has further highlighted the importance for businesses to adapt to changing environments quickly (Lempert, 2023). In the restaurant industry, the virtualization of sales processes has shifted towards mobile channels, with food delivery platforms playing a pivotal role in expanding the sector (Gagnon, 2022b). By utilizing these platforms, restaurants can potentially increase revenues while outsourcing logistical costs to companies specializing in food delivery (Xu & Huang, 2019). Furthermore, with access to technology and data, restaurants can identify opportunities for growth, such as the emerging trend of virtual restaurants (Isaac & Yaffe-Bellany, 2019).

Research on food delivery logistics has become increasingly important in recent years, mainly due to the heightened demand for safe and reliable delivery services during the pandemic (Mehroli et al., 2021). Studies have also examined changes in consumer behaviour and their impact on the food delivery industry during the pandemic (Hong et al., 2021). These findings have significant implications for the present and post-pandemic period.

2.2 Challenges of stakeholders in the post pandemic restaurant industry

The UK lifted lockdown restrictions on March 8, 2021 (Baker et al., 2021). However, the catering sector was among the few hardest hit by the direct and indirect effects of the pandemic. Due to the lockdown, catering establishments were prohibited from operating

stationary with the possibility of hosting guests (Hutton et al., 2022). The Covid-19 pandemic has also created a situation that requires a long-term view and solutions involving all stakeholders (Rivera, 2020). Stakeholders are defined as any group or person who can influence the achievement of the organization's goals or is influenced by the achievement of the organization's objectives (Benn, et al., 2016). They are customers, employees, owners and suppliers, non-governmental organizations and local communities. The cooperation between all these groups has become invaluable in the fight against the effects of the pandemic. Also, the popularity of the delivery trend was so great that during the pandemic, premises focused only on delivery were opened. Restaurateurs who included deliveries in their services avoided a sharp decline in turnover (Ahuja et al., 2021). FDA services complied with consumer demands for personal safety, efficient food delivery, and convenience (Zhao and Bacao , 2020). At that time, delivery platforms such as Uber Eats and Deliveroo were doing great, but restaurateurs were also taking the initiative, shifting some orders from services to self-delivery (McCormack , B. 2020). The upward trend in the demand for services at this time with delivery food services is presented in the charts below:

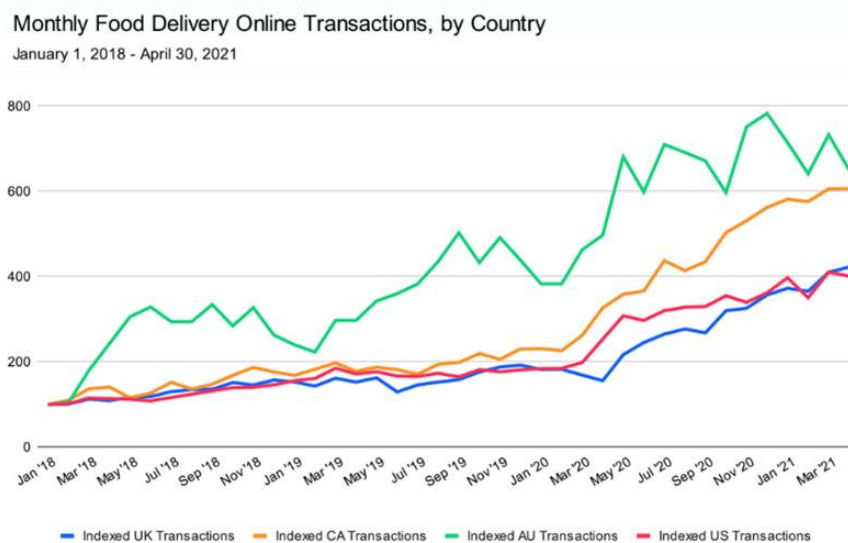


Figure 1. Monthly food delivery online transactions by country (Edison Trends, 2021).

Data suggests that the UK food delivery industry experienced significant fluctuations in transaction volume in 2020 due to the pandemic and other factors. However, the industry has shown great resilience and adaptability as it continued to grow and meet the growing demand for food delivery services.

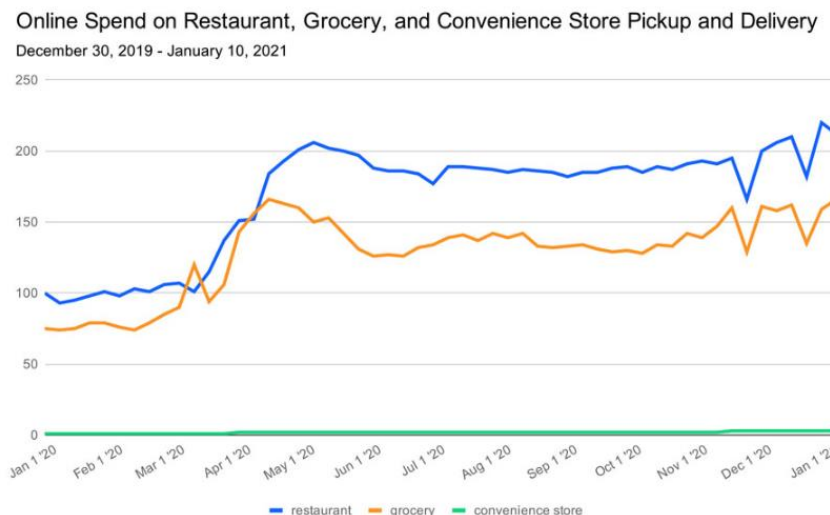


Figure 2. Online spend on restaurant, grocery, and convenience store pickup and delivery. *Edison Trends (2021a)*

Online spending for pick-up and delivery at restaurants, grocers and convenience stores across the UK has been on the rise in recent years, and the COVID-19 pandemic has accelerated this trend. This trend will increase in the coming years as new players enter the market and consumer preferences continue to evolve. The surge in demand for takeaways can be attributed in part to the pandemic, but restaurant operators also deserve recognition for their innovative response. They have adjusted to the shift in consumer behavior towards home consumption by introducing direct-to-consumer options such as meal kits and subscription services (KPMG, 2021).

Following the reopening of restaurants in 2020, there has been a gradual return to eating out across the UK thanks to the government-funded Eat Out to Help Out scheme (Partridge, 2020), resulting in a significant increase in restaurant dining. However, it did not apply to take-out orders. Currently, catering has become a luxury service for British citizens. Eating out is now one of the last items on their priority list. As the pandemic eased, it seemed that the good times in gastronomy would return, and optimism and the number of customers increased. However, the signs of the crisis are becoming more and more visible. Inflation in the UK exceeds the threshold of 9.1% in 2022 and 6.1% in 2023 (Clark, 2023). Also, the Consumer Price Index (CPI) increased by 10.4% in the 12 months to February 2023 (ONS, 2023). Companies in the restaurant industry are currently under tremendous pressure due to rising costs. This situation applies to all cost components such as electricity, gas, wages, food and rental prices (Elliott, 2023). Due to the expected economic slowdown, customers are expected to control their spending more closely and limit purchasing certain goods and services

(Strauss and Valentina, 2023). Brits have become pickier about dining out. A quarter (25%) prefer spending time with family or friends at home, ordering less at restaurants and avoiding paying extra for meals. It is essential to address the cost of living crisis (Cumming , 2022).

New technological solutions are becoming an opportunity for the restaurant industry, including platforms and applications for ordering food, and social media, to which consumers during the pandemic were very open (Ahuja et al., 2021). However, the biggest challenge for restaurants is that food shipping costs limit profits. It is related to the fees charged by the FDA platforms. Reducing portions or slightly increasing the price of products are rare cases of passing these costs on to their consumers (Lempert , 2023).

2.3 The importance of delivery apps in a changing restaurant environment

Virtualization of consumption is an alternative consumer trend that has been gaining momentum in the last few years and is associated with the development of the network society and technological changes (mainly information and telecommunications technologies, of which the Internet has the most significant impact on consumer purchasing behaviour) (Humphries, 2019). Thanks to constant access to the Internet, food can be ordered from anywhere and at any time. Mail-order sales by restaurants give them a competitive advantage over establishments that do not do so and only offer meals traditionally on the spot.

Many restaurants are moving online, reducing their overall costs in the long run, even when the cost of maintaining the FDA application is high (Ding et al., 2022). Currently, a pretty prohibitive price in order is the cost of delivery and often the cost of the dish itself. It must be remembered that companies providing food applications charge their commissions, affecting the order's final price. They are at least 30 percent — a severe order, especially during high inflation (Hickey, 2022). However, the entire process - from placing an order to delivering it to the customer - is fully automated and easy for both customers and restaurants. Logistics is on the side of the companies managing the platforms.

Entering platforms offering FDA applications allows for reaching new customers (Humphries, 2019). Because these companies invest much more in mass advertising than the average restaurant can afford (Soyeun and Heesup , 2022). Trust in such a platform radiates to

the restaurants listed on it, and the comments and ratings module encourages owners to constantly care about the quality of service, which in turn translates into customer retention (Humphries, 2019). However, the restaurant needs help accessing customer information (it only knows the orderer's name). It significantly affects the conduct of marketing activities, which could be directed to specific recipients in the case of direct orders. However, statistical reports (Coppola, 2022) show that portals and applications such as Deliveroo, Uber Eats or JustEat are among the most frequently chosen options for ordering. In addition, the restaurant can focus solely on preparing the best food possible without worrying about the delivery and billing process. It is expected also, that the trend of increasing takeaway consumption will persist, leading to more entrants in the market. While ultra-fast grocery delivery companies operate in a different segment, they too have the potential to capture a share of the takeaway market. To tap into the growth potential and attract investors, operators need to adopt a multi-channel approach with a balanced mix of on-site, takeaway, and meal kits. Simply reverting to pre-pandemic operations and ignoring the importance of multiple channels is unlikely to result in success (KPMG, 2021).

Restaurants now need smaller floor space and can be built in less prestigious locations (Gagnon, 2022). In such restaurants, more emphasis will be placed on the kitchen than the place with tables, and in extreme cases, there will be no such places. Delivery in such a restaurant can be up to 100 percent of turnover. Creating a new restaurant brand in the digital world requires much fewer costs, and using applications such as the FDA will allow competing effectively with big brands.

2.4 Factors influencing consumer choice of FDA applications

Dynamic changes in restaurant consumers' surroundings make their behaviour change. The feeling of lack of time for home and housework, rest, family and social life is getting stronger. The need for convenience is primarily associated with those aspects of life in which people are forced to seek time savings. More and more consumers are also buying food online, making the process somewhat automated (Humphries, 2019).

The main intentions accompanying their choice are the ease, satisfaction and convenience of using FDA applications (Cho et al., 2019). Delivery time, quality of service,

condition of the food delivered, and the value of the delivery tracking service are also essential factors (Saad, 2020). Yeo et al. (2017) confirmed that convenience, time savings, previous experience using the application, and the price factor complement each other. Nguyen, (2019) additionally states that the application's ease of use and its mobility and interactivity are the basis for choosing a food delivery service.

Time is a critical element in delivery and often determines the willingness to order (Saad, 2020). Recent decades have brought significant changes to the leisure time structure of the British. Although they spend slightly less time on professional work and domestic activities, commuting to work has become more time-consuming, and studying and training take longer. Lifestyle change has resulted in greater acceptance of the use of FDA applications. Both the quality of ordered food and fast service became a priority. In addition, FDA applications are critical to most urban consumers, for whom fast food delivery is correlated with their fast-paced lifestyle (Kaur et al., 2021). Chai and Yat (2019) demonstrated in their research the interaction of the emergence of online food delivery services on changing the lifestyle of urban consumers.

The importance of the consumer experience of delivery has been highlighted by Saad (2020) in his research. Building delivery experiences is a process that provides positive emotions at every stage of the customer's interaction with the restaurant. The long-term increase in customer satisfaction translates into greater trust and commitment. Mehroli et al. (2020) also state that the sale of food in FDA applications is mainly influenced by the perceived benefits of food delivery and the frequency of orders. Consumers want to be sure that their orders will be completed with the utmost care and delivered on time. Therefore, fulfilment accuracy is also one of the most critical attributes of ordering food through FDA applications. In the long run, more consumers will accept this way of ordering food (Ding et al., 2007). In addition, it was indicated that if the FDA provides consumers with a high-quality index, it is very likely that others will start using this application as well (Ray et al., 2019).

Another equally vital parameter to consider when choosing the FDA by the user is the price (Saad, 2020). The consumer is sensitive to sales, and price promotions, looks for generally low prices, and often compares products before buying to spend their money well. The price refers to the cost that the FDA charges the customer when ordering a product from one of the restaurants available in the application. Therefore, various types of promotions, discounts and appropriate advertising are necessary to increase consumer involvement. FDA

applications are additionally equipped to express opinions about the service provided and order history (Ray et al., 2019). Ray et al. (2019) also suggest that there is no basis for the recommendation of family or friends to influence the choice of FDA applications. In turn, Wang et al. (2019), using the theory of gratification (service and system quality, promotions, product quality and price), suggest that satisfaction from using the FDA application substantially impacts its reuse.

Ray et al. (2019) show how valuable the application's ease of use is, with particular emphasis on order placement and tracking functions. Everything takes place in real-time. The user is informed about the stages: acceptance by the restaurant, dish preparation, and food collection by the carrier. The following are also available for viewing: a photo of the person responsible for the delivery, their name and surname, and the route followed by the courier, with its current location marked. Also, Alalwan (2020) confirms that the ease of online tracking and reviews left by other users significantly impact further intention to use the application. Roh and Park (2019) agree that the ease of use of the FDA leads to increased user requirements for a particular technology and consequently leads to its use - also, the design itself or the functions that the applications are equipped with significantly affect the satisfaction and locality of users (Pal et al., 2021).

Karulkar et al. (2019) pointed to the direct impact of the Internet as a factor causing the direct impact of consumer adoption of online catering services. To this end, they adopted the Unified Theory of Technology Use and Acceptance (UTAUT). This theory is also relevant to analysing consumer ordering behaviour using mobile apps (Izzati, 2020).

Recently, there has also been an increase in the use of smartphones. It has significantly impacted online food ordering (Okumus, et al. 2018).

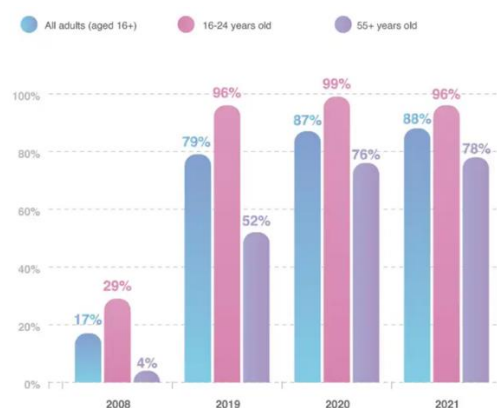


Figure 3. A breakdown of UK age groups over time and the percentages that own a smartphone

The number of mobile connections in the UK increased by 3.8% in 2022 to reach 71.8 million. It is predicted that by 2025, 95% of the UK population will use a smartphone. In 2021, 88% of UK adults owned a smartphone, with 96% of those aged 16-24 having one compared to 78% of those aged 55+. Smartphone ownership has increased significantly since 2008 (Hiley, 2023). The increase in the use of smartphones translates into the number of installed applications for delivery.

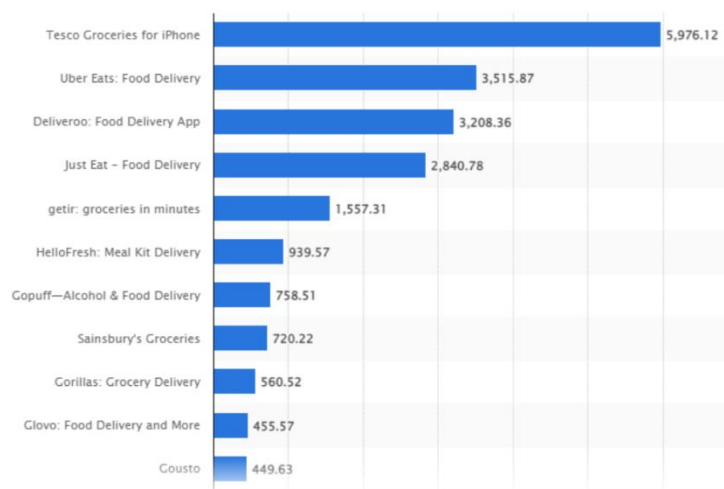


Figure 4. Figure 4. Number of downloads of leading food delivery and takeout apps in the United Kingdom (UK) in 2022(in 1,000s) (Coppola, 2022)

In addition, the English are becoming increasingly convinced of online payments, e.g. through mobile applications. Year after year, they are more willing to use them to meet their basic needs - such as grocery shopping or ordering food for delivery. On the other hand, the risks associated with online payments, poor Internet connectivity, and the loss of data privacy are demotivating factors for online consumers (Chakraborty, et al. 2022).

An important socio-cultural factor for ordering food online is the millennials' rise. Research shows that the most influential factor determining this social group's choice of FDA application is the price of food. An additional impact on their perception of choice is the reliability of the application, ease of use and the number of food options available (Azizul et al., 2019).

3 Research methodology

3.1 Introduction

Research methodology refers to the systematic study and investigation of a particular subject or problem using scientific methods and techniques. It is a way to find answers to questions or problems that require empirical evidence, and it involves various steps and procedures to ensure the validity and reliability of the results obtained. The main goal of research methodology is to provide a structured and organised approach to research that ensures that the findings are accurate, unbiased, and can be replicated by others. It involves using various research techniques, such as data collection, analysis, and interpretation, to achieve this goal (Adams, 2014).

Research methodology can be divided into two main categories: quantitative and qualitative. Quantitative research involves collecting and analysing numerical data, while qualitative research involves collecting and analysing non-numerical data, such as words, images, and sounds.

The research onion is a model that helps to explain the various stages of the research process. It was developed by Saunders et al. (2012) and is a valuable tool for researchers to understand the different stages of the research process. The research onion consists of six layers or stages, each of which represents a different aspect of the research process such as research philosophy, research approach, the research strategy and design, time horizon, data collection method and analysis of data.

The research onion model helps researchers understand the different stages of the research process and how they are related. Using this model, researchers can ensure that their research is conducted systematically and rigorously.

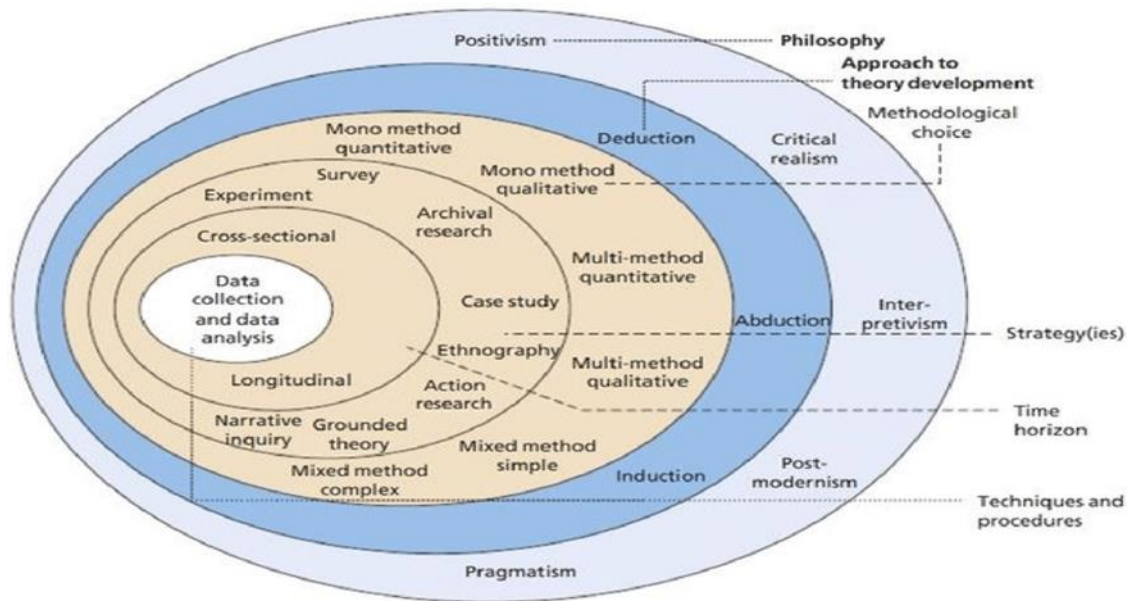


Figure 5. Research Onion (Saunders, 2012)

These studies follow the epistemology of positivism. The nature of the analysed issue dictated this choice. Positivism assumes that knowledge can only be obtained through scientific methods such as experimentation, observation, and empirical verification (Collis and Hussey, 2014). Concerning FDA food delivery applications, this concept can be used in research on consumer preferences, their eating habits and the effectiveness of marketing strategies and ways to improve the quality of services. Positivism also assumes that knowledge is objective and independent of individual interpretations. The knowledge resulting from the research should be independent of the subjective opinions of the people surveyed, and the results should be based on facts and observations. The concept of positivism also holds that science should be put into practice to benefit society (Collis and Hussey, 2014). In the context of the study of food delivery apps, a scientific approach to researching consumer preferences and ways to improve service quality can benefit consumers, food suppliers and app owners.

In this study, the research approach of deductions was adopted. In the conducted research, the deductive approach refers to how the researcher creates his arguments and conclusions (Chawla and Sodhi, 2011). In the deductive approach, the researcher starts with hypotheses or theoretical assumptions and concludes them, which are tested based on empirical data or other sources. In this way, the researcher tries to confirm or reject his hypotheses or theoretical assumptions (Collis and Hussey, 2014). The deductive approach, however, does not lead to formulating a new theory (Saunders et al., 2009). This project is optional because the

researchers intend to test existing theories in a new environment. The deductive investigation is also called less time-consuming (Chawla and Sodhi, 2011).

3.2 Ontology and Epistemology

When describing the usability of FDA food delivery applications, various ontological and epistemological concepts can be used depending on the purpose of the study. Ultimately, the choice of a particular concept depends on the goals of the study and the research question that will be included in the dissertation.

The ontological concept assumes that there are objects that are independent of our perception and cognition (Saunders et al., 2009). In the context of the usability study of the FDA application, it can be described that different types of food can be delivered through such an application and that their nutritional and taste properties are independent of perception. In addition, it is possible to assess the relationship between different types of food, their health effects, and the preferences of users in terms of food.

On the other hand, the epistemological concept assumes that our knowledge depends on the context and the goals we want to achieve. Knowledge is constructed by experience and social context (Saunders et al., 2009). Regarding the food delivery app, we can focus on researching what social and cultural factors influence users' food preferences and their experiences related to using such an application. Ultimately, it can determine what goals users want to achieve using such an application and what information they need.

3.3 Research philosophies

These studies follow the epistemology of positivism. The nature of the analyzed issue dictated this choice. Positivism assumes that knowledge can only be obtained through scientific methods such as experimentation, observation, and empirical verification (Collis & Hussey, 2014). Concerning FDA food delivery applications, this concept can be used in research on consumer preferences, their eating habits and the effectiveness of marketing strategies and ways to improve the quality of services. Positivism also assumes that knowledge

is objective and independent of individual interpretations. The knowledge resulting from the research should be independent of the subjective opinions of the people surveyed, and the results should be based on facts and observations. The concept of positivism also holds that science should be put into practice to benefit society (Collis & Hussey, 2014). In the context of the study of food delivery apps, a scientific approach to researching consumer preferences and ways to improve service quality can benefit consumers, food suppliers and app owners.

3.4 Research approach

In this study, the research approach of deductions was adopted. In the conducted research, the deductive approach refers to how the researcher creates his arguments and conclusions (Chawla & Sodhi, 2011). In the deductive approach, the researcher starts with hypotheses or theoretical assumptions and concludes them, which are tested based on empirical data or other sources. In this way, the researcher tries to confirm or reject his hypotheses or theoretical assumptions (Collis & Hussey, 2014). The deductive approach, however, does not lead to formulating a new theory (Saunders et al., 2009). This project is optional because the researchers intend to test existing theories in a new environment. The deductive investigation is also called less time-consuming (Chawla & Sodhi, 2011).

3.4 Research design and choice

The chosen research methodology for the project is quantitative, which involves using statistical techniques to collect and analyze numerical data. The rationale behind this choice is that the research question examines the relationship between two variables. By employing structured data collection tools, such as surveys, the researcher can collect data from a sizable sample and analyze it with statistical software. This approach aims to identify patterns and trends in the data and test hypotheses related to the variables' association. Additionally, quantitative research methods ensure the reliability and validity of the results, as statistical tests can determine the results' significance. Therefore, the researcher concludes that the quantitative research approach is the most appropriate for the project, as it will provide valuable insights into the research question.

3.5 Research strategy, type of investigation and design

The study will rely on primary data collected from respondents through a questionnaire survey to gather information on their opinions, attitudes, behaviours, needs, and preferences. The primary data collection is in line with the research approach proposed by Saunders et al. (2009). Additionally, secondary data sources such as reports, articles, statistical data, and scientific publications, which have already analyzed and interpreted existing information, will be used to supplement the primary data analysis. This approach aligns with Saunders et al.'s (2009) recommendation to use secondary data sources to provide a context for interpreting primary data collected. Therefore, the study will utilize primary and secondary data sources to gain comprehensive insights into the research questions.

The survey strategy was chosen as the data-gathering method for several reasons. Survey research is relatively easy to develop, particularly with advanced software solutions (Saunders et al., 2009). However, difficulties in obtaining accurate data arise, particularly in online research, where fewer opportunities exist to control the respondents' behaviour. Respondents frequently abandon completing long surveys, leaving some questions unanswered, potentially impacting the reliability and completeness of the data. To mitigate this issue, all questions have been marked as required in the survey software, ensuring complete answers are provided. Additionally, the questionnaire may be completed by someone other than the intended recipient (Saunders et al., 2009).

It should be noted that the selection of the research group significantly impacts the study's conclusions, potentially leading to different results depending on the respondents selected. Therefore, the target group for this study comprises users of the FDA application aged 18 or over. This decision is consistent with Saunders et al.'s (2009) recommendation to carefully select the respondents from whom information is obtained to ensure reliable and valid data collection.

3.6 Time Horizon

Cross-sectional research is a type of research design where data is collected from a sample of participants at a single point in time. In this design, the researcher does not follow

the same group of participants over time but instead collects data from a diverse group of individuals simultaneously. Cross-sectional research aims to obtain a snapshot of a particular phenomenon or behavior at a specific point in time. Therefore, the time horizon of cross-sectional is chosen for this research (Adams, 2014).

3.7 Data Collection Method and Data Analysis

Data collection and analysis are fundamental components of the research process. Data collection involves the gathering of information or data that is relevant to the research question or objective. Researchers use various methods of data collection, including surveys, interviews, observations, and experiments, among others. The choice of data collection method depends on the research question, the type of data needed, and the available resources. Once data has been collected, the next step is analysis, which involves examining and interpreting the data to identify patterns, relationships, and trends. There are different methods of data analysis, ranging from simple descriptive statistics to more complex statistical analyses, such as regression analysis, factor analysis, and structural equation modelling. (Collis, 2014).

Data analysis aims to derive meaningful insights and conclusions from the data that can be used to address the research question or objective. Practical data analysis requires careful attention to detail and adherence to sound statistical practices to ensure that the conclusions drawn from the data are valid and reliable.

Data collection method

The surveys are created using the Microsoft Forms application, allowing for faster distribution to respondents. The survey questionnaires will be sent to respondents via Facebook, Instagram, and other online platforms with a response window of 20 days. The survey on the use of the FDA application on the consumer side involved 50 participants, while the survey on the functionality of the FDA application on the restaurant side involved 20 participants.

The FDA Applications Survey Questionnaire from a Consumer Use Perspective (Appendix 1) consisted of two parts: the first included items indicated in the research model

using a 5-point Likert scale to obtain answers regarding the degree of acceptance of a phenomenon or view on a specific topic, and the second part focused on collecting demographic data using closed questions. The restaurant application usage questionnaire (Appendix 2) was designed to assess the usability of the FDA without the need for demographic data verification. The model used in this questionnaire is the Likert scale.

The FDA Applications Survey Questionnaire from a Consumer Use Perspective (Appendix 1) consists of two parts. The first includes items indicated in the research model using a 5-point Likert scale (Joshi et al., 2015) - to obtain an answer regarding the degree of acceptance of a phenomenon or view on a specific topic and questions with the option of single-choice answers. The second part focused on the demographic data of the participants using closed questions - information such as age, gender, education and occupation.

The restaurant application usage questionnaire (Appendix 2) was designed to assess the usability of the FDA without the need to verify demographic data. The model used in this questionnaire is the Likert scale.

The study participants were fully informed about the nature and purpose of the study and gave their consent before participating in the study - the required consent was attached to the survey form (Appendix No. 1) and (Appendix No. 2). Thanks to the use of the Microsoft Forms application, it is not possible to identify a specific respondent, which in turn protects the confidentiality of each of them. These ethical considerations are essential to ensure that quantitative research is conducted responsibly and ethically and that the rights and well-being of participants are protected.

Sampling method

The researcher choose non-probability convenience sampling methods where the researcher selects individuals who are readily available and willing to participate in the study. This method is often used when time and resources are limited, and the researcher needs to collect data quickly. However, convenience sampling may not represent the population and can lead to biased results.

Sampling type

The convenience sampling type is used for this research allowing the researcher to select available participants, targeting one hundred participants.

Sampling size

The sample size is a critical consideration in research, as it can impact the accuracy and generalizability of the findings. A larger sample size generally results in greater statistical power, increasing the likelihood of detecting true effects and minimizing the potential for chance findings. However, a larger sample size can also increase the cost and time required to conduct the research. For this research the sampling size comprise on fifty one on the UK population.

3.8 Research Ethics

Before participating in the study, participants were fully informed about the nature and purpose of the study and provided their consent. The required consent form was attached to each survey (Appendix No. 1 and No. 2). The use of the Microsoft Forms application protected the anonymity of respondents, ensuring their confidentiality. These ethical considerations were essential to ensure the responsible and ethical conduct of the quantitative research and to protect the rights and well-being of the study participants.

4 Analysis of data

The COVID-19 pandemic has had a significant impact on the restaurant industry, forcing many businesses to temporarily close or adapt to new safety protocols and consumer preferences. As the world begins to recover and adapt to the aftermath of the pandemic, it is important to take into account emerging restaurant trends and changes in consumer preferences. This raises important questions, such as how the digitization of business processes can change customer relationships and what benefits restaurants can expect from this change. In this context, a survey was conducted asking respondents about their perception of new restaurant

trends, changes in consumer preferences and the impact of digitalisation on the industry. This report analyzes respondents' responses and provides insight into the potential future of the restaurant industry in a post-pandemic world.

Chapter four of this research report focuses on the analysis of the demographic characteristics of the study population. This chapter provides a detailed analysis of the population size, age group, gender distribution, marital status and employment status of the participants. These demographic characteristics play a key role in understanding the study population and provide valuable information that can be used to make marketing and other important business decisions.

Question nr 1 and 2

Gender and age of responders

Age	Gender	
	Man	Woman
18 - 25		4
26 - 35	11	18
36 - 45	9	3
45 and over	1	5
total	21	30

Figure 6. Gender and age of responders

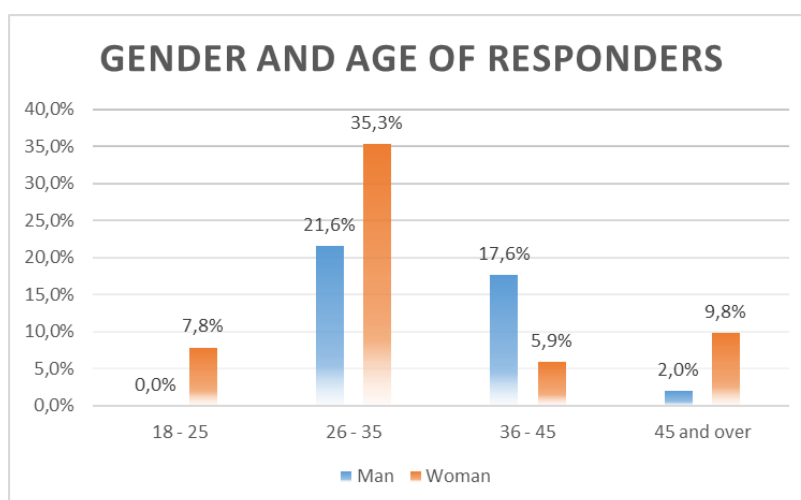


Figure 7. Gender and age of responders

The table depicts the distribution of respondents by gender and age. The respondents included 21 males and 30 women among the 51 total answers. The majority of male respondents (52.4%) were between the ages of 26 and 35, while the majority of female respondents (60%) were between the ages of 26 and 35. Regarding age categories, the majority of male respondents (19%) belonged between the ages between 36 and 45, while the majority of female answers (60%) were between the ages of 26 and 35. The age group 45 and up had the fewest replies (2%) overall. It's worth mentioning that the gender distribution of respondents is heavily biased towards women, who account for about 60% of the total sample. Therefore, any conclusions drawn from the data should be taken with this bias in mind.

Most responses are from the Y generation or millennials (Cheng, 2018). Price is not the most significant element affecting purchase decisions for this generation. They are also conscious Internet users, and their daily choices distinguish them from representatives of previous generations. Millennials' worldview differs from those of other social groups. They have advanced technology skills that influence the manner and efficacy of communication. As a result, they are a valuable set of clients for various businesses, including online meal ordering systems. Their influence on the growth of the online food delivery market will grow year after year. Compared to the under-25, they have a more stable financial situation and spend less time eating out. They prefer to order food online because it is more convenient and saves time.

Question nr 3

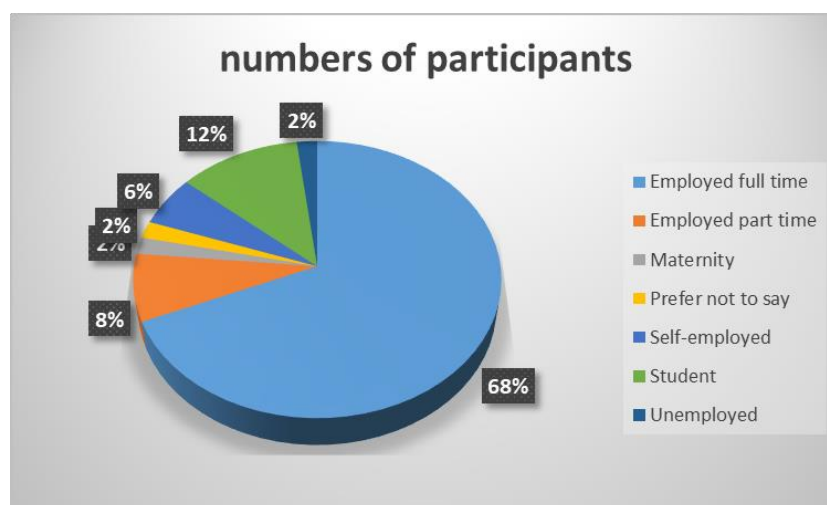


Figure 8. Employment status of responders

Based on the given data, out of the 51 participants, 68 % are employed full-time, 8 % are employed part-time, 2 % are on maternity leave, 2 % preferred not to say, 6 % are self-employed, 12 % are students, and 2 % are unemployed.

This implies that the participants have a steady source of earnings and can afford to utilise food delivery applications on a regular schedule. However, it is essential to note that employment status is not the only factor influencing the use of food delivery apps. Other variables that affect the adoption of meal delivery apps include personal preferences, convenience, and the availability of food delivery services in the region. However, it is essential to note that employment status is not the only factor influencing the use of food delivery apps. Other variables that influence the use of meal delivery apps include personal preferences, convenience, and the availability of food delivery services in the region.

Full-time employees, for example, may need more time to prepare or dine out, making food delivery apps a practical choice for them. Similarly, students and part-time jobs may have restricted finances, making meal delivery apps affordable. Full-time employees may have greater salary levels and more secure financial status, contributing to higher food expenditures than part-time or jobless persons. Full-time employees may also need more time to cook and prepare meals and rely on easy, ready-made meals or eating out, which can boost food expenditures. Part-time employees and the jobless may have lesser incomes resulting in the need to save more money for meals. They may also have more time to cook and prepare meals at home, which might be less expensive than eating out. In general, while work status might play a role in food spending, it is not the only factor, and there are many other elements that can impact an individual's food budget.

Question nr 4

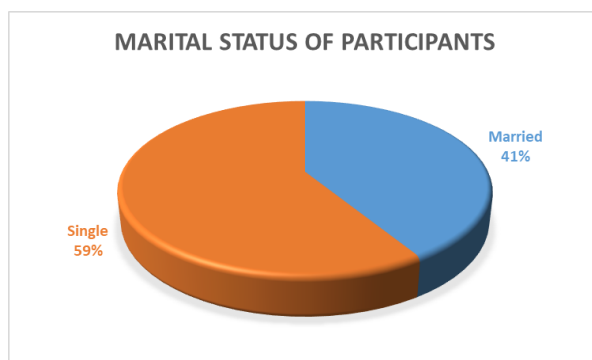


Figure 9. Marital status of participants

According to the information, 41% of the 51 participants are married, and 59% are single. It takes time to establish direct relationships between marital status and use of meal delivery applications. However, because of busy schedules or family responsibilities, married people are more likely to order food delivery, while single people have more flexibility to cook or dine out. This is still a supposition, and further study is needed to see whether there are any significant relationships between married status and meal delivery app usage.

4.1 New trends in the post-pandemic restaurant industry

With the growing popularity of food delivery applications, more and more customers are choosing to eat at home instead of dining out. This trend has been further accelerated by the COVID-19 pandemic, which has prompted many people to avoid crowded restaurants and opt for contactless delivery options instead. The following data provides insights into these interdependencies.

Question nr 5

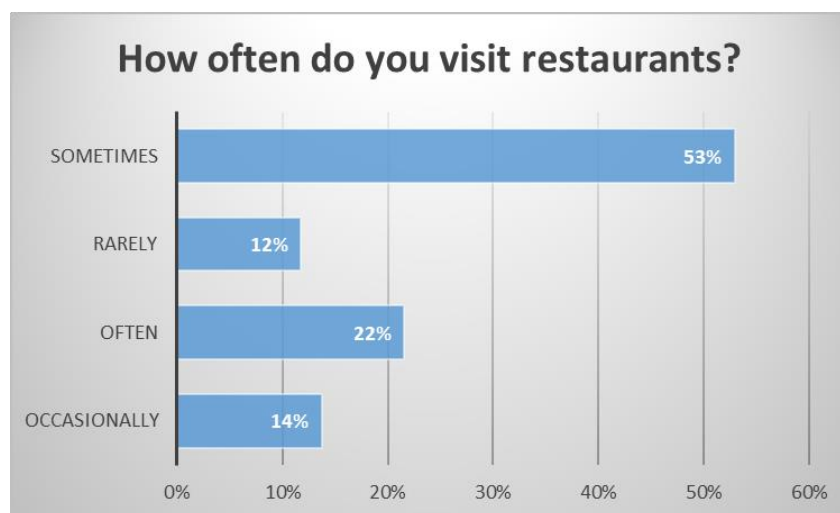


Figure 10. Frequency of going out to restaurants by the respondents

Based on the results, the majority of respondents (53%) visit restaurants "sometimes," indicating that they do not have a fixed schedule for dining out. Meanwhile, 22% of respondents visit restaurants "often," indicating that they have a regular habit of dining out.

Only 14% of respondents visit restaurants "occasionally," indicating that they dine out infrequently. Lastly, 12% of respondents visit restaurants "rarely," indicating that they seldom go out to eat.

These results suggest that restaurants need to appeal to a broad range of consumers with varying dining habits and preferences. Restaurants could consider offering special deals and promotions to entice those who dine out infrequently or rarely, while also offering loyalty programs and regular specials to those who dine out often or sometimes. By doing so, restaurants can encourage customers to visit more frequently and increase customer satisfaction and loyalty.

Question nr 6

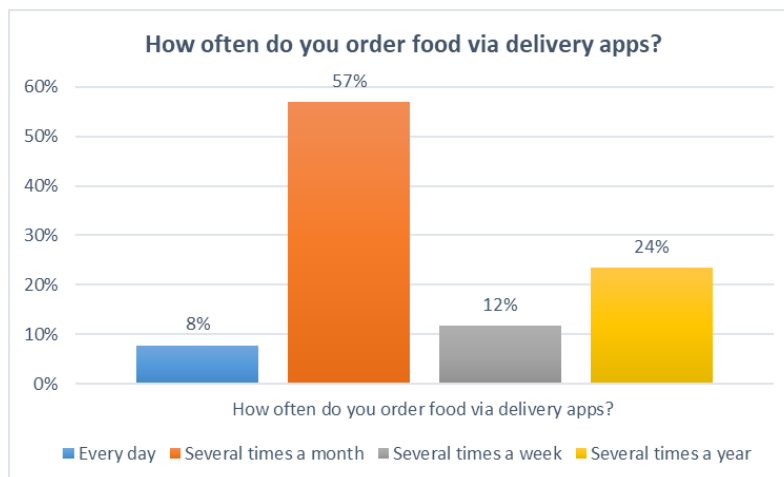


Figure 11. Frequency of ordering food through FDA applications

The majority of respondents (57%) order food via delivery apps several times a month, while 24% order several times a year. Only 8% of respondents order food via delivery apps every day, and 12% order several times a week.

This indicates that while there is a significant number of people who use food delivery apps regularly, it is not a daily or weekly habit for most. It may suggest that people prefer to cook at home or eat out at restaurants more frequently, but still use food delivery apps occasionally when they want the convenience of having food delivered to their doorstep. This data could be useful for restaurants and food delivery app companies to understand the frequency of app usage among their customers and adjust their marketing strategies and

promotions accordingly. According to a report by KPMG in 2021, 76% of British people order takeaways, with an average frequency of once a week (KPMG, 2021).

Question nr 7

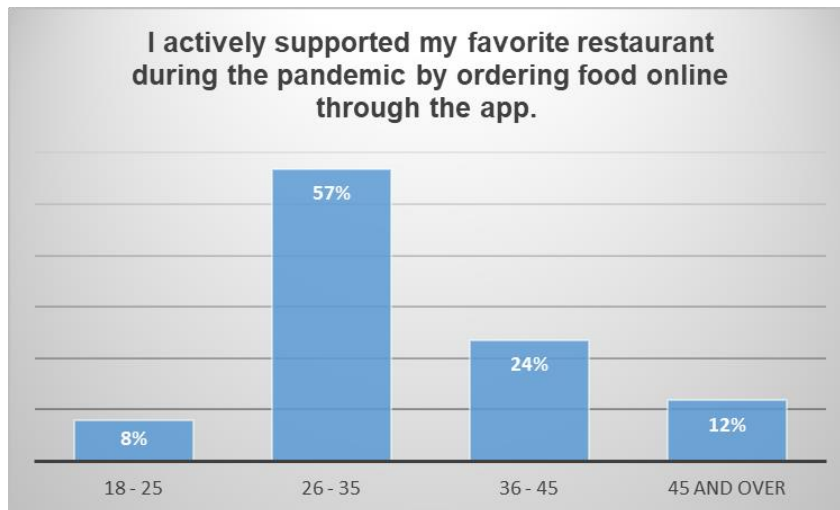


Figure 12. Respondents' support for restaurants with online orders during the lockdown

The results suggest that the age group of 26-35 was the most active in supporting their favorite restaurant during the pandemic by ordering food online through the app, with 57% of the participants falling in this age range. This may be due to factors such as being tech-savvy and comfortable with using food delivery apps, as well as having the financial ability to order food online. In contrast, participants in the age group of 18-25 had the lowest percentage (8%) of actively supporting their favorite restaurant through online ordering. This may be due to factors such as limited financial resources, living in shared housing where cooking meals together is more common, or being less inclined to order food online.

The participants in the age groups of 36-45 and 45 and over had similar percentages (24% and 12%, respectively) of actively supporting their favorite restaurant through online ordering, which suggests that this behavior is not limited to younger age groups only.

Question nr 8

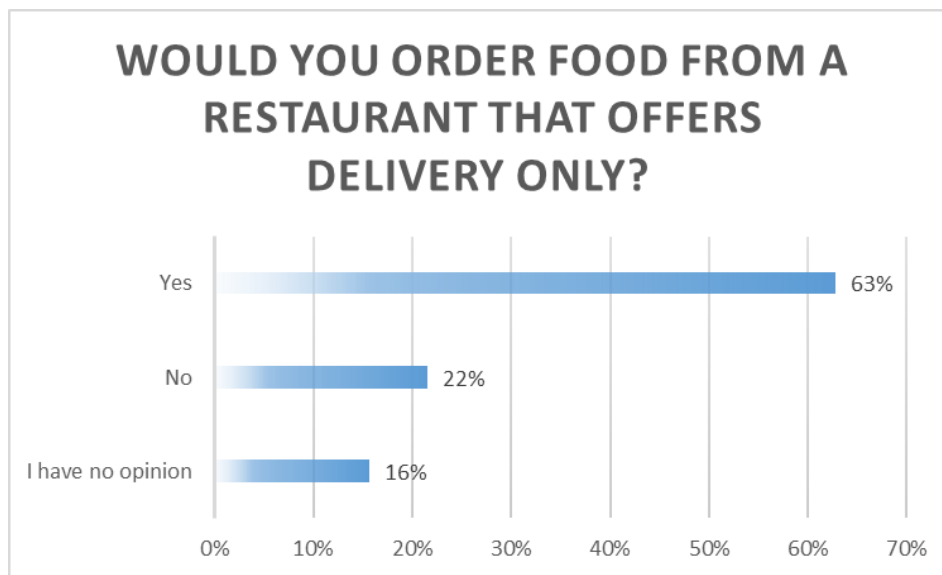


Figure 13. Ordering food at a restaurant that offers delivery only

Based on the responses, 63% of participants would order food from a restaurant that offers delivery only, while 22% would not and 16% had no opinion. This suggests that there is a significant demand for food delivery services among consumers, and restaurants that offer delivery-only options may be able to tap into this demand and reach a wider audience.

However, it's worth noting that this result may also be influenced by the ongoing COVID-19 pandemic, which has led to an increased reliance on food delivery services due to social distancing measures and restrictions on in-person dining. It will be interesting to see if this trend continues post-pandemic, and whether delivery-only restaurants will continue to be popular among consumers. In terms of the increased usability of food delivery applications, it's likely that this has contributed to the popularity of food delivery services. With the convenience of being able to order food from a variety of restaurants at the touch of a button, consumers may be more inclined to order food via online apps rather than going to a restaurant, particularly if they have busy schedules or prefer the comfort of their own home.

Question nr 9

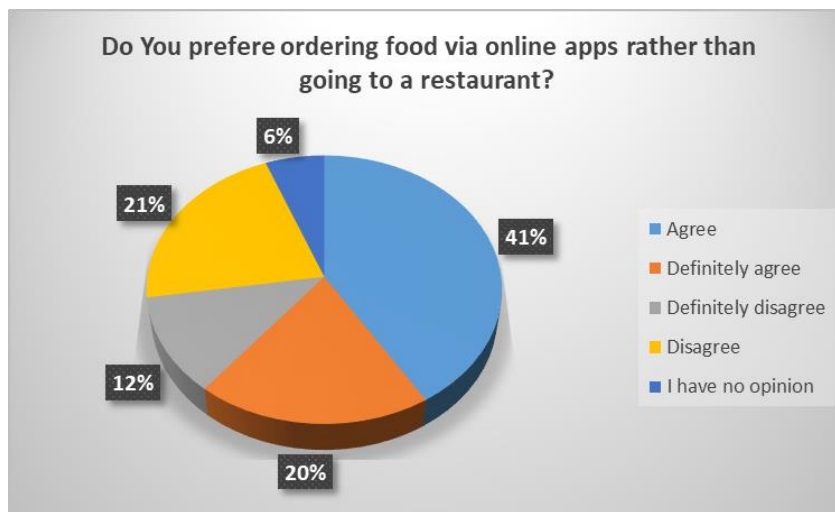


Figure 14. Ordering food via online apps versus dining in a restaurant?

The survey results indicate that a significant percentage of the participants (61%) either agree or definitely agree that they prefer ordering food via online apps instead of going to a restaurant. This suggests that there is a growing trend towards using food delivery applications, which may be due to the increased convenience and accessibility they offer.

On the other hand, 34% of the participants either disagree or definitely disagree with the statement, indicating that there are still people who prefer the traditional restaurant experience over ordering food online.

Question nr 10

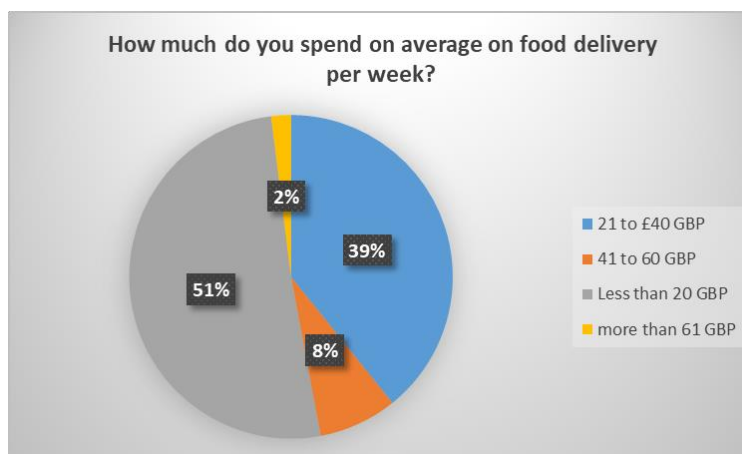


Figure 15. Value of money spent per week on purchases through FDA applications by gender

The data shows that 51% of the participants spend less than £20 GBP per week on food delivery. Another 39% spend between £21 and £40 GBP per week, and only 8% spend between £41 and £60 GBP per week. A very small percentage of 2% spend more than £61 GBP per week on food delivery.

These findings align with the KPMG report which states that 76% of British order takeaways on average once a week, indicating that the majority of people are not spending large amounts of money on food delivery. The fact that over half of the participants spend less than £20 GBP per week also suggests that affordability may be a key factor in determining whether or not people use food delivery services.

Question nr 11

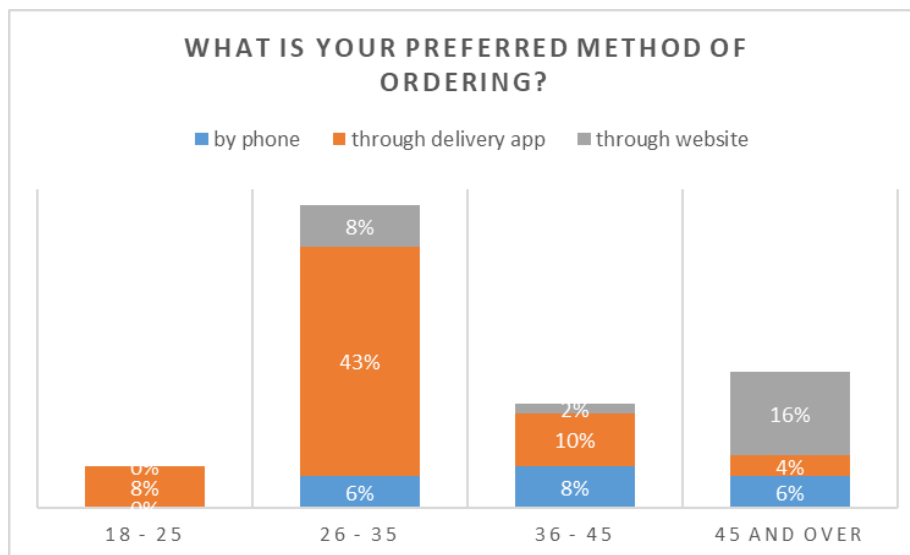


Figure 16. Preferred method of ordering by age

According to the data, the most popular method of ordering food among the survey respondents is through a delivery app, with 65% of respondents choosing this option. The second most popular method is through a website, chosen by 25% of respondents. Ordering by phone is the least popular option, chosen by only 20% of respondents. There is a noticeable difference between age groups in terms of preferred ordering method. The majority (71%) of 26-35-year-olds prefer to order through a delivery app, while only 8% of those aged 18-25 chose this method. Older age groups, especially those aged 45 and over, are more likely to order through a website or by phone. According to a report by KPMG in 2021, the percentage

of individuals who order takeaways via phone has decreased slightly from 43% in 2019 to 39% (KPMG, 2021).

The data suggests that younger generations tend to rely more on technology, such as delivery apps, to order food, while older generations prefer more traditional methods. This information may be useful for food businesses looking to target specific age groups with their marketing and ordering methods.

The digitalisation of online deliveries is a trend that has been accelerated by the pandemic in the restaurant industry. Online food delivery has become a popular way for customers to order food from their favorite restaurants, especially during the pandemic when many people were hesitant to dine out in person. Many restaurants have adapted to this trend by partnering with food delivery platforms such as Uber Eats, Deliveroo, and Just Eat to offer their menus for online delivery.

4.2 Consumer preferences regarding the choice of food delivery applications and their impact on the restaurant situation

In recent years, the food delivery market has seen a significant growth, and this trend has been accelerated even more during the pandemic. As a result, restaurants have had to adapt and incorporate online ordering and delivery into their business model. This has led to the emergence of various food delivery applications that consumers can choose from. In this context, understanding consumer preferences and how they impact the restaurant situation is crucial for restaurants to succeed in the competitive food delivery market.

Question nr 12

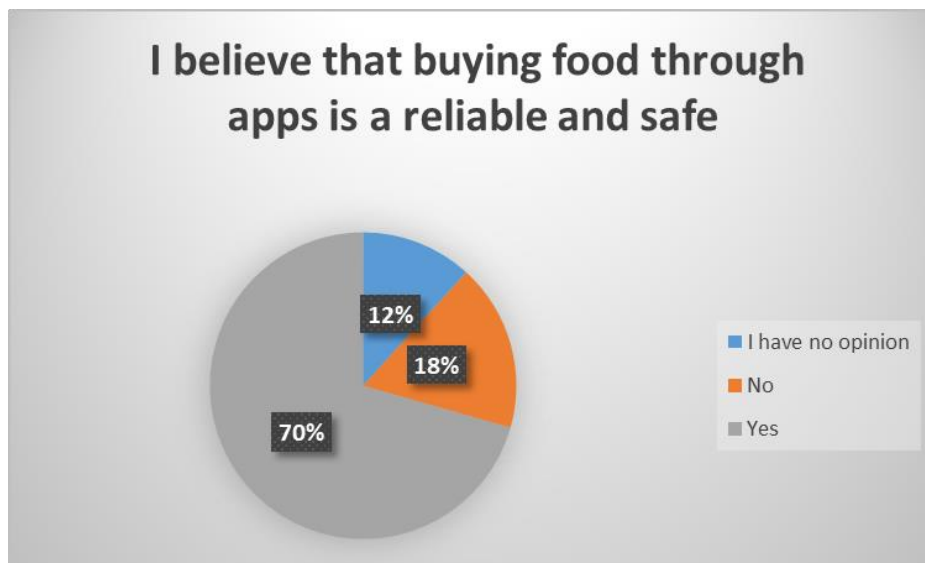


Figure 17. FDA application reliability and safety

According to the survey findings, 36 out of 51 respondents (or around 70%) feel purchasing food through apps is a dependable and secure alternative. Nine respondents (about 18%) disagreed, while six (or roughly 12%) were undecided.

It is important to note that these survey results are based on limited sample size and may not be approximate to the general population. Furthermore, the survey did not specify which apps or types of food were being considered, which could influence respondents' perceptions of safety and dependability. In terms of comparing these findings to previous research, a lot of studies and papers have looked into the safety and dependability of food delivery applications. Finally, the safety and dependability of food delivery apps may be affected by some variables, such as the individual app or service used, the type of food purchased, and the care taken by both the restaurant and the delivery driver to ensure that food is handled and delivered safely. It's important for consumers to do their own research and take appropriate precautions when ordering food through apps, such as reading reviews, choosing reputable restaurants, and handling delivered food safely.

Question 13

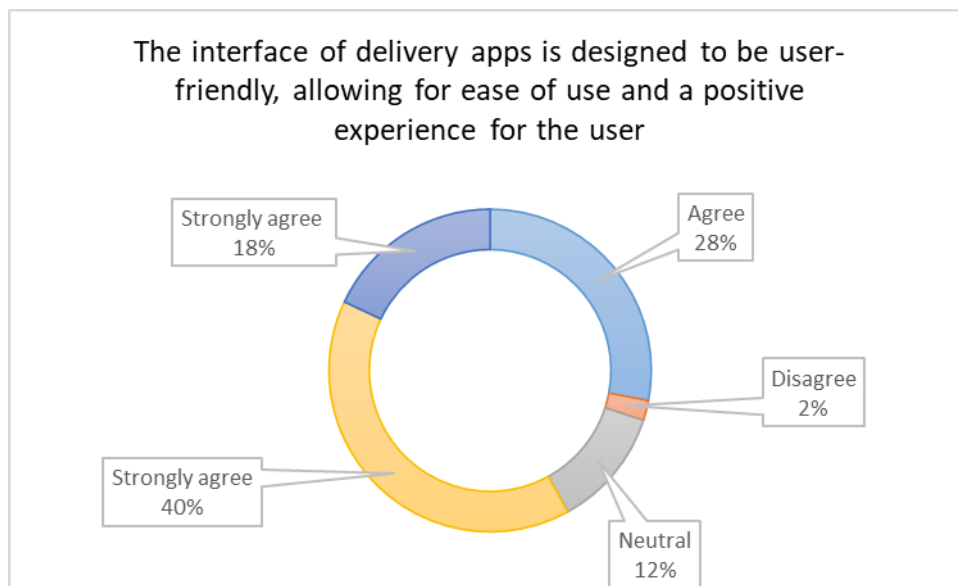


Figure 18. Friendly FDA application interface

Based on the survey results, a majority of respondents (33 out of 51 or approximately 66%) agree or strongly agree that the interface of delivery apps is designed to be user-friendly, allowing for ease of use and a positive experience for the user. Only one respondent (approximately 2%) disagreed, and six respondents (approximately 12%) were neutral.

The positive perception of the ease of use of delivery application interfaces is in line with the general trend in technology design that emphasizes ease of use, intuitive navigation and a positive user experience. Delivery apps are typically designed with the user in mind, with a clean and simple interface, visible ordering buttons, and visual cues to guide users through the ordering process. However, it is worth noting that there are some potential downsides to the user-friendly interface of the delivery app. For example, the ease of use of delivery apps can encourage users to make impulse purchases, leading to overspending or unhealthy eating habits. While the ease of use of delivery application interfaces is generally seen as an advantage, it is important to be aware of potential downsides and to use these applications with care and responsibility.

Question 14

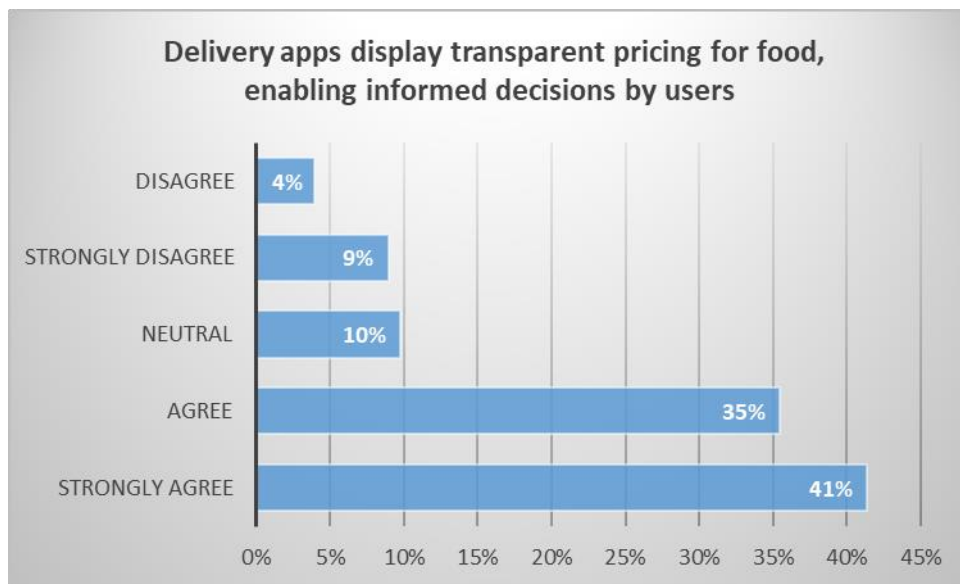


Figure 19. Awareness of decision making based on price transparency in FDA applications

According to the survey findings, most respondents (76% or 39 out of 51) strongly agree that delivery apps provide transparent meal pricing, allowing consumers to make informed judgements. Only a small percentage of respondents (13%, or 7 out of 51) agreed or strongly agreed, while 10 %, or 5 out of 51, were neutral.

Many delivery apps provide detailed menus and prices for each product, allowing users to make informed purchasing decisions. Additionally, some apps offer discounts, loyalty rewards, and other incentives to help users save money and make more informed purchasing decisions. However, please note that price transparency in delivery apps may be subject to certain limitations. For example, some restaurants may charge additional delivery or service charges that are not immediately visible in the app, which can lead to unexpected charges for users. In addition, prices in delivery apps do not always reflect the actual cost of food, as some restaurants may inflate prices to compensate for the fees charged by the app. It is therefore important that users are aware of potential limitations and read the menu carefully to ensure they understand the full cost of their purchases.

Question 15

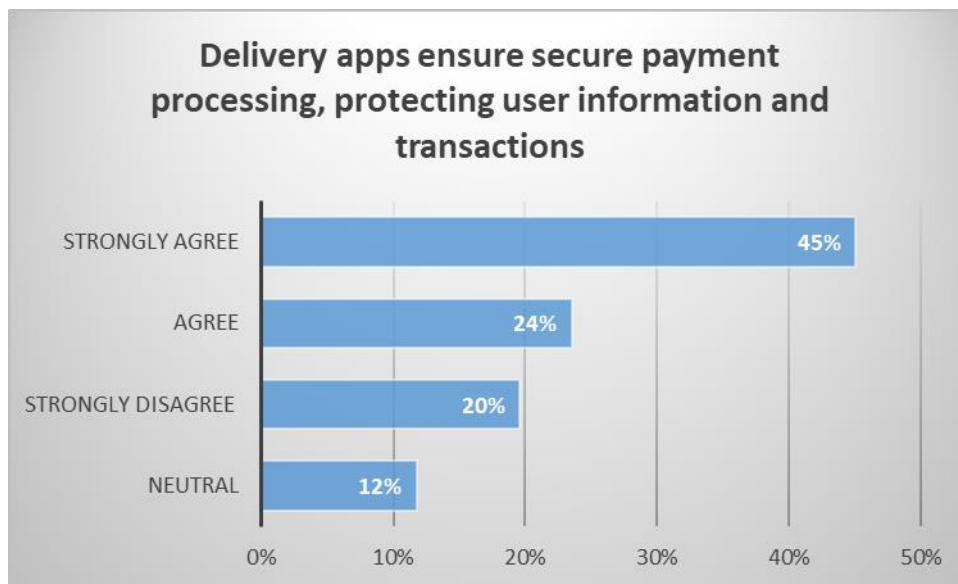


Figure 20. Transaction processing security

According to the study findings, a sizable majority of respondents (69% or 35 out of 51) either strongly agree or agree that meal delivery apps provide safe payment processing, protecting user information and transactions. Only a small minority (20% or 10 out of 51 respondents) strongly disagreed, while 12% or 6 out of 51 were neutral.

Many food delivery apps use secure payment processing systems, such as phone number encryption, to protect user data and transactions. Additionally, some apps offer additional security features such as two-factor authentication and fraud detection to further protect users from unauthorized transactions and identity theft. However, keep in mind that no system is completely foolproof and there are always risks of data breaches and other security incidents. While food delivery apps typically take measures to ensure secure payment processing, users should still take steps to protect their personal and financial information, such as using strong passwords, monitoring accounts for suspicious activity. App providers must also remain vigilant, and implement the latest security measures to protect user data and prevent breaches.

Question 16

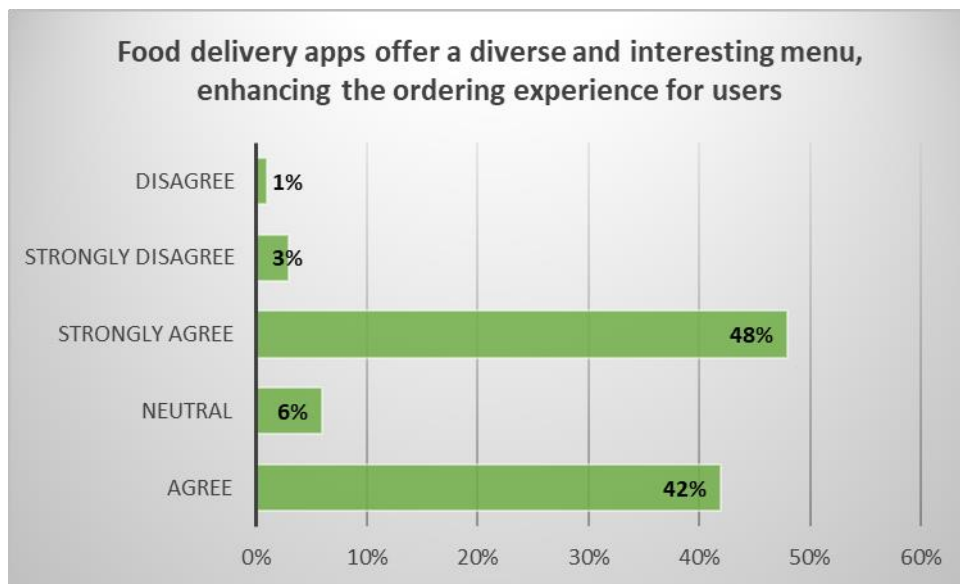


Figure 21. Convenience of ordering food because of the menu

According to the research results, a large majority of respondents - 90% either strongly agree or agree that food delivery apps provide a broad and intriguing menu, improving users' ordering experience. Only 4% of respondents disagreed or strongly disagree, while 6% were neutral.

Many food delivery app companies work with a wide range of restaurants, from local to large chains, offering users a diverse selection of cuisines and dishes. In addition, some apps use artificial intelligence and machine learning algorithms to analyze user preferences and create personalized menu recommendations, further improving the user ordering experience. While the survey results suggest that the majority of users believe that food delivery apps offer a diverse and interesting menu, it is important that app providers are transparent and honest about restaurants and the food they offer. Users can also help ensure the quality of their food by searching for restaurants and dishes they are interested in ordering, reading reviews and ratings from other users, and providing feedback to the app provider on the quality of their food and ordering.

Question 17

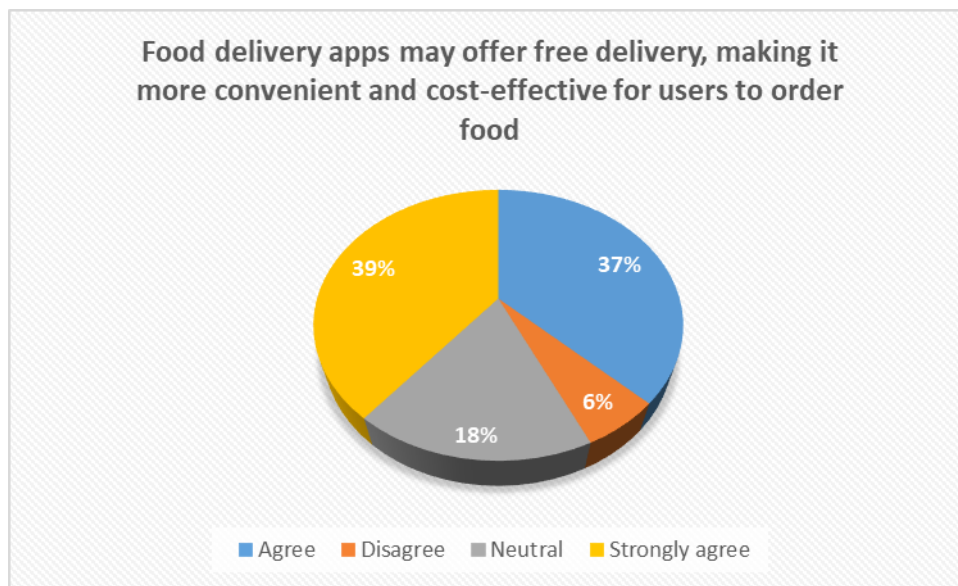


Figure 22. Convenience and cost-effectiveness of food delivery

According to the study results, the majority of respondents (78% or 39 out of 51) agree or strongly agree that food delivery applications may offer free delivery, making ordering food easier and less expensive for consumers. Only a small percentage of those polled (6% or 3 out of 51) disagreed, while 18% or 9 out of 51 were neutral.

Many food delivery apps, including Uber Eats, Deliveroo, and JustEat, offer free delivery promotions for new users or certain orders. These promotions can make ordering food through the app more appealing to users as they can save money on delivery fees. However, keep in mind that not all food delivery apps offer free delivery, and even if they do, restrictions and conditions may apply. For example, some apps may require users to meet a minimum order amount to be eligible for free delivery, or may only offer free delivery to certain restaurants or locations. In addition, some apps may increase the prices of menu items to compensate for the cost of free delivery, which may not necessarily result in savings for users. While the survey results suggest that many users believe that food delivery apps may offer free delivery, it is important that users read the terms and conditions carefully before ordering to understand the true cost of a meal. In addition, users can compare prices and delivery charges across apps and restaurants to find the best deal for their needs.

Question 18

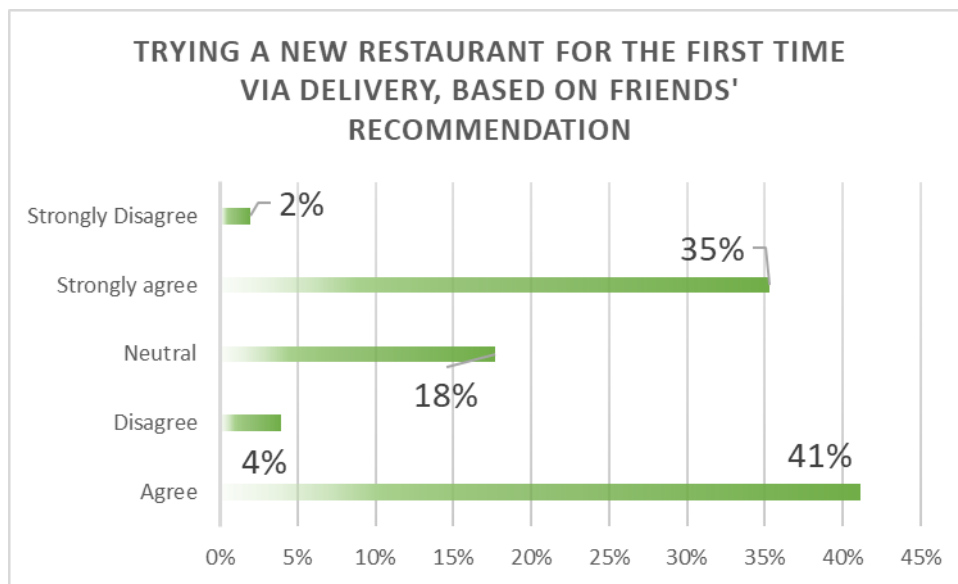


Figure 23. Impact of recommendations on the choice of meals in a restaurant offering online food delivery options

According to the study results, a majority of respondents (76% or 38 out of 51) either agree or strongly agree with the statement that they would try a new restaurant for the very first time via delivery based on a friend's recommendation. Only a small percentage of those polled (6% or 3 out of 51) disagreed, while 18% or 9 out of 51 were neutral.

Delivery apps can make it easier for users to discover new restaurants and try different cuisines as they can view other users' menus and reviews. Additionally, recommendations from friends and family can provide an extra level of trust and credibility as users may be more likely to try a new restaurant if it has a personal recommendation. However, it is important for users to remember that individual tastes and preferences may vary, and what may be a great recommendation for one person may not be the best choice for another. The survey results suggest that many users are willing to try new delivery restaurants based on friends' recommendations, and delivery apps may play a role in facilitating this process.

Question 19

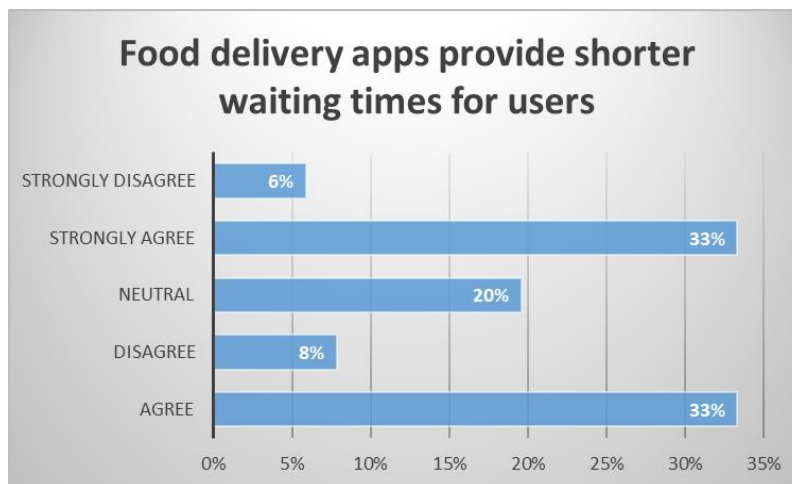


Figure 24. Waiting time provided by FDA applications

Out of 51 respondents, 34 (or 66%) agreed or strongly agreed that food delivery apps provide shorter waiting times for users, while only 4 (or 14%) disagreed or strongly disagreed. Additionally, 10 (or 20%) were neutral on the matter.

Food delivery apps have revolutionized the food industry by making it easier and faster for consumers to order food, including shorter waiting times for food delivery. The survey results suggest that food delivery apps are a popular and effective way for consumers to get their meals delivered quickly and conveniently.

Question 20

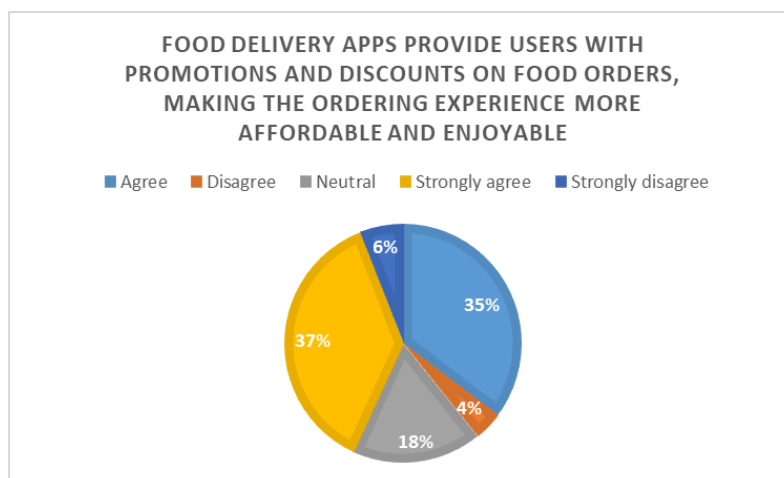


Figure 25. Promotional offers provided by FDA applications

According to the replies, the majority (37 out of 51 respondents, or 73%) either agree or strongly agree that food delivery apps provide consumers promotions and discounts on food purchases, making ordering more inexpensive and pleasant. Only 5% disagree or strongly disagree with this statement, while 18% are neutral.

Food delivery apps often offer discounts and promotions to users as a way to retain customers and compete with other apps. These promotions can make ordering cheaper and more enjoyable for users. According to a 2021 KPMG report, 34% of people said they would place orders more often in the future if they were offered discounts. Survey results suggest that food delivery apps are a popular and effective way to save money. By offering users promotions and discounts, these apps can make ordering cheaper and more enjoyable while supporting restaurants and the entire food industry.

Question 21

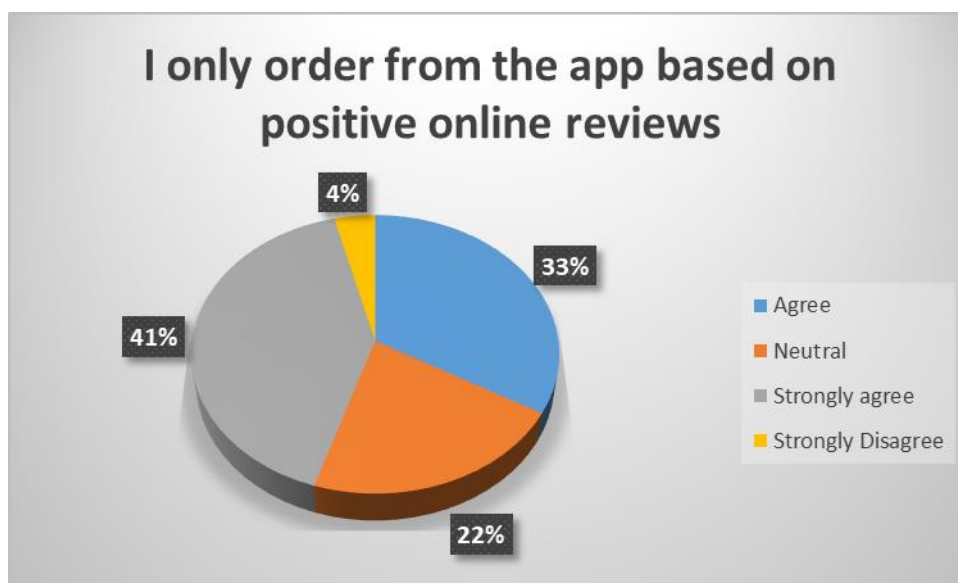


Figure 26. The influence of online reviews on online restaurant orders

According to the results, a sizable majority of users (41%) strongly agree that they exclusively order from meal delivery apps based on favourable internet evaluations, while 33% agree and 22% are neutral. Only 4% of those polled strongly disagreed with this statement.

Online reviews may have a big impact on a restaurant's reputation and affect consumer selections. When it comes to selecting a restaurant, many customers trust online reviews just

as much as they do their own personal recommendations. This demonstrates how critical it is for restaurants and food delivery apps to maintain a strong online image through reviews and ratings in order to attract new customers and keep existing ones.

Question 22

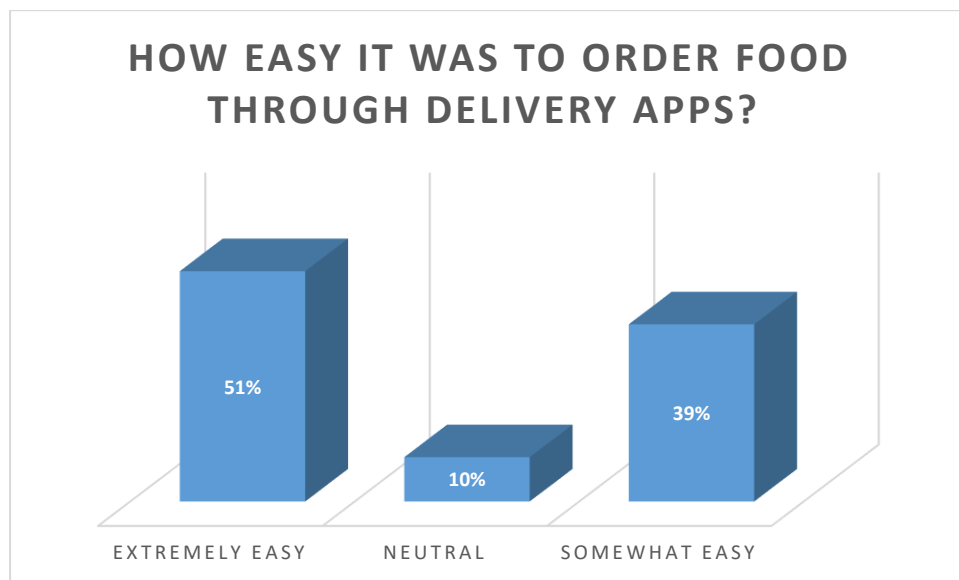


Figure 27. Easy food ordering through FDA apps

According to the survey results, the majority of respondents (51%) found it extremely easy to order food through delivery apps, while 39% found it somewhat easy, and only 10% were neutral.

Over time, food delivery apps have become more and more user-friendly, offering features such as clear menus, detailed product descriptions, and easy-to-use interfaces. Food delivery apps have become essential for consumers during the pandemic, in part because they offer a convenient and easy way to order food from local restaurants. The survey results suggest that food delivery apps are generally considered easy to use by consumers. This ease of use may be a factor in their growing popularity as more consumers turn to these apps for convenient and hassle-free food ordering and delivery.

Consumer preferences for meal delivery applications significantly influence the restaurant industry. With the introduction of meal delivery apps, many customers' culinary

tastes have switched from eating in restaurants to ordering food online. As a result, eateries have been obliged to adapt to this trend by collaborating with meal delivery apps or increasing their delivery services. Consumer preferences are also necessary when selecting a meal delivery application. Many users prefer meal delivery apps because they provide a wide range of restaurants and cuisines, competitive prices and quick delivery times. Customers may select meal delivery applications with an intuitive user interface and straightforward payment options.

Restaurants that partner with popular meal delivery apps can increase their visibility and client base. They may face challenges, however, such as high commission fees and the need to maintain the quality and consistency of food delivery services. Customer preferences for meal delivery applications are projected to impact the restaurant industry in the following years, with technology and digital advances playing a growing role.

The digital transformation of delivery may also provide numerous benefits to the organisation and considerably improve the restaurant's operation. By selecting the correct implementation partner to assist you in setting up new processes and properly configuring software, you can avoid the drawbacks of installing technology while fully utilising the benefits of new solutions.

5 Conclusions

5.1 Conclusion

The digitization of food delivery has become essential for restaurants of all sizes to remain competitive in the market. By adopting digital technologies, restaurants can develop new business models, respond to customer demands in real-time, and improve communication and collaboration with their customers. This is because customers today are more informed and expect faster and easier ways to order and pay for food, especially in busy cities where time is scarce. As a result, there is a growing demand for food delivery services.

The expanding food delivery market is expected to have a significant impact on both the restaurant industry and the dining habits of millions of people. Restaurants are prioritizing delivery as an important aspect of their operations, with some offering online orders directly

on their websites to avoid commissions charged by third-party apps. This also allows them to quickly and autonomously change their menus and prices, reduce rental space and equipment costs, and optimize their operations using data analysis.

The introduction of food delivery apps has brought many benefits to restaurants, including increased efficiency, streamlined workflows, and improved service quality. By expanding their reach beyond their given area, restaurants can attract more customers and increase their income. Food delivery apps also offer a wide range of restaurants and dishes, which customers can easily search and order, leading to increased order volumes and competitiveness. Additionally, collecting customer feedback through these apps allows restaurants to adapt their offerings to customer needs, thereby enhancing customer loyalty.

Furthermore, some food delivery apps offer free delivery and promotional discounts, which can attract new customers. By using these apps, restaurants can better manage their orders and delivery times, access large amounts of data to optimize their operations, and provide interactive digital menus that allow customers to modify their orders and receive personalized recommendations. Real-time order tracking on these apps also provides customers with greater control over their orders.

In conclusion, the digitalisation of food delivery has become an essential tool for restaurants to meet changing customer demands, stay competitive and optimize their operations to increase profitability.

5.2 Limitations and further research

There are various limitations related with the provided study in terms of the research procedure and outcomes.

The first drawback concerns the survey's sample selection. As previously stated in the section on data collection, the study employed a small sample of respondents. The study could not be generalised to a broader population due to the short time period between the examination and the verification of the results. However, the study was able to assess other sample characteristics, such as the reason for using the app to buy food for home delivery. This is an important consideration given the growing population of a technologically advanced society and the market opportunities for application providers.

The research should also contain a case investigation regarding the firm that provided the FDA application concerning a specific restaurant. Due to time restrictions in gathering more comprehensive data, only a general structure based on research and statistical information was used.

Future research should suggest that data from multiple nations be collected to clarify individual performance in a specific location. The data was gathered primarily from London-based consumers, so it may provide a limited perspective and differ from data from other regions. Furthermore, older generations of consumers and people with disabilities should investigate the accessibility of FDA-type applications to improve food ordering processes and thus make their services more appealing to a larger population.

The investigation should also focus on the younger generation, who has grown up with rapid advancements in contemporary technology, including access to the Internet. Young people frequently hunt for information about fascinating items and exchange comments on social media on the Internet. Consequently, this is difficult for businesses to stay up with current communication trends and adapt their strategy to the expectations of the youngest generation, which is approaching maturity. They will soon be the most attractive demographic, shaping consumption and accounting for a sizable portion of online sales of products and services.

While many food delivery apps have streamlined their ordering process, there is still room for improvement in terms of the overall user experience. Further research could explore ways to make the ordering process even more intuitive and user-friendly.

One of the biggest challenges facing food delivery apps is optimizing the delivery process to ensure that orders are delivered quickly and efficiently. Future research could focus on ways to improve delivery routes, reduce delivery times, and minimize errors in the delivery process.

As the popularity of food delivery apps continues to grow, there is a growing concern about the environmental impact of these services. Future research could explore ways to make food delivery more sustainable, such as using electric vehicles or optimizing delivery routes to minimize carbon emissions.

There have been concerns raised about the safety and security of food delivery services, particularly with regard to the handling of personal and financial data. Future research could focus on ways to improve the security of these services and ensure that user data is protected.

The food delivery industry is highly competitive, and new apps are constantly entering the market. Future research could explore ways to differentiate food delivery apps and create a competitive advantage, such as by offering unique features or targeting specific niche markets.

5.3 Recommendation

Based on the above study, here are some recommendations for restaurants when using food delivery apps.

Choose a reputable food delivery app: The restaurant should make sure to research and compare different food delivery apps to find one that aligns with the restaurant's needs and values. Look for apps with a large customer base, positive reviews, and reasonable fees.

Menus should be optimized for delivery: menu items should be adjusted to ensure they are delivered well and of good quality when they arrive at the customer's door. This may include packaging food or modifying recipes to keep it fresh when delivered.

Maintain open communication: Ensure clear communication is maintained with the food delivery application and customers to ensure efficient and accurate order fulfillment. Questions or doubts from customers or the courier company should be answered immediately.

Exclusive offers can be considered: To encourage customers to order directly from the restaurant, you can offer exclusive offers or discounts on your website or social media pages.

Monitor performance and customer feedback: Track restaurant performance on the food delivery app and record any customer feedback. This will allow us to make the necessary adjustments and continuously improve the quality of food and service.

Overall, using a food delivery app can be a great way for restaurants to expand their customer base and increase revenue. By following these recommendations, you can ensure a smooth and successful partnership with your food delivery app.

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7 Appendix

Appendix nr 1



Dear respondent,

Thank you for consenting to participate in this critical survey of consumer approval of ordering takeout meals via mobile apps in the United Kingdom. I'm a Trinity Saint David University of Wales undergraduate working on a thesis exploring mobile apps' rising popularity and credibility in online food delivery purchasing. The goal of this questionnaire is for gathering some views and opinions and further comprehend customer reactions and usage patterns concerning the growth of online takeout food ordering mobile apps. All data is confidential. By participating in this survey, you agree to the terms of this privacy statement.

Thank You for share Your time with me

Marcin Klytta

Demographic information

1. How old are you? *

- ☐ 18 - 25
- ☐ 26 - 35
- ☐ 36 - 45
- ☐ 45 and over

2. By what gender do you identify? *

- ☐ Woman
- ☐ Man
- ☐ Non-binary

3. What is your current employment status? *

- ☐ Employed full time
- ☐ Employed part time
- ☐ Unemployed
- ☐ Student
- ☐ Self-employed
- ☐ Prefere not to say

4. What is your marital status? *

- ☐ Single
- ☐ Married
- ☐ Prefer not to say

5. How often do you visit restaurants? *

- ☐ Never
- ☐ Sometimes
- ☐ Rarely
- ☐ Often
- ☐ Occasionally

6. How often do you order food via delivery apps? *

- ☐ Every day
- ☐ Several times a week
- ☐ Several times a month
- ☐ Several times a year
- ☐ Never

7. I actively supported my favorite restaurant during the pandemic by ordering food online through the app. *

- ☐ Yes
- ☐ No
- ☐ Prefere not to say

8. Would you order food from a restaurant that offers delivery only? *

- ☐ Yes
- ☐ No
- ☐ Prefere not to say

9. **Do You prefer ordering food via online apps rather than going to a restaurant?** *

- ☐ Definitely agree
- ☐ Agree
- ☐ Disagree
- ☐ Definitely disagree
- ☐ Maybe

10. **How much do you spend on average on food delivery per week?** *

- ☐ Less than 20 GBP
- ☐ 21 to £40 GBP
- ☐ 41 to 60 GBP
- ☐ more than 61 GBP

11. **What is Your preferred method of ordering?**

- ☐ by phone
- ☐ through website
- ☐ through delivery app

12. **I believe that buying food through apps is a reliable and safe.** *

- ☐ Yes
- ☐ No
- ☐ Prefer not to say

13. **The interface of delivery apps is designed to be user-friendly, allowing for ease of use and a positive experience for the user ***

- ☐ Strongly agree
- ☐ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly disagree

14. **Delivery apps display transparent pricing for food, enabling informed decisions by users ***

- ☐ Strongly agree
- ☐ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly disagree

15. **Delivery apps ensure secure payment processing, protecting user information and transactions. ***

- ☐ Strongly agree
- ☐ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly disagree

16. **Food delivery apps offer a diverse and interesting menu, enhancing the ordering experience for users. ***

- ☐ Strongly agree
- ☐ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly disagree

17. **Food delivery apps may offer free delivery, making it more convenient and cost-effective for users to order food. ***

- ☐ Strongly agree
- ☐ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly disagree

18. **Trying a new restaurant for the first time via delivery, based on friends' recommendation. ***

- ☐ Strongly agree
- ☐ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly disagree

19. **Food delivery apps provide shorter waiting times for users. ***

- ☐ Strongly agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly disagree
- ☐ Neutral

20. **Food delivery apps provide consumers promotions and discounts on food purchases, making ordering more affordable and enjoyable ***

- ☐ Strongly agree
- ☐ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly disagree

21. **I only order from the app based on positive online reviews ***

- ☐ Strongly agree
- ☐ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly disagree

22. **How easy it was to order food through delivery apps? ***

- ☐ Extremely easy
- ☐ Somewhat easy
- ☐ Neutral
- ☐ Somewhat not easy
- ☐ Extremely not easy