

**UNDERSTANDING THE GROWTH OF TAKEAWAY
FOOD APPS IN THE UK: A SUPPLIER AND CONSUMER
PERSPECTIVE**

Submitted by Nurul Syazana Hishamuddin to the University of Exeter
as a thesis for the degree of
Doctor of Philosophy in Management Studies
in February 2019

This thesis is available for library use on the understanding that it is copyright material and that no quotation from the thesis may be published without proper acknowledgement.

I certify that all material in this thesis which is not my own work has been identified and that no material has previously been submitted and approved for the award of a degree by this or any other University.

Signature:

ACKNOWLEDGEMENTS

First and foremost, thank you to Allah, the most gracious and mighty of them all, who given me the ability and opportunities to continue my doctoral studies.

Secondly to my beloved husband, thank you for continuous support, for your patience and for understanding the journey I am being through. For my daughters, because of you, I am able to be strong and completed this study.

But the most important of all, my two supportive supervisors. My sincere gratitude to Prof. Gareth Shaw and Dr Joanne Cornell, for their patience, insightful comments and encouragement. Both of you believed and always trust in all the decision I made throughout my doctoral studies.

However, this all will not possible without the support from my sponsor, the Malaysian government and Universiti Utara Malaysia for allowed my PhD journey to take place.

ABSTRACT

This research investigates the development, use and consumer acceptance of online takeaway food ordering (OTFO) apps in the UK. Although the online takeaway food ordering sector is well-established, it continues to improve services by bringing new technology and innovation in the sector. Among the latest technologies introduced into the sector is the development of takeaway apps. Given the recent developments and advancements in technology, there is limited evidence on how consumers view and use takeaway apps. In addition, the development and operation of the sector has so far received little attention in the academic literature. To develop a more in-depth understanding of this new technology and its adoption, the study employed a mixed methods approach. The first approach adopted a case study perspective to investigate the growth of technology within one organisation. The second approach focused on consumer acceptance of the technology through conducting in-depth semi-structured interviews (n = 12) and a questionnaire survey (n = 150).

The findings from this study suggest that organisations that supply takeaway apps tend to adopt innovation to improve business growth and ensure customer satisfaction. The best way for the organisation to encourage consumers to adopt the new technology was evidenced through the marketing mix such as through television advertisements. Although organisations have been active in promoting the apps, there are still insufficient information of consumer perception of how the technology. Through investigating the consumer perspective, it was revealed that the consumer perceived the use of takeaway apps similar to purchasing takeaway food. To understand consumer acceptance of takeaway apps, the

study used the Technology Acceptance Model (TAM) by studying perceived usefulness, perceived ease of use, perceived trust, perceived risk security and perceived social influence on the intention to use and actual use of the apps. This study contributes to the emerging body of knowledge on the online takeaway food ordering sector. In addition, it has an applied contribution in contributing to the development of new theory in the technology influence on university student takeaway food purchase and the acceptance of takeaway food apps.

Keywords: Technology acceptance model, online takeaway food ordering, takeaway apps, case study, mixed method.

TABLE OF CONTENTS

Acknowledgements	2
Abstract	3
List of Tables	9
List of Figure	11
List of Appendices	13
List of Abbreviations	14
CHAPTER 1 INTRODUCTION	15
1.1 Research background	15
1.2 Significances of this study	18
1.3 Research aim and objectives	20
1.4 Research structure	22
CHAPTER 2 LITERATURE REVIEW	27
2.1 The concept of innovation	28
2.1.1 Innovation adoption process.....	33
2.1.2 Organisation innovation adoption.....	38
2.1.3 Organisation's management innovation	41
2.2 Technology innovation in the foodservice industry	44
2.2.1 The smartphone and m-commerce	48
2.2.2 Mobile payment.....	52
2.2.3 Mobile technology adoption.....	58
2.3 Theory on technology acceptance	61
2.4 Conceptual framework and hypothesis	64
2.4.1 Perceived usefulness	67
2.4.2 Perceived ease of use.....	68
2.4.3 Perceived trust	70
2.4.4 Perceived security and privacy risk	71
2.4.5 Social influence	72
2.4.6 Behavioural intention on actual usage.....	73
2.5 Summary	75

CHAPTER 3 STUDENT’S LIFESTYLES AND EATING PATTERNS.....	77
3.1 Studying experience in a university.....	78
3.2 Student lifestyle	84
3.3 Student eating habits	87
3.3.1 The individual	89
3.3.2 The social environment	90
3.3.3 The physical environment	91
3.3.4 The macro environment	92
3.3.5 The university characteristics	93
3.4 Summary	94
CHAPTER 4 METHODOLOGY.....	97
4.1 Research approach.....	98
4.2 Second and third phase: Qualitative and case study design and execution.....	101
4.2.1 Document reviews.....	103
4.2.2 Semi-structured interview.....	106
4.2.3 Sampling for qualitative study.....	109
4.3 Fourth phase: customer acceptance survey and in-depth interview	110
4.3.1 Questionnaire survey	110
4.3.2 In-depth interviews	116
4.3.3 Sampling and phases of data collection	117
4.3.4 Pilot questionnaire.....	119
4.4 Validity and reliability	120
4.5 Data analysis.....	122
4.5.1 Qualitative analysis	122
4.5.2 Quantitative analysis	126
4.6 Ethical issues and legal considerations	128
CHAPTER 5 THE TAKEAWAY FOOD ORDERING SECTOR.....	130
5.1 Fast food and takeaway food concept.....	131
5.2 The history of takeaway food.....	133
5.3 Global trends in takeaway food consumption.....	142
5.4 The UK trends on online takeaway food purchasing.....	151
5.5 The online takeaway food ordering sites.....	154
5.5.1 Types of online takeaway food ordering sites	156

5.5.2 Current issues on online takeaway food ordering sector	160
5.6 Summary	161
CHAPTER 6 THE GROWTH OF ONLINE FOOD ORDERING COMPANIES: A CASE STUDY OF JUST EAT	163
6.1 Introduction to the case study of Just Eat.....	163
6.2 Just Eat’s profile	164
6.3 Financial growth	172
6.4 Business operation.....	182
6.4.1 Business model	183
6.4.2 Growth strategies	186
6.4.3 Marketing strategies	193
6.5 Innovation and technology development	197
6.5.1 Just Eat mobile app.....	200
6.5.2 Consumer reaction	202
6.5.3 Consumer acceptance	204
6.6 Challenges and issues	208
6.6.1 Consumer.....	209
6.6.2 Participating restaurant relationship	210
6.6.3 Social media.....	212
6.7 Just Eat’s growth framework.....	213
6.8 Summary	214
CHAPTER 7 IN-DEPTH INTERVIEWS: STUDENTS LIFESTYLE AND EATING HABITS.....	218
7.1 The demographic profile of respondents	219
7.2 Student technology usage	220
7.2.1 Students internet usage	220
7.2.2 Students device ownership	222
7.3 Students lifestyle - daily routine.....	224
7.4 Student’s perspective of cooking.....	225
7.5 Students eating habits	227
7.5.1 Main meals.....	228
7.5.2 Eating out	229
7.5.3 Takeaway foods	232
7.5.4 Online takeaway food purchasing	235
7.6 Factors influencing respondents’ eating habits	240

7.6.1 Taste versus value	240
7.6.2 Financial constraint	242
7.6.3 Well-being versus takeaway foods.....	243
7.6.4 Stress levels.....	246
7.7 Summary	249
CHAPTER 8 CONSUMERS' ACCEPTANCE OF TAKEAWAY APPS.....	252
8.1 Survey profile.....	253
8.2 The online takeaway food ordering services usage	255
8.2.1 The univariate analysis.....	260
8.2.2 The bivariate analysis.....	264
8.3 The assessment of consumer's acceptance takeaway apps model	268
8.3.1 Reliability and validity test	270
8.3.2 Significance test	281
8.4 Consumers acceptance of online takeaway food apps.....	289
8.4.1 The practicability	290
8.4.2 The functionality and usability	295
8.4.3 Individual experience and knowledge.....	302
8.5 Summary	304
CHAPTER 9 CONCLUSION.....	306
9.1 Summary of research findings	307
9.1.1 Objective 1	307
9.1.2 Objective 2	311
9.1.3 Objectives 3 and 4: The acceptance of takeaway food apps	316
9.2 Key contributions	324
9.3 Limitation of the study	327
9.4 Future research.....	328
References.....	330
Appendices.....	381

LIST OF TABLES

Table 2.1 Types and example of disruptive innovation.....	32
Table 2.2 Areas of innovation management measures	42
Table 2.3 Past studies related to innovation in the foodservice sector	45
Table 2.4 Development of mobile commerce	50
Table 2.5 Top 100 most mobile application developed related to foods.	52
Table 2.6 Previous studies related to m-payment.	56
Table 2.7 The UK internet sales for the year 2017 (In percentage)	58
Table 2.8 Summary of m-payment characteristics	59
Table 2.9 Supporting works of the conceptual model	65
Table 2.10 Summary of factors affecting customer's adoption of m-payment ..	66
Table 3.1 Student's accommodation during term-time	80
Table 3.2 Percentage of student accommodations from 2008-2016 in the UK.	83
Table 4.1 Previous studies related to mobile commerce in the foodservice industry.....	101
Table 4.2 List of documents related to Just Eat.....	106
Table 4.3 Comparison of three types of interview	107
Table 4.4 Part 1: Questionnaire based on literature	111
Table 4.5 Sources of constructs measures and dimensions	113
Table 4.6 Type of data and analysis approach.....	122
Table 4.7 Themes obtained from the interview and document review.....	123
Table 4.8 Annual financial reports analysis and the appendix.....	125
Table 4.9 Themes obtained from the interviews and document review.	126
Table 5.1 Typology of establishments selling takeaway food	132
Table 5.2 McDonald's development in various countries from 1955 to 1996..	135
Table 5.3 Worldwide market value and units of food service establishment in 2016	143
Table 5.4 Conversion rates of online shoppers by device and platform	154
Table 5.5 Online food ordering company's development by countries	155
Table 6.1 List of merger and acquisition by Just Eat	188
Table 7.1 Demographic characteristics of the respondents.....	220
Table 7.2 Respondents' perspective of cooking	225
Table 7.3 Student's food choices associates with stress level	248
Table 8.1 The profile of respondents – online takeaway food ordering sites ..	253

Table 8.2 Respondents' usage of online takeaway food ordering sites based on occasion	261
Table 8.3 Factors influencing respondents usage of online takeaway food ordering sites.....	263
Table 8.4 Descriptive analysis of respondents' usage of the sites based on occasion	265
Table 8.5 Factors influencing consumer usage of online takeaway food ordering sites.....	266
Table 8.6 Used sites and download	267
Table 8.7 Initial assessment of reflective indicator reliability	271
Table 8.8 Second assessment of reflective indicator reliability.....	274
Table 8.9 Final assessment of reflective indicator reliability.....	277
Table 8.10 Cross-loadings analysis (Discriminant validity).....	279
Table 8.11 Fornell-Larcker criterion analysis (Discriminant validity).....	280
Table 8.12 Results for collinearity statistics.....	283
Table 8.13 Result test of PLS-MGA	286
Table 8.14 Assessment of size of predictive power.....	287
Table 8.15 Hypothesis results	290
Table 9.1 Directory of results in relation to research objectives	307

LIST OF FIGURE

Figure 1.1 The structure of the study	16
Figure 2.1 Henderson and Clark’s innovation matrix.....	29
Figure 2.2 Pisano’s innovation matrix.....	30
Figure 2.3 Rogers's basic model in innovation invention.....	34
Figure 2.4 Roger’s diffusion of innovation theory	35
Figure 2.5 Model of consumer’s resistance	37
Figure 2.6 Digital eras in travel, tourism and hospitality industry.....	46
Figure 2.7 Model of m-payment classification	55
Figure 2.8 Technology Acceptance Model	61
Figure 2.9 Conceptual framework	64
Figure 3.1 Student living expenditure on average per month in the UK	86
Figure 3.2 The frequency of students eating a restaurant or purchase takeaways in the UK.....	87
Figure 3.3 University’ student eating pattern	88
Figure 3.4 Transition into university’ student lifestyle	95
Figure 4.1 The research’s approaches.....	100
Figure 4.2 Trend analysis calculation	125
Figure 5.1 Timeline of takeaway food distribution evolution	136
Figure 5.2 Differences between traditional and modern distribution.....	138
Figure 5.3 World wide’s eating out and takeaway sales.....	144
Figure 5.4 Home delivery and takeaway market value.....	146
Figure 5.5 Home delivery and takeaway market size in Western Europe 2015	148
Figure 5.6 Takeaway food growth in the UK.....	150
Figure 5.7 Home delivery versus takeaway in UK.....	151
Figure 5.8 Home delivery and takeaway, offline versus online market size in UK	152
Figure 5.9 Device usage across selected food delivery properties in UK in 2016	153
Figure 5.10 Typology of takeaway food distribution	157
Figure 5.11 Modes of operation for online takeaway food ordering.....	158
Figure 6.1 Just Eat’s revenue.....	166
Figure 6.2 Just Eat’s global organisation structure	167

Figure 6.3 Just Eat's country organisation chart.....	170
Figure 6.4 Just Eat's revenue from 2009 - 2016.....	173
Figure 6.5 Just Eat's revenue by market segment	174
Figure 6.6 Cost of goods sold and administrative expenses	176
Figure 6.7 Just Eat's non-current assets and current assets.....	178
Figure 6.8 Just Eat's non-current assets for the year 2014 until 2017.....	179
Figure 6.9 Just Eat's total equity	180
Figure 6.10 Just Eat's cash flow statement.	182
Figure 6.11 Risk assessment framework.....	185
Figure 6.12 Just Eat's growth model	214
Figure 7.1 Summary of student lifestyle and eating pattern.....	251
Figure 8.1 Respondent's types of technology adopters.....	255
Figure 8.2 Types of online takeaway food ordering sites.....	256
Figure 8.3 Device used to access online takeaway food ordering sites	257
Figure 8.4 Location of online takeaway food ordering sites usage	258
Figure 8.5 Frequency of online takeaway food ordering services usage	259
Figure 8.6 Respondents' spending on takeaway food ordering sites	260
Figure 8.7 Systematic evaluation of PLS-SEM results	270
Figure 8.8 Initial conceptual framework.....	272
Figure 8.9 The second assessment of the conceptual model.....	275
Figure 8.10 Final structural model	278
Figure 8.11 Procedure to evaluate the structural model.....	282
Figure 8.12 Result of structural model test without control variable (users) ...	285
Figure 8.13 Result of structural model test without control variable (non-users)	286
Figure 9.1 Innovations evolution in the distribution channel of foodservice sector	310
Figure 9.2 Online takeaway food ordering company growth model.....	313
Figure 9.3 Student lifestyle influence on the usage of takeaway apps	326

LIST OF APPENDICES

Appendix 1	Video Interview's transcript.....	381
Appendix 2	Just eat's Income statement	386
Appendix 3	Vertical analysis - Just eat's Income statement	387
Appendix 4	Horizontal analysis - Just eat's Income statement	388
Appendix 5	Just Eat's balance sheet.....	389
Appendix 6	Vertical analysis - Just Eat's balance sheet.....	390
Appendix 7	Horizontal analysis - Just eat's balance sheet	391
Appendix 8	Just Eat's revenue by markets.....	391
Appendix 9	Horizontal analysis - Just eat's revenue by markets	393
Appendix 10	Just Eat's Cash flow statement.....	394
Appendix 11	Supplier's Interview questions.....	396
Appendix 12	Questionnaire.....	398
Appendix 13	Individual Interview's questions.....	407

LIST OF ABBREVIATIONS

ACT	Actual usage
AHP	Analytic Hierarchy Process
App	Mobile application
AVE	Average outer weights
CET	Customer Engagement Technology
CEO	Chief Executive Officer
COD	Cash on delivery
COGS	Cost of goods sold
DOI	Diffusion of Innovation
EFA	Exploratory Factor Analysis
E-commerce	Electronic commerce
ELE	Exeter Learning Environment
IDT	Innovation Diffusion Theory
INT	Intention to use
KMO	Kaiser-Meyer-Olkin
M-commerce	Mobile commerce
M&A	Merger and acquisition
OTFO	Online takeaway food ordering
PCA	Principal Component Analysis
PEOU	Perceived ease of use
PEU	Perceived usefulness
PLS-SEM	Partial least square - Structural equation modelling
POS	Point-of-sale
PPC	Pay-per-click
PT	Perceived trust
PS	Perceived risk security
QSR	Quick-service restaurant
SI	Social influence
SST	Self-service technology
SoLoMo	Social-, location-, and mobile-based application
TAM	Technology Acceptance Model

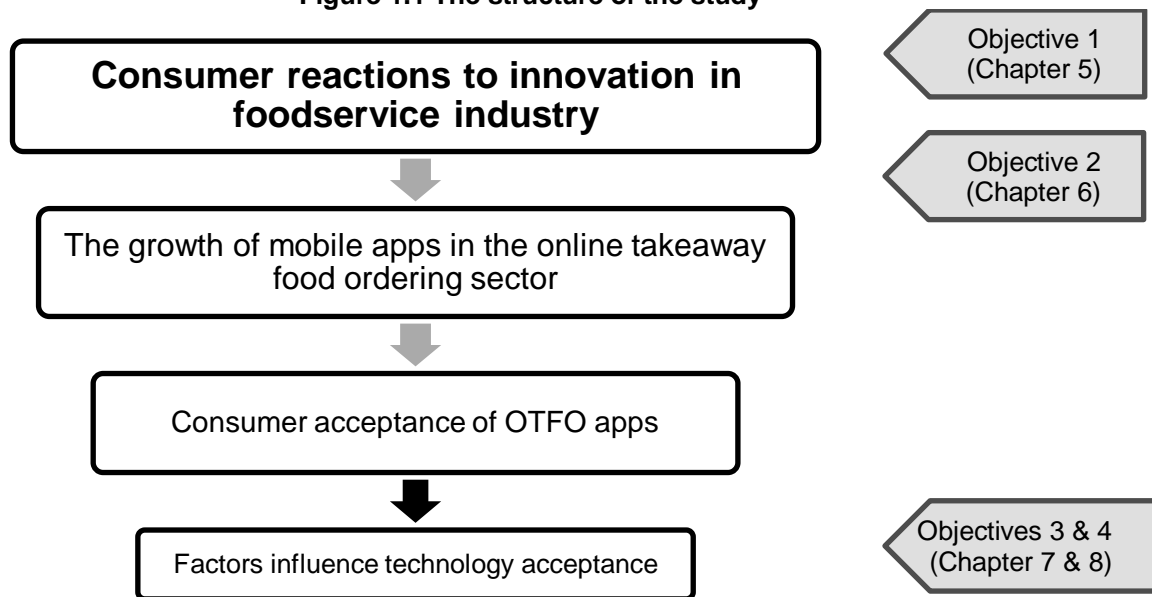
CHAPTER 1 INTRODUCTION

1.1 Research background

In 2018, global consumer foodservice industry sales were estimated to be USD 2.9 trillion (Euromonitor International, 2018). This demonstrates that the foodservice industry is an important industry for consumers globally. The industry encompasses various activities from preparing meals to serving food for people to eat at a variety of diverse food establishments. An individual may enjoy food served at a hospital canteen, catering establishment as well as restaurants. Those who wish to purchase food from restaurants can select from a variety of different restaurants, from fine dining, casual restaurants to fast food restaurants. It is a vastly large industry, but there is room for improvement and development.

As an industry that serves people, foodservices must ensure that their service satisfies and meets consumer demand. Different types of consumers have distinctly different tastes when it comes to food and the environment. With the rapid enhancement and development of the internet, the consumer has nowadays various methods to purchase food. This includes via an online website and using mobile apps as the consumer believes it is convenient to simply order food using technology as an enabler (Agrebi and Jallais, 2015; Kimes, 2011a; Ozturk, Bilgihan, Nusair and Okumus, 2016) compared to more conventional ways of ordering food via the phone or directly visiting a restaurant to purchase meals. Therefore, to understand consumer reaction to this form of innovation in the foodservice sector this study aims to understand the supplier and the consumer in this sector. Figure 1.1 illustrates the structure of the study and topics related to the research objectives.

Figure 1.1 The structure of the study



Source: Author

The internet is considered to be the most significant technological inventions of this era, and people have become extremely attached and reliant on the technology wherever they go. Therefore, to fulfil consumer demand for on-the-go internet use, the evolution of the cell phone has enabled this to eventuate. Cell phones continue to evolve not only physically and functionally but also in their usability, since the creation of the smartphone in 1999. The evolution of the cell phone has enabled a device that can connect consumers to the internet at any time and anywhere to become portable (Kwon, Bae and Blum, 2013). The popularity of the smartphone has grown since its inception (Wang, Yu and Wei, 2012). In 2017, smartphone sales grew by 3% compared to the same period in 2017 (Gartner, 2017) with a noticeable increase in the number of people using a tablet device and mobile phone instead of using a desktop to browse the internet (Ellins, 2017). These devices are useful for consumers as they allow all-in-one device functionality which enables the users to communicate, to buy and sell and search for information. For suppliers, these devices are a powerful tool that can

connect them directly to consumers through the right platform (Yang, Lu, Gupta, Cao, and Zhang, 2012; Morosan, 2014). For example, using social networking platforms like 'Facebook' to generate electronic word-of-mouth marketing for businesses or using mobile apps to sell their products and services.

In the foodservice industry, the development of both the mobile and the internet has enabled the consumer to directly purchase takeaway food from a restaurant, whether through the restaurant's website or via a multi-restaurant site (Kimes and Laqué, 2011). In this situation, the consumer can open the internet browser through their smartphone or tablet device and directly access the restaurant's website to place a food order. Furthermore, the smartphone also enables the consumer to download mobile apps which can be used to purchase takeaway food. Mobile browsers enable users to access many different types of web-enabled services, whereas apps only enable users to connect to specific online services (Mikkonen and Antero, 2011). Likewise, foodservice establishments may choose to adopt a single platform or both platforms if they wish and have the money to invest in developing these platforms.

In the online takeaway food ordering (OTFO) sector, suppliers have found that mobile apps provide a significant advantage in providing services which the consumer can easily access and take advantage. However, at present, ordering food through apps is less common although their application and use are growing with the younger generation of users (Kimes and Laqué, 2011). Consumers mostly use apps for communicating such as using social networking compared to ordering takeaway food. Indeed, the increase in OTFO companies and their desire to develop apps may be distracted if they discovered that consumers are not using food ordering services as much as initially anticipated. Therefore, this

study aims to understand the growth of the OTFO sector from the supplier's perspective and the consumer's acceptance of takeaway food apps. By conducting this study, further insight into the development of OTFO apps and the factors that influence consumers' adoption of takeaway apps will be produced.

1.2 Significances of this study

The OTFO sector was established since the 1990s. However, it has only been since 2010, that the sector has become better known by consumers (Kimes, 2011a). The study named the sector as 'Online takeaway food ordering' sector instead of 'Online food ordering' sector to defined that the sector is related to takeaway and home delivery food but not on food, in general, that may consist groceries.

When the technology (i.e. internet) was first developed, it influenced many industries such as retailing and banking, to invest in this new innovation. Consequently, for this very reason, consumers began using the technology (Agrebi and Jallais, 2015; Marakarkandy, Yajnik and Dasgupta, 2017). Moreover, recent research has shown that people believe technology is more convenient than conventional methods (Teo, Tan, Ooi, Hew and Yew, 2015; Ozturk et al., 2016). and that people have become attached to technology and will use it anytime and anywhere as mentioned earlier (Anshari, Alas, Hardaker, Jaidin, Smith and Ahad., 2016; Rahim, Safin, Kheng, Abas and Ali 2016; Wang, Xiang and Fesenmaier, 2014). Furthermore, technological devices are more affordable compared to ten years ago and various of technology services such as social networking, online shopping and mobile apps can access a variety of services

and information sources (Agrebi and Jallais, 2015; Anshari et al., 2016; Hwang and Park, 2015).

Because the use and application of technology have rapidly become a common trend, people are beginning to use online takeaway food ordering services given the convenience. However, there remains insufficient information regarding this sector, particularly in academic literature. People only relate to this sector as a website or using apps for ordering takeaway food and delivering it to the consumer, whereas, it has become a key platform for participating restaurants to gain more food orders and to generate extra profit. However, there is a limited understanding of how suppliers operating in this sector generate their profit and develop their marketing strategies. Similarly, there is limited insight concerning competitiveness between the supplier and consumer acceptance of OTFO services.

Therefore, based on the reasons mentioned above, the purpose of this thesis is to contribute to the existing body of knowledge in this area by investigating the growth of mobile apps in the OTFO sector and the changing patterns of consumer acceptance within the UK market. The UK market has been chosen because it is home to one of the largest suppliers in the OTFO industry globally. Additionally, this study focuses on the student segment of the market given their lifestyle, their knowledge and technology literacy and their attachment to this particular technology. Understanding the student's acceptance of takeaway food ordering apps will assist academia and the food services sector to better understand its application in this sector and how students perceive its usefulness.

1.3 Research aim and objectives

This study aims to investigate the growth of mobile apps in the OTFO sector and the changing patterns of customer acceptance within the context of the UK market. The objectives of this study include the following:

Research objective 1: To understand the development of the online takeaway food ordering sector in the foodservice industry

Many factors influence the development and sustainability of the foodservice sector, namely external environments such as political, economic and technological factors. However, since the development and inception of the internet, this sector continues to innovate new service offering for consumers and intermediation channels such as the OTFO sector was established. Therefore, the purpose of this objective is to understand the historical significance of the foodservice sector from its inception. Using a qualitative approach, and particularly, review of the literature and other information sources, the study will achieve this objective.

Research objective 2: To explore the growth and operating characteristics of organisations supplying mobile apps within the online takeaway food ordering sector

The objective is to understand the growth and characteristics of organisations that supply mobile apps to the OTFO sector. This is undertaken via adopting a case study approach by focusing on the UK's most prominent OTFO company, 'Just Eat'. Two techniques are employed to understand the case study: semi-structured interviews and document

analysis. Exploring and understanding the rapid growth of mobile apps in the OTFO sector through an organisation enables the study to understand how quickly the sector has grown and matured over time, as well as identifying the pattern of growth within one specific company. This is significant as it provides insight into the development of this sector and the operating characteristics of the supplier.

Research objective 3: To identify the socio-demographic characteristics of consumer who use mobile apps to order takeaway food

Socio-demographic characteristics may influence customer acceptance of mobile apps. The identification of user characteristics helps the study to discover whether consumer characteristics influence takeaway food ordering habits through OTFO sites. The study selects a sample of international students living and studying in the UK. Moreover, because the focus is on the student market segment, the study needs to identify basic demographic characteristics such as gender, nationality and marital status. The study also reveals the respondents' favourite OTFO sites, types of accommodation, types of technology adopters, devices used to access OTFO sites, the locations used to access OTFO sites, takeaway food spending and the frequency of purchasing takeaway food. To address this objective, a questionnaire survey will be conducted involving students who are studying at the University of Exeter.

Research objective 4: To analyse the factors influencing consumer acceptance of mobile apps within the online takeaway food ordering sector

Research on the consumer acceptance of mobile apps is limited, particularly in the OTFO sector. It is anticipated that, by analysing the factors influencing consumer acceptance of mobile apps in the OTFO sector, this study will better understand the main reasons underpinning technology acceptance in this context. Therefore, the research refers to several models and a range of factors that affect consumer acceptance of technology usage, including security, trust, social influence, perceived ease of use, perceived usefulness, intention to use and actual usage as identified in previous studies (Ajzen and Fishbein, 1970; Davis, 1986). The study will be using a questionnaire survey and in-depth interviews to address this objective.

1.4 Research structure

This thesis contains nine chapters. The first chapter begins by presenting and introducing a broad outline of the study. The chapter begins with the research background presenting the source where the idea of the study originated. Research aims and objectives are next discussed along with the goals of the research followed by presenting the research structure and a summary of the chapter.

Chapter 2 presents the literature review that aims to develop an understanding of the innovations in the food services industry and the consumer's technology

acceptance. The chapter begins by discussing the concept of innovation, consisting of several subtopics: the innovation adoption process, organisation innovation adoption and the organisation's management innovation. The chapter continues by discussing innovation development in the foodservice industry. Several innovations are adopted by the industry which is discussed in this chapter including e-commerce and m-commerce. The last part of the chapter continues by explaining the theory of technology acceptance with an overview of the basic technology acceptance model (TAM) model used to develop a conceptual framework for the study. Finally, the chapter concludes by presenting a conceptual framework consisting of several constructs drawn from previous studies and adapted to the context of this study.

Chapter 3 is another literature review that mostly focuses on students' lifestyle and their eating patterns. This chapter explores the university student's study environment. Studying at university will affect the lifestyle because students are living away from their parents, and they need to become independent in managing their daily life which includes study time, managing their finances and as well as their eating habits. Additionally, the literature related to students eating habits will be presented based on a study by Deliens et al. (2014) which revealed that university student eating habits are influenced by five different factors which are the individual, the social environment, the physical environment, the macro environment and the university's characteristics.

Chapter 4 presents the methods, research design and execution, sampling, data analysis, and ethical considerations. This study adopts a mixed-methods approach, including qualitative methods which consist of document reviews, semi-structured interviews and in-depth interviews. While the quantitative

approach will be undertaken via a paper-based questionnaire survey and an online-based questionnaire survey. This study further conducts a sequential mixed methods approach, starting with document reviews followed by semi-structured interviews in order to understand the development of the OTFO sector from the perspective of the supplier. In addition, the online and paper-based questionnaire survey and in-depth interviews are needed to understand the consumers' usage of OTFO services.

Chapter 5 provides an overview of the takeaway food ordering sector, beginning by introducing the fast food and takeaway food concept. A brief review of the history of takeaway food and the innovation that occurred in this sector from its inception until today is presented. Figures on the current trends in takeaway food consumption, home delivery food sales and online takeaway food sales are outlined. Lastly, this chapter will present general information and typologies of OTFO services.

Chapter 6 presents the findings related to the suppliers of OTFO services. This chapter adopts a case study approach to understand the growth of the OTFO sector by choosing 'Just Eat'. As mentioned in the methodology chapter, the data for this chapter were collected from Just Eat's financial reports between 2010 and 2017. Additionally, semi-structured interviews and video interviews were obtained via the internet to understand the company further. From all the data collected, this chapter aims to understand the company's business strategies, the innovation and technology development in the company and challenges and issues faces by the company. At the conclusion of the chapter, a framework and summary of the chapter are presented.

Chapter 7 discusses the findings of the in-depth interviews on the students' lifestyle, particularly regarding their eating behaviour. The findings are based on the analysis of in-depth interviews with 12 students of the University of Exeter. Six sections are contained in this chapter. The first section is the introduction of the respondents which consist of the respondents' demographic profile. The second section discusses student technology usage that encompasses their internet usage and device ownership. The following section continues the discussion by understanding their lifestyle that includes their daily routines. The then the student's perception of cooking and their eating habits which may be related to takeaway food purchasing habits are investigated in-depth. Lastly, the chapter identifies the factors influencing eating habits of the study participants.

Chapter 8 presents the findings of the students' acceptance of takeaway apps. The results are based on the questionnaire survey and data collected from students at the University of Exeter. The chapter begins by describing the survey profile followed by univariate and bivariate analyses. This is followed by the main discussion which focuses on consumer acceptance of OTFO apps based on the conceptual framework developed in Chapter 2. At the end of this chapter, the findings are linked together and summarised.

Chapter 9, the final chapter of this study, draws the main ideas and conclusions together. The chapter includes the research findings, key contributions, limitations of the study and recommendations for future research. The chapter commences by discussing the data and findings related to the research aims and objectives. The contribution of the study will discuss the implications for both theoretical and managerial aspects. Limitations of the study are discussed

including the drawbacks of the research from several different perspectives such as the methodology followed lastly by recommendations for future research.

CHAPTER 2 LITERATURE REVIEW

This chapter discusses previous studies related to innovation particularly in the foodservice industry and the theory of technology acceptance. It helps the study to understand how innovation influences technological development in the foodservice sector and identifies existing studies related to the online takeaway food sector. Aside from that, the chapter discusses the theory of technology acceptance, specifically the technology acceptance model (TAM), understanding the advantages and disadvantages of the model and familiarity of the model. The process of locating and understanding past studies is important in the context of this study, given much more understanding is needed concerning the OTFO sector.

The chapter begins by discussing the concept of innovation that includes the innovation adoption process and the process of adopting innovation by the organisation. The discussion of innovation then continues by presenting technology development in the service industry and the adoption of the technology. There have been various innovations adopted since the inception of technology. Among the earliest technologies adopted was the internet, followed by electronic commerce (e-commerce) and mobile commerce (m-commerce).

The chapter continues by discussing student technology acceptance to understand student perceptions and their adoption of technology. Several theories of technology acceptance are reviewed in this context, to reveal the use and application of each theory. However, the study decided to use the TAM given it is mostly used to understand consumer acceptance of technology particularly, the use of technology. From the previous studies, a number of factors have been

identified in order to understand the factors that influence consumer acceptance of takeaway apps, and a conceptual framework is developed based on these factors. The chapter concludes with a summary.

2.1 The concept of innovation

In this study, innovation is framed as an organisational concept in the foodservice service sector and as a concept related to consumer behaviour. However, before proceeding to understand innovation in the foodservice sector, it is important to discuss the basic concept.

Innovation has been defined and described differently in many studies (Bhaskaran, 2006; Robertson, 1967; Unnamed, 1656). Among the earliest studies was Schumpeter (1939) who defined innovation using three terms: the development of new plants and equipment, an introduction to a new organisation and the growth of new leadership. Robertson (1967) also believed that innovation was a process of creating a new perspective, behaviour or thing, which can be planned to occur. Conversely, Bhaskara (2006) described innovation differently where he identified innovation as a risk-taking experiment that required careful planning. Although his definition is distinguished from the other researchers, his description of innovation is more or less the same given he expressed it from a different viewpoint. Before developing new products, and before introducing and applying it, individuals or organisations need to ensure that a strategy has been well laid out. The individual/organisation needs a proper plan before developing innovation to ensure that the creation will be successful (Pisano, 2015).

Accordingly, innovation has been recognised in two forms: incremental and radical innovation. Incremental innovation refers to a small invention or minor changes to the development of an existing product or services (Henderson and Clark, 1990) and does not need an expert to develop (Bhaskaran, 2006). On the other hand, there is radical innovation which requires significant changes, that can be evidenced in the development of new products or processes (Bhaskaran, 2006), such as smartphones and mobile applications. Henderson and Clark (1990) believed that to develop a successful product; there is a need for two additional forms of knowledge; architecture and component knowledge. Their study, classified innovation into four categories: modular/ component, architectural, incremental and radical (Henderson and Clark, 1990) (see Figure 2.1). Modular or component innovation is the earliest, and it involves altering the concept of technology and the relationship between innovations, for example, the digital telephone. However, architectural innovation relates to a novel way to reconstruct an already established system to connect with existing components, for example, a portable fan (Henderson and Clark, 1990).

Figure 2.1 Henderson and Clark's innovation matrix

		Core concept	
		Reinforced	Turn around
Linkage between core concepts and components	Unchanged	Incremental innovation	Modular/component innovation
	Changed	Architectural innovation	Radical innovation

Source: Henderson and Clark (1990, p.12)

In contrast, Pisano's (2015) version of innovation typologies retains two types of innovation which include architecture and radical innovation, further adding two innovation types which are routine/sustaining and disruptive innovations (see Figure 2.2). Routine/sustaining innovation refers to a customer base, developed from an organisation's competencies which suits their business model (Pisano, 2014). For example, a new version of Microsoft Windows or an Apple iPhone. While, disruptive innovation refers to an innovation that has been challenged or interrupted, leading to the creation of a new market/product or services (Christensen, 2013). Therefore, many companies keen to innovate should choose more than one innovation as different types of innovation can be combined to complement each other instead of substituting for another innovation (Charitou and Markides, 2003). However, in this study, Pisano's innovation of typologies was used to refer to the innovation landscape as it is related to business operations.

Figure 2.2 Pisano's innovation matrix

Requires new business model	Disruptive Example: Video-on-demand	Architecture Example: Digital imaging
	Routine/ sustaining Example: New 3D animated film	Radical Example: Fibre-optic cable
Leverage existing business model	Leverage existing technical competence	Requires new technical competence

Source: Pisano (2015)

Among the diverse types of innovation, this study focuses on disruptive innovation which is derived from the works of Clayton Christensen (Christensen, 2013; Christensen and Raynor, 2013). Christensen (2013) described that disruptive innovation occurs when a product or service has been disturbed or interrupted by new innovation. Disruptive innovation has also been referred to previously by Schumpeter, several centuries ago as a “big disturbance” when significant competition occurs among supermarkets causing a disruptive effect on the structure of non-food retailers which also effects established retailers (Bliss, 1960). This revealed that disruptive innovation in various industries (and businesses of all sizes) has been occurring for many years (Guttentag, 2015).

Initially, Christensen applied the theory of disruptive technology to describe technology disruption, however, over time he also used the theory to explain different types of disruptive innovations (Danneels, 2004; King and Baatartogtokh, 2015; Markides, 2006). Markides (2006) argued that Christensen’s theory could not be applied to define other types of disruptive innovation, given there are various types of innovation that are derived differently for different innovations (see Table 2.1). However, King and Baatartogtokh (2015) believed the theory could not be utilised entirely in every innovation situation given it needs to take into account certain factors such as legacy cost, changing the scale of economies and the law of probabilities.

Table 2.1 Types and example of disruptive innovation

Types of disruptive innovation	Definition	Authors
Business model innovation	"...is the discovery of a fundamentally different business model in an existing business." Example: Low-cost airlines	Markides (2006)
Product innovation	"...is a new technology or combination of technologies introduced commercially to meet a user or a market need." Example: 3D printer, self-service kiosk, smartphone.	Utterback and Abernathy (1975)
Strategic innovation	"...a way of playing the game that is both different from and in conflict with the traditional way." Example: Low-cost airlines, internet banking, home delivery grocery.	Charitou and Markides (2003)

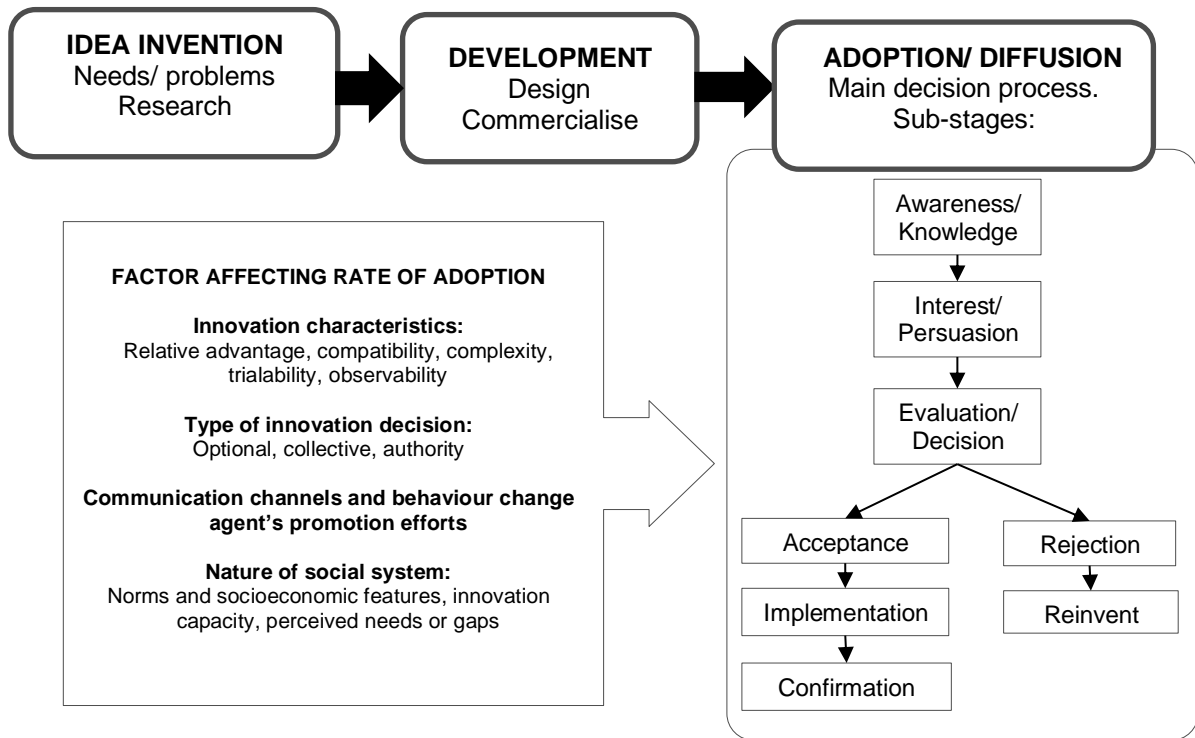
Source: Author

Nagy, Schuessler, and Dubinsky (2016, p. 122) redefined the term 'disruptive innovation' as "an innovation with radical functionality, discontinuous technical standards, and/or new forms of ownership that redefine marketplace expectation". They also developed a series of steps to determine a potentially disruptive innovation in an organisation. Instead of applying the definition and theory developed by Christensen, Nagy et al.'s theory was able to help practitioners to predict the effects of potential disruptive innovation, although in this case, either definition can describe disruptive innovation. Here, the basic definition of innovation relates to disrupting, whether it is a product/system or service; it is changing the product into something that was perceived to be better than previous. However, regarding whether the innovation will be accepted or not, it is difficult to predict before launching the new product or service.

2.1.1 Innovation adoption process

To understand the process whereby individuals or organisations adopt an innovation, it is important first, to understand the process to develop the innovation and the adoption process. Figure 2.3 illustrates a model adapted by Van de Ven (1991) from Rogers's innovation theory. The diagram summarises all of Rogers' works starting from the process to develop innovation to the last stage which is the consumer's decision to adopt the innovation. The initial step in developing an innovation commonly results from identifying a need or problem. The next step is where the developer needs to design and commercialise the innovation, and the last step is the decision to adopt or reject the innovation which will wholly depend on the user. By understanding this process, it shows that the innovation created by the organisation or developer is directly related to consumer acceptance. If the consumer does not approve or accept an innovation, the developer will need to undertake further research to obtain additional knowledge concerning the innovation from the consumer's perspective (Cornescu and Adam, 2013).

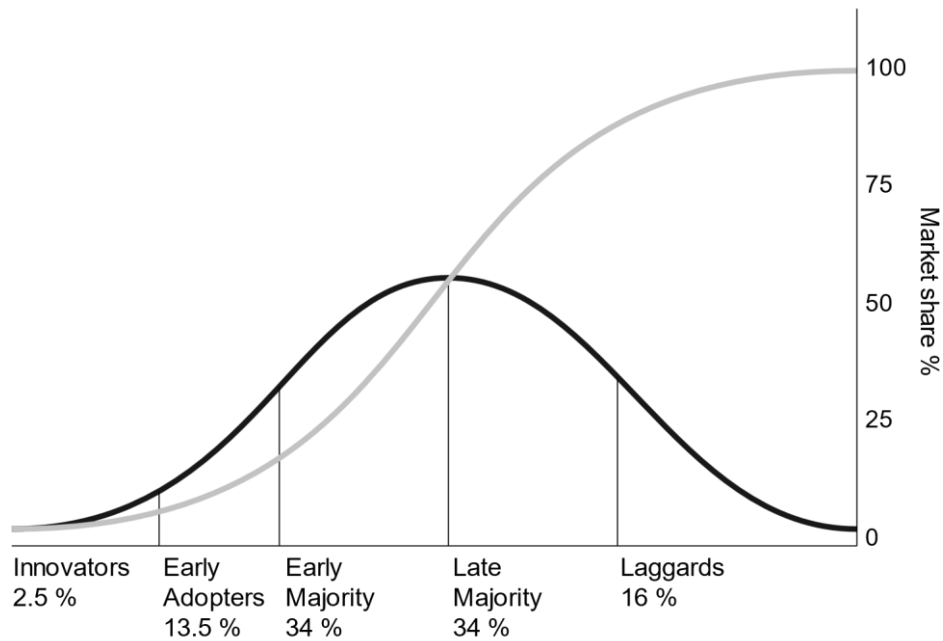
Figure 2.3 Rogers's basic model in innovation invention



Source: Van de Ven (1991) adapted from Rogers (1983, pp 165, 233).

Previous studies tend to relate the decision towards adopting innovation with the diffusion of the innovation (Katz, Levin and Hamilton, 1963; Rogers, 2003). According to Katz et al. (1963) diffusion is a process of acceptance of a specific item via a certain channel. This term was also discussed by Rogers, (2003) in describing diffusion as a process of connection between a new invention via a certain medium to a group of people or population. Here, Roger's illustrated the theory of innovation diffusion in a bell-shaped curve, and grouped individuals based on a specific period (see Figure 2.4). He further divided innovation into five types of technology adopters: innovators, early adopters, the early majority, late majority and laggards. The innovators are the initial entry group with 2.5% at the beginning of the adoption process, given they are the pioneers of the innovation. This is followed by the early adopter, early majority, late majority and laggards.

Figure 2.4 Roger's diffusion of innovation theory



Source: Rogers (2003, p.281).

Moreover, the innovators are those who love technology and are the first to implement and use the technology when released. Similarly, the early adopters are those individuals that like new technologies and use it before other people they know use it, whereas, the early majority are users who typically use the new technology after other people have used it. The late majority and the laggards are categorised as the group of individuals that hesitated to use the technology before knowing other people used it.

Notwithstanding, the diffusion of innovation occurs through several processes, in which there are two established theories of innovation diffusion by (1) Schumpeter and (2) Rogers (Nooteboom, 1994). Schumpeter (1939) explained that diffusion is a part of dissemination in a social system, whereas Rogers (2003) defined that diffusion of innovation occurred when an individual underwent a process of acquiring knowledge of innovation until a confirmation stage is

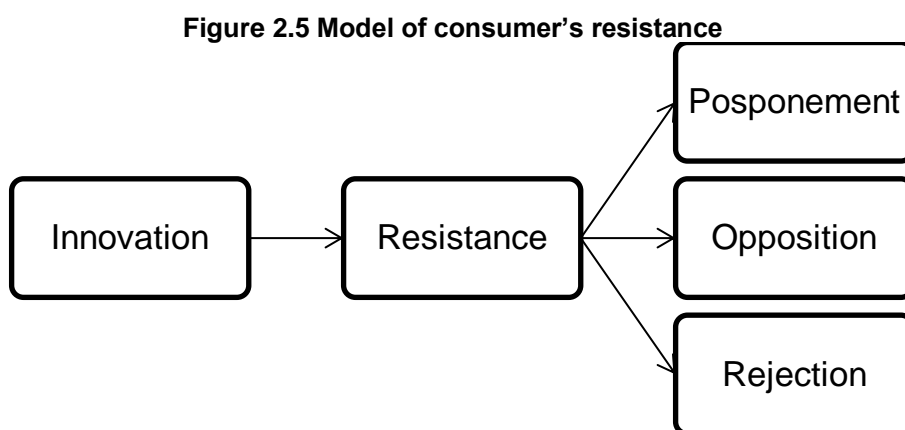
reached, (see Figure 2.3). In this case, the diffusion process began by starting from the exposure of information/knowledge of the innovation and then comprehending and knowing how the innovation works. This is then followed by persuasion which is formed when a person has either a positive or negative affection towards the innovation. Next, the decision phase occurs when a person needs to decide whether they wish to adopt or reject the innovation. When an individual decides to accept the innovation, they will use it, and conversely, when they decide to reject it, many innovations will subsequently be re-invented. Lastly, the confirmation stage is where the individual needs an assertion in order to make sure they made the correct decision to accept the innovation.

However, Roger's study focuses on the process of accepting innovation neglecting to discuss innovation rejection. It was found from undertaking the literature review, that limited studies focused on innovation resistance (Cornescu and Adam, 2013; Szmigin and Foxall, 1998). The most cited theory of innovation resistance was the work by Ram and Sheth (1989) in which they discovered innovation resistance occurred when consumers found an innovation dissatisfying or conflicted with their personal beliefs (Ram and Sheth, 1989). On the other hand, Cornescu and Adam (2013) described the resistance to innovation as the consumer's reaction to a new innovation (i.e. product/ services) compared to others.

Similarly, Ram (1987) created the theory of resistance in understanding the phenomenon after the innovation had been rejected and whether the innovation subsequently dies or continues to exist. In 1999, Bagozzi and Lee created a model to investigate the consumer's decision to adopt or resist innovation adoption. Here, they created two models related to consumer thinking and the

decision process of the consumer concerning the innovation in terms of goal setting and goal striving. Furthermore, Kleijnen, Lee, and Wetzels (2009) established a model of consumer resistance to innovation that focused on three major elements of resistance: rejection, postponement and opposition.

While Cornescu and Adam (2013) highlighted the use of three main types of resistance that clarifies the basis for innovation resistance (see Figure 2.5). Their model is much easier to understand given it shows the relationship between innovation resistance and the types of resistance. For instance, when an individual has decided to resist innovation, there will either be postponement, which refers to the decision not to adopt the innovation at that point, or they find the innovation acceptable (Kleijnen, Lee and Wetzels, 2009; Szmigin and Foxall, 1998). In addition, there are several factors that individuals consider in their decision to postpone such as timing, gaining knowledge of a certain innovation or to ensure the products work effectively (Cornescu and Adam, 2013).



Source: Cornescu and Adam (2013, p.463)

Opposition is when a consumer has decided to protest against the innovation by acting rebelliously (Kleijnen, Lee and Wetzels, 2009), in this case, consumers have decided not to accept the innovation even after trying it (Szmigin and Foxall, 1998). Furthermore, there are several reasons for a consumer to oppose an innovation such as situational factors, habit resistance and cognitive consumer style that lead them to decline a new product or service (Kleijnen, Lee and Wetzels, 2009). Additionally, the rejection may have occurred when the consumers decided not to use the innovation because of strong disclination (Cornescu and Adam, 2013; Rogers, 2003). This resistance is also encouraged by the consumer's doubt of new and untested innovations (Lee and Clark, 1996). When there are many rejections by consumers, it is then up to a company to modify or alter the innovation and test it once again on the market (Szmigin and Foxall, 1998). In this case, following the changes, the innovation may be accepted or may still be resisted by consumers.

2.1.2 Organisation innovation adoption

Although the organisation innovation adoption process is similar to individual innovation adoption, several elements distinguish them from each other (Wisdom et al., 2014). Fundamentally, an organisation can utilise the individual adoption process in order to illustrate the organisation innovation adoption process.

Indeed, small and large firms tend to adopt similar innovation processes, although, several factors influence the innovation process between firms. Among the factors that might influence the process include the firm's size, equity, human capital skills and technical source (Rogers, 2004). According to Tether (1998), it is difficult to associate firm size with the innovation adoption process given that

some small firms may be more efficient in research and development and therefore create more innovation compared to a large firm. Coad, Holm, Krafft and Quatraro (2018) found that firm's age relates to the ability to create an investment for innovation. This is because the firm's level of maturity showed the firm's performance and ability to invest. Therefore, to assess innovation adoption, studies need to examine the firm's characteristics to ensure their ability to adopt innovation.

Notwithstanding, it is also important to discuss the meaning of 'innovation adoption' in the context of a firm. The firm may refer to 'innovation adoption' as the adoption of innovations within the organisation itself, or innovation adoption by an organisation as a part of the services and products on offer. Similarly, technology innovations within an organisation occur when innovation is embedded in the firm (Utterback, 1971). Moreover, when the innovations are the main focus of the firm, the firm needs to have the technical knowledge of the products or services they wish to create. Additionally, they need to understand the economic and social use of existing products or services in order to innovate (Utterback, 1971). On the other hand, the adoption of innovation by an organisation is intended to increase the organisation's performance and the effectiveness of its operations whether from the reactions brought about by the innovation internally or externally or as pro-active actions to influence the environment in which the organisation operates (Damanpour, 1991; Gupta, Guha and Krishnaswami, 2013). Regarding this study, the types of innovation discussed are related to the adoption of innovation by an organisation in developing new products and services to consumers.

Next, to understand organisational innovation adoption, it is therefore important to understand closed and open innovation. Closed innovation has been widely used by experts to allow ideas to be generated for products or services within the organisation only (Chesbrough, 2003; Almirall and Casadesus-Masanell, 2010; Vanhaverbeke, Roijakkers, Lorenz and Chesbrough, 2017). However, many criticisms have been put forward suggesting that closed innovation is not appropriate in the new technology era (Chesbrough, 2003). Although, several companies have adopted closed innovation in their organisation; among them, Apple for the production of the iPod and Nintendo with the Wii (Almirall and Casadesus-Masanell, 2010). These companies have shown that the innovation approach remains valid and can produce successful innovations that will be accepted by consumers globally.

In contrast, open innovation refers to the term developed by Chesbrough (2003). Here he referred to the ideas generated by the innovation, internal or external to the organisation and also from an internal and external market perspective. Since first introduced, many studies have discussed innovation and its advantages towards implementation and usefulness in large and high-technology driven initiatives and business ventures (Chesbrough and Crowther, 2006; Chesbrough and Brunswicker, 2014; Vanhaverbeke et al., 2017). High-technology firms tend to adopt open innovation to encourage growth in both profit and products, and the external innovation source complementary to internal sources (Chesbrough and Crowther, 2006). However, in ensuring that firms fully utilise open innovation, it is crucial that firms link the innovation into the firm's strategy development process including execution given its ability to influence the firm's growth (Vanhaverbeke et al., 2017).

2.1.3 Organisation's management innovation

After understanding the innovation adoption process, it is also important to understand how to manage innovation in an organisational context. The management of innovation from an organisational perspective is different from the development of innovation in the form of products, services or other items. Management innovation can be described as the adoption of management practices, processes, techniques that new to the organisation and affect their performance concerning productivity, innovation and competitiveness (Birkinshaw, Hamel and Mol, 2008; Volberda, Bosch and Heij, 2013). It basically improves the organisation's internal administrative processes due to innovation (Walker, Damanpour and Devece, 2011).

To manage innovation effectively, previous studies have discussed various measures to manage innovation (Adams, Bessant and Phelps, 2006; Hristov and Reynolds, 2015; Tidd, 2001). Tidd (2001) suggested that there are seven innovation measures based on the context of organisation, environment and performance, which are research and development, patents, significant innovations, innovation surveys, product announcement, technical employees and expert judgement. Similarly, Adams et al. (2006) discovered seven categories of innovation process which include knowledge management, input management, innovation strategy, organisational culture and structure, project management, portfolio management and commercialisation. Whereas, Hristov and Reynolds (2015) revealed that innovation management measures are based on a specific purpose such as on a specific project, functional level systems and corporate level systems. Further, the study found that Adams' framework on innovation management measurement was suitable for the study of innovation in

various fields given it comprises numerous elements of business operations (see Table 2.2). Moreover, his study was referred to by many other researchers which shows it is applicable and valid for this study.

Table 2.2 Areas of innovation management measures

Framework category	Measurement areas
Inputs	People Physical and financial resources Tools
Knowledge management	Idea generation Knowledge repository Information flows
Innovation strategy	Strategic orientation Strategic leadership
Organization and Culture	Culture Structure
Portfolio Management	Risk/return balance Optimization tool use
Project management	Project efficiency Tools Communications Collaboration
Commercialisation	Market research Market testing Marketing and sales

Source: Adams et al. (2006, p. 26).

Accordingly, input management in Adams et al.'s study referred to a vast range of resourcing activities for innovation, from financing, human resources and to determining new ideas which are significant for companies employing innovation as a source of income. Various studies have also found that financial aspects are among the most important factors that contribute towards the generation of innovation (Audretsch, Coad and Segarra, 2014; Coad et al., 2018; Cumming, Rui and Wu, 2016; Fagiolo, Giachini and Roventini, 2017). Moreover, idea generation within an organisation can be created through having a supportive and creative team to produce innovation that is functioning (Alves, Marques, Saur and Marques 2007; Schippers, West and Dawson, 2015).

Notwithstanding, the organisation itself and culture are both significant factors for innovation management. Organisational culture and structure form the basis for staffing (i.e. resourcing) and culture of the organisation in the workplace (Adams et al., 2006). Creativity will also encourage innovation. Therefore, an organisation needs to create an environment that can promote and sustain the process (Alves et al., 2007; Schippers et al., 2015). At the firm-level, an organisation can demonstrate its support and assist their team in innovation by adopting a proper organisation structure. In this case, an organisation may use centralisation which refers to the direct control of the business leader towards the business operations and strategic decisions (Cosh, Fu and Hughes, 2012; Siggelkow and Levinthal, 2003). Although, an organisation can also use decentralisation as an approach, which is considered to have effective communication given the decision making has been divided and disseminated into a number of divisions or subunits in making their own decisions (Siggelkow and Levinthal, 2003). The types of structures that organisations ultimately decide to implement will impact the innovation. The advantages of the decentralised system are that the innovation propensity is higher compared to an organisation that uses a centralised system (Cosh, Fu and Hughes, 2012). They also discovered that if organisations wanted to be successful in innovation matters, they should implement decentralisation supported by a formal organisational structure. Various approaches have been used in designing organisational structures, for instance, a functional structure, divisional structure, matrix structure and hybrid structure (Daft, Murphy and Willmott, 2010, pp.103–122). Moreover, an organisation needs to have a vision and mission to ensure the firm will grow (Bart, 1996; Gordon, 2017).

Commercialisation is another significant measure discussed by Adams et al. Commercialisation is about making the innovation process successful and includes issues such as distribution, joint ventures and marketing sales (Adams et al., 2006). According to Sløk-Madsen et al. (2017), this concept is related to elements such as the capability of the firm, market actor(s), acceptance and value proposition. The definition demonstrates that commercialisation is a process to ensure the individual can accept innovation.

Nonetheless, various marketing activities can be implemented by the organisation to ensure the success of commercialisation activities such as undertaking marketing research, branding, marketing and sales, and many others (Adams et al., 2006). Also, to ensure that organisations have the desired impact, they need to undertake market research to understand the consumer (Wrigley, Price and Straker, 2015). In a study by Mindrut et al. (2015) and Nandan (2005), they found that building a strong brand identity is paramount and will benefit the organisation. Although for the organisation to build its brand, it needs to invest financially. If the outcome of building the brand is positive, it will benefit the firm's performance (Kang, Tang and Fiore, 2015). Likewise, marketing and sales functions comprise of various activities and strategies that rely on the organisation to perform based on their set goals and targets (Harrington, Ottenbacher and Fauser, 2017). Thus, the organisation needs to develop and implement a commercialisation strategy to benefit from innovation.

2.2 Technology innovation in the foodservice industry

Among the earliest studies related to innovation in the foodservice industry, is by Jones (1990) that discussed major technological innovations that occurred in the

industry. The study reported that the foodservice industry had adopted technological innovation much sooner than in the hospitality industry. Two years later, in 1992, Jones and Wan conducted another study targeting the UK foodservice chain. Although, following this period, studies related to innovation in the foodservice industry decreased. Most research in this industry was performed post-2000 (Andrea, 2012) (see Table 2.3). Therefore, due to this reason, this study concluded that it is relevant to develop new research related to this topic.

Table 2.3 Past studies related to innovation in the foodservice sector

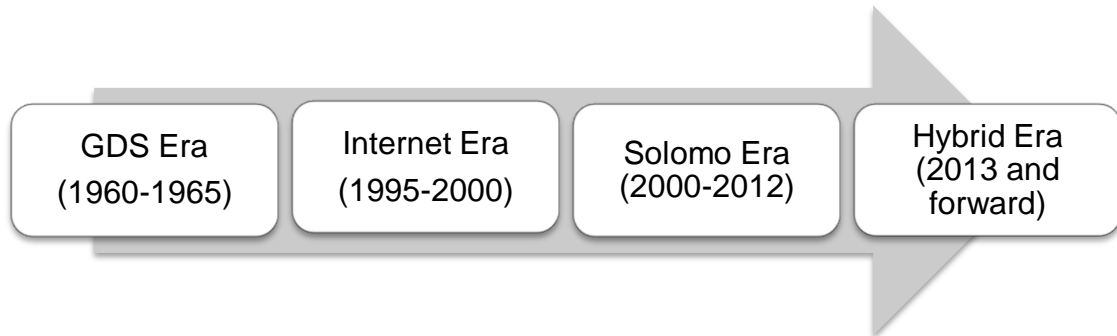
Year	Author(s)	Details
1990	Jones	How innovation have improved the productivity in the foodservice industry
1992	Jones and Wan	The nature of innovation in the UK food service chains.
1994	Riley	The influence of social culture and innovation on market eating out in the Britain.
2007	Rodgers	Study related to development in food, packing, equipment and service technique and the potential to increase the efficiency of operation.
2009	Harrington and Ottenbacher	Understanding innovation process in quick-service restaurants (QSR) and compared with earlier QSR process.
	Dixon, Kimes and Verma	Consumer perceptions of restaurant technologies.
2011	Palmer and Griswold	Case study of product and service innovation in restaurant industry
2012	Chou, Chen and Wang	Understanding the green practice of restaurant industry in Taiwan
	Pilar Opazo	Case study - analysing a restaurant ability to innovate and to applied the changes to the business.
2016	Jin, Line and Merkebu	Identifies the restaurant image as determinants of price fairness and behavioural intentions and the roles of consumer innovation
	Erkuş-Öztürk and Terhorst	Understand types of restaurant that more innovative and types of tourism located in Antalya
	Shcherbak	Develop a model of open innovation for restaurant industry
2018	Martin-Rios, Demne-Meier, Gössling and Cornuz	Understanding and Identify food waste management innovation in the foodservice industry, as well as discussing the implication
	Kim, Tang and Bosselman	Identifies consumer's perception of restaurant innovativeness and develop a scale for the measurement

Source: Author

Stepping back and looking at the studies that have been conducted relating to innovation in the foodservice industry, highlights that the nature of these studies

varied. Earlier studies concentrated on innovation in the context of productivity and marketing. Indeed, in 2000, studies still focused on productivity, product and service innovation and innovation management. However, studies related to technology innovation concerning the foodservice sector are limited even though this sector is entering the digital era (see Figure 2.6).

Figure 2.6 Digital eras in travel, tourism and hospitality industry



Source: Thakran & Verma (2013, p. 241)

Market evidence has shown that consumer demand for online technology increased following the advent of the internet (Thakran and Verma, 2013). Since 2005, household (domestic) internet use has increased year-on-year, indicating that the use of the internet has fast become a useful means of communicating and interacting (International Telecommunication Union, 2017) on a daily basis (Andrews and Bianchi, 2013; Ang, 2017; Marakarkandy, Yajnik and Dasgupta, 2017). Among the many activities that have taken advantage of this technology is for in-house restaurant transactions (Stensson, 2016). As a result, the internet has made a significant impact on the restaurant industry. Conventional restaurants that employed many resources to service patrons are quickly embracing the internet and integrating it into their businesses (Kimes and Collier, 2014b).

Technology has rapidly changed and evolved in many forms. As a case in point, in the SoLoMo (social, location and mobile-based applications) era between 2000 and 2012 (see Figure 2.6), the restaurant industry faced a new technology called Customer Engagement Technology (CET) (Kim and Connolly, 2012). CET created two major developments in online technology, social media sites and the mobile [smart] phone (Thakran and Verma, 2013).

During this era, social media sites were quickly adopted by many businesses given customers were attracted to using this channel to interact with other users and through online community groups and chat rooms. Additionally, many researchers started to investigate the association between the use of social media and the restaurant industry. Among them were Muller and Woods (1994) who examine the reviews of restaurants on the internet and discovered that food satisfaction was the primary motivation behind food comments posted on social media sites. Additionally, Pantelidis (2010) found that although a restaurant offered good service, without providing good food, customers experienced dissatisfaction and consequently posted negative online reviews.

Furthermore, He, Zha, and Li (2013) found that social media sites like Facebook and Twitter were the most popular sites used by restaurant operators to obtain information to describe the customer's intention. In a separate study, Hwang and Park (2015) found that people used social media sites to make an informed decision on which restaurant to visit. Consequently, the use of social media has also evolved to become a popular activity among smartphone users (Thakran and Verma, 2013). Even though the use of social media sites has become widespread, mobile devices have quickly become the main online device used by consumers consequently, further disrupting the tourism and hospitality

industry. For example, customer's adoption of the smartphone to book a hotel room or ordering a takeout meal from a restaurant (Anuar, Musa and Khalid, 2014).

2.2.1 The smartphone and m-commerce

From 1999, the development of the smartphone did not become popular among users until 2003 (Raento, Oulasvirta and Eagle, 2009). Furthermore, while it appears that the use of smartphones has become widespread, only around 21% of mobile phones sold in 2005, were smartphones, meaning that the majority of users did not use smartphones at that point (Gartner, 2006). Customers only began to engage with smartphones when developers introduced new features and functionality and the ability of the smartphone to match the customer's preferences and interests (Raento et al., 2009).

Gartner (2015) reported that the worldwide sale of smartphones passed over one billion units in 2014. In the United States, even though 90% of users had acquired a mobile phone, only 58% had a smartphone (Pew Research Centre, 2014). The case was similar to the United Kingdom, with 60.4% of users using a mobile phone, and only 48.4% of users using a smartphone in 2013 (Emarketer, 2013b). These figures indicated that new technology such as smartphones had little acceptance from customers (Kim, Christodoulidou, and Brewer, 2012). However, in 2017 consumers began using smartphones to browse the internet which in turn, decreased the use of desktop computers (Ellins, 2017). This showed that consumer wanted technology that was portable and convenient to carry with them anywhere they go.

The growth of smartphones and effective marketing by mobile service providers (Morosan, 2014) also led to creating a new generation electronic business called mobile commerce (m-commerce). M-commerce is defined as business transactions performed through a variety of mobile mediums with the help of wireless communication in the form of a wireless network (Yang, 2005). Statistics on online commerce since 2011, have shown that the percentage of electronic commerce (e-commerce) transactions has grown (Emarketer, 2013a). The growth attributed to e-commerce shows the key role that the internet has played in the emergence of e-commerce. Likewise, many companies have seen the importance and opportunities afforded by establishing m-portals. Many companies, like Apple (iTunes, iPad, iPhone) and Google (Android) have taken advantage of the internet and e-commerce to innovate by developing a platform to capture a vast audience. This innovated platform houses mobile applications (apps) which were introduced in 2007 and continues to be used today (Kourouthanassis and Giaglis, 2012) (see Table 2.4). The apps take the form of software developed for smartphone platforms such as Apple and Android. Consumers can download these apps from online stores onto their mobile phone device. However, few can predict what will eventuate following the m-apps and m-commerce era (Kourouthanassis and Giaglis, 2012).

Table 2.4 Development of mobile commerce

Era	Major milestones
Era 1: M-portals (starting from 1997)	1997: WAP (Wireless Application Protocol) Forum is formed 1999 (February): NTT DoCoMo's i-mode launch in Japan 1999 (December): Vodafone Live! launch in Japan (as J-Sky)
Era 2: M-internet (starting from 2000)	2000: Ericsson R380 Smartphone (the first device to use the Symbian OS) 2000: Opera Mobile (the first commercial microbrowser) 2001: Mobile Explorer 3.0
Era 3: M-apps and M-commerce (starting from 2007)	2007: Apple iPhone launch (June) 2008: Apple's App Store launch (July) 2008: Google's Android market launch (October)

Source: Kourouthanassis and Giaglis (2012, p.6)

Much research has highlighted the importance of m-commerce in various sectors (Law, Buhalis and Cobanoglu, 2014; Mozeik et al., 2009; Wang, Xiang and Fesenmaier, 2014; Wang and Yi, 2012) including banking (Arvidsson, 2014; Chung and Kwon, 2009), travel (Im and Hancer, 2014; Morosan, 2014) and health (Wu, Wang and Lin, 2007). Due to this reason, app developers have begun developing apps to fulfil consumer demand in the foodservice industry. Various companies including established names in the retailing industry have also started to establish their presence in building foodservice apps such as Amazon and Uber (Amazon, 2016; UberEats, 2016). For the consumer, these apps are convenient as they enable the consumer to book a table or order food without the need to directly go to the location, opening a website or calling the restaurant (Yeo, Goh and Rezaei, 2017). While for restaurant operators, these apps are being used as a strategy to increase the sales volumes and profit for their business (Hospitality technology, 2015). Moreover, restaurant owners' also wish to demonstrate that they are not behind the times when it comes to technology adoption.

Although the foodservice developers of these apps built the technology to encourage consumers to purchase a meal, it appears that their efforts have been made in vain (i.e. wasted). Many consumers believe these apps are of no use or value in delivering meals (Kwon, Bae and Blum, 2013). This finding was supported by Aspray, Royer, and Ocepek (2013) discovering that consumers preferred to download mobile apps related to health followed by restaurant finders and cooking recipes (see Table 2.5). Moreover, it is also difficult to locate studies related to foodservice applications (Kapoor and Vij, 2018; Kwon, Bae and Blum, 2013). Although the foodservice apps developers have provided many of these apps for free, the developer needs to have a sound strategy to ensure their apps have the interests of the consumer at their core (Lee and Raghu, 2014). Further, developers need to study the market and align their apps and the consumer together (as one), to ensure their apps will exist in the future and will continue to be used by consumers.

Moreover, it has also been revealed that m-commerce is a vast topic, comprising areas like context-aware systems, mobile marketing and advertising and mobile payments (Kourouthanassis and Giaglis, 2012). Among these topics, m-payment is one of the most critical aspects and essential components of m-commerce, however, the study of m-payments limited (Kim, Mirusmonov, and Lee, 2010). Accordingly, there is a need to comprehend and explore m-payment issues, especially in the context of the OTFO sector.

Table 2.5 Top 100 most mobile application developed related to foods.

Conceptual Grouping	#Apps in Grouping
Diet, calorie counter, nutrition counter	24
Restaurant finders	17
Recipes	15
Games	11
Coupons and discounts	7
Healthy eating, organics	7
Meal and food planners	4
Learn food terms in other languages	4
Meal delivery	3
Wine advice	2
Food education	2
Cooking school	1
Mobile access to food website	1
Mobile access to television (Food Network)	1

Source: Aspray et al. (2013, p. 20)

2.2.2 Mobile payment

Mobile payment (m-payment) refers to a wireless-based electronic payment system that allows payment transactions using a mobile device such as a smartphone (Gao and Cai, 2005) and by taking advantage wireless and other communication technologies (Dahlberg, Mallat, Ondrus and Zmijewska, 2008; Knospe and Schwiderski-Grosche, 2002). Mallat (2007) defined m-payment as using a mobile device to conduct a payment transaction whereby the money or funds are transferred from the payer to the payee via an intermediary or directly without an intermediary. Mallat's definition is different from others as they tend to include the banking system as part of the m-payment system. Whereas, Crowe, Rysman, and Stavins (2010) stated that m-payment is difficult to describe as it depends on the industries involved. Therefore, based on the definition above, this study adopts the same definition of m-payment as Dahlberg et al. (2008), Gao

and Cai (2005) and Knospe and Schwiderski-Grosche, (2002) to explain mobile m-payment.

In order to further understand the concept behind m-payment, it is important to discuss the history. The earliest studies on m-payment were identified in 2003 in the context of the banking industry (Dahlberg, Mallat and Öörni, 2003). Since then, there have been many studies on the application of mobile payments in other fields (Arvidsson, 2014; Dahlberg, Guo and Ondrus, 2015; Slade, Dwivedi, Piercy and Williams 2015; de Kerviler, Demoulin and Zidda, 2016; Kazan, Tan, Lim, Sørensen and Damsgaard, 2018). However, only a few studies are related to mobile payment in the foodservice industry (Cobanoglu, Yang, Shatskikh and Agarwal, 2015; Khalilzadeh, Ozturk and Bilgihan, 2017). A study by Cobanoglu et al. (2015) discussed the acceptance of consumers in the foodservice industry finding that there is little known as to whether restaurant customers widely accept m-payments. In another study by Khalilzadeh et al. (2017) they discussed the security of mobile payment systems in the restaurant industry. However, both studies believed that further studies are needed using different determinants to understand the technology better.

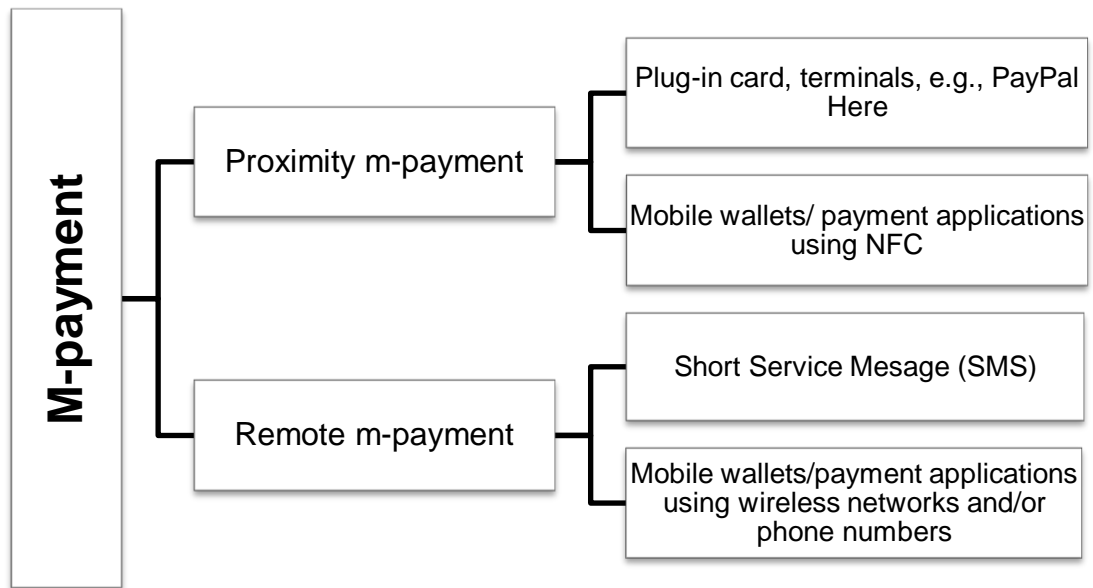
Furthermore, it is important to understand the concept of m-payment. M-payment technology is an innovation that was initially developed based on electronic payments (e-payments) which existed since 1987 (Humphrey, Pulley and Vesala, 1996). In the hospitality industry, digital cash was only discussed since 1996 onwards (Sheel and Lefever, 1996). While it not known as to the reason for the gaps, the industry stakeholders and consumers are readily using the technology. According to a report by Oxigen8 (2014), five industries (retailing, food and beverage, transportation, financial and gaming) have the highest ranking and

connection in using m-payments given the high probability that customers will use this form of payment. This also demonstrates that many industries are now starting to accept the technology to performing their daily transactions.

E-Payment acceptance has also been a topic of much discussion in many other countries worldwide. For example, in Germany, consumers prefer to use debit cards to purchase while in China, consumers prefer to pay using debit cards and PayPal type payment arrangements (Turban et al., 2015). In developing countries like the UK, it was predicted that the use of cash would decline given the preference of consumers to use other means to pay such as using a debit card or direct debit (Ofcom, 2014; Payments UK, 2017; The UK Cards Association, 2015). A recent report from Worldpay (2018) found that global consumers continue to use digital payments, particularly using electronic wallets.

M-payment is an innovation that is useful, and time may replace cash usage in future. To understand the different types of m-payment, this study examines online payment as it is related to technology. A study by Takyi and Gyaase (2012) classified online payment as account-based online payments such as the use of credit cards, debit cards, mediating systems like online banking and electronic currency systems such as smart card systems and online cash payments. However, in order to understand m-payment classification Slade, Williams, and Dwivedi (2013) devised a model based on m-payment classifications to differentiate the diverse types of m-payment: proximity and remote m-payment (see Figure 2.7).

Figure 2.7 Model of m-payment classification



Source: Slade et al. (2013)

The figure as mentioned illustrates two types of mobile payment; proximity m-payment which refers to the traditional form of payment through a transportable platform such as debit cards or a contactless card (Cobanoglu et al., 2015). Remote payment is described as payment without the need for a traditional point-of-sale system, such as using a mobile application (Cobanoglu et al., 2015). Their model of m-payment focuses on individuals purchasing products or services from an offline location and is not suitable for an online environment. For example, eBay, an electronic-based retail shop that sells many kinds of products enables the consumer using an app to pay via PayPal or using a debit card. Further investigation highlighted that m-payment studies mostly focused on the banking industry with minimal studies conducted in the context of the UK (see Table 2.6). The limited studies of m-payment have shown that this area has been largely ignored, especially in the restaurant industry in the UK.

Table 2.6 Previous studies related to m-payment.

Author	Country	Study Context
Jia, Hall, and Sun, (2014)	China	Technology usage habits affect consumers' intention to continue to use mobile payments
Lu, Yang, Chau, and Cao (2011)		Customer's trust of m-payment
Peng et al. (2012)		Tourist's acceptance of m-payment
Wang and Yi (2012)		Impact of m-payment based on UTAUT
Yang et al. (2012)		Pre-adoption and post-adoption stage
Zhou (2011a)		Factor affecting mobile purchase
Zhou (2011b)		Study on initial trust
Zhou (2013)		Continuance intention of m-payment service
Zhou (2014a)		Study on initial trust
Zhou (2014b)		Factors affecting continuance usage
Dahlberg et al. (2003)	Finland	Explore model the consumer perceptions towards customer decision to use m-payment
Mallat and Tuunainen, (2008)		Explore merchant adoption
Mallat (2007)		Customer's adoption
Schierz et al., (2010)	Germany	Customer's acceptance
Kapoor, Dwivedi, and Williams (2013)	India	Investigated the role of innovation attributes in India
Thakur and Srivastava, (2014)		Relationship between adoption readiness, perceived risk (PR) and usage intention for m-payments in India
Keramati, Taeb, Larijani, and Mojir (2012)	Iran	Customer's adoption
Andreev, Duane, and O'Reilly (2011)	Ireland	Customer's adoption
Duane, O'Reilly, and Andreev (2014)		Explore m-payment model and Irish perception
O'Reilly, Duane, and Andreev (2012)		Vendor and mechanism trust on consumer willingness to use smartphones to make m-Payments
Amoroso and Magnier-Watanabe, (2012)	Japan	Building models for customer adoption
Kim et al. (2010)	Korea	M-payment system characteristics and user-centric factors
Shin (2009)		Customer's acceptance of m-wallet
Shin, Lee, and Odom (2014)		Smartphone users' perceptions and preferences toward m-payment methods in Korea and the US.
Shin and Lee (2014)		NFC m-payment
Amin (2008)		Banking, mobile phone credit card
Tan, Ooi, Chong, and Hew (2014)	Malaysia	NFC mobile credit card
Teo et al. (2015)		Effects of perceived transaction convenience and perceived transaction speed on unified theory of acceptance and use of technology (UTAUT) in the context of m-payment.

Yan, Md-Nor, Abu-Shanab, and Sutanonpaiboon (2009)		Factors that influence the intention to use a mobile payment solution for mp3 downloading
Oliveira et al. (2016)	Portugal	Understanding determinants of mobile payment adoption and the intention to recommend this technology.
Chandra, Srivastava, and Theng, (2010)	Singapore	Customer's trust
Liébana-Cabanillas, Sánchez-Fernández, and Muñoz-Leiva (2014a)	Spain	Build a theoretical model
Liébana-Cabanillas, Sánchez-Fernández, and Muñoz-Leiva (2014b)		Customer's adoption in country where the m-payment do not have a presence
Liébana-Cabanillas, Muñoz-Leiva, and Sánchez-Fernández, (2015)		M-payment using SMS among young generations
Liébana-Cabanillas et al., (2018)		Analyse user's acceptance of mobile payment on social networks
Arvidsson (2014)	Sweden	Consumers' attitudes on start using mobile payment services.
Chen and Adams, (2005)	UK	Customer's acceptance
Dewan and Chen (2005)	US	Customer's adoption in US
Garrett, Rodermund, Anderson, Berkowitz, and Robb (2014)		Customer's adoption in US
Shin (2010)		Customer's acceptance

Therefore, it is important to study and understand online purchasing behaviours among consumers in the UK. Table 2.7 shows UK internet sales for 2017. The table depicts that among the highest sales made by consumers in 2017, non-store retailing was the highest, referring to products or services and others such as holiday bookings or table bookings at a restaurant. This also shows the potential of m-payment used by consumers for purchasing products and services online. The limited studies on m-payment in the UK cannot be ignored given it has been reported that it will soon overtake traditional forms of payment (Deloitte, 2015; Oxigen8, 2014). Thus, gaining a better understanding of consumer acceptance is needed in the restaurant industry regarding the application of m-payment. The following section will discuss the adoption of m-payment in general

terms before narrowing and directing the discussion towards the restaurant industry.

Table 2.7 The UK internet sales for the year 2017 (In percentage)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
All retailing	15.8	15.9	16.2	16.3	16.3	18.4	17.5	16.9	16.9	16.8	17.0
All food	5.2	5.0	5.1	5.2	5.1	5.3	5.3	5.4	5.4	5.4	5.3
All non-food	11.8	11.9	12.2	11.8	11.9	12.2	12.5	12.5	12.7	12.6	13.3
Department stores	14.4	14.2	13.7	13.7	13.8	14.1	14.1	14.8	14.2	14.0	13.8
Textile, clothing and footwear stores	14.5	14.8	14.5	14.0	14.6	14.9	15.0	15.4	15.5	16.0	16.5
Household goods stores	10.3	10.5	10.5	10.0	10.7	11.0	10.5	11.1	11.4	11.2	12.8
Other stores	8.6	8.5	9.9	9.6	8.9	9.1	10.3	9.2	9.7	9.6	10.2
Non-store retailing	79.8	80.7	82.2	82.7	82.7	98.2	88.8	81.1	78.1	78.8	76.6

Source: Office for National Statistic (2017)

2.2.3 Mobile technology adoption

Understanding customer adoption in different service settings and for different types of customers is essential in facilitating service delivery (Walker, Craig-Lees, Hecker, and Francis, 2002). Walker et al. (2002) found that the customer's willingness and acceptance towards service encounters have a significant relationship with the adoption behaviour of the customer. However, this statement cannot be verified in the online and mobile setting as there are no service encounters with another human, given the person is transacting using technology (e.g., smartphone). Therefore in this regard, it can be assumed that the customer's use of the technology is voluntary (Meuter, Ostrom, Roundtree, and Bitner, 2000) and understanding the consumer's acceptance to use the technology will provide significant advantages to businesses.

Once customers start to embrace the technology, they will undoubtedly continue using it (Kimes, 2009). Young, Clark, and McIntyre (2006) found that consumers

prefer e-commerce over using telephone ordering once they have used it. Therefore, restaurant operators need to build the trust of customers to use the technology. To understand what attracts customers to adopt and use m-payment, there is a need to study the determining factors associated with the consumer's behaviour, and their intention to adopt m-payment. A study by Morosan, (2014) revealed that to attract customers to engage with apps that are perceived to be useful, the apps must be viewed as convenient to use. On the other hand, Oliveira et al. (2016) found that security and the intention to recommend were significant determinants in the adoption of mobile payments by the consumer. Hence, this demonstrated that it is important for the supplier to understand the constructs that could attract consumers to use their technology.

Previous research has highlighted several important characteristics associated with m-payment such as control, convenience, compatibility, dissemination and flexibility (see Table 2.8). Kim, Mirusmonov, and Lee (2010) incorporated system characteristics and user adoption differences such as perceived usefulness and perceived ease of use. However, they found that there is a need to investigate the actual usage of m-payments and other system characteristics and individual differences. Many other studies have considered the limitations of Kim et al.'s (2010) study by listing several other differences in their research (see Table 2.8).

Table 2.8 Summary of m-payment characteristics

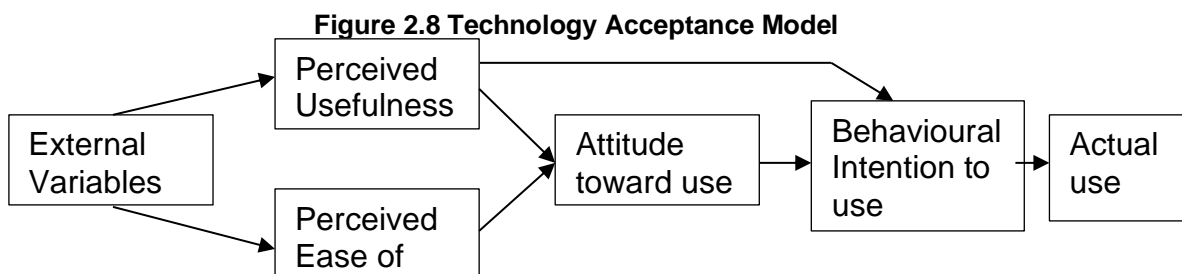
M-payment characteristic	Authors
Contextual offering	Zhou (2011a)
Control	Kimes (2011a); Verkasalo et al. (2010)
Convenience	Alqatan, Singh and Ahmad (2011); Kim et al. (2010)
Compatibility	Chen and Adams (2005); Humbani & Wiese (2018); Kim et al. (2010); Oliveira et al. (2016); Schierz, Schilke and Wirtz (2010)
Hedonic motivation	Oliveira et al. (2016)
Innovativeness	Humbani & Wiese (2018); Oliveira et al. (2016)
Intention to recommend	Oliveira et al. (2016)
Mobility	Kim et al. (2010), Schierz et al. (2010)

Observability	Chen and Adams (2005)
Optimism	Humbani & Wiese (2018)
Personalisation	Chan and Chong (2013); Kim et al. (2010)
Price	Humbani & Wiese (2018); Oliveira et al. (2016)
Perceived risk	Humbani & Wiese (2018); Yang et al. (2015)
Reachability	Kim et al. (2010)
Relative advantage	Johnson et al. (2018)
Security	Oliveira et al. (2016), Johnson et al. (2018)
Structural assurance	Zhou (2011a)
Subjective norms	Schierz et al. (2010), de Luna et al. (2018)
Trialability	Chen and Adams (2005)
Ubiquitous connection	Zhou (2011a)
Visibility	Johnson et al. (2018)

Notwithstanding, user's characteristics are also different based on the type of technology adopters. Here, according to Rogers (1995), there are five categories of innovation adopters: innovators, early adopters, late adopters and laggards. Many studies have applied Rogers's innovation model to investigate different technology adopters in the context of m-payment (see Arvidsson (2014) and Kim et al., (2010)) and some studies have also highlighted the adopters based on users and non-users. Kimes (2011b) discovered that non-adopters are reluctant to use electronic ordering (i.e. e-purchasing) given there is no face-to-face interaction or communication. Similarly, a study by Kattara and El-Said (2013) on the customer's preferences for new self-service technology (SST) in hotels discovered that customers are reluctant to use the technology as they prefer human interaction instead. However, as technology is rapidly changing, it is important to understand technology and to update and improvise technology to satisfy consumer needs.

2.3 Theory on technology acceptance

The theory applied in this study is based on the Theory of Reasoned Action (TRA) (Ajzen and Fishbein, 1980) and the Theory of Planned Behaviour (TPB) (Ajzen, 1991). These theories were then used to develop a model called TAM which explains the acceptance of information technology (IT) (Davis, Bagozzi and Warshaw, 1989) (see Figure 2.8). TAM has been widely used and employed to investigate customer electronic purchasing behaviour (e-purchasing) in different environments and purchasing situations (Alagoz and Hekimoglu, 2012; Bouhlel et al., 2010; Nunkoo and Ramkissoon, 2012). TAM emphasises on the perceived ease of use (PEOU) and perceived usefulness (PU) as strong determinants and predictors when explaining the attitude towards directly, and behavioural intention indirectly towards using a technology (Alagoz and Hekimoglu, 2012; Davis, Bagozzi and Warshaw, 1989; Nunkoo and Ramkissoon, 2012). The difference between TAM, TPB and TRA was that social norm was not the determinant of behavioural intention. The adoption of technology explained by TAM was through linking a person's belief in his/her attitude towards the use of technology (Nunkoo and Ramkissoon, 2012).



Source: Davis et. al. (1989, p. 985)

Indeed, there are many other models related to technology acceptance that have been developed such as TAM 2 (Venkatesh and Davis, 2000), TAM 3 (Venkatesh and Bala, 2008) and UTAUT (Venkatesh et al., 2003). TAM 2 is an extended version of TAM that addresses the causal determinants to perceived usefulness and includes both social influence processes such as subjective norm, voluntariness and image. On the other hand, TAM 3 is the integration of TAM 2 and the model of determinants of perceived ease of use, as in the study by (Venkatesh, 2000). Some of the additional determinants found in TAM 3 include computer efficiency, the perception of external control, computer anxiety and perceived enjoyment.

Whereas, UTAUT is a model that includes four key constructs: performance expectancy, effort expectancy, social influence and facilitating (Venkatesh et al., 2003). These constructs are the direct determinants of usage intention and behaviour which have a moderating construct to moderate the impact of the construct on usage intention and behaviour. However, Kim et al. (2010) found some of the constructs in UTAUT such as performance expectancy is the same as TAM's perceived usefulness and effort expectancy as having a similar definition as PEOU in TAM.

Previous studies have also highlighted their disagreement on the use of TAM in technology adoption, for example, Escobar-Rodríguez and Carvajal-Trujillo, (2013). In their study, Escobar-Rodríguez and Carvajal-Trujillo they mentioned that the traditional theory was always used and recommended to use an alternative methodological approach such as the Analytic Hierarchy Process (AHP) which can improve general knowledge, and understand the different characteristics in service that influence the user's attitude and perception towards

m-service. Moreover, Bouwman, Carlsson, Walden, and Molina-Castillo, (2008) and Verkasalo et al. (2010) also disagreed on the adoption of TAM in technology adoption, as they asserted that technology should be treated differently according to the user's characteristics and its benefits. A further disagreement on the use of TAM was because the model was developed to study the consumer's adoption of technology in a workplace environment.

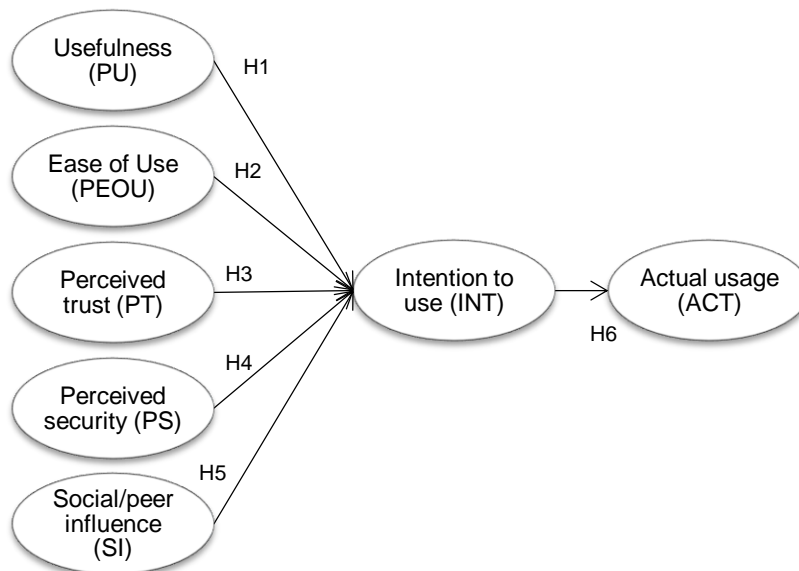
Although there are many opposing views on the use of TAM, the model can still be reviewed and modified using different factors as the theory never failed to provide a validated result (Holmes, Byrne and Rowley, 2013). Previous research also proved that TAM was acceptable to use to study services and in non-working environments such as travelling and shopping. Moreover, a study by Chang and Chen (2008) and Shin (2010) found that TAM was applicable to the study of m-payment. It was also found that TAM is still used in more recent studies (Awa, Ojiabo and Emecheta, 2015; Cobanoglu et al., 2015; Liébana-Cabanillas, Muñoz-Leiva and Sánchez-Fernández, 2018). This demonstrates that this theory is still applicable to current technology acceptance studies.

In order to predict user acceptance towards technology in a different environment, new constructs need to be incorporated in the model to improve its interpretation and strengthen the model (McFarland and Hamilton, 2006; Liébana-Cabanillas, Muñoz-Leiva and Sánchez-Fernández, 2018; Wu, Wang and Lin, 2007). Therefore, for the current study, several modifications were applied to the original TAM model to test consumers' acceptance of OTFO apps. Hence, it is acceptable to use TAM to study customer attitudes toward the adoption of mobile apps in the context of OTFO.

2.4 Conceptual framework and hypothesis

TAM is the theory used in this study, as illustrated in Figure 2.9. The main variables of TAM such as PU, PEOU and behavioural intention are used to understand consumer acceptance usage of the OTFO apps. Most previous studies tend to relate perceived ease of use with perceived usefulness and relate both the constructs with attitude (Liébana-Cabanillas, Muñoz-Leiva and Sánchez-Fernández, 2015, 2018). As recommended in previous studies, several other determinants need to be added to the proposed model (Kim et al., 2017; Ooi and Tan, 2016). The intention to use is added to determine the actual use of the OTFO mobile app. This study has confirmed that all relationships proposed in the conceptual framework (Figure 2.9) have been confirmed by reviewing the scientific literature in this field of study (refer to Table 2.9).

Figure 2.9 Conceptual framework



Notes: SI = social influence; PT = perceived trust; PS = perceived risk security; PEOU = perceived ease of use; PU = perceived usefulness; INT = intention to use; ACT = actual usage

Source: Author. Based on TAM by Davis, (1989).

Table 2.9 Supporting works of the conceptual model

Effects	Authors
SI-> INT	Bhatti (2007), Chong, Chan, and Ooi (2012), Cobanoglu et al. (2015), Shin (2009)
TR -> INT	Chandra et al. (2010), Chong, Chan, and Ooi (2012), Groß (2014), Liébana-Cabanillas et al. (2015), Marakarkandy et al. (2017), Shin (2009, 2010), Zhou (2011a)
PS -> INT	Cobanoglu et al. (2015), (Giovanis, Binioris and Polychronopoulos, 2012), Liébana-Cabanillas et al. (2015), Marakarkandy et al. (2017), Salisbury et al. (2001), Shin (2009), Kaushik, Agrawal and Rahman, (2015)
PEOU -> INT	Amin (2008), Bhatti (2007), Chong, Chan, and Ooi (2012), Chen & Lu (2016), Cobanoglu et al. (2015), Giovanis et al. (2012), Kim et al. (2010), Kim (2016), Liébana-Cabanillas et al. (2015, 2018), Marakarkandy et al. (2017), Van der Heijden, 2003), Wang and Yi (2012)
PU -> INT	Amin (2008), Chandra et al. (2010), Chen & Lu (2016), Chong, Chan, and Ooi (2012), Cobanoglu et al. (2015), Giovanis et al. (2012), Kim (2016), Liébana-Cabanillas et al. (2015, 2018), Marakarkandy et al. (2017), Pavlou (2003), Revels, Tojib, and Tsarenko (2010), Van der Heijden (2003), Wu and Wang (2005), Wang and Yi (2012), (Zhou, 2011a), 2011b)
INT -> ACT	Chen, Gillenson, and Sherrell (2002), Marakarkandy et al. (2017), Okumus & Bilgihan (2014), Rauniar et al. (2014), Shin (2010), Van der Heijden (2003), Wu and Wang (2005), Wang and Yi (2012)

Notes: SI = social influence; PT = perceived trust; PS = perceived security risk; PEOU = perceived ease of use; PU = perceived usefulness; INT = intention to use; ACT = actual usage

Regarding Table 2.9, several constructs are added to understand customer acceptance of OTFO apps. Previous research has applied the elements constructed in TAM given these elements proved to be significant. According to Rogers (1983), the characteristics of innovation can be categorised as complexity, observability, relative advantages, trialability and compatibility. Although, for Davis (1989) the customer's attitude towards technology is influenced by perceived use and usefulness of the technology or innovation. On the other hand, Keramati et al., (2012) described that the complexity and relative advantage from Roger's study has the same definition as perceived ease and use and perceived usefulness in Davis's study. However, previous studies have differentiated all the terms and instead have used them to study customer adoption or customer acceptance towards e-commerce. This study will use Keramati et al., (2012)'s position in that perceived ease and use and perceived

usefulness have the same definition and were considered important based on previous research (Arvidsson, 2014).

Table 2.10 Summary of factors affecting customer's adoption of m-payment

Adoption constructs to determinants	Authors
Amount of information	Amin (2008), Keramati et al. (2012)
Compatibility	Arvidsson (2014), Kapoor et al. (2013), Keramati et al. (2012) Lu et al. (2011), Mallat (2007), Peng et al. (2012)
Complexity	Arvidsson (2014), Kapoor et al. (2013), Mallat (2007)
Computer efficacy	Shin (2010)
Costs	Arvidsson (2014), Kapoor et al. (2013), Keramati et al. (2012) Lu et al. (2011), Mallat (2007), Peng et al. (2012), (Zhou, 2011b)
Destination m-payment knowledge	Peng et al. (2012)
Disposition to trust	Dahlberg et al. (2003)
Effort expectancy	Wang and Yi (2012)
Facilitating conditions	Wang and Yi (2012)
Initial trust	Lu et al. (2011), Zhou (2011b), Zhou (2014a)
Network externalities	Arvidsson (2014), Keramati et al. (2012), Mallat (2007)
Observability	Kapoor et al. (2013),
Payment habit	Keramati et al. (2012)
Perceived credibility	Amin (2008)
Perceived ease of use	Amin (2008), Amoroso and Magnier-Watanabe (2012), Andreev et al. (2011), Arvidsson (2014), Chen and Adams (2005), Dahlberg et al. (2003), Dewan and Chen (2005), Duane et al., (2014), Keramati et al. (2012), Kim et. al (2009), Liébana-Cabanillas et al. (2015, 2014b), Peng et al. (2012), Schierz et al. (2010), Shin (2009,2010), Yan et al. (2009), Zhou (2011b)
Perceived price level	Yan et al. (2009)
Perceived risk	Amoroso and Magnier-Watanabe (2012), Kapoor et al. (2013), Liébana-Cabanillas et al. (2015, 2014b), Lu et al. (2011), Shin (2010), Wang and Yi (2012)
Perceived security	Amoroso et al. (2012), Arvidsson (2014), Dewan and Chen (2005), Keramati et al. (2012), Mallat (2007), Schierz et al. (2010), Shin (2009), Peng et al. (2012), Zhou (2011b),
Perceived trust	Andreev et al. (2011), Amoroso et al. (2012), Arvidsson (2014), Dahlberg et al. (2003), Duane et al., (2014), Keramati et al. (2012), Liébana-Cabanillas et al. (2014), Liébana-Cabanillas et al. (2015), Mallat (2007), Shin (2009), Shin (2010), Yan et al. (2009), , (Zhou, 2011a)
Perceived usefulness	Amin (2008), Amoroso et al. (2012), Chen and Adams (2005), Dahlberg et al. (2003), Dewan and Chen (2005), Duane et al. (2014), Keramati et al. (2012), Kim et al. (2009), Liébana-Cabanillas et al. (2014), Liébana-Cabanillas et al. (2015), Peng et al. (2012), Revels, Tojib, and Tsarenko (2010), Schierz et al. (2010), Shin (2009), Yan et al. (2009), Zhou (2011a), Zhou (2011b)

Perceived value	Amoroso et al. (2012)
Perceived ubiquity	Zhou (2011b)
Performance expectancy	Wang and Yi (2012)
Personal innovativeness	Duane et al., (2014)
Relative advantage	Arvidsson (2014), Kapoor et al. (2013), Lu et al. (2011), Mallat (2007)
Self-efficacy	Duane et al., (2014), Shin (2009)
Skills	Keramati et al. (2012)
Social influence / peer influence	Amoroso et al. (2012), Shin (2009), Liébana-Cabanillas et al. (2014), Wang and Yi (2012),
Social norm	Keramati et al. (2012), Liébana-Cabanillas et al. (2014), Shin (2010)
Speed of transaction	Dewan and Chen (2005)
Tourist susceptibility	Peng et al. (2012)
Trialability	Kapoor et al. (2013)

Nonetheless, other factors, namely perceived trust, perceived security and privacy and peer influence are examined and discussed in previous studies (see Table 2.10). Kimes (2009) and Papaioannou et al. (2015) found that adopters will continue to make online purchases from a restaurant based on a recommendation, online reviews and restaurant performance which are similar to social influence. Thus, it is important in this context to understand whether social influence affects customer acceptance towards the use of online takeaway food apps. Therefore, to further understand this aspect, the factors are discussed in the following section.

2.4.1 Perceived usefulness

Perceived usefulness can be described as the degree to which a person believes subjectively using a particular technology will enhance his or her performance (Davis, 1986). Consistent with Davis, Lu and Su (2009) believed usefulness as the perception of an individual when performing a behaviour to gain a specific reward. Aside from gaining the output rewards or behavioural performance, an individual tends to be satisfied or fulfilled by enacting the behaviour under certain

situations (Lu and Su, 2009). When an individual perceives technology as useful, they believe that technology will offer them a positive relationship (Hernandez, Jimenez, and Jose Martin, 2009). Different definitions are derived from Kucukusta Law, Besbes, and Legohérel (2015) defining usefulness as quick, informative, efficient and more important than ease of use.

Perceived usefulness is also related to extrinsic motivation (Atkinson and Kydd, 1997) which is an important factor for m-payment adoption. TAM assumes that purchasing via mobile apps is favourable given the apps perceived usefulness, which leads customers to use the application (Davis, 1986; Nunkoo and Ramkissoon, 2012). This finding was also supported by Im and Hancer (2014) who discovered perceived usefulness is the strongest influence in utilitarian–hedonic motivations for travellers using mobile applications. Similarly, this is also supported by Morosan (2014) finding that perceived usefulness is the strongest determinant for customers who adopt mobile phones for purchasing airline ancillary. However, both studies focus on travel, and not on the food and beverage takeaway industry.

2.4.2 Perceived ease of use

The ease of use (PEOU) was originally defined as the degree to which people believe that using new technology can help to reduce their efforts (Davis, 1986). Moreover, it is a perception of the effort made by a person when using a system (Venkatesh and Davis, 1996) and is related to intrinsic motivation (Atkinson and Kydd, 1997). According to Davis et al. (1989), perceived ease of use is the motivational aspect that is inherent in the interaction between the user and the computer. The ease of use concepts relates to the features associated with

technology such as easily understandable functions and content, ease of learning or simplicity of use (Hernandez et al., 2009). In technology usage, ease of use is related to finding information easily, the ability to quickly solve problems and website functionality (Pigatto et al., 2017).

Accordingly, many studies have included perceived ease of use in their research (Alagoz and Hekimoglu, 2012; Im and Hancer, 2014; Kwon, Bae and Blum, 2013; Morosan, 2014; Nunkoo and Ramkissoon, 2012; Liébana-Cabanillas, Muñoz-Leiva and Sánchez-Fernández, 2018). Moreover, the majority of studies found that ease of use positively influenced customer attitude (Hernandez, Jimenez and Jose Martin, 2009; Morosan, 2014; Nunkoo and Ramkissoon, 2012). Im and Hancer (2014) discovered that PEOU was an important factor directly or indirectly towards the customer's attitude using mobile travel apps. While Nunkoo and Ramkissoon (2012) suggested that tourism and hospitality online vendors should include a function on their website making it simpler for customers to search and shop for products.

In another study, Kimes (2011a, 2011b) mentioned that increasing convenience would help to reduce the customer's level of anxiety regarding technology anxiety by managing the interaction of the technology. Further adding, that there is a high probability that customers will continue to choose online reservations over telephone reservations given the convenience (Kimes, 2011b). Even though there is much research indicating that PEOU is positive towards the attitude of adopting mobile apps, some studies dispute PEOU as being a dominant influence. For example, Im and Hancer, (2014) related the disagreement of PEOU with the features of a smartphone, which is similar to a desktop computer, albeit in a smaller version. Whereas, Nunkoo and Ramkissoon (2012) suggested

that experience will hinder the customer's attitude toward using mobile apps for e-purchasing. Although, the importance of PEOU cannot be ignored, as the variable has been proven to be significantly related to the customer's attitude towards online ordering in numerous studies (Pavlou, 2003; Venkatesh and Davis, 1996) including more recent studies (Kucukusta et al., 2015; Renny, Guritno and Siringoringo, 2013). Therefore, in this study, PEOU is used to determine whether it influences customer acceptance towards OTFO apps.

2.4.3 Perceived trust

Choi and Au (2011) defined trust as personal confidence and expectations of what other people will do based on previous interactions. Whereas, Chung and Kwon (2009) refer to trust as the secure feeling and the willingness of an individual to rely on something or someone. Similarly, trust can be defined as promises for those engaged in a transaction as being reliable, and agreements will consequently result in fulfilling the obligations (Schurr and Ozanne, 1985). Importantly, trust is a critical element when conducting business transactions, especially regarding online shopping (Wen, 2009). Likewise, Duane et al. (2014) found that trust is the most important factor that influenced consumers to use a smartphone to make m-payments.

Notwithstanding, significant research has focused on perceived trust (PT) in respect to the online environment (Alagoz and Hekimoglu, 2012; Liébana-Cabanillas, Muñoz-Leiva and Sánchez-Fernández, 2018, 2015; Nunkoo and Ramkissoon, 2012). For instance, Nunkoo and Ramkissoon (2012) found that perceived trust for online vendors in the hospitality industry was based on the reviews of previous customers. While San-Martin and López-Catalán (2013)

found that to secure shopper satisfaction towards online technology, trust for the firm is also important. Similarly, for travellers, the trust of online information sources was important which drove them to use a smartphone for travelling (Wang et al., 2014b). In the context of m-payment, Liébana-Cabanillas et al. (2018) trust relate to the belief that the supplier will deliver their service without taking advantage of the consumer. Similarities of previous studies also showed that trust was important in the context of information presented by the providers. Therefore, it is important to include PT in order to study the customer's acceptance of OTFO apps.

2.4.4 Perceived security and privacy risk

Chang and Chen (2009) defined security as the perception of customers regarding the whole security transaction, including information and the storage of personal information. Likewise, Shin (2010) referred to security as the extent to which an individual believes the technology is secure enough. Every technology that requires users to input their personal data will raise security and privacy concerns given the risk of data leakage and sensitive details exposed to other parties (Morosan, 2011). This was also an important issue for the restaurant industry (Cobanoglu and Demicco, 2007; Khalilizadeh, Ozturk and Bilgihan, 2017).

Many studies have also highlighted the significance of perceived security towards e-commerce technology (Amoroso and Magnier-Watanabe, 2012; Chang and Chen, 2008; Dahlberg, Mallat and Öörni, 2003; Morosan, 2014; Nilashi et al., 2015a; Takyi and Gyaase, 2012). Although in this case, the definition of security has a different standpoint from other more diverse studies. Some studies focus

on the security aspects which are location-based, a demographic variable or the security of the online environment. A study by Dahlberg et al. (2003) found that the consumer will feel insecure concerning m-payment risks such as unauthorised use, transaction errors, lack of transaction records and poor documentation, the vagueness of the transaction, privacy issues, and device and mobile network reliability. While Amoroso and Magnier-Watanabe (2012) discovered, that when consumers perceived using technology as low risk, it will invariably increase the level of trust, leading to the strong intention to use the technology.

A further study by Chan and Chong (2013) revealed that the consumer only consents towards security risk from a location-based service and transactions using m-commerce. In this case, location-based services would expose the consumer to a certain level of security risks in using their mobile devices, while transactional risks are related to the monetary transactions. Even though perceived security is mainly discussed in technological studies, the constructs are related to financial issues (Khalilzadeh, Ozturk and Bilgihan, 2017). Thus, the determinant is an important factor in understanding consumer acceptance of OTFO apps.

2.4.5 Social influence

In a study by Fishbein and Ajzen (1975) they refer to subjective norms as the pressure placed on a person to accomplish a certain behaviour in which the motivation of the person complies with the exerted pressure. In earlier studies, social influence was shown to have a significant effect on the use of e-commerce (Fang, 1998). Previous studies from Koenig-Lewis, Marquet, Palmer, and Zhao

(2015), Lu, Yao, and Yu (2005) and Teo and Pok (2003) have shown similar definitions of subjective norms related to social influence. According to Lu, Yao, and Yu (2005), social influence is the decision based on the pressure received from social networks. Teo and Pok (2003) revealed that social influence is the primary reason behind the consumer adoption of m-commerce. Likewise, Koenig-Lewis, Marquet, Palmer, and Zhao (2015) also determined that social influence significantly affects the use of m-payment by users.

Davis et al. (1989), in the previous study of TAM, found that it is difficult to distinguish a person's behaviour given the attitude of the person influenced it. However, nowadays the use of social influence has become relevant to understand systems such as e-commerce applications (Malhotra and Galletta, 1999). Furthermore, the use of social influence and subjective norms have been extensively applied in many studies related to information technology and communications (ICT) (Fang, 1998; Kim, Kim and Shin, 2009; Malhotra and Galletta, 1999; Khalilzadeh, Ozturk and Bilgihan, 2017). In the context of the restaurant industry, Khalilzadeh et al. (2017) reported that the positive social influence of near-field communication based mobile payment led the consumer to perceive it as useful. Consequently, this showed that when consumers perceive social influence as significant, it could result in positive consumer intention to use OTFO apps.

2.4.6 Behavioural intention on actual usage

According to Ajzen and Fishbein (1980), there are two major elements associated with intentions: attitude and social pressure. Behavioural intention is the reflection of the likelihood a person would be willingly involved in the behaviour of interest

(Bouhleb et al., 2010). The stronger the intention of engaging in a behaviour, the higher the percentage of the person in performing the behaviour (Ajzen, 1991). According to a study by Day (1969), intention measures can be significantly more effective compared to behavioural measures to capture the customer's mindset as a customer may make purchases due to the restriction rather than real preferences when a purchase is considered. Intention to use technology can also be explained by a large portion of the consumer's actual use of technology (Shin, 2009). Many studies have investigated the intention to use (Davis, Bagozzi and Warshaw, 1989; Chen, Gillenson and Sherrell, 2002; Shin, 2010; Wang and Yi, 2012; Okumus and Bilgihan, 2014). However, limited studies that concentrated on actual consumers such as the adopter and non-adopter (Laukkanen, 2016).

Notwithstanding, online purchasing intention is the strength of the consumer in accomplishing a specific purchase over the internet (Salisbury, Pearson, Pearson, and Miller, 2001). When a customer conducts an online purchase, there is a process that consists of information retrieval, transfer and the actual purchase of the products (Pavlou, 2003). The process is similar for purchases made via mobile apps. As customers retrieve and exchange information using the apps, the intention to use the apps are considered as the intention. Further, the willingness of an individual to purchase products or services via online transactions is only if they perceive benefits from conducting the online purchase (Chew, Chong, Michelle Sim, and Yong, 2013).

In this case, the intention to use OTFO apps is important given it will demonstrate whether the proposed variables are significant in the context of the consumer's acceptance of the technology. To understand this further, the study attempts to understand the users who are users and non-users of the OTFO apps.

2.5 Summary

As presented in the introduction to this chapter, this study aims to understand customer acceptance towards mobile payment meal restaurants using mobile applications. Several discussions have been presented in this chapter to understand the underlying issues concerning the attitudes of customers to use m-payments to purchase meals from restaurants. From the beginning of this chapter, the importance of the historical process has been highlighted, leading to the stage where customers then become accustomed to using technologies as an everyday habit. As eras have come and gone, technologies continue to evolve and revolutionise how users adopt it.

Restaurant operators are also adopting technology through the development of innovation in the restaurant industry. Mobile apps are one such technological innovation that has been employed in the hospitality industry. Although knowing the importance of this technology and its ability to entice customers to purchase their products and services, it still requires the restaurant's operators to take full advantage of adopting this technology. Previous studies have highlighted limited studies on the application of m-payment, especially in the restaurant industry. Most research associated with m-payment has been in the context of the banking industry, not in the context of the restaurant industry or takeaway sector.

Therefore, there is an important need for m-payment studies to be conducted across service industries. Delaying such studies may lose the advantage of realising significant opportunities to adopt m-payment and to understand the concepts and trends, especially in the takeaway sector. Previous research has revealed determinants such as perceived ease of use, perceived usefulness, perceived trust and perceived security as important towards understanding

customer acceptance towards m-payment. However, the determinants need to be supported by basic theory to support research findings. In conclusion, TAM will be used in this as it was found to be significantly important and required for studying m-payment in the takeaway sector.

CHAPTER 3 STUDENT'S LIFESTYLES AND EATING PATTERNS

Chapter 2 discussed the importance of previous studies related to innovation and technology acceptance to provide some initial understanding of the subject of this study. However, given this study selects university students as the population, this chapter provides information regarding the student's lifestyle and eating habits and how these relate to the use of OTFO apps.

The transition to adulthood through attending university is known to affect the student's lifestyle and eating behaviour. Compared to their school life, university life requires students to become self-dependent without the support of their parents present. Students need to be capable of managing their daily routines which include their study timetable, extra-curricular activities, social life, accommodation and their eating habits. Previous studies have associated the transition of students to university life with unhealthy eating habits such as skipping breakfast, consuming a high level of fast food and eating lots of snacks (Boek et al., 2012; Deliens et al., 2014; Hilger, Loerbroks and Diehl, 2017; Laska et al., 2010). However, there are limited studies on the eating behaviour of university students. Therefore, this chapter aims to understand the student environment which includes their lifestyle and factors contributing to the transition in the students eating habits such as individual, social environment, physical environment, macro environment and university characteristics. Moreover, it will provide sufficient information to support the understanding of the detailed and in-depth interview findings in Chapter 7.

This chapter begins by reviewing the university surroundings in order to understand the study environment of the university. The chapter will also describe

the student lifestyle, how they live and their activity after classes. Although at most times, the students are mostly busy studying, although most still have sufficient time to carry out other activities such as eating out and meeting with friends. Lastly, the discussion will focus on comprehending their eating habits followed by a summary.

3.1 Studying experience in a university

For the uninitiated, a university comprises a cluster of buildings which mostly consist of separated spaces for the academic community and several buildings for student accommodation (Bromley, 2006). Although university and colleges are related to the development of student academic performance, they also contribute to the development of its local surroundings such as contributing to the local city economy (Bromley, 2006). As the population of a university consists of students from various backgrounds, nationalities and culture, it also has a positive influence on local tourism. This is an advantage for the local environment as the students can experience the local surroundings. Local government, as well as local stakeholders, will provide better facilities to cater to the students' incoming needs as well as tourists visiting the area. Therefore, the development of a university will have a positive influence on the local community which could influence the choice of students' study location (Mazzarol and Soutar, 2002).

Similarly, students at the university have different aims and profiles. The earliest study and the most cited definition of student typologies by (Clark and Trow, 1966) classified college students based on four typologies: academic, collegiate, vocational and non-conformist. The academics will struggle to achieve the best grades and are attached to their institutions. The collegiate' s are those who are

active in sports and college activities and learn to pass their course; although they are very loyal to their institutions. While the main vocational reason to enter college is to obtain a job and career, the number of credits enrolled in for each term depends on their time and money. Lastly, the nonconformists, show disinterest in college and do not care about the welfare of the institution.

In a recent study by Mu and Cole (2017) they categorised students into disengaged, socially engaged, proactive, and typical. Also, the definition of using distinctive students' habits in high school and higher education settings. Both studies Mu and Cole (2017) and Clark and Trow (1966) label student transitions academically, however, they neglect to mention other factors such as student lifestyle and social life. A report by The Sodexo (2017) describes students' typologies that are associated with the student's behaviour and found there were five types of students: sensible, healthy and ethical, money conscious, home comforts and career-focused. The sensible students are those who focus on their studies, grades and daily necessities rather than social extras.

Whereas, the healthy and ethical students' priorities are more towards their well-being and being conscious of what they are eating and food sources. They also concerned about university ethics and environmental impact. The money conscious students are those who are concerned about the cost of living in a university and its effect following graduation. Therefore, they are more likely to reduce their social life. Next, home comfort students are those who choose a university close to their home to obtain support from their parents. Lastly, career-focused students aim to get a job following graduation and are likely to use career services to know about the type of careers they can get and how to achieve them. These different characteristics will influence the students' lifestyle at the

university. For example, money-conscious students might not spend money on buying takeaway food or eating out, as they prefer to cook their own meals. However, other factors might affect their lifestyle such as their demographic background.

In the UK, over 2 million students in 2017, were studying at higher education institutions, with around 1.7 million undergraduate students and around 500,000 of them were postgraduate students (HESA, 2017). The population was dominated by the age group of 20 years and younger with female students living in rented accommodation or off-campus accommodation (see Table 3.1). The ages between 18 and 20 years of age are critical in developing the period when a person tends to transition from youth to adulthood (Arnett, 2000). In this age group, categorised as young adults, the students are experiencing a new environment and conversion from being at a school to attending a professional education institute. They also need to adapt to a completely new and different lifestyle, such as a new study environment, managing their own timetable, accommodation, finances and health (Hiester, Nordstrom and Swenson, 2009; Gray et al., 2013). Success during this social adjustment period will predict the ability of the student to be successful in the university and their future (McEwan, 2011).

Table 3.1 Student's accommodation during term-time (number of students)

Term-time accommodation	2015/16	2016/17
Provider maintained property	336,045	349,380
Private-sector halls	132,720	141,210
Parental/guardian home	328,675	338,040
Own residence	269,425	300,815
Other rented accommodation	530,265	536,030
Other	64,875	61,830
Not in attendance at the provider	24,165	25,240
Not known	54,375	45,500

Source: HESA (2017)

In their previous school, they were not expected to be independent and self-learning students. However, when studying at a university, the students need to understand that the study culture is distinctly different. For example, students workload is less in class, but they are expected to study more than 30 hours outside their classes (Calderwood, Ackerman and Conklin, 2014). Additionally, the students also experience living away from their parents and managing their self independently which is also something relatively new for some students. In this case, students may be experiencing the first time away-from-home with a high-risk of feeling homesick (Thurber and Walton, 2012). Homesickness is usually discussed beforehand and is related to the culture shock which involves emotions such as isolation, depression, anxiety, homesickness, low self-esteem and being rejected (Pedersen, 1994). Homesickness may affect the students' lifestyle, including their academic and social life. These feeling are not only felt by international or international students and can also be experienced by local students attending their first year of school (Poyrazli and Lopez, 2007; Small et al., 2013; Thurber and Walton, 2012).

Similarly, students living in a new environment not only need to adapt to the university lifestyle, but also getting to know their local surroundings. For example, a student that chooses to study in the UK can choose the location they prefer to study. If they choose to study in an urban area such as London, they will be experiencing high living costs, but with many forms of entertainment and restaurants on offer (The Sodexo, 2016). On the other hand, those students that choose to study in the South West area such as Exeter may experience a completely different environment. For example, studying in the area means students have better study quality due to the location as it may be close to the

beach and country areas (University of Exeter, 2017). Even though the city is small, Exeter has adequate shopping, social entertainment and a safe and secure environment with low crime rates. Additionally, there are a vast array of restaurants and cafés serving different types of foods such as Chinese, Turkish, Indian and Middle East (University of Exeter, 2017).

Besides living in a new location, students also need to adapt to their new living accommodation facilities. For instance, they live with new friends either on-campus or off-campus. Although some factors may influence their housing satisfaction (Thomsen and Eikemo, 2010), they need to try and adjust. On-campus residences are mainly provided by the university for first-year students to support the students' educational experience (Muslim, Karim and Abdullah, 2012). For part-time students and second-year students and above, they mainly live off-campus or live in private rented accommodation given the limited on-campus residence halls (Bromley, 2006). Several studies have found that student housing or residence halls play an important role in their academic performance (Najib, Yusof and Tabassi, 2015; Simpson and Burnett, 2017).

In order to understand this further, it is important to understand the current trends associated with this situation. Table 3.2 shows the figures related to student accommodation between 2008 and 2016. The figures show that there is a shift in the type of accommodation that students prefer. The trends by year, show that students tend to shift between living in a family home or private student accommodation. Several factors will influence the student's decision on selecting accommodation such as the location, unsuited facilities, internet facilities such as Wi-Fi and study spaces (The Sodexo, 2017). The type of accommodation also

influences how they live, and will also impact on their social life, extra-curriculum activities and so forth.

Table 3.2 Percentage of student accommodations from 2008-2016 in the UK

	2008	2010	2012	2014	2016
Privately let	38%	38%	38%	34%	26%
Family home	13%	17%	18%	19%	21%
Private student accommodation	8%	7%	9%	9%	14%
University run halls	21%	18%	22%	24%	19%

Source: The Sodexo (2016, p. 26)

Furthermore, studying in a university is not solely for academic purposes as students will undoubtedly develop many new skills that can be utilised in their future post-graduation. Among these skills include financial skills, time management and life skills such as cooking and social skills. As a university student, it is expected that most of their time will be spent studying. The scarcity of time will adversely impact students by restricting them from doing other activities such as exercising or cooking (Andajani-Sutjahjo et al., 2004; Kearney and McElhone, 1999; Welch et al., 2009). Therefore, students need to learn to manage their time wisely to ensure their lives are not affected.

One additionally generic skill students need to content with is budgeting or financial control. As a student, they are expected to have a limited budget which they obtain from their parents or sponsor. Previously, in the school phase, parents are their financial manager that controls their spending. However, at the university, students need to be financially independent. Here, students learn about financial behaviour such as borrowing, saving and budgeting that are useful for their lives while studying at university and in the future (Shim et al., 2009; Jorgensen and Savla, 2010).

Even though generic skills are important for the students, life skills such as cooking skills are equally important. Research suggests that student food choices are influenced by the ability of the student to obtain proper food or the constraint of time to prepare meals (Papier et al., 2015; Wilson et al., 2017). Due to these reasons, students tend to choose unhealthy foods such as takeaway or fast food. However, competency in cooking their own food may help to reduce the tendency for students to acquire these fast takeaway foods. The importance of knowing how to cook was also acknowledged in the UK given cooking is a compulsory skill taught in Key Stage One, Key Stage Two and Key Stage Three (Department of Education, 2013). This also shows that cooking skills are important tools that can affect student lifestyle.

3.2 Student lifestyle

The previous discussion has centred around explaining the experience of students living in a university. As mentioned previously, being in the university does affect the lifestyle of students as the majority of their time is spent studying (The National Student, 2016). Although students have a scarcity of time, it does not affect their social life (The National Student, 2016). Most students' socialising time is spent at their friend's house or using the internet to socialise through accessing and participating in social media platforms such as Facebook, Instagram and Twitter (The Sodexo, 2017). One study found that when students socialise more, they tend to study more (Natwest, 2017). Thus, socialising is seen as a positive activity for students.

In addition to using the internet for studying and socialising, students are likely to spend their time shopping. Aside from offline shopping, students also like to shop

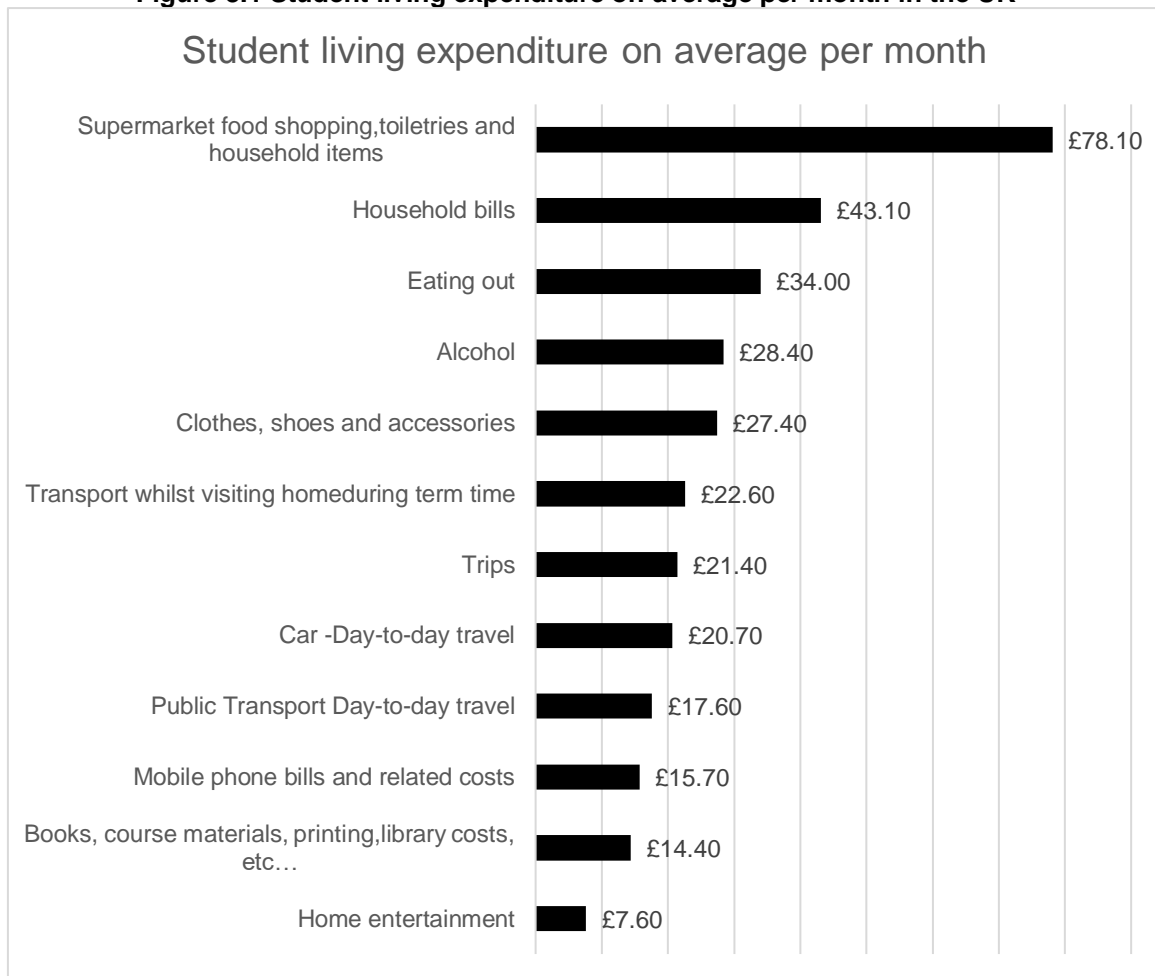
online given it is easy to locate products of interest, easy to compare prices and products, convenience, simple to use and saves time (Lester, Forman and Loyd, 2008; Zendehdel, Paim and Osman, 2015). Moreover, with technology nowadays, it is much easier for consumers to shop online as they can access online retailers through various devices such as a tablet and smartphone. Moreover, it has also been found that students have a high propensity of owning at least one technology device whether it is laptop, tablet or smartphone device (Kobus, Rietveld and van Ommeren, 2013; Song and Lee, 2012). This suggests that students do not have any restriction on purchasing products or services using technology.

However, in general, it was found that consumers still prefer using more traditional technology devices such as a laptop and desktop to shop online (Allen, Piecyk and Piotrowska, 2017). Indeed, the decline of consumers to accept smartphones and other mobile devices must be related to certain characteristics and functionality of the device like the screen size or storage of the device. According to Chae and Kim (2004), the screen size of a device is important especially when users would like to perform complex tasks. Additionally, Kim and Sundar (2014) found that a larger sized screen compared to a smaller screen size does play a critical role in predicting consumer adoption of a smartphone. The student has a high dependency on a smartphone given it is convenient and suits their social needs (Hooi Ting et al., 2011).

Concerning the student's spending habits, Figure 3.1 shows on average, student living costs per month in the UK for 2017. From the figure, it can be seen that the students in the UK mostly spend their money on food shopping and buying household items, including household bills

(Natwest, 2017). This shows that students tend to prioritise food over other things. Food was also associated with new experiences and creating strong bonds between their peers and family. For example, in the event of eating out, it will involve going out with other people and enjoying the experience (Cruwys, Bevelander and Hermans, 2015; Rozin, 2005).

Figure 3.1 Student living expenditure on average per month in the UK

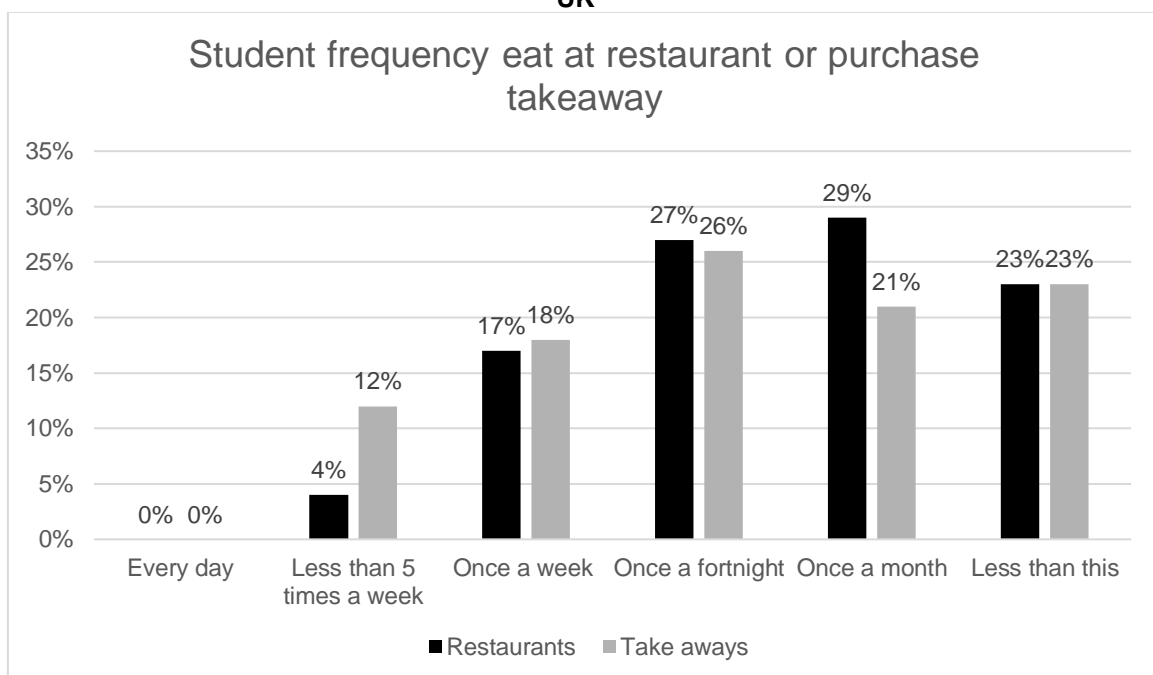


Source: Natwest (2017)

Therefore, to understand student eating habits, Figure 3.2 displays the frequency of eating out and purchasing takeaway food. The figure shows that the highest percentage of eating out was at least once a month, whereas, for takeaway food purchases, these are most likely to be purchased each fortnight. There a large

difference was shown between the frequency of eating out and takeaway purchases which may be attributed to the cost of eating out being more expensive compared to takeaway foods. Possibly, purchasing a takeaway once a fortnight was more affordable (Ball and Brown, 2012; Driskell, Kim and Goebel, 2005; Tam et al., 2017). Additionally, as mentioned earlier, many other factors will influence takeaway food purchases of students including both time and the limitation of cooking skills. The following section will focus on the factors that influence students eating habits.

Figure 3.2 The frequency of students eating a restaurant or purchase takeaways in the UK



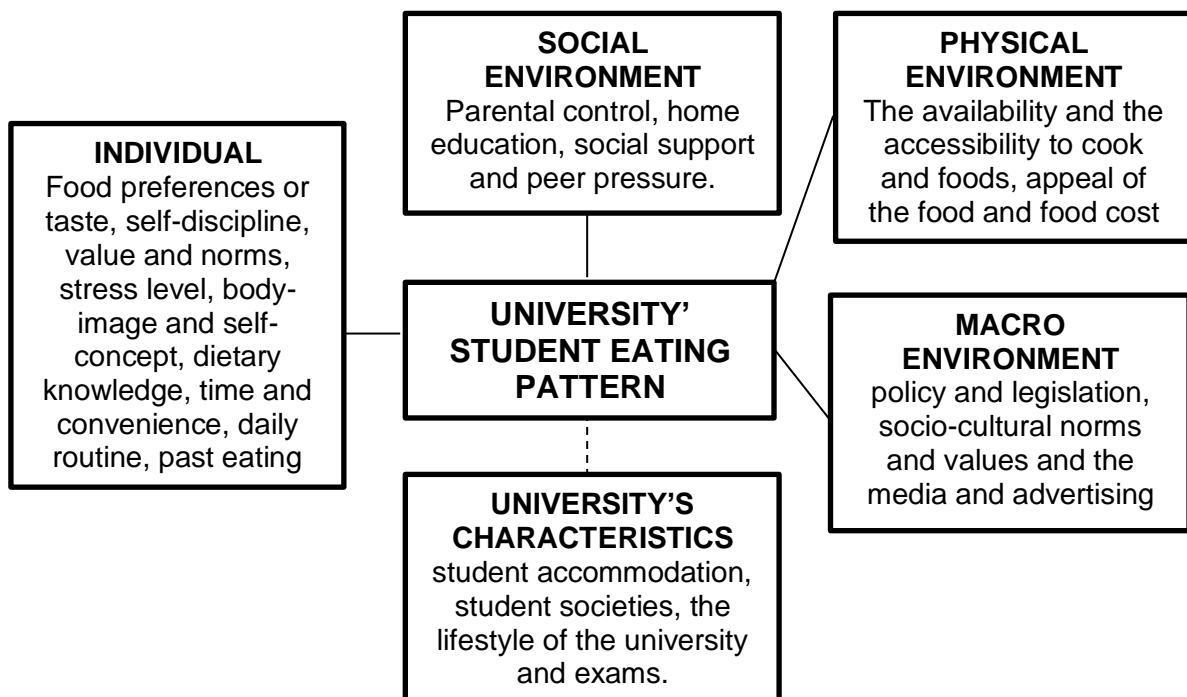
Source: The National Student (2015)

3.3 Student eating habits

Previous research tends to focus on the negative aspect of students' eating behaviours instead of trying to understand the behaviour itself (Hilger, Loerbroks and Diehl, 2017; Schnettler et al., 2015). The research by Deliëns et al. (2014)

was the only study that explored and understood university students' eating habits. In their study, they reported that four main factors are influencing the eating habits of university students: individual, social environment, physical environment and macro environment (see Figure 3.3). Furthermore, the relationship between the determinants and the student's eating habits appeared to be moderated by the characteristics associated with the university such as accommodation, student societies, university lifestyle and examinations (Deliens et al., 2014). Although, the factors that were discussed in the study were more related to general issues faced by college students. Therefore, it would be interesting to understand whether their study environment has any relationship between the student's eating habits to purchase other types of food such as convenience foods and fast food.

Figure 3.3 University' student eating pattern



Source: Deliens et al. (2014, p. 5)

3.3.1 The individual

The 'individual' refers to factors that influence how students eat and how they choose foods. Several definitions describe the 'individual' including their food preferences or tastes, self-discipline, value and norms, stress level, body image and self-concept, dietary knowledge, time and convenience, daily routine, past eating habits, physical activity level, metabolism and vitality. When it involves choosing foods, the student's main priority is more about the taste of the meal, which can also cause unhealthy eating habits (Boek et al., 2012; Stevenson et al., 2007; Tam et al., 2017). When students tend to choose taste over well-being, they will be choosy eaters. For example, they would choose eating fruits over vegetables.

Another factor is self-discipline that is associated with self-dependency which may be influenced by the way they are eating (Deliens et al., 2014). Also, value, norms and beliefs were found to be further characteristics which define the 'individual'. For example, a student becomes a vegetarian because they do not need to consume meat or instead, change to eating healthier foods because of the guilt of eating unhealthy food such as pizza (Deliens et al., 2014).

While students are aware that they need to eat healthy foods, several situations lead them to unhealthy eating. When students are under stress, they will eat less healthy foods such as fruits and vegetables, and instead, eat more ready-to-eat foods, snack-types and sweet foods such as cakes and chocolate (Zellner et al., 2006). Moreover, despite students having dietary knowledge (Matthews, Doerr and Dworatzek, 2016), their daily routines often include the ability to manage their time, and often the convenience of time will influence how students choose their foods. Therefore, due to this reason, many students will consume takeaway foods

due to its taste, it is affordable and easy to obtain (Morse and Driskell, 2009). In a study by Larson et al. (2008), they found that students increase the frequency of fast food intake during their young adulthood phase. Dave et al. (2009) found that there is a strong significance between the frequency of fast food intake with the perceived convenience of fast food, and their un-favourability towards cooking. Convenience was also found to be the most important factor influencing individual food choices. For example, students may purchase fast food because it is easy, quick and cheap. Interestingly, gender also influences the perception of cooking and their ability to cook (Hartmann, Dohle and Siegrist, 2013; Szabo, 2013).

3.3.2 The social environment

The 'social environment' refers to factors related to the eating behaviour of other people. Here, several characteristics have been recognised by (Deliens et al., 2014) including parental control, home education, social support and peer pressure. A study by Navarro-Prado et al. (2017) found that there were differences between students under their parent's control regarding certain foods. For example, parents were still in control of the daily menu of Muslim university students (Navarro-Prado et al., 2017). In contrast, it was different for Germany and Thai university students where their parents were rarely concerned with student's daily meals (Schwarzer et al., 2010).

Likewise, home education plays an important role in teaching students about food selection. Parents tend to inspire their children's food consumption to eat healthy by being a role model and creating a healthy food environment at home (Baranowski, Cullen and Baranowski, 1999; Hill et al., 1998). Aside from that,

social support was also seen to be important for students especially during the student's busy days such as on exam days. Understandably, students will more appreciate the support given to them by their family and friends if there is someone to prepare their food for them during those difficult times (Deliens et al., 2014).

Finally, peer pressure. This refers to the choice of foods among friends that may influence how students eat. For example, if a student prepared his/her sandwich but their friends just bought theirs from the café, there is a distinct likelihood that the student will follow their friend's footsteps and order from the café (Deliens et al., 2014). Whereas, when their friends are eating healthy foods such as fruits and vegetables, students are likely to follow their friends eating behaviour (Bruening et al., 2012). This means that peers will often influence their behaviour which will, in turn, influence individual food choices, and also resulting from the pressure of being accepted by their peers by choosing the same food choices or eating behaviours.

3.3.3 The physical environment

The 'physical environment' relates to community settings. The 'physical environment' indicates the availability and accessibility to cook food, food preparation and the cost of food (Deliens et al., 2014). Some students may have access to their accommodation facilities to prepare their own food. However, for those who do not have these facilities or through lacking cooking skills, they may be more inclined to eat out or to purchase takeaway food or convenience foods (Papadaki et al., 2007). In a study by Larson et al. (2006), they found that food preparation and food purchasing depends on gender, race/ethnicity, living

situation and using a fast food restaurant. Moreover, the availability of fast food restaurants and convenience foods compared to cooking, this will increase the propensity of students to purchase takeaway foods. (Papadaki et al., 2007)

Another important factor is the food cost. Due to financial constraints, it is important for students to budget regarding their daily meals. Several studies discovered that food cost plays an important role when students decide to purchase food (Ball and Brown, 2012; Driskell, Kim and Goebel, 2005; Tam et al., 2017). For example, if the food price for healthy food is less than fast food, there is a possibility that students will purchase healthy food (Tam et al., 2017).

3.3.4 The macro environment

The 'macro environment' describes the policy and legislation, socio-cultural norms and values and the media and advertising (Deliens et al., 2014). Policy and legislation refer to the understanding of students' foods choices. For example, they are aware that they cannot drink and drive a car; therefore they will drink less (Deliens et al., 2014). While socio-cultural norms and value refer to a certain habit considered to be norms in several societies. For instance, in the US it is normal for people to eat fast food each day, whereas, in Europe, it is not the norm (Deliens et al., 2014). Different cultures have their own acceptance of what food is suitable for consumption. Given university students come from many different backgrounds and cultures, some students are able to adapt to new eating habits, whereas, others prefer to stay and/or comply with their norms and to eat their usual food. However, due to the difficulties to obtain their hometown food, students will most likely prepare their own food.

Furthermore, media and advertising play an important part in deciding what people eat (Zimmerman and Shimoga, 2014). Here, food marketers have various methods to advertise food products via television, radio and via internet marketing and so forth. Advertising through television will encourage the desire of people to consume food, motivating them to eat (Cohen, 2008; Kemps, Tiggemann and Hollitt, 2014). Marketers are also using the internet to promote foods and beverage products to students as the message can be easily customised reach this target market (Montgomery and Chester, 2009).

3.3.5 The university characteristics

Moderated factors in the context of this study, are described as the characteristics associated with a university that refer to student accommodation, student societies, the lifestyle of the university and examinations. Previous studies have found that students eating habits are often influenced by their living situation, whether it is on-campus or off-campus (Driskell, Kim and Goebel, 2005; Small et al., 2013). According to Small et al. (2013), a student living in a residence hall can cause significant heterogeneity regarding eating and physical and activity places. For example, female students who live in a dormitory with a dining hall are more likely to exercise less frequently and gain more weight, whereas, male students are more likely to eat more snacks and meals (Kapinos and Yakusheva, 2011). However, Brunt and Rhee (2008) discovered that students living off-campus are less likely to eat fruit and vegetables compared to those students living on-campus with a dining plan. While those students living with their parents were also found to be healthier compared to those students living on-campus. However, other factors may also influence student eating habits such as their

country of origin. For example, many international students will eat their home-cooked dish given it is tasty, healthy and emotionally comforting for them (Brown, Edwards and Hartwell, 2010). Also, comfort food was also interpreted differently by gender (Wansink, Cheney and Chan, 2003). However, if financial resources are limited, students will often look to buy cheaper options such as fast foods.

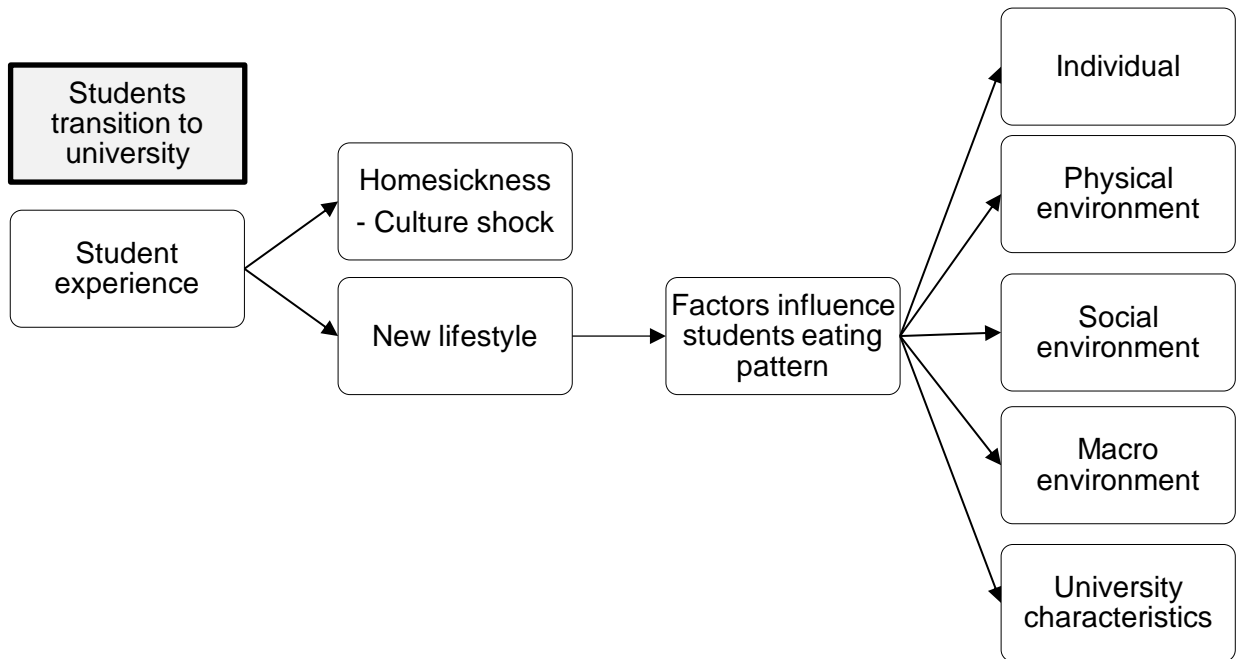
3.4 Summary

The review of the literature in this chapter provides an essential understanding of the students' lifestyle and eating behaviours. This, in turn, helps to contextualise and understand the influencing factors leading towards students purchasing takeaway food. From the literature search, it can be seen that several aspects influence the eating habits of students such as the student themselves, social environment, physical environment, macro environment and characteristics of the university. These factors are important as they can help in understanding the relationship between student lifestyle and their eating habits. In understanding this further, the study has developed an illustration that shows this relationship (refer to Figure 3.4).

The illustration shows the students transition to university. When students first enter university, they will experience homesickness or culture shock that will give them added pressure or anxiety. At the same time, they will be experiencing a new lifestyle, consisting of factors (individual, physical environment, social environment, social environment, macro environment and university characteristics). These factors were found to influence university students' food choices. The individual refers to the students themselves consisting of food preferences/tastes, value, state of mind, norms and belief, body image and self-

concept, self-discipline, time and convenience, dietary knowledge, daily routine or structure, physical activity level, past eating habits, metabolism and vitality. The social environment refers to the environment that influences students to eat namely, social support from friends and family, parental control, peer pressure and home education.

Figure 3.4 Transition into university' student lifestyle



Source: Author. Adapted from Deliens et al. (2014).

Also, the physical environment refers to the community settings which include the appeal of the foods, cost of food and availability plus accessibility of the students to obtain their food sources. The macro environment includes media and advertisement, policy and legislation and the socio-cultural value whereas the moderator factor which is the university character signifies students living accommodation, the university lifestyle, students' societies and examinations.

Wherever students finally choose to study, they will experience a similar university lifestyle. The only difference is the location of the university. For

instance, some universities are located in urban areas such as London where it is busier and where there are various shops and restaurants. In contrast to a university in a suburban area such as Exeter, the area has a pleasant study environment. However, students will have limited choices of branded shops and restaurants.

Socialising was also seen to be important in order to decrease student's stress level which will undoubtedly increase their study level (Natwest, 2017). With the constraints afforded by time and limited budget, students most favour activities besides studying, related to foods such as food shopping and eating out. This showed that there is a need for a further understanding of students eating behaviours. Although there are numerous studies on student eating preferences most studies refer to eating healthy (Boek et al., 2012; Brunt and Rhee, 2008; Driskell, Kim and Goebel, 2005; El Ansari, Stock and Mikolajczyk, 2012; Matthews, Doerr and Dworatzek, 2016; Navarro-Prado et al., 2017). On the other hand, limited studies are attempting to understand students' habits regarding OTFO. Therefore, by understanding students' eating habits, the study can examine students' consumption of takeaway food and their use of OTFO services.

CHAPTER 4 METHODOLOGY

This chapter presents the methods used to address the research objectives of this study. The discussion on the methodological background will differentiate this study from other studies in contributing to new knowledge and insights in the foodservice industry. It is important to highlight that this study used several different data and methods to ensure that it had sufficient information to support the research.

The chapter begins by presenting the research approach to show the types of methodology that were employed in the study. This section also discusses some of the justifications and reasoning behind choosing the research approach. The next section then discusses the case study design and execution. The case study section presents in-detail the qualitative techniques that were used to gather qualitative data. The questionnaire survey design, in-depth interviews and execution are also presented. The questionnaire survey design also includes discussion on the content of the questionnaire, followed by sampling for the questionnaire discussion of pilot testing. To support quantitative data, in-depth interviews were designed employing a laddering technique to discover additional information regarding the respondents. The validity and reliability section is next presented which discusses the validation and reliability of the research design in this study.

The data analysis will show the types of analysis employed by qualitative and quantitative analysis. A different section discusses the qualitative and quantitative analysis, with both sections beginning by describing the analysis software that

was used and the means to perform the analysis. The chapter concludes with a brief reflection on the ethical issues and legal considerations.

4.1 Research approach

This study has adopted mixed methods approach to achieve the research objectives. To conduct the mixed methods approach, the first approach consisted of a single case study which was developed to investigate the growth of the OTFO sector, to gain insight into an organisation that had launched a takeaway app and to understand the consumer's reaction to the development of the takeaway apps. The second approach was the creation of the questionnaire survey followed by in-depth interviews in order to understand the consumer's acceptance of OTFO apps and to identify the socio-demographic background of the consumer using the food takeaway apps.

Mixed method research relates to a combination of two different approaches, combining two different perspectives to ensure a researcher can produce good quality information to enhance new knowledge which cannot be attained by adopting a single approach (Johnson and Onwuegbuzie, 2004). In other words, the combination of the qualitative and quantitative approaches complements each other by taking advantage of their strengths. To understand the mixed methods approach, Creswell, Plano Clark, Gutmann, and Hanson (2008) define it as follows:

“A mixed methods study involves the collection or analysis of both quantitative and/or qualitative data in a single study in which the data are collected concurrently or sequentially, are given a

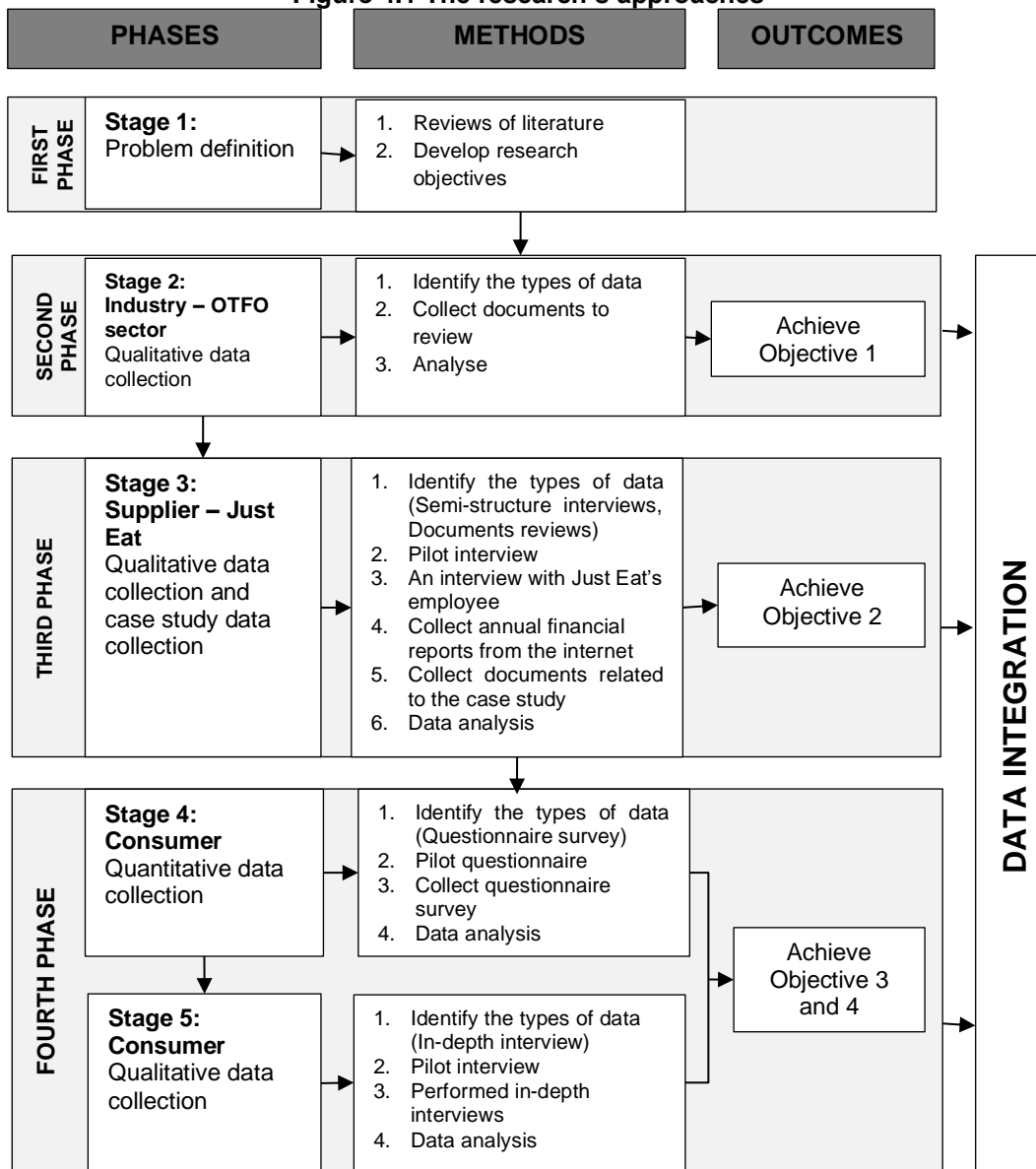
priority, and involve the integration of the data at one or more stages in the process of research.” (p.165).

In this study, the multi-phase mixed methods sequential approach was used to fulfil the study objectives. Figure 4.1 displays in-detail the steps and phases of the data collection process. As illustrated in the figure, the first phase aims to identify and develop research objectives. Followed by second phase which is to address Objectives 1, qualitative data collection that comprises of previous studies are gathered. Third phase focuses to address Objective 2 that uses a single-case study approach by combining two different types of qualitative data. The last phase of the study consisting of stages 4 and 5 aims to accomplish Objectives 3 and 4 which is to understand consumer acceptance of the OTFO apps. In the fourth phase, the data collected employs the mixed-methods approach by combining in-depth interviews and a questionnaire survey. At the conclusion of the study, all findings are then summarised and integrated to explain the growth and acceptance of takeaway apps.

The rationale of this approach was that the qualitative data and its subsequent analysis would provide a general understanding of the study, while the quantitative data and their statistical results would explain further the views of consumers'. The study had several reasons underpinning the adoption of the mixed methods approach in this study. The first justification was found through the meta-analysis as shown in Table 4.1, relating to m-commerce in the foodservice industry. Table 4.1 shows that the study of information technology and communications (ICT) in the foodservice industry lack the use of the mixed methods approach. Also, from the table, it can be seen that most of the research

related to technology was more inclined to employ the quantitative approach using a questionnaire survey. There are limited studies that have applied a case study approach and mixedmethods approach to develop an understanding of trends, particularly in this sector. Secondly, studies related to online food ordering have been undertaken in other countries, except for the UK (Alagoz and Hekimoglu, 2012; Pigatto et al., 2017; Yeo 2017). Therefore, by adopting the study research approach, it will support the current research and also enhance gathering the information on the respondent's acceptance of OTFO mobile apps.

Figure 4.1 The research's approaches



Source: Author

Table 4.1 Previous studies related to mobile commerce in the foodservice industry

Cho, Bonn and Li, (2018)	Understand the perception of food delivery apps between single-person and multi-person household	China	Quantitative- 311- face-to-face questionnaire
Cobanoglu et al. (2015)	Acceptance of m-payment in restaurant	Not mentioned	Quantitative - 258 online self-administered
Kapoor and Vij (2018)	Investigate the intention to use online food ordering apps - visual, navigational, information and collaboration design	India	Quantitative - 350 online self-administered
Khalilzadeh et al. (2017)	Security of mobile payment in restaurant	Online environment	Quantitative- 412 online self-administered survey using Amazon's Mechanical Turk (MTurk)
Kwon et al. (2013)	Customer intention to download mobile apps- hospitality	USA	Quantitative - 235 online self-administered
Mozeik et al. (2009)	Customer acceptance of restaurant e-services across two types of computing devices - traditional pc and mobile devices	USA	Quantitative- 223 paper self-administered survey
Okumus and Bilgiham (2013)	Examine the purpose usage of mobile apps for healthy eating -	Not mentioned	
Ozturk et al. (2017)	Examine factors that affecting restaurant's customer intention to use near field communication (NFC)-based mobile payment (MP) technology	Online environment	Quantitative- 412 online self-administered survey using Amazon's Mechanical Turk (MTurk)

Source: Author

The following sections discuss each method comprising of the design and sampling.

4.2 Second and third phase: Qualitative and case study design and execution

The second and third phase employed a multi-methods approach to collect the data. First, a qualitative method was used to review the relevant documentation to understand the development of the OTFO sector in the foodservice industry to address Objective 1. The second method employed a single case study approach

to address research Objective 2, which investigated the growth and the operational characteristics of the organisation supplying the takeaways apps.

Yin (2003) defined a case study as an empirical inquiry that investigates a phenomenon within a real-life context. Numerous strategies and approaches can be adapted to perform a case study; one such approach is case-based research. This approach is best used when theory does not exist, is not likely to apply or a theory exists which is not suitable or applicable to the context of the environment under study (Kshetri, 2007; Stuart et al., 2002). When employing a case study approach, it is common that the data collection process will consist of a combination of different sources such as interviews, using a questionnaire, reviewing documents or via observation (Eisenhardt, 1989). Also, studies employing methodological triangulation will have a stronger validation of constructs and the data (Meyer, 2001). Even though there have been many different opinions and views on the use of a single case study, researchers believe the approach is beneficial in developing a new field of study (Teagarden et al., 1995) such as OTFO sector. Likewise, the selected case study must be able to contribute to the theory and in acquiring knowledge and providing useful insight into the area of study (Eisenhardt, 1989).

Therefore, in order to understand a fast-moving industry such as the technology industry, it is important to examine a company that is considered to be highly technological and well established. Subsequently, this study selected a prominent organisation operating in the OTFO sector in the UK as a best practice model for this sector in the UK and developing countries (Stuart et al., 2002). Just Eat was chosen as they have long been established in the OTFO sector in the UK; meaning they are well-experienced in this market segment and dealing with

consumers. The company has been operating in the UK for more than ten years, with vast experience related to the OTFO market. Also, they are not only successful in the UK but also in several other countries outside of the UK. As an established company, they like similar companies in other industries, have matured over the years, growing in line with changes in the marketplace (including technology), having to invest in innovating products and services (Coad et al., 2018).

Accordingly, using a case study approach enables the present study to investigate, in detail, the operations of Just Eat. The study was able to understand the character of Just Eat which can be applied in other OTFO organisations.

To execute this approach, two types of data were used: document reviews and a semi-structured interview. Both sets of data were combined in order to understand the background of the company, factors influencing the company's growth, and other information related to the company's operation such as technology innovation, challenges and issues.

4.2.1 Document reviews

In this study, document analysis refers to the process of reviewing or evaluating documents whether in printed form or an electronic-based form (Bowen, 2009), such as written material from organisations, official publications and reports, letters, and written responses to open-ended surveys (Patton, 2002). The objective of the document reviews in this study was to gather pertinent information to understand the development of the OTFO sector related to Objective 1. Additionally, document reviews were also undertaken to complement

the data gathered from the interviews in addressing Objective 2, which was to understand the growth and operating characteristics of organisations supplying mobile apps within the OTFO sector. The rationale behind reviewing documents was primarily because documents contain a textual trace of evidence supporting the OTFO organisation's growth including figures and other statistical data relating to the consumers use of smartphone devices and mobile apps. Moreover, documents can provide a rich description of a phenomenon or event that occurred from the first day the organisation was established.

In this study, most of the data were gathered via the internet. Among the data collected, was a video interview from Thinkbox, dating back to 2015, annual financial reports from Just Eat and various news articles and reports related to the OTFO sector, referring Just Eat. Using the internet as a source of information enabled much data to be collected in understanding consumer reaction and behaviour regarding the development of the foodservice sector and the growth of the OTFO sector. The selection of these documents also formed the basis to achieve the research objectives of this study.

The video interview link that was located on ThinkBox's website showed a recorded interview with a person from Just Eat. The video interview was about Just Eat's marketing strategy developed by Rik Moore, Head of Creative Strategy, Havas Media and Mat Braddy, former Chief Marketing Officer of Just Eat with an elapsed time of around 18 minutes. The video interview was transcribed (see Appendix 1), analysed and is presented in Chapter 6 of this study. Other pieces of news and information regarding Just Eat was also acquired using the Google search engine. Several keywords such as 'online takeaway food

ordering company', 'online food ordering', 'Just Eat', 'Just Eat apps' and 'takeaway apps' were used to locate information sources related to the company.

The internet search revealed diverse results from different sources such as blogs, online news, market research companies and official OTFO sites. To explore consumer reaction with regards to the development of the foodservice sector, the documents used in the review were based on the historical development of the sector. Here, studies and information from various sources were collected and used such as books, articles and market research information. Among the market research sites used to search for figures and statistics, related to this sector consisted of MCA Insight, Euromonitor International, comScore and Centre for Economics and Business Research. Information from articles and blogs; all used to investigate the development of an OTFO sector and its typologies.

In order to better understand Just Eat, various sources of information were also collected from Just Eat's website and several other sources. The materials were collected and collated from various sites related to the company's background, business operations and financial information including, merger and acquisition news, innovation and marketing and promotion activities. However, information on Just Eat's website only started in 2011. Therefore, to understand the growth of Just Eat for earlier periods, financial reports were collected from the Company's internal intranet. From the Company's intranet, annual reports between 2009 and 2017 were collected and used to understand the growth of Just eat (see Appendix 2-10). Table 4.2 lists the main documents that were used to write the case study. Other sources were also employed to gather and collect data related to the case study which included market research statistics and news

related to Just Eat and the OTFO sector. The information was also valuable in order to address the objectives, designing the semi-structured interviews.

Table 4.2 List of documents related to Just Eat

Type of document	Name of document
Report	Just Eat Group Holding Limited annual report and account 2009
	Just Eat Group Holding Limited annual report and account 2010
	Just Eat Group Holding Limited annual report and account 2011
	Just Eat Group Holding Limited annual report and account 2012
	Just Eat Group Holding Limited annual report and account 2013
	Just Eat Plc annual report and account 2014
	The takeaway economy report (Centre for Economics and Business Research, 2014)
	Just Eat Plc annual report and account 2015
	Just Eat Plc annual report and account 2016
Just Eat Plc annual report and account 2017	
Video	ThinkBox's Brand Film: Just Eat - 2015

Source: Author

4.2.2 Semi-structured interview

A Semi-structure interview were undertaken to further understand the respondent's perspective, and not the views of the researcher (Marshall and Rossman, 2006). Regarding the interview approach, three types of interviews can be carried out, namely structured, semi-structured and unstructured interviews (Jennings, 2005). Each is characterised differently regarding their style, design, research stance, perspective and so forth, as shown in Table 4.3. To understand more about the company, a semi-structured interview were employed as the style was not too formal and enabled the interviewee to come up with initial ideas regarding the interview questions. It also allowed the interviewer to be more flexible on how to ask and answer questions. Moreover, using the semi-structured interview approach, the questions are already designed, although it still depends on the interviewer to assign questions that are deemed appropriate to be asked based on the interviewee's response. To achieve Objective 2, a semi-structured interview was conducted with Mr R who had the best expertise and knowledge

regarding the operations of the business, technology innovation, and marketing information of the company. The actual identity of Mr R was changed to maintain the respondent's confidentiality.

Table 4.3 Comparison of three types of interview

Descriptor	Structured interview	Semi-structured interview	In-depth interview/ unstructured interview
Style	Specific protocol of answering questions	Conversation-like	Conversation
Design	Structure	Semi-emergent	Emergent
Research stance	Objective	Subjective	Subjective
Research perspective	Outsider (etic)	Semi-emergent Subjective Insider (emic)	Emergent Subjective Insider (emic)
Consequences of researcher stance and perspective	Limited reflexivity	Reflexivity	Reflexivity
Exchange issue during the research process	Limited reciprocity	Reciprocity	Reciprocity
Language use	Subject/ respondent	Informant, participant co-researcher	Informant, participant co-researcher
Material/ Data collection	Data representation Checklist Some open-ended questions	Empirical materials Slice of life Field notes Transcription and recording	Empirical materials Slice of life Field notes Transcription and recording
Basis of analysis	Mathematical and statistical analysis	Textual analysis	Textual analysis
'Findings' expressed as	Numerical representation	Depthful and thick descriptions	Depthful and thick descriptions
Writing style as reporting	Scientific report	Narrative	Narrative

Source: Neuman (2013)

Before proceeding with asking the main questions, the interviewer introduced herself, her position, the institution and then explained the aim of the research to formalise the process with the interviewee regarding the research topic. This brief introduction then followed by asking the interviewee to introduce themselves, describing their role/position in the company. Previous to the interview, series structured interview questions were formulated to address the aims in conducting

the interview. However, once the process started, the interviewer then decided to use unstructured interview questions (i.e. non-directive interview) given it was considered to be more suitable. The interview started by asking the interviewee a number of questions to gain ideas on how the interviewee would respond in maintaining the theme of questioning (see Appendix 11).

For the first theme, a list of questions had been previously developed to understand the marketing strategy of the company, including consumer demand, consumer demographic segments and consumer reaction to the organisation mobile app. The questions were also an attempt to identify the challenges and barriers regarding the implementation of takeaway apps.

The second theme related to innovations in the company to understand the OTFO sector in general. The interview questions were designed to explore the various modes of operation, innovation developed in the company including the process of innovation implementation and the distinctiveness of the organisation innovation compared to other businesses.

The third theme was around the development of the takeaway apps and how these played a major role in the OTFO sector with regards to technology innovation. Indeed, it was useful and important also to investigate and understand the contribution of mobile apps in OTFO companies. The interview with Mr R was to explore the characteristics of good takeaway apps, the various sources in the development of the takeaway apps together with determining the advantages and disadvantages of the various sources. The sources refer to who or where the takeaway apps were developed for the company, Just Eat.

All the interview questions were open-ended. The face-to-face interview took place within the interviewee's premises with an elapsed time of about one hour. Before conducting the face-to-face interview, the interviewee was given an information sheet and a consent form for their permission to participate in the research. The interview was recorded with the permission of the participant for later transcription and analysis.

4.2.3 Sampling for qualitative study

To attain interviews with Just Eat, several attempts were made via various channels. Even though Just Eat is a public limited company, they do not post or display any staff telephone numbers or e-mail addresses on their website. The main channel used to make contact is through their customer service department or via their press release. The first attempt to contact the company was through sending e-mail and also phoning the customer service department to obtain the phone number, and e-mail address of Just Eat's management staff. However, these efforts failed. The author then used other options via 'LinkedIn', a social networking website for professionals. LinkedIn provides a search box for locating organisations or the name of people linked to an organisation. Through the search function in LinkedIn, the author was able to locate people related to Just Eat in the UK and then attempting to contact them. Finally, the author was able to obtain an e-mail address of Just Eat's, Director of Business Intelligence. Following several rounds of e-mail exchanges, the author received a response to conduct an interview. The interview was held at the respondent's workplace in May 2016.

The interview questions were designed to cater to the interviewer's level of knowledge given the author did not have any involvement in the actual selection of the interviewee. The main limitation of this situation is the inability of the respondent to answer questions which are not related to their level of knowledge, competency or experience in the workplace. Therefore, to address this limitation, the interviewee was kind enough to provide a link to an online video interview from Thinkbox (2005) and several reports to help answer the questions outside of the interviewee's knowledge and experience.

4.3 Fourth phase: customer acceptance survey and in-depth interview

For the fourth phase, a mixed-method approach was utilised by integrating a questionnaire survey along with in-depth interviews.

4.3.1 Questionnaire survey

To achieve Objectives 3 and 4, this study used a quantitative approach using a questionnaire survey (see Appendix 12). The questionnaire consisted of three parts in order to assist the researcher to identify and judge the consumer reaction towards the usage of OTFO mobile apps. The first part consisted of screening questions, the second part consisted of scale questions, and the third part consisted of demographic questions.

The first part comprising 13 screening questions, aimed to categorise the consumers of takeaway food ordering apps and to understand the responses of consumers towards online takeaway sites and the apps. The questions enabled the study to identify whether there were actual differences between users and

non-users in the adoption of OTFO apps. Moreover, by developing these questions, it also contributed to gaining knowledge and understanding about the actual use of the technology (Laukkanen, 2016).

There were different types of questions in the first part: three open-ended questions, three Likert-scale questions and seven closed-ended questions (see Table 4.4). The objective of the open-ended questions was to understand details about the consumer based on their answers to the questions. While the objective of the Likert-scale questions was to understand the consumer’s level of appeal or attraction to a specific subject. For example, types of food they would likely order from OTFO and how likely they would use a certain OTFO company. For the close-ended questions, these were formulated to understand more about the consumer on a specific subject, such as their spending on the OTFO app. All questions in the first part were adapted from previous studies and verified as suitable based on these studies.

Table 4.4 Part 1: Questionnaire based on literature

Questions	Type of questions	Adapted from:
When are you most likely to order using an online takeaway app?	Likert-type scale	Kimes (2011a)
How much would you spend on average per order using an online takeaway app?	Closed-ended	Wu and Wang (2005)
How likely are you to order these types of foods from online takeaway apps?	Likert-type scale	Kimes (2011a)
Which of the factors below influence you to order from online takeaway apps?	Closed-ended Likert-type scale	Kimes (2011a)
When it comes to new technology, which ONE of the following statements best describes you?	Closed-ended	(Rogers, 1995)

Source: Author

The second part of the survey questionnaire contained the scaling questions. The objective of these questions was to explore the factors influencing the consumer acceptance of takeaway apps. The questions were developed based on discussions in previous studies related to TAM by Davis et al. (1989) with the addition of several determinants to support the conceptual framework (see Chapter 2.4). While the System Usability Scale (SUS) might have offered an alternative approach, it was not used because the measurement only focuses on the usability of a system (Brooke, 1996). Moreover, SUS does not measure other factors related to consumer behaviour and it cannot change its measure (Brooke, 1996). As the study objective was to understand several consumer behaviours, it is significant to use TAM.

This part was significant to this study given it tried to understand the constructs that were important for consumer acceptance of OTFO apps. Furthermore, the latter results would be envisaged to contribute towards furthering the study of TAM, as well as OTFO given the limited studies in this area (Alagoz and Hekimoglu, 2012; Pigatto et al., 2017; Yeo et al., 2017).

The second part was divided into six themes which included usefulness, ease of use, security and risk, social/peer influence and intention to use that were developed based on the review of various studies on customers' acceptance of mobile payments and m-commerce. The respondents needed to choose and indicate the level of likeliness of each of the questions which were measured using a five-point Likert-type scale; where '1' indicated strongly disagree, '2' showed disagreement, '3' stood for neutral or uncertain, '4' showed agreement to some extent and '5' strongly agree. Since the study adapted questions from a previous research, it was important to retain a directly comparable scale.

Moreover, by using a five-point Likert scale, it would be possible to compare findings with prior studies (see Saleh and Ryan, 1991).

There are seven items in this part. Two items which are perceived usefulness (4 items) and perceived ease of use (4 items) were based on Davis et al., (1989).

There were four items for perceived trust based on a study by Nunkoo and Ramkissoon (2012), four items for perceived security (Giovanis, Binioris and Polychronopoulos, 2012), six items for social influence (Koenig-Lewis et al., 2015), two items for adoption intention (Lin, Shih and Sher, 2007; Wu and Wang, 2005) and one item for actual usage (Wu and Wang, 2005) (see Table 4.5).

Table 4.5 Sources of constructs measures and dimensions

Constructs	Dimensions	Items	Adapted from
Perceived usefulness	Convenience (4 items)	<ol style="list-style-type: none"> 1. Using online takeaway apps to order and pay for takeaways enables me to conduct transactions conveniently (transconv) 2. Using online takeaway apps to order and pay for takeaways saves my time. (savetime) 3. I find using online takeaway apps to order and pay for takeaways enable me to pay more quickly. (quickly) 4. I find using online takeaway apps to order and pay for takeaways is useful in my life. (useinlife) 	Davis et al., (1989)
Perceived ease of use	Ease of Use (4 items)	<ol style="list-style-type: none"> 1. I find it is easy to learn to use mobile apps. (learnapps) 2. I find it is easy to learn using online takeaway apps to order and pay for takeaways. (learnpayapp) 3. I find the instructions to use online takeaway apps to order and pay for takeaways are generally easy to understand. (understand) 	Davis et al., (1989)

		4. I find it is easy to use online takeaway apps to order and pay for takeaways. (easyordpay)	
Perceived trust	Reliability and confident (4 items)	<ol style="list-style-type: none"> 1. The online takeaway apps are reliable app to order and pay for takeaways. (reliapayapp) 2. I'm confident to order and pay using online takeaway apps. (confipayapp) 3. I'm confident with the security measurements offered by online takeaway apps. (confisec) 4. The information provided in online takeaway apps are trustworthy. (infrotrust) 	Nunkoo and Ramkissoon, (2012)
Perceived Security and privacy risk	Transaction and privacy (4 items)	<ol style="list-style-type: none"> 1. Payment made through online takeaway apps will be processed securely. (processec) 2. Transactions via online takeaways apps are secured. (transsec) 3. I find using online takeaway apps, my privacy is well protected. (privacyproc) 4. I feel totally safe providing sensitive information about myself through the online takeaway apps. (sensst) 	Giovanis, Binioris, and Polychronopoulos (2012)
Social/ Peer influence	Social influence including from family, friends and mass media. (6 items)	<ol style="list-style-type: none"> 1. I only use online takeaway apps when I am on my own. (onown) 2. I only use online takeaway apps when I am with a group of friends. (withfren) 3. I only use online takeaway apps when I am with my family. (withfam) 4. Many of my friends/people I know use online takeaway apps. (manyuse) 5. Mass media (e.g. TV, Radio, newspapers) will influence my decision to online takeaway apps. (massmedia) 6. Ordering and pay using online takeaway apps are a fun social experience for me. (socialexp) 	Koenig-Lewis, Marquet, Palmer, and Zhao (2015)
Adoption intention	(2 items)	1. I will continue to use online takeaway apps now and in the future. (contuse)	Lin, Shih, and Sher, (2007), Wu and Wang (2005)

		2. If I have chances to use online takeaway apps, I will use it. (chanuse)	
Actual usage	(1 item)	1. How often do you use online takeaway apps? (actuse)	Wu and Wang (2005)

Source: Author

The last part of the questionnaire consisted of eight questions, all close-ended questions. This part was associated with Objective 3 of the study to identify the socio-demographic characteristics and lifestyle attributes of customers who used mobile apps within the OTFO sector. The questions included in the demographic section were regarding the respondent's gender, marital status, occupation, education level, nationality and ethnicity. The reasoning behind these questions was to identify whether a respondent's demographic background influenced the use of OTFO apps. Moreover, according to the recommendations by (Oppenheim, 1998), by positioning the questions related to the respondent's profile in the last section, it will increase the response rates given the respondents are suitably more convinced regarding the main purpose of the research from answering the main questions already.

Questionnaire collection

The questionnaire was initially launched and disseminated via e-mail. However, following one month after sending out the emails, it was evident that there were not an adequate number of responses in completing the online survey. Accordingly, the study then reverted to using a paper-based questionnaire in an attempt to increase the number of respondents completing the survey questionnaire which in the end, proved successful. The data collected from the paper-based questionnaires was sufficient, meeting the needs of the researcher.

Previous studies also found that using a multi-method questionnaire was beneficial, particularly in the case where responses were insufficient (De Leeuw, 2005). Even though the styles between the paper-based and Internet-based were different, according to Dolnicar, Laesser, and Matus (2009) there are no differences concerning contamination by response styles (Dolnicar, Laesser and Matus, 2009).

The questions for both the online and paper-based questionnaires were identical; however, the only differences were regarding the layout of the questions. The online questionnaire was constructed and distributed using an online survey tool, 'Google forms', which enables a user to generate a website link for respondents to answer the online survey. However, to improve overall coverage and response, the paper-based questionnaires were also distributed to students at Exeter University.

4.3.2 In-depth interviews

After finalising the collection of the questionnaires, several in-depth interviews were carried out from among the students at Exeter University (see Appendix 13). The interviews aimed to address Objective 3 of this study; to identify and understand the socio-demographic profile of consumers who used an OTFO service. In order to address this objective, the interview was designed around understanding the student's lifestyle and eating habits. The interview questions were based on a semi-structured format. This meant that the respondents were questioned about the main ideas of the topic, allowing them to answer by applying their knowledge on the topic. Using laddering techniques, a method using probes

to gain insight of the respondent, the study hoped to obtain more detailed answers from the respondents.

The interviews were divided into three parts. The first part was to understand their use of the internet and device ownership. The second part was to understand the respondent's lifestyle and eating habits, and the last part focused on the respondent's online use of takeaway food ordering services. Before beginning the interview process, the respondents were asked for their consent in using their responses and other details, and recording their answers for the study.

4.3.3 Sampling and phases of data collection

Using a sample from a known population will offer several advantages to a study, including reducing costs, greater speed, greater accuracy and greater scope (Cochran, 1977). For this study, the target respondents were the student population studying at the Exeter University. University students were chosen as the sample for this study for several reasons. First, the convenience and availability of students for collecting the data. Meaning this study is not generalised although it can be used to understand students' use of takeaway food apps. Second, students are more likely to be exposed to new technology (Goldgehn, 2004; Kypri, Gallagher and Cashell-Smith, 2004), and are comfortable using the latest technology. Thus there is a high tendency that they would be using online takeaway food sites and apps. Third and foremost, is because of the lack of time for food preparation and cooking skills to cook their food (Larson et al., 2006), leading them instead, to locate other sources to buy food.

The data collection process consisted of several phases. The first phase started in September 2016 until December 2016 using volunteer sampling via the student's e-mail address. The e-mails were sent at random to students. Their e-mail addresses obtained via the university's student directory which contained the e-mail address of each student. This form of sampling produced a self-selection bias given that the respondents were more likely to share a keen interest in the topic. Even though there were some preconceptions of applying this technique in the context of this research, the disadvantages soon reverted to advantages given the respondents' experience and exposure in using takeaway apps. Also, this form of sampling proved convenient as it enabled the study to obtain broader coverage throughout the university with minimal cost.

However, given that many of the students were away on winter holidays during this period, only a limited number of responses were received. Subsequently, the second phase of data collection was initiated. The second phase was launched by distributing the survey applying the convenience snowballing sampling technique; peers passed from one friend to another and collected from the forum at the university. This phase commenced from January 2017 until March 2017, and the data collection was undertaken using the paper-based questionnaire. Again, there are no rewards or tokens given out to respondents who answered the questionnaire given the financial constraints of the project. The results from the second phase achieved a total of 150 responses for both the online and paper-based questionnaire.

Following the sample size recommendations in the Partial Least Square Structural Equation Model (PLS-SEM), a study needs to rely on the rules provided by Cohen (1992), (Hair et al., 2017). First, the study needs to determine the

significance level and the number of independent variables in the framework in order to determine the minimum number of the sample size needed. For this study, using the recommendation; Power of 80 % with a number of variables of five, and with a significance level of .05 with minimum R^2 of 0.25, the study needed to have a sample size of at least 45 respondents. Therefore, this indicated that the sample size collected for this study was sufficient for further analysis.

For the in-depth interviews, the data collection process began in June 2017 until August of the same year once completion of the survey questionnaire survey had been analysed. Using convenience sampling and a snowball sampling technique, the in-depth interviews comprised of 12 respondents who volunteered without seeking any rewards. The interviews were conducted in several locations in the university including the St. Luke's campus, the university forum and the library. Most interviews were around 30 minutes on average per respondent. Before the interviews started, each respondent gave their consent to participate in the interview, and also agreeing to the interview being recorded.

4.3.4 Pilot questionnaire

Testing the pilot questionnaire was conducted by developing the survey questionnaire using Google Forms and distributing it via a Facebook group that was created called 'Doctorate Support Group' and through the university e-mail system. The Doctorate Support Group (DSG) consisted of PhD students and professionals from various fields in the academic world. Notably, the number of participants needed to partake in a pilot study can range as low as ten (Hill, 1998; Johanson and Brooks, 2010). The reason for using the DSG was because many

experts were able to comment and provide suggestions for improving the questionnaire. The preliminary questionnaire survey was distributed to the respondents via a survey link. This was to ensure that the respondents were sharing similar experiences as would be the actual respondents in completing the questionnaire. However, for the pilot questionnaire test, the respondents needed to provide their e-mail address in order for the author to contact them and seek feedback on the survey. All comments received from the respondents related to wording, with some recommendations on adding new questions which were evaluated and changes made accordingly. Once the survey incorporated the respondent's suggestions, the questionnaire was finalised and distributed for the actual data collection process to begin.

For the in-depth interviews, three pilot interviews were first conducted before the actual interviews were performed. Based on the outcomes of the pilot interviews, several changes to the structure and questions needed to be made. For example, some sentences relating to questions were restructured to make it easier for the respondents to understand. Also, the style of the questions was altered in making them less formal for the respondent. The purpose of the pilot was to ensure that the respondents would be comfortable in answering the questions which would help in providing the information required from the interviews.

4.4 Validity and reliability

Reliability can be defined as the ability of a study to be replicated or repeatable, while validity relates to the quality and integrity of the study (Bryman, 2012). In the quantitative method, reliability is concerned about the measures, whereas, validity refers to whether the methods used to measure a concept are proven to

measure it as intended. Several types of validation can be performed, namely concurrent, face, predictive, construct and convergent validity. However, a study does not need to perform and achieve 100% validation to ensure that their research is reliable or trustworthy as it will depend on the researcher to select the best test for the validation.

For the quantitative part of this study, initially, all questions were valid given it used constructs that had been tested for validity and reliability (see Table 4.5). However, due to the constructs adopted in this study, it was important to retest their validity and reliability. The reliability of the questionnaire was tested using the pilot test and the internal reliability test which was reported previously and changed accordingly. For convergent validity, internal reliability and discriminant validity of the questionnaire survey employed Partial Least Squares Structural Equation Modelling (PLS-SEM) for the analysis. All information related to the validity and reliability test can be found in subsection 8.3.1. However, in brief, all questions were found to be valid except for social influence where the reasoning is described in the above-mentioned subsection of this study.

In the qualitative approach, the validity of the finding reflects the data, and the reliability will be viewed on the trustworthiness of the method used. Therefore, regarding the case study, the document review will be used to strengthen the validity of the information provided by the interviewees in the semi-structured interviews and also providing additional knowledge to the case study (Stuart et al., 2002).

4.5 Data analysis

The type of analysis employed in a study depends on the purpose and objectives of the research under study and the types of methods employed. For this research, there were two forms of analysis: a quantitative and qualitative analysis. Table 4.6 displays the types of data collected based on the objectives of the study, and what types of analysis were needed for data collection.

Table 4.6 Type of data and analysis approach

First phase	Types of analysis
Objective 1: To examine the development of online takeaway food ordering sector in the foodservice industry	Thematic analysis
Objective 2: Understanding the growth and operating characteristic of online takeaway food ordering organisation (Document review and semi-structured interview – Case study)	
Second phase	Types of analysis
Objective 3: Socio-demographic questions Objective 4: Factor influencing consumer acceptance of online takeaway food ordering mobile apps (Questionnaire survey and in-depth interviews)	Thematic analysis Univariate analysis Bivariate analysis Multivariate analysis

Source: Author

4.5.1 Qualitative analysis

To address Objectives 1, 2 and some of Objective 3, this study decided to use thematic analysis which enabled the data to be analysed qualitatively and quantitatively, followed by coding and theming the data accordingly (Vaismoradi, Turunen and Bondas, 2013). A Computer Assisted Qualitative Data Analysis, Nvivo was used to manage the qualitative data. However, before proceeding with the analysis, it was necessary for the researcher to be familiar with the data, through generating the initial codes, examining for themes, reviewing the themes, defining and naming the themes and then reporting them (Braun and Clarke,

2006, p. 87). Accordingly, the themes in this study were developed based on the repetition of the topic, categories, the transition of the topic in the transcripts and the differences or similarities of information from the data and related theory.

For Objective 2, several themes were determined through examination of the semi-structured interviews, video interviews, annual financial reports, blogs and news related to Just Eat and the OTFO sector. All data were analysed differently to ensure that the information contained within the data was completely utilised. The themes that were determined included operations of the business, innovation and technology, challenges and issues. Each theme had its own sub-themes. For instance, operations of the business were included in the business model, growth strategies and marketing strategies whereas innovation and technology were included in the technology developed by Just Eat such as the takeaway apps. For details of the coding and themes, refer to Table 4.7.

Table 4.7 Themes obtained from the interview and document review.

Themes	Subthemes	Initial coding
1. Just Eat's operation	<ul style="list-style-type: none"> • Business model • Growth Strategies • Marketing Strategies 	Business model, acquisition, partnership, competition, profit, distinctiveness, products offering, brand and marketing
2. Innovation and technology	<ul style="list-style-type: none"> • Just Eat's app • Consumer reaction • Consumer acceptance 	Technology investment, apps development, apps usage, innovation, reaction to innovation, apps features, convenience, security, privacy, effective apps, trust and reliable, update apps
3. Challenges and issues	<ul style="list-style-type: none"> • Consumer • Participating restaurant relationship • Social media 	Consumer's profile, demand from consumer, occasional treat, loyalty, information source, non-user, research, participating restaurant

Source: Author

Next, in analysing the online video, the data were transcribed, scanned and examined, followed by categorising them into suitable themes. For other

documents such as blogs, news and information from various OTFO websites, documents were first scanned, examined and then the information related to the themes was gathered. For Just Eat's Annual Reports and accounts, all financial statements were examined, and information that was considered suitable with the themes was disclosed. However, because the content of the financial statements consisted of numerical data, for easier understanding the data needed to be analysed using appropriate financial analysis and compiled in several tables.

Various types of financial analysis, including ratios analysis, common-size analysis (horizontal analysis or trend analysis and vertical analysis) and year-to-year analysis or comparative analysis are commonly used. In this study, the financial statements which included the Income Statement, Balance Sheet and Cash Flow Statement were analysed using common-size analysis (see Table 4.8). Here, a common-size analysis was performed as it is much easier to comprehend without needing to understand finance and accounting terms. Similarly, the common-size analysis also can make comparisons using percentages to compare the financial statements of a company between different years and to examine trends that were not obvious from comparing absolute amounts. There are two types of common-size analysis which are: a horizontal analysis that compares the percentage of changes between years and vertical analysis which compares the percentage of changes within a year. In this study, horizontal analysis or trend analysis which calculated the percentage of different changes for an account over a certain period was performed. An example of the calculation using horizontal analysis can be seen in

Figure 4.2. In contrast, the vertical analysis is the comparison of items with the base figure within the statement. For example, in this study, the calculation of

vertical analysis for the income statement used net sales as the base, while in the balance sheet, the total assets were used as the base figure.

Table 4.8 Annual financial reports analysis and the appendix

Types of document	Types of financial analysis	Appendix
Income Statement	Annually	Appendix 2
	Vertical analysis	Appendix 3
	Horizontal analysis	Appendix 4
Balance sheet	Annually	Appendix 5
	Vertical analysis	Appendix 6
	Horizontal analysis	Appendix 7
Revenue's by market	Annually	Appendix 8
	Horizontal analysis	Appendix 9
Cash flow statement	Annually	Appendix 10

Source: Author

Figure 4.2 Trend analysis calculation

$$\text{Percentage \%} = \frac{\text{Amount 2016} - \text{Amount 2015}}{\text{Amount 2015}} \times 100$$

In-depth interviews were conducted to support the achievement of Objectives 3 and 4. Here, to analyse the interviews, similar techniques were adopted as with the semi-structured interviews in the case study. All data were transcribed, coded, interpreted, examined as well as categorised into themes which were then used to develop the structure for Chapter 7. Table 4.9 shows that four main themes were found through the repetition and topics that were revealed from the in-depth interviews and previous studies.

Table 4.9 Themes obtained from the interviews and document review.

Themes	Subthemes	Code
1. Student technology knowledge	<ul style="list-style-type: none"> • Internet usage • Device ownership • Mobile operating system 	Internet, technology knowledge, technology usage, smartphone, desktop, platform
2. Student lifestyle	<ul style="list-style-type: none"> • Daily routine 	Daily schedule, weekend schedule, activities, free times, busy times
3. Student cooking perspective	<ul style="list-style-type: none"> • Necessity • Well-being • Stress reliever • Taste 	Cooking, feeling, stress, burden, own food, save money, fun, enjoy, troublesome, different
4. Eating habits	<ul style="list-style-type: none"> • Main meals • Eating out • Takeaway • Online takeaway food purchasing • Factor influence eating habits 	Breakfast, lunch, dinner, supper, friends gathering, socialising, experience, proper food, celebration, casual, timetable, busy, break.

Source: Author

4.5.2 Quantitative analysis

The questionnaire survey data were analysed using the IBM Statistical Package for the Social Sciences (IBM SPSS v.23). IBM SPSS enables a researcher to address any analytical process from data collection, analysis and reporting quantitative research (SPSS, 2016). The first process of data analysis is to encode and input the data into SPSS which was completed. However, before this process occurred, all returned questionnaires were first screened for usability and reliability. Similarly, all online survey data were saved in a Microsoft Excel worksheet, coded and exported to SPSS, while the data collected from the paper-based questionnaires were input manually into SPSS. The next procedure was then to analyse the data in order to interpret and understand the meaning of the data. In the field of statistical analysis, generally, two areas are used: descriptive analysis and inferential analysis (Sheskin, 2003). Descriptive analysis is used for a descriptive purpose and not for predictions, while inferential analysis is used to draw conclusions or make predictions (Sheskin, 2003). The statistical test

consists of several techniques which include univariate, bivariate or multivariate techniques (i.e. one, two or more variables) (Neuman, 2013). The univariate analysis involves only one variable, and the analysis does not involve finding any relationship or causes. The techniques in univariate analysis, include frequency distribution, measurement of central tendency (mean, median and modes) and standard deviation.

For this study, univariate analysis was applied in order to understand the respondent's use of the online takeaway food service such as the usage based on occasion and factors of using the platform (i.e. apps). The results of the analyses were then presented and interpreted in graphs or charts.

However, using univariate analysis alone is not sufficient enough in order to understand the results and relationships among the variables. Therefore, bivariate analysis was used to understand two variables that may have a relationship. For this study, the non-parametric test was used for several reasons. First, this study had a small sample and was therefore suitable for performing non-parametric tests. The second reason was that the study consisted of ordinal questions which could not be removed. On the other hand, there are several arguments in that the tests are not as powerful compared to parametric tests, non-parametric tests which can be used to understand the relationship between variables. The bivariate analysis technique used consisted of the Mann-Whitney U test and Chi-Square.

The Mann-Whitney test is often used to test for any statistically significant differences between groups. In this study, the test was conducted to understand the users and non-users of OTFO services. Whereas, Chi-square which is a popular non-parametric test is frequently used to understand the distribution of

data across certain categories. In this study, Chi-square analysis was used to test the association between the consumer's use of takeaway food ordering sites and apps.

Notwithstanding, a multivariate analysis called PLS-SEM using statistical software for structural equation modelling called SmartPLS was also used in this study. The justification for using the analysis was mainly because the study had non-normally distributed data and small sample size. According to Hair et al. (2017), PLS-SEM is a powerful form of analysis that can analyse a non-parametric test and a smaller sample size. Also, the analysis is noted as a second-generation tool for statistical analysis used to explore the correlation of indicators inside a model. However, not many studies have used PLS-SEM for research purposes in the area of hospitality and tourism. Therefore, by using the analysis, the understanding of the conceptual model in this study was enhanced and also provided further knowledge about the online takeaway food sector.

4.6 Ethical issues and legal considerations

According to Israel (2006):

“As social scientists trying to ‘make the world a better place’ we should avoid (or at least minimise) doing long-term, systematic harm to those individuals, communities and environments.” (p.2).

Ethical issues and legal considerations are important aspects that should be examined before conducting research. There are three principles related to ethics in the process of research design: informed consent, confidentiality and avoiding harm. For this study, the respondents needed to be informed so that they

understood the purpose of the research, the online survey, the paper-based survey, their role in the study, and also their agreement to participate in the survey voluntarily. Regarding the interviews, informed consent was provided via the information sheet and by each respondent signing the consent form before the interviews were conducted.

Similarly, permission from the organisation was required to ensure that the name of the organisation could be used for the research. In this instance, a case study consent form was provided to obtain permission from the representative of the organisation. Also, confidentiality of interview materials and online survey responses needed to be assured by informing the respondents that no one except for the researcher would have access to the data, which would be securely saved in password-encrypted and protected files and stored securely for five years following the University of Exeter's guidelines. For the interviews that were conducted, the transcript of the interview was e-mailed to each interviewee, so that any information could be removed or changed according to the interviewee's request. Also, before proceeding with the data collection, ethical guidelines developed and published by the Business School, University of Exeter needed to be read carefully and fully adhered to, whereby the Business School Ethics Officer approved on an ethics form.

CHAPTER 5 THE TAKEAWAY FOOD ORDERING SECTOR

This chapter provides an overview of the takeaway food ordering sector, focussing in the UK and is also used to support the evidence in the case study that follows in the next chapter. This chapter aims to present a deep understanding of consumer eating habits particularly in their desire to eat out at food establishments and to purchase takeaway food. As mentioned previously in Chapter 2, technological developments have influenced operations within the foodservice sector. This chapter also investigates and examines the innovation that has influenced the growth of this sector. In this regard, several topics have been identified and will be presented to demonstrate the important historical event that led to consumers' acceptance of innovation in the takeaway food ordering sector.

This chapter begins by defining the terms 'fast food' and 'takeaway food'. Following this, a description of the historical development of the takeaway food sector is presented to illustrate various innovations that have influenced changes in the foodservice sector. As technologies have been the most influencing factors to innovation in the food services industry, these will be discussed in detail. The discussion will include aspects associated with restaurant websites, physical self-service technology, social media and mobile application development.

Furthermore, several figures and facts will be presented to illustrate the value of the foodservice industry from a global perspective. The global market value of the foodservice industry is also presented in order to show the value of the sector. Additionally, other statistics will be used, with regards to takeaway, home delivery and eating out sales to demonstrate the growth of the categories over the past

seven years. Given the aim is to understand the UK market, some comparison between offline and online purchasing will also be discussed to show the differences in value which could be useful in illustrating the growth of online purchasing among UK consumers.

Increasing interest in online purchasing has influenced the growth of the OTFO sector. Therefore, as this sector is a new category in the foodservice industry, it is crucial to understand the operations within the industry as it remains unexplored with only a limited number of studies undertaken in this field (Alagoz and Hekimoglu, 2012; Pigatto et al., 2017). Also discussed in this chapter will be information on the services offered and their market segmentation. To understand this further, the discussion will aim to clarify each of the categories in the OTFO sector to demonstrate and compare the differences. In this sense, it is important to show this classification to provide added information and input related to the case study chapter.

5.1 Fast food and takeaway food concept

Fast foods are described as a standard way of cooking food quickly and ensuring that the food tastes the same as advertised (Fantasia, 1995). In the USA, fast food refers to food that is eaten quickly and conveniently or another words, “on-the-go” meals and has been compared with the fast-paced culture of the US (Lee and Ulgado, 1997). However, different countries have different perceptions and attitudes towards the acceptance of fast food, and each country has its own original fast food. For example, bento in Japan, street kebab in Turkey, hot dogs in the US (Watson, 2006) and “naan or kabab” (bread with kabab) or “kabab sandwiches” in Iran (Jafari Momtaz, Alizadeh and Sharif Vaghefi, 2013).

According to Price (1997), for a meal to be called a 'fast food', it must meet certain criteria such as:

1. The food service product is cheaper compared to other food service products;
2. The food is quickly served;
3. The food can be consumed easily, and the packaging must be disposable including disposable cutlery where applicable; and
4. The finished food product is durable. For example: can last without losing its nutrition value or through the maintenance of heat.

Ball (1996) created a typology of fast food establishments that mainly focused or aimed to sell more takeaway food, see Table 5.1. From the table, it can be seen that a fast food establishment is not necessarily selling unhealthy food but rather, is selling food that is quickly prepared and easily consumed by people. In this study, the focus is towards fast food establishments that have total sales between 25% and 100% for takeaway foods based on Ball's study. Establishments, below 25% are not considered to be a restaurant given they are only selling meals as a minor transaction.

Table 5.1 Typology of establishments selling takeaway food

Percentage of total sales derived from the sale of takeaway food (i.e. specialisation ratio)	Description	Example of outlet type
95 -100	Selling exclusively food for consumption off the premises	Fish and chip shops, sandwich bars and shops premises Chinese, Indian, pizza, pasta, burger, chicken, kebab, etc. takeaway establishments. Fixed and mobile kiosks
40 – 94	Selling of food for consumption off the premises dominates	Conventional fast food chain high street restaurants. Drive throughs.
25 – 39	Selling of food for consumption off the premises is a related activity	Ethnic and other restaurants

1 – 24	Selling of food for consumption off the premises is a minor activity	Confectioners, tobacconists and newsagents, convenience stores, petrol station forecourt shops, public houses and supermarkets
--------	--	--

Source: Ball (1996, p. 102)

5.2 The history of takeaway food

Over the years, the foodservice industry has been quite innovative, resulting in setting new trends such as eating out at a food establishment, selling takeaway food and providing home delivery food. Since the introduction of these new innovative ways to purchase meals, the consumer has willingly accepted them and becoming the “norm” to purchase meals. Many studies have explored the trends associated with eating out at food establishments (Cullen, 1994; Narine and Badrie, 2007; Warde and Martens, 1998), however many have simply focused on the negative issues related to consumer health (Bergeron, Doyon, Saulais and Labrecque, 2018; Bugge, 2011; Choi and Zhao, 2014). Moreover, previous studies do not appear to be too concerned about the positive outcomes or trends involving individuals or households. For example, the increase in household income has led many families to eat outside at food establishments (Cullen, 1994). On the other hand, food establishments were seen as a way to spend additional time with family and friends (Paddock, Warde and Whillans, 2017). Therefore, to understand the acceptance of these new ways of purchasing meals, it is important to understand the historical background of the trends.

In the UK, the first fast food and takeaway meal that was introduced was fish and chips which became popular given the excess sources of fish at the time (Walton, 1994). Similarly, fried potatoes were introduced from the French to England in the eighteenth century (Anon, 1992). However, at this time, fish and chips did not

exist in the UK. Although, by 1860, fish and chips became a popular meal (Anon, 1992). After that, small local and independent fish and chip shops began to dominate the UK until the late 1970s (Ball, 1996). Seeing the opportunities for selling fish and chips, many established businesses then decided also to sell fish and chips, known as takeaway food in the UK.

Then, by the 1950s, following World War II, an increasing trend arose for married women to work in order to generate extra income, meaning less time at home to manage children, perform their domestic work and prepare meals (Ball, 1996; Campbell, Jr and Lin, 2014; Jones, 1985b; Reiter, 1996). Not only did this result in eating patterns changing, but there was a noticeable increase in takeaway foods and food deliveries (Cullen, 1994). The increase in household income also enabled people to spend more on food (Cullen, 1994; Nickols and Fox, 1983). Previously, married working women tended to rely on convenience food such as canned foods, however, following the introduction of takeaways food, it became so much easier for them to simply purchase takeaway food than prepare convenience food (Darian and Cohen, 1995). Ball (1996) describes several factors that influenced the increase of takeaway establishments in the UK, such as the increase of personal disposable income; the growth of casual eating or 'eating on-the-go'; increase in household income; access to private transportation; and the increasing demand for expensive international travel for foreign fast food.

Given that consumers' lifestyle dramatically changed, the demand for takeaway food and home delivery henceforth increased (Cullen, 1994). Consumers started eating at their convenience and cooked less at home finding other means to fulfil their eating desires (Cullen, 1994). Moreover, UK consumers started to demand

different types and varieties of foods, resulting in the decline of fish and chip shops but an increasing demand instead for American style food and eateries that served hamburgers, fried chicken and food that could be 'eaten-on-the go' (Ball, 1996; Cullen, 1994; Yamanaka, Almanza, Nelson and DeVaney 2003). This was accepted by UK consumers which caused the inflow of many US fast food establishments in the UK.

The first fast food chain to open in Britain was Kentucky Fried Chicken (KFC) with their chicken menu followed by McDonald's with its menu for hamburgers (Jones, 1985a). This became the era of 'McDonaliation', where the ideologies of fast food restaurants started to dominate in most countries (Ritzer, 1993), (see Table 5.2). Both KFC and McDonalds improvised fast food establishments by reducing the waiting and serving times for meals without reducing the food quality (Rodgers, 2008). In the UK, the development of the food services industry is mostly dominated by US foodservice companies. Jones and Wan (1992) claimed that this is because food service establishments in the UK lack innovation and view the sector as static. However, trends do not remain constant but continue to evolve.

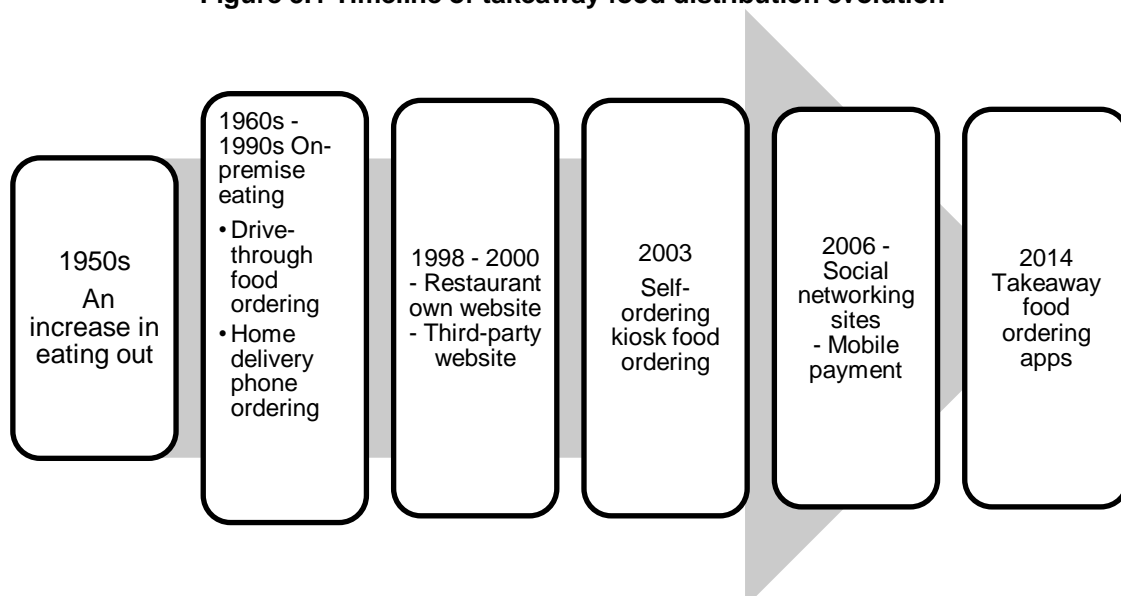
Table 5.2 McDonald's development in various countries from 1955 to 1996

1955	Franchising begins in US	1984	Taiwan
1967	Canada	1985	Thailand, Mexico
1971	Japan, Australia, Germany	1986	Turkey
1972	France	1988	South Korea
1973	Sweden	1990	China, Russia
1974	England (United Kingdom)	1991	Indonesia
1975	Hong Kong	1992	China, Poland
1976	New Zealand	1993	Israel
1979	Brazil, Singapore	1994	Saudi Arabia
1981	Philippines	1995	South Africa
1982	Malaysia	1996	Croatia

Source: Watson (2006)

Figure 5.1 shows the evolution of the 'eating out' sector and that, from the 1950s until the 1990s there were not many technological influences on the sector. Although, following this era, the sector quickly started to embrace information technology into businesses. The following discussion describes how technologies have shaped and developed this sector for both the supplier and consumer. This is the primary reason for innovation to be adopted in this industry. Among the many benefits afforded by technology is that it facilitates the use of marketing and promotional tools, which tend to improve services provided by businesses and reduce labour costs (Kimes and Collier, 2014a, 2014b).

Figure 5.1 Timeline of takeaway food distribution evolution



Source: Adapted from Boyer, Tomas Hult, and Frohlich (2003), Cullen (1994).

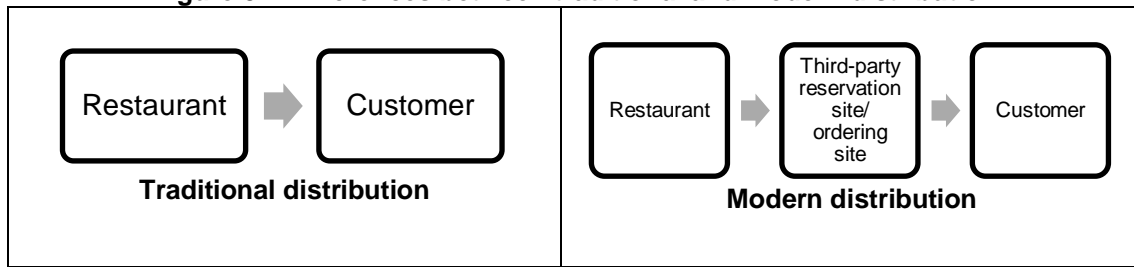
Following the 1990s, the food services sector began experiencing vast changes that were influenced by the use of information technology (IT) where for example, restaurateurs started finding different ways and means to promote their businesses. This began in the late 1990s when the internet was introduced and (DiPietro, Crews, Gustafson, and Strick, 2012), restaurants started to develop their own websites (Namkung, Shin and Yang, 2007). The technology quickly

allowed consumers to access the restaurant's website and information such as opening times and menus. Websites are a convenient tool for consumers as they do not need to be present or phone the restaurant to ask someone on the other end of the phone for the information. Furthermore, for restaurants, it is one of the ways to promote their business to a broader audience without spending much money on advertising.

In the following years, technology continued to influence the food and beverage sector. The next innovation that was created and introduced by developers was technology-based self-service (SST) technology allowed consumers to use the system independently, on their own. Among the technology-based SST's are booking flight tickets online and ordering takeaway food via the internet, and third-party booking and ordering sites (Kimes, 2011a; Kimes and Kies, 2012; Lee, 2013). Third-party SST sites are noticeably different from direct SST sites. The third-party SST sites provide similar services as a direct SST, but the difference is that they have a complete list of businesses on the website.

Moreover, they act as an intermediary for selling services and products on behalf of the businesses. Figure 5.2 illustrates the differences between the traditional restaurant distribution and restaurant distribution model. In essence, this means that if a consumer would like to view and browse for restaurants from a specific location, they can explore these sites. For example, third-party SST sites include Trivago and Agoda for hotel bookings and Just Eat and Deliveroo for takeaway food ordering.

Figure 5.2 Differences between traditional and modern distribution



Source: Author

For restaurateurs, using third-party websites provides further ways to promote their restaurants (Kimes, 2011c) given they have access to vast and broader audiences compared to their website (Kimes, 2009). For example, if they are promoting services via their website, the restaurants need to invest both time and money for promotion and marketing to reach consumers. Whereas, third-party sites have already made a significant investment in advertising. Similarly, restaurateurs having their website, need to develop a strong marketing and promotional campaign to attract consumers given it is their main source in generating revenue and profit (Kimes, 2011c). While for consumers, using SST site services are more convenient and will benefit from the personal contact experience (Kimes, 2011a).

Notwithstanding, other factors may also influence the use of third-party SST sites such as the consumer's demographic profile. For example, the younger generation has quickly accepted websites as a means to access and find information, whereas the older generation may not be so inclined (Kimes, 2011a; Liébana-Cabanillas et al., 2015). Additionally, a consumer not fluent in a certain language, in many cases, can use the sites easily given the sites are translated in their respective language (AlGhamdi, Nguyen and Jones, 2013).

In 2003, SST innovation continued to develop, although during this period the innovation-related more to the development of systems and equipment that required consumers to use instead. These innovations mostly needed the consumer to be present at the location in order to use it. Among the various physical innovations developed in the foodservice sector, are the self-ordering kiosks incorporating a touch screen and a tabletop ordering platform (Dixon, Kimes and Verma, 2009). The self-ordering kiosk enabled consumers to order products without the need for direct contact with a seller/supplier. Here, consumers needed to select the product they required, paying at the kiosk (Dixon, Kimes and Verma, 2009). The customer would then receive the order at the nearest counter delivered from the seller. The table-top ordering platform also could order food and beverages from a restaurant without needing a staff member to take the order (Dixon, Kimes and Verma, 2009).

The introduction of SST was a great success as consumers perceived the technology as an enabler (Fishman, 2004). For restaurateurs, self-ordering kiosks meant that businesses could reduce labour costs and customer waiting times for ordering and paying for food (Dabholkar, 1996; Jones, 1990; Kincaid and Baloglu, 2005; Kokkinou and Cranage, 2013). The main benefits of using online SST was through the ability to customise and personalise the consumer's information which helped to retain consumers (Kincaid and Baloglu, 2005). For example, if the consumer had previously used the online SST, by entering their details into the system, the system would detect their previous purchase (i.e. meals or drinks) through the purchase history of the customer.

In 2006, new technology trends started to influence the foodservice sector. The popularity of social media networking sites increased given that many businesses

started to see the advantages (DiPietro et al., 2012). These sites enabled consumers to communicate and network with their friends, peers or other associates. A study by Wang, Yu, and Wei (2012) found that communication between peers using social media could influence purchase intention. Given that there is a significant social influence using social networking amongst consumers, this can lead to promoting products and services via word-of-mouth. Similarly, referral marketing relies on recommendations by trusted friends and family to promote a business (Berman, 2016; Müller, 2018). Using social media, these types of marketing will be more successful as consumers tend to spend significant time on these sites each day (Müller, 2018).

Moreover, social networking enables businesses to communicate with consumers, and likewise, consumers to communicate with their families and friends (He, Wang and Zha, 2014). These two-way communications can invariably increase the volume of potential customers to visit a restaurant. For example, if a restaurant creates a Facebook [branded] page, they are able to communicate directly with their consumers. Hence consumers will demonstrate their loyalty through their participation on the Facebook page (Kang, Tang and Fiore, 2015). Also, if restaurants keep their Facebook page up-to-date, notifications of any new products or promotions will be automatically sent to consumers via Facebook.

In the same year, the foodservice industry introduced new methods of paying for services and products. Among them included the concept of a mobile wallet such as Apple pay and PayPal, table-based tablets and mobile remote payment that enabled consumers to pay via their mobile device (Kimes and Collier, 2014a). These innovative trends superseded traditional ways of payment. However,

initially, this form of e-payment was taken up by consumers or the retail sector for that matter, until more recently. The changes brought about as a result of e-payment, were similar to the habits of consumers upon the arrival of the mobile phone or smart device (van Deursen et al., 2015). Oulasvirta et al. (2012) discovered that consumers have an addiction towards checking their mobile phone, especially smartphones given they are informational based. For example, the ability to check the time or read news feeds or interconnecting with networks such as Facebook and WhatsApp or to check e-mail.

In the following year, new technology was introduced which trended more towards the consumer's obsession with the smartphone. Many sectors had already been utilising mobile applications in their businesses, like banking (Al-Jabri and Sohail, 2012; Chung and Kwon, 2009; Ooi and Tan, 2016), healthcare (Conroy, Yang and Maher, 2014; Pagoto et al., 2013), education (Zydney and Warner, 2016) and tourism and hospitality for example (Anuar, Musa and Khalid, 2014; Im and Hancer, 2014; Kwon, Bae and Blum, 2013; Min, So and Jeong, 2018). Consumers could download mobile apps for free or pay depending on the type of service being offered and the functionality of the mobile app. Most businesses allowed their consumers to download their mobile business apps for free to encourage consumers to use the technology (Lee and Raghu, 2014).

During this period, the foodservice industry particularly OTFO companies started to develop apps to encourage their customers to order takeaway food (Just Eat, 2018a). However, to ensure their apps were useful and accepted by consumers businesses must first develop a strategy in the form of a strategic plan. Many successful services using branded mobile applications also use informational message strategies to attract customers by providing detailed information known

as point-of-purchase marketing (Kim, Lin and Sung, 2013). Also, every branded mobile app emphasises brand identity by positioning the brand on the website entry page (Kim et al., 2013). However, several factors may limit the use of mobile applications among users such as the characteristics and functions of the device such as limited storage size, screen size and keyboard size (Gebauer and Shaw, 2004).

Therefore, from the above discussion, it demonstrated that technology innovation eventually became quite significant in the foodservice industry and still is today. Every new technology trend that continues to be adopted by the sector in attracting consumers to use the various services on offer will benefit the supplier (i.e. food service operators, restaurateurs and so forth). To understand the trends in more detail, it is important to focus on the acceptance of these trends from a global perspective.

5.3 Global trends in takeaway food consumption

The food service industry is a massive industry that combines many different types of food outlets and establishments with different studies categorising the sector differently. MCA Insight (2017) divided the food service sector into three main categories: retail, travel and leisure; hotels, pubs and restaurants sectors. Their description of the typologies is quite extensive given they consist of sectors that do not merely focus on food and beverage businesses. Whereas the categories developed by Euromonitor International (2017a) are more focused on the foodservice sector by classifying the businesses into cafes and bars, full-service restaurants, fast food restaurants, 100% home delivery/takeaway, self-service cafeterias, street stalls and kiosks (see Table 5.3). Furthermore, their

classification is related to food and beverage and thus can be used to represent a sector that simply focuses on food and beverage.

Table 5.3 Worldwide market value and units of food service establishment in 2016

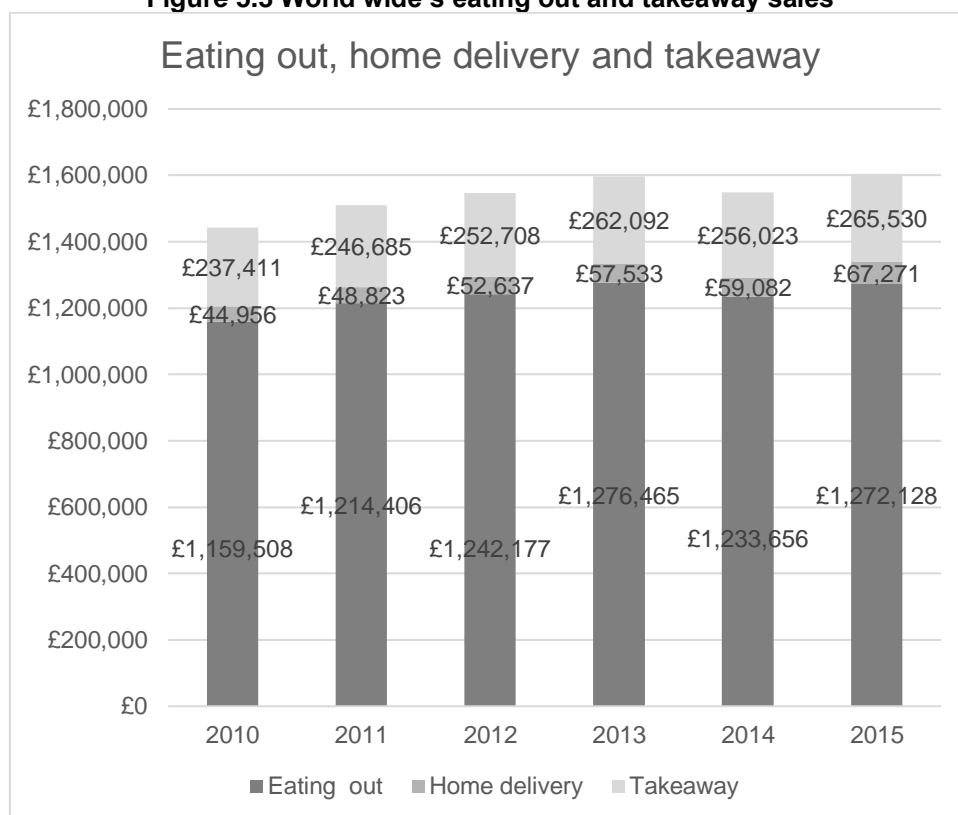
		Cafes/bars	Full-service restaurants	Fast food restaurant	100% home delivery/takeaway	Self-service cafeterias	Street stalls/kiosk
WORLDWIDE	Market value (£ mn)	310,774.8	1,005,347.8	494,503.6	66,045	20,594.9	74,352
	Units	2,363,263.7	10,219,029	3,170,084.5	250,577	103,402.6	4,187,602

Source: Euromonitor International (2017a)

Regarding Table 5.3, the table displays that the full-service restaurant's category has the highest market value globally compared to other categories. The justification for the highest market value was due to the quality of interaction and environment in the fine dining restaurant which invariably has a significant impact on consumer satisfaction (Arora and Singer, 2006; Marinkovic, Senic, Ivkoc, Dimitrovski and Bjelic, 2014). However, regarding value, prices were not the main factor affecting consumer satisfaction in dining restaurants (Marinkovic *et al.*, 2014), although, but it can help to increase overall value and performance of the restaurant (Arora and Singer, 2006). However, in contrast, prices were seen to be an important factor that influenced consumers visiting intention to quick-service restaurants (Kim et al., 2010; Rydell, Harnack, Oakes, Story, Jeffery and French, 2008). As the second highest market value found among other food service establishments in 2016, fast food restaurants also had different characteristics compared to full-service restaurants. Here, they offered different ambience compared to full-service restaurants, in selling products at much lower prices. Accordingly, these fast food restaurant features have attracted consumers to purchase their products (Greenberg, 1986).

Next, the 100% home delivery/takeaway category, defined as food establishments selling food to consumers, is examined. In 2016, the global market value for this category was £66,045 million represented by 250,577 food establishments worldwide. Even though it appears that the sales shown are smaller compared to full-service restaurants, fast-food restaurants, cafeterias and stalls, this category is still significant given it also contributes to the generation of profit in the foodservice sector. The established businesses in this category include companies such as Dominos' Pizza or individual owned food service establishments such as ethnic restaurants. Given the popularity of this category nowadays and the increase in establishments, it is important to examine sales that are generated in order to demonstrate consumer acceptance. Figure 5.3 illustrates this category.

Figure 5.3 World wide's eating out and takeaway sales



*The stated prices converted based on currency using year on year exchange rates

Source: Euromonitor International (2017b)

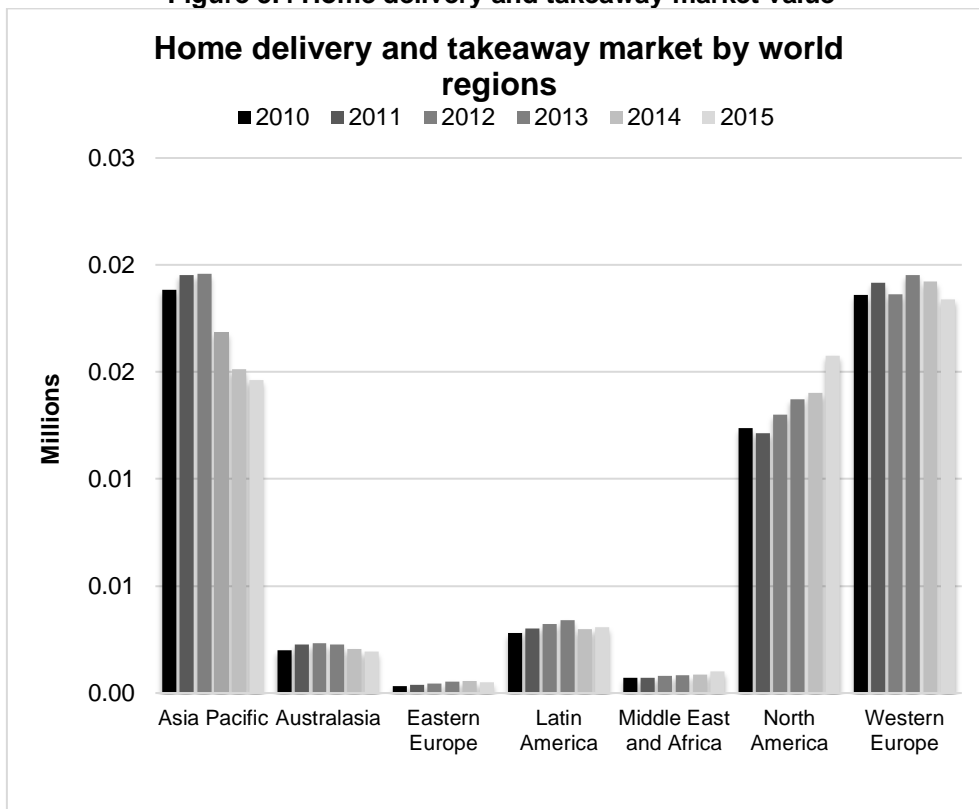
As shown in the figure, it indicates that there was a slight decrease in eating out sales and takeaway sales in 2014, following the steady growth from 2010. However, in contrast, home delivery sales showed a continuous rise between 2010 and 2015. According to MCA Insight (2017), several trends may influence consumer eating out patterns, among them are healthy eating, self-satisfaction, informality, premiumisation, the origin of the ingredients and value. In 2014, consumers' eating out behaviour was affected by the economic downturn (Khan, 2014; Walker, 2014), which forced many consumers to budget. According to The Caterer (2014) report, although it was shown that in 2014 there was a 3% increase in eating out sales, the increase was related to several types of restaurants such as casual dining restaurants. While for full dining restaurants, they experienced a reduction in sales as people were looking for value for money and convenience. This was also one of the reasons for the increase in the home delivery category.

Furthermore, while it is quite common to relate fast food with home delivery and takeaway, not all fast food is takeaway food (Ball, 1996). Euromonitor International (2016), define the home delivery and takeaway sector as food that is delivered or collected by the consumer and describes examples of takeaway food as Chinese, Indian, Mexican, and local foods. Also, national offerings and restaurants having a mix of table and delivery services were excluded from this definition. Interesting that the definition failed to include locally established restaurants.

Therefore, based on this definition, Figure 5.4 illustrates the home delivery and takeaway market size value based on regions around the world between 2010 and 2015. The figure displays the different regions in comparing takeaway and

home delivery foods. However, the following discussion in this study will only focus on regions with higher value compared. As can be seen in the figure, the regions that are shown to be high-value markets are the Asia Pacific region, North America and Western Europe. Australasia, Eastern Europe, Latin America and the Middle East and Africa are of a smaller market value size.

Figure 5.4 Home delivery and takeaway market value



Source: Euromonitor International (2016b)

By examining the Asia Pacific region, it is quite apparent that the growth of the takeaway and home delivery market in the region fell sharply after 2013, and continuing to gradually decline until 2015. Previously, culture and food preferences were the main reasons for the rejection and decline of fast food in the region (Goyal and Singh, 2007; Lee and Ulgado, 1997). For example in India, consumers prefer vegetarian food rather than meat or poultry (Goyal and Singh, 2007). Whereas in Malaysia, consumers tend to prefer home-cooked meals

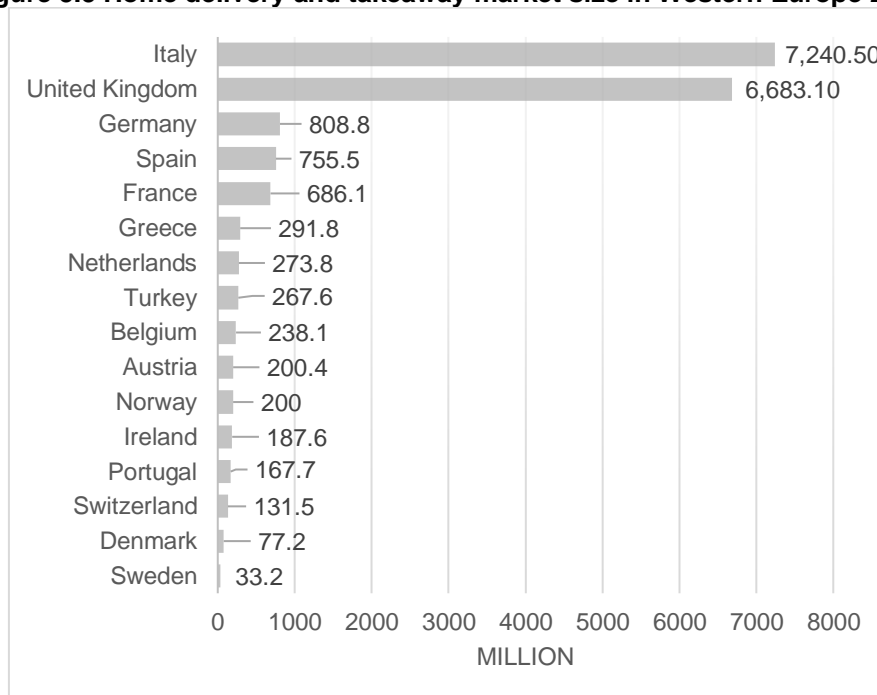
rather than eating outside (Habib, Abu Dardak and Zakaria, 2011). Although in many countries, fast food establishments have quickly adapted to the local palate and tastes, leading to consumer acceptance (Habib et al., 2011). Henceforth, it can be justified that local communities have accepted different types of foods which is also evident in increasing sales.

Although, in contrast, the home delivery and takeaway market in North America showed a steep rise after 2014. The countries listed in the North America region include the United States, Mexico and Canada that were also involved in the fast food phenomena (Reiter, 1996). Within the regions, the fast-food sector continues to grow, and restaurants are increasingly competing against each other to provide the best value meals and advertising promotions including offering unique food menus (Euromonitor International, 2016a). On the other hand, Western Europe home delivery and takeaway market appeared to be unstable displaying an upward and downward trend between 2010 and 2012. Although, after 2013, the region displayed a slight fall in market value until 2015. Although, in 2015, this region showed the highest value for the market size of the home delivery and takeaway sector globally.

The following discussion will focus on the home delivery and takeaway market segment of the Western European region. Figure 5.5 illustrates the home delivery and takeaway market size in Western European countries. Here, Italy has the largest market size value with sales in the order of £7,240.5 million followed by the United Kingdom (UK) with £5746.4 million, Germany with £868.6 million, Spain with £835.9 and France with £772.1 million. The Italian population's acceptance of home delivery food may be associated with the types of food they consume. For example, pizza and pasta can be converted quickly to takeaway

meals, whereas in the UK, its fish and chips. All other countries in the region with the smallest market value not exceeding £500 million is Sweden with 29.2 million. The reason may be due to the consumers in Sweden demanding high-quality food, rather than consuming the American style of food. Interestingly, McDonald's just entered the Swedish market in 2015 by offering a Maestro burger instead of a quick, cheap burger which they normally sold in other regions (Euromonitor International, 2016b).

Figure 5.5 Home delivery and takeaway market size in Western Europe 2015



Source: Euromonitor International (2016b)

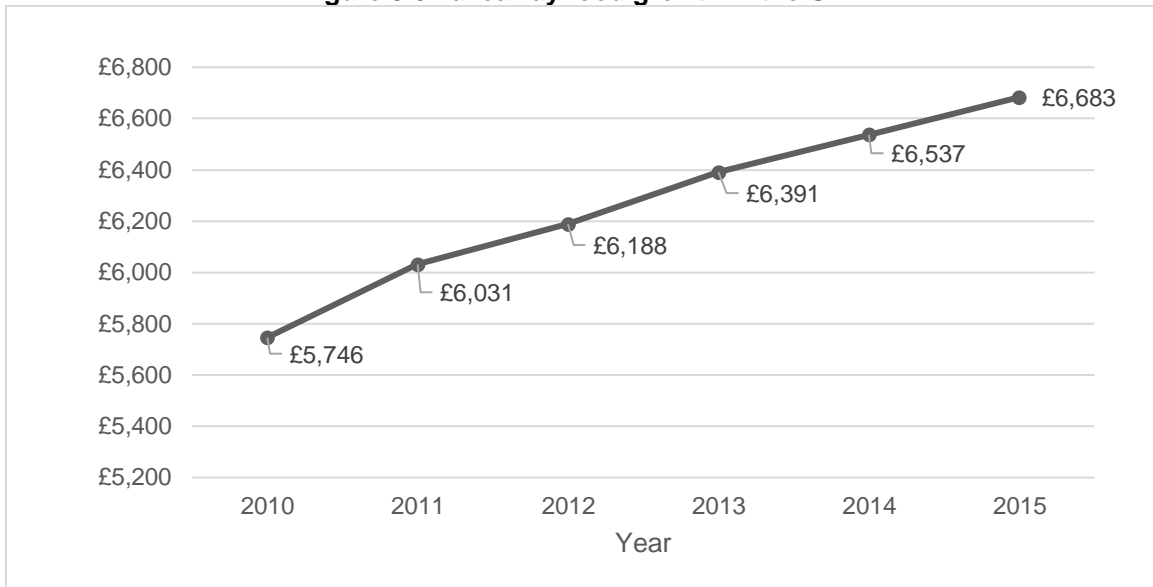
The following discussion will focus on the UK. The expansion of these diverse ethnic foods has been influenced by many factors including innovative product development, media promotion, efficient distribution and through the development of new technology (Paulson-Box and Williamson, 1990). Accordingly, this may be the main reason attributed to the high growth of the takeaway market in the UK. Consumers are quickly accepting the diversity

afforded by ethnic foods in their daily food consumption. Although, there may be other possible reasons as well that have influenced this growth and take up of takeaway food in the UK that needs further investigation.

Figure 5.6 illustrates that the takeaway and home delivery market in the UK has been growing by 25% since 2009, with the market value of around £27 billion; equivalent to the UK household spend of about £6.40 per week on takeaway food (Centre for Economics and Business Research, 2014). In 2014, the home delivery food sector contributed around £4 billion to the UK Gross Domestic Product (GDP), equivalent to around 12.5% of the total gross value added within the food services sector (Centre for Economics and Business Research, 2014). It was also estimated that the annual delivery numbers since 2015 constituted around 270 million orders (Allen, Piecyk and Piotrowska, 2017). As previously discussed, the UK takeaway food sector only operated based on local and family-owned businesses (Duffill and Martin, 1993). Although, the UK market is quickly changing with many diverse types of ethnic foods now available such as Indian food, and Chinese food among the favourites nowadays (Alexander, 2017).

The expansion of these diverse ethnic foods has been influenced by many factors including innovative product development, media promotion, efficient distribution and through the development of new technology (Paulson-Box and Williamson, 1990). Accordingly, this may be the main reason attributed to the high growth of the takeaway market in the UK. Consumers are quickly accepting the diversity afforded by ethnic foods in their daily food consumption. Although, there may be other possible reasons as well that have influenced this growth and take up of takeaway food in the UK that needs further investigation.

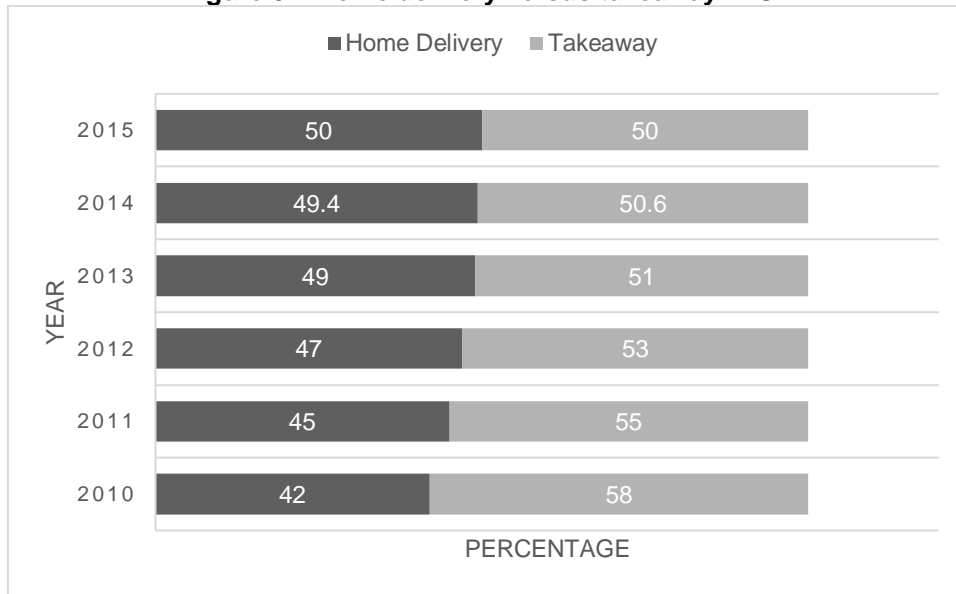
Figure 5.6 Takeaway food growth in the UK



Source: Euromonitor International (2016)

Figure 5.7 displays the increasing development of the home delivery and takeaway food sector in the UK between 2010 and 2015. In 2010, it can be seen by the figure that the home delivery market was higher compared to the takeaway sector. However, over the years there have been many changes in consumer acceptance regarding the home delivery market. In 2015, the home delivery and the takeaway markets reported a similar percentage indicating that the home delivery sector was growing mainly attributed to the development of OTFO companies in the UK. Therefore, to understand the development of online takeaway food purchasing behaviour among UK consumers, the following discussion will describe the trends of consumer purchasing via OTFO companies.

Figure 5.7 Home delivery versus takeaway in UK

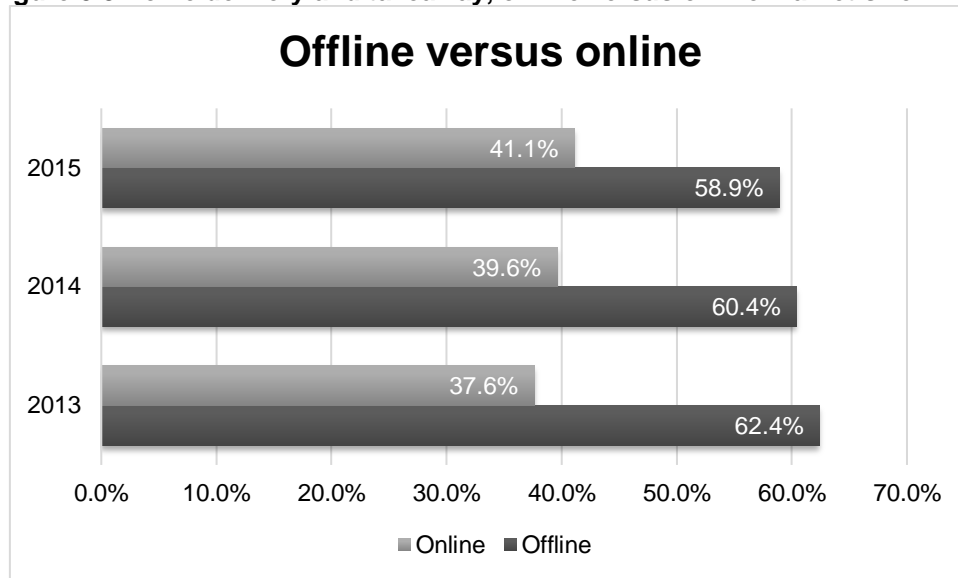


Source: Euromonitor International (2016)

5.4 The UK trends on online takeaway food purchasing

According to Eurostat (2016), among the Western European countries, the UK has the highest number of online consumer purchases compared to the previous 12 months in 2015. The UK also holds the record for the highest number of online purchases between 2008 and 2015, compared to other European countries (Eurostat, 2016). This is probably why the popularity of the online home delivery sector in the UK has risen. To understand the home delivery and takeaway sector in the UK further, Euromonitor International (2016a) revealed that the market value for online home delivery and takeaway slightly increased year-on-year between 2013 and 2015 (see Figure 5.8). Whereas, the offline market value for home delivery and takeaway food somewhat decreased during this period. Even though the changes were not significant, it was forecast that in future the online home delivery and takeaway food would grow tremendously (Allen et al.,2017).

Figure 5.8 Home delivery and takeaway, offline versus online market size in UK

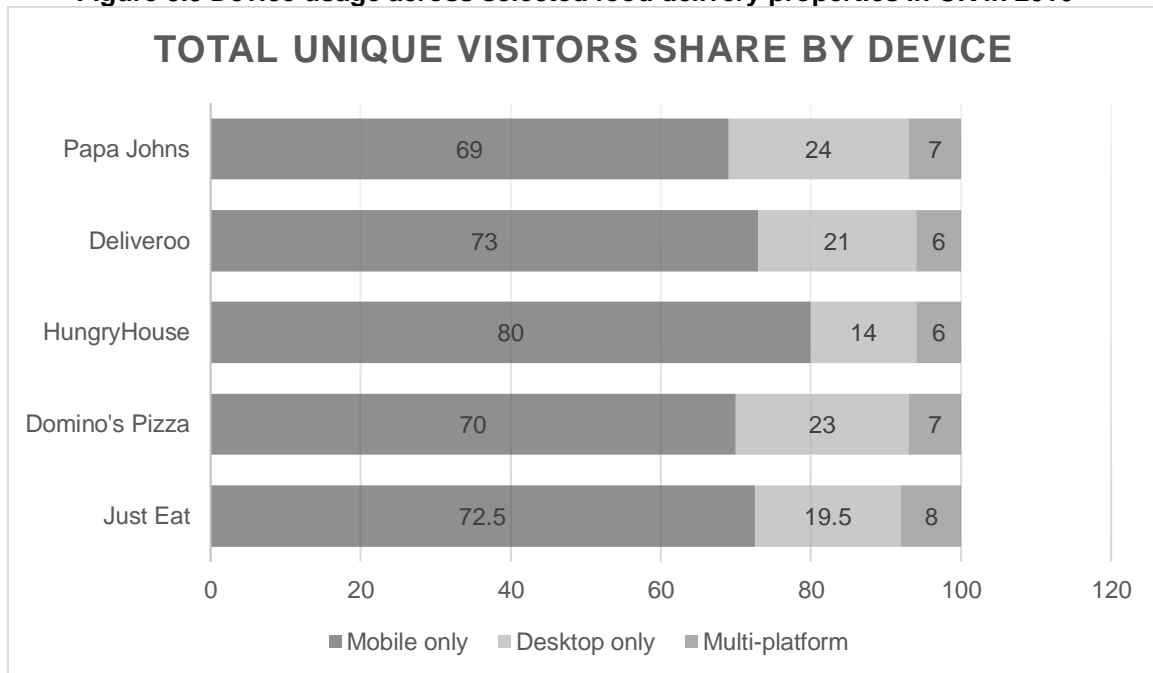


*The stated prices converted based on currency using year on year exchange rates
Source: Euromonitor International (2016a)

OTFO companies continue to improvise on their services and products to cater to consumer needs. Figure 5.9 illustrates selected food companies competing through offering different platforms in choosing where consumers can purchase takeaway food using a PC desktop or mobile device. This figure shows that consumers prefer using mobile devices compared to using a desktop computer. HungryHouse has the highest total number of visitors that use mobile devices, followed by Deliveroo and Just Eat. Whereas, other fast food establishments are close behind. Regarding these companies, Just Eat is leading in the multi-platform device category at 8%, followed by Papa Johns and Domino's Pizza. These findings also show that consumers are comfortable using HungryHouse's mobile platforms such as their mobile website and mobile application when ordering food from them. While for Papa Johns, consumers prefer to use an internet browser to place their order. This finding may be related to the features and functionality of the website and the mobile application. Indeed, browsing

through a website is very different from using a mobile app (Mikkonen and Antero, 2011). In comparison, the OTFO website has taken considerable time to develop, and consumers are used to it whereas, the mobile application is relatively new, and consumers are still getting used to it (Just Eat, 2013b).

Figure 5.9 Device usage across selected food delivery properties in UK in 2016



Source: comScore (2016)

Notwithstanding, there is always the possibility that users will opt to change to a new platform or application in the future. Table 5.4 shows the conversion rates of online shoppers based on various devices and platforms. Allen (2017) discovered that between 2015 and 2016 all platforms showed unstable growth, however, if compared to the final quarters of 2015 and 2016, there is a decline in the use of traditional platforms (laptop and desktop computer) and tablets for online shopping. Although, an increase in the use of smartphones for online shopping is evident. Allen also mentioned that the screen size does matters for consumers wishing to conduct online shopping. However, it was not known whether this

would impact consumers who wished to purchase home delivery meals through a website or via a mobile application.

Table 5.4 Conversion rates of online shoppers by device and platform

	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016
Traditional	4.21 %	3.84%	3.69%	3.42%	4.14%
Smartphone	1.35%	1.41%	1.38%	1.21%	1.55%
Tablet	3.74%	3.24%	3.18%	2.94%	3.56

Source: Allen (2017)

5.5 The online takeaway food ordering sites

An OTFO company is a third-party that provides consumers with a one-stop directory to search for restaurants and meals for takeaway (Allen et al., 2017; HungryHouse, 2015; Just Eat, 2015a). Moreover, these companies do not only focus on providing extra marketing opportunities to restaurants, but they also provide opportunities for small and local restaurants to compete with more established food service chains such as McDonald's, Dominos' Pizza and Subway (King, 2015). For example, a local Chinese restaurant that is only known in the Exeter city centre, (a small city in Devon, England) may be able to increase its visibility to other locations (and consumers) in the suburban area by having its restaurant listed on the OTFO website. Consumers are able to view restaurants that are listed on the OTFO website such as Just Eat or Deliveroo, browse the food menu and prices, and select whether to pay online or pay cash on delivery (COD).

The business of OTFO has existed since the 1990s but did not really develop until 2010 (see Table 5.5). The development of the business model may also have been influenced by the growth of the internet given it was also developed during the 1990s. The first electronic takeaway company established was Alloresto.fr in 1998 in France. However, it has since been acquired by Just Eat in

2014 (Wauters, 2014). Several other well-known companies have been established since the period. For example, the companies; Takeaway in 1999 in the Netherlands, Just Eat in 2001 in the UK and Fodler in 2004 in the US (see Table 5.5). However, there remain several countries that do not have local OTFO companies. Many of the established OTFO companies have recognised the opportunities by entering and dominating the OTFO sector in these countries. For example, in Southeast Asia, the region has been dominated by Foodpanda or Hellofood which were established in Berlin in 2012. These companies have since been established in several other countries in the region including Singapore, the Philippines and Malaysia. The expansion of Foodpanda in many Asian cities has been due to the lack of OTFO companies in the Asian region (Foodpanda, 2015). Although, the main reason for the company's expansion was because they wanted to be the market leader in this sector before any local companies could establish themselves in the market.

Table 5.5 Online food ordering company's development by countries

1993 Dine-In (US)	2010 Yemeksepeti (Turkey), PizzaBo (Italy), SinDelantal (Spain), Daojia (China), Line0 (China), Shenghuo Banjin (China)
1995 OrderIt (Canada)	
1997 Dotmenu (US)	
1998 Alloresto.fr (France)	2011 La Nevera Roja (Spain), Dinein.co.uk (UK), Postmates (US), Delivery Hero (Germany), Faasos (India), Meican (China), Fonda (US)
1999 Takeaway (Netherlands), Seamless (US), Urbanbite (UK)	
2001 Just Eat (UK)	2012 Urbanite (Pakistan), Food Panda (Germany), Just Fast Food (UK)
2004 Fodler (US), GrubHub (US), RestauranteWeb (Brazil)	2013 Mr Delivery (US), One Delivery (UK), Door Dash (US), Take Eat Easy (Belgium), Jinn (UK)
2006 HungryHouse (UK), Menulog (Australia), Resto-In (France)	2014 Foodora (Germany), UberEats (US), Deliveroo (US), Peach (US), Wolt (Finland), Swiggy (India), Woowa Brothers (Korea)
2007 Fillmybelly (UK)	
2008 Eat24 (US), EatStreet (US), Grub Canada (Canada), Eatcity.ie (Ireland), Online Pizza (Sweden), Ele.me (China)	2015 Kukd.com (UK)
2009 EatOEye (Pakistan), Caviar (US), OrderUp (US)	2016 Amazon PrimeNow Restaurant (US)

Source: Amazon (2016), Crunchbase (2015), Delivery Hero (2015), Just Eat (2016, 2015a), Lunden (2015), Mari (2016), Wauters (2014)

The OTFO market in the UK, Germany and the US has long been established. In Germany, Delivery Hero founded in 2011, was the market leader in the country. In the United States, the OTFO sector was controlled by the market leader, GrubHub, established in 2004 with a market valuation of around €2950 million in August 2016 (GrubHub, 2015; Hirschberg et al., 2016; Yelp, 2015). In the UK, the main online takeaway food delivery company, Just Eat has continued to be the dominant market leader since 2005 in the UK. The company is also a market leader for the OTFO sector in other countries including Australasia by acquiring Menulog.

By observing the opportunities presented in this sector, companies from other sectors decided to venture into the online food ordering sector, as new competitors. Among these companies include Amazon and Uber from the US, opening their own brand of online food ordering companies such as Amazon PrimeNow Restaurants and UberEats (Amazon, 2016; UberEats, 2016).

5.5.1 Types of online takeaway food ordering sites

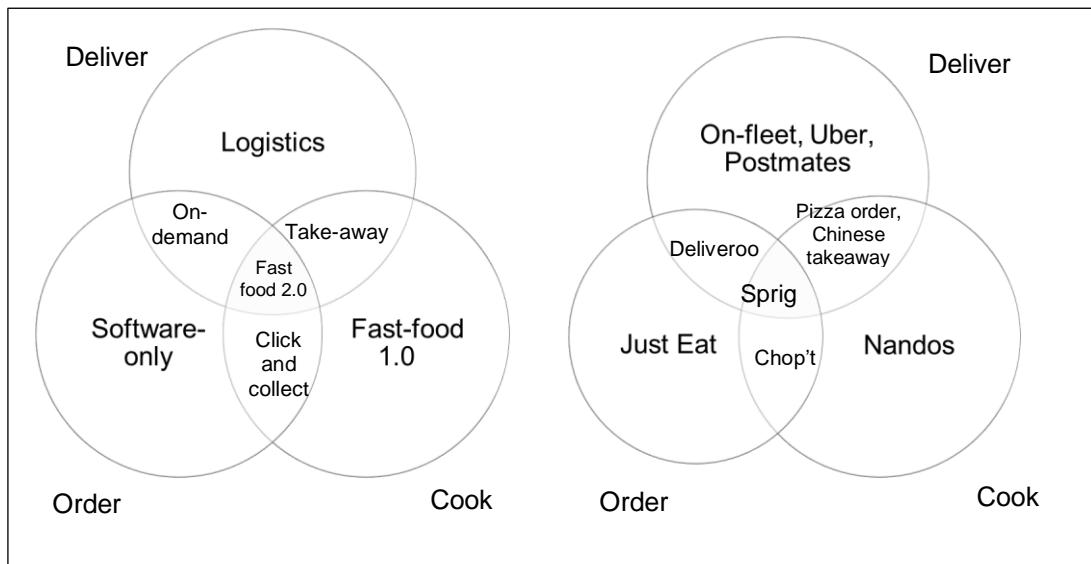
The discussion presented in the previous section has described the OTFO sector and suppliers. However, to understand the sector further, it is important to understand typologies that have formed the sector.

Mignot (2015) classified OTFO sites into three main types: software-only marketplaces, on-demand marketplaces and fast food 2.0 (see Figure 5.10). Mignot categorised early online takeaway food ordering such as Just Eat,

HungryHouse and GrubHub as software-only driven marketplaces that only provide multi-platform (the web and mobile app) ordering systems for consumers. The purpose of this category is to obtain orders on behalf of restaurants. While OTFO companies such as Deliveroo are noted as on-demand marketplaces, given they do not prepare any food, but provide additional services such as delivery services and a directory for consumers to access which draws additional traffic to their sites. Fast food 2.0 refers to businesses that cater for meals, delivered straight to the consumer such as Sprig. However, the future of this category is uncertain given that many companies such as Sprig and Maple are no longer available nowadays (McCracken, 2017).

On the other hand, Hirschberg et al. (2016) categorised the OTFO market as both 'aggregators' and 'new delivery'. Their classification is much simpler and reasonably more straightforward to understand. The aggregators refer to the traditional model for food delivery where consumers access various restaurants through a single website. While, new delivery is similar to the aggregator, but allow consumers to compare information between restaurants, and order and pay through sites or apps.

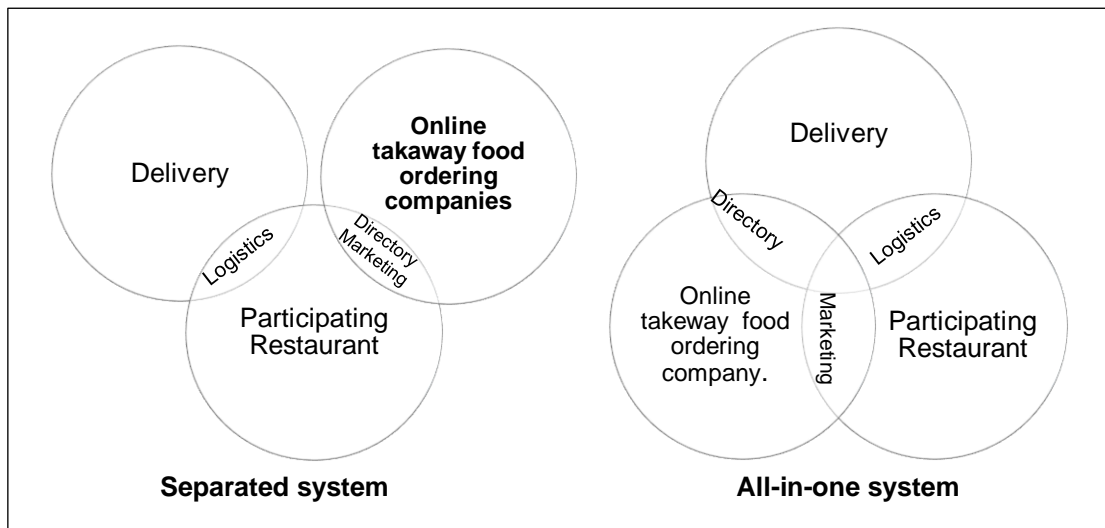
Figure 5.10 Typology of takeaway food distribution



Source: Mignot (2015)

Based on both definitions (Hirschberg et al., 2016; Mignot, 2015), the author has created a simpler classification that only focuses on services provided by the OTFO site called the separated system and the all-in-one system. The separated system is based on a restaurant that provides delivery services to customers, and the all-in-one system delivery services are provided by the supplying sites which are the online food delivery sites (see Figure 5.11). Companies such as Just Eat are based on the separated system that targets local fast food restaurants such as Chinese and Indian restaurants that provide their own delivery services. These companies will provide the restaurant with a one-stop directory for consumers, acting as the agent for marketing and promotion. Conversely, a company that provides transportation services, is an all-in-one system targeting high-quality restaurants and well-established restaurants such as Nando's and YO! Sushi, and Deliveroo for example (Deliveroo, 2015). The similarity of both OTFO systems is that they provide participating restaurants to be listed in their directory, presenting their menu on the website where customers can order and pay using their website or via mobile apps.

Figure 5.11 Modes of operation for online takeaway food ordering



Source: Author based on Mignot (2015).

Whereas, this study has defined the separated system as a system where the OTFO sites act as a mediator between the participating restaurant and consumers. The participating restaurant in this system is predominantly local, having their own logistics service, while most established restaurants, in contrast, do not have their own delivery service. The OTFO company using the all-in-one system is using a different approach from that of the separated system. These types of OTFO companies provide transportation services to the participating restaurant(s) to deliver takeaway food to the customer.

Based on the UK market, there are two examples of an OTFO company that have been built on the all-in-one system; Deliveroo that was established in 2012 which provides premium and branded restaurant food to consumers, and UberEats which offers consumers a premium service and local takeaway food to consumers. In 2016, UberEats launched its UK operations aiming to directly compete with Deliveroo by providing consumers with similar services and getting all the restaurants participating in Deliveroo to join their UberEats. The initial launch of UberEats did not charge their consumers with any minimum order value

as instead, they promised to deliver food to the customer faster, and customers able to pay via their mobile app. This was much different from Deliveroo, which had a minimum order value of £15. Both systems charge commissions to the restaurants that sign up with their company, however, the separated system has a lower commission (10 to 15 %) compared to the all-in-one system (25 to 30%) (Mignot, 2015).

The categories above were defined to making it easier to identify which types of business model was used by a supplier. But to make it clear, the online takeaway food ordering sector is not a new category. It is an evolution in the food service sector that was influence by technological innovation.

5.5.2 Current issues on online takeaway food ordering sector

Numerous challenges face the OTFO supplier in the current environment, including the revaluation of business rates, the rise of the dark kitchen, the growth of the gig economy and the issue with cold food delivery to consumers (Mintel, 2018a, 2018b, 2019). These are among the biggest issues faced by a stakeholder in the OTFO sector.

In 2017, business operators in England have gone through business rates revaluation to revise rateable values of all businesses and other non-domestic properties (HM Treasury, 2018). High business rates have affected restaurant operators, particularly the franchise restaurants which have high operational costs (Armstrong, 2017; Mintel, 2018a). Restaurant operators may shift their operation to 'dark kitchens' (Vaswani, 2019) to deal with the various costs such as food costs and wage costs to operate in brick and mortar business while

expanding their capacity to supply consumers via apps. Moreover, the dark kitchen was able to overcome OTFO supply of food delivery to areas with limited access. The first dark kitchen was created by Deliveroo by launching Deliveroo Editions in May 2017 followed by Uber Eats which bought more than 100 'dark kitchens' in London to venture into the home food delivery sector (Vaswani, 2019; Burgess, 2017).

The second issue related to online takeaway food ordering sector is the rise of the gig economy. Gig labour has no attachment to a particular organisation as they work in flexible arrangements and they will be hired based on availability and operational demand (Friedman, 2014). In the OTFO sector, the 'gig labour' is hired by OTFO companies such as Deliveroo and FoodPanda to deliver takeaways. Although these companies provide huge job opportunities, the job is not under labour protection and has poor working conditions due to unlimited working time and the job is not secure (Tran and Marozzi, 2018).

The last issue is related to cold food delivery. As mentioned previously, there are two types operation modes for the OTFO supplier: the separated system such as Just Eat, and the all-in-one system such as Deliveroo. Deliveroo manages its own delivery services which means that they are able to control the time of the food delivery. However, OTFO suppliers that depend on a restaurant's transportation are more prone to cold food delivery issues. Furthermore, other factors, such as the location of the delivery, the time to prepare the food and the availability of delivery services at the time ordered contribute to cold food delivery.

It is important to acknowledge that there are some issues to operating in the online takeaway food ordering business. But there is no scope within this thesis to look at such changes in any greater detail. The main point highlighted by these

issues is to show that, for the online takeaway food ordering sector to grow, there are challenges that need to be overcome by suppliers. However, these challenges have helped make the sector become stronger.

5.6 Summary

This chapter outlines the growth of the takeaway food sector from the beginning until the current development (see Figure 5.1). Given the historical significance regarding the development of this sector eating out trends have subsequently increased, restaurants and fast-food establishments increasing, and new services becoming more innovative in meeting consumer demand and in generating profits.

The food service industry also adopted more recent technology innovation to cope with consumer demand. Restaurants also developed their own websites and registered with third-party purchasing websites to promote their business. Third-party websites acted as a directory allowing consumers to view the menus of restaurants. This service changed the way consumers ordered food and how they searched for restaurant information via the internet. Due to this reason, OTFO companies gained in popularity in many countries including the UK.

Notwithstanding, the development of new technologies has also influenced the growth in the OTFO sector where companies introduced mobile apps to increase and retain consumers. However, the future of mobile apps regardless of the industry or business remains undecided given many consumers do not use them but rather are interested in downloading and to investigate their use. Therefore, the next chapter discusses the findings of the case study approach used to

explain the online takeaway food ordering sector in the UK. The case study was employed to understand the growth of the online takeaway food ordering sector as well as the growth of takeaway apps from the supplier's perspective.

CHAPTER 6 THE GROWTH OF ONLINE FOOD ORDERING COMPANIES: A CASE STUDY OF JUST EAT

This chapter provides information on the OTFO business that offered consumer takeaway food ordering apps in the UK. This chapter aims to address Objective 2 of this study, which is to explore the growth and operating characteristics of an organisation that supplies an online food takeaway app in the UK. In order to address the objective, a single case study approach has been used. The company Just Eat, has been chosen as it is the most established and successful OTFO company at present in the UK, and operating in the UK for more than 10 years. Just Eat have successfully extended their business operations into several other countries including Brazil, Ireland, Australia and Spain.

The chapter will commence by describing the profile of Just Eat, including their growth and development, followed by a discussion on the results from conducting the document reviews, semi-structured interviews and video interview. In addition, Just Eat's financial statements between 2009 and 2017 have also been examined to understand the company's growth through the investment they made. The next chapter will present the main themes that which were developed based on the analysis of documents.

6.1 Introduction to the case study of Just Eat

As this study has mentioned, the online food ordering sector is growing in many countries including the UK. However, few companies are operating in this sector. Most small online food ordering companies have been acquired by larger

companies in the sector, making them the market leader in certain countries. The market leader in the UK is Just Eat and is also amongst the market leaders in other countries such as Ireland and Switzerland. Based on the success of Just Eat, it is useful to investigate the factors that have influenced their growth and operating characteristics. Thus, to understand the growth of Just Eat, an interview was conducted along with a review of relevant documentation.

6.2 Just Eat's profile

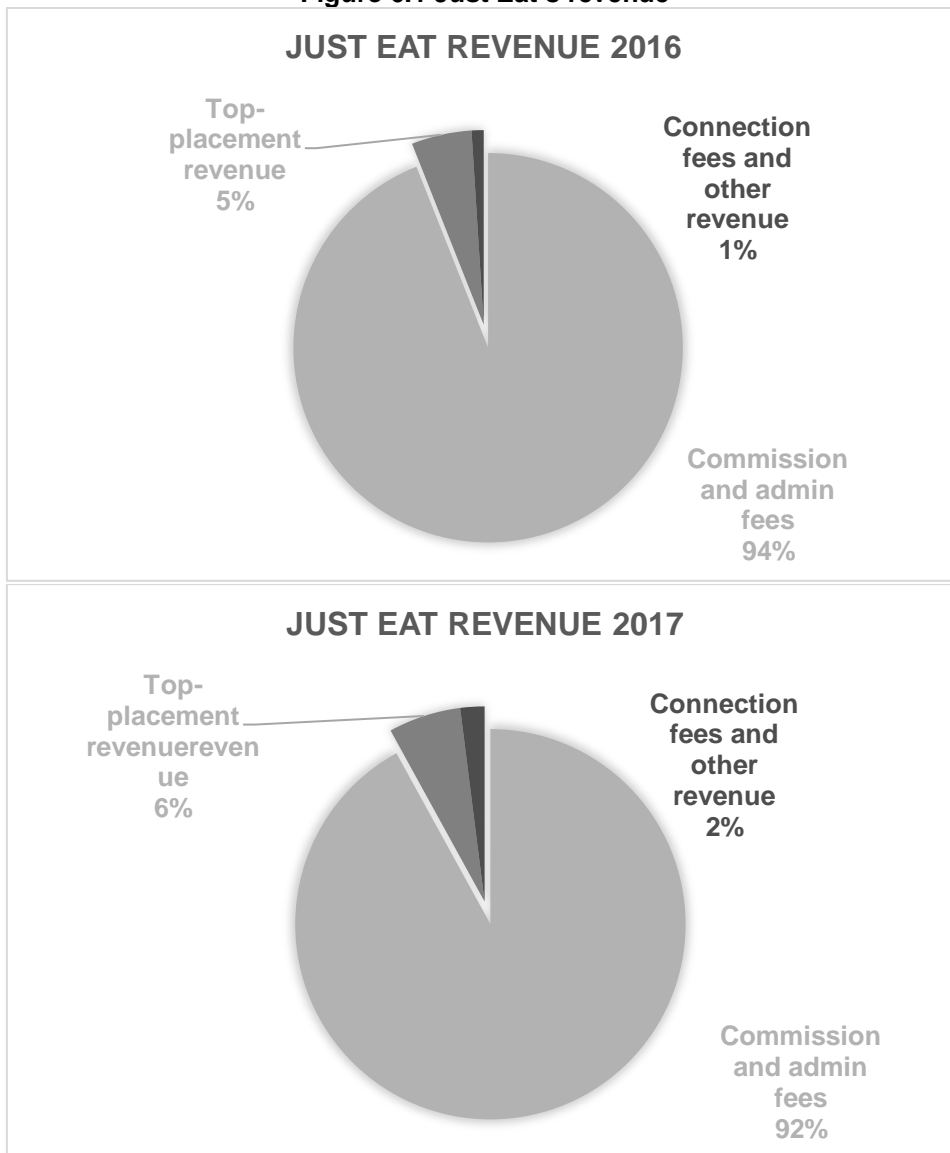
Just Eat is an OTFO company, established in 2001 in Denmark and moved to the UK in 2006 (Just Eat, 2015b). The company successfully operated in 13 countries worldwide including Spain, Belgium, Brazil and Canada (Just Eat, 2015b). In April 2014, Just Eat was the first company to be listed in the High Growth Segment in the London Stock Exchange, positioning Just Eat as the first, and largest technology company with floatation (Just Eat, 2015b). More than 40,000 restaurants participate in Just Eat's online ordering sites, with more than 8 million sites visited each month by consumers and within year 2017 they processed 172.4 million orders from customers (Just Eat, 2014b, 2017a; King, 2015).

Just Eat offers the participating takeaway restaurants the opportunity to have their menu accessible to online consumers, with the ability to search for local takeaway restaurants which consumers can securely pay for either online or COD (Just Eat, 2015). The participating restaurants need to pay a registration fee in order to be listed on their website paying a commission between 11 and 12 % paid on every booking made by customers (Chopra, 2012; Just Eat, 2014b). Participating restaurants may also pay an additional fee to have a top placement slot on Just

Eat's platform which enables them to be seen by customers more readily (Just Eat, 2015) and increase the number of orders and profit for restaurants.

From Just Eat's annual report and account for 2017, it was shown that 92% of their revenue was generated from commissions paid by restaurants and from administration fees (Just Eat, 2016b). The revenue generated from participating restaurants is the main source of income for Just Eat. The commission revenues are counted based on the number of orders placed, the average order value and commission rates vary by country. Another 6% of revenue is generated from top placement advertisements, which is an advertisement programme that allows participating restaurants to have their business presented on top of the consumer search facility. While the last 2% is revenue generated from joining Just Eat's network and other services such as branding commodity products. Compared to 2016, Just Eat's revenue showed a decline of 2%, whereas top placement advertising displayed an increase of 1% with other revenue sources showing a decrease of 1%. This suggests that Just Eat's revenue is mostly generated by consumers, less from other income sources. For further information regarding the comparison between 2015 and 2016, see Figure 6.1.

Figure 6.1 Just Eat's revenue



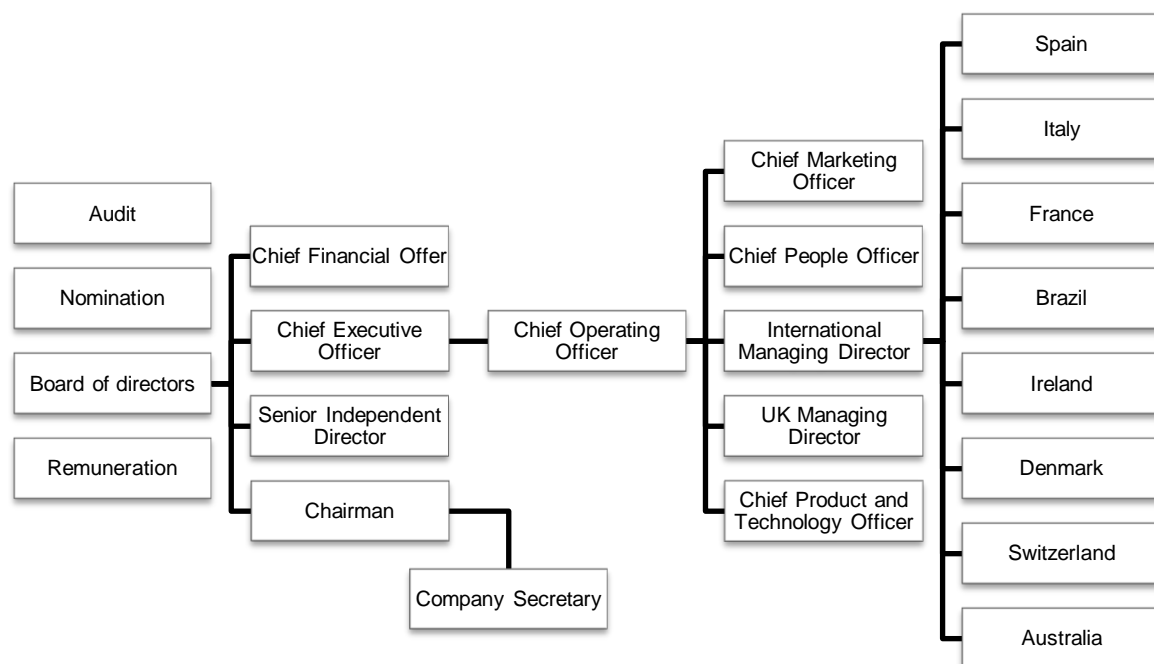
Source: Just Eat (2016b, p.14; 2017a, p.14)

To utilise Just Eat's services, consumers need to enter their postcode to search for restaurants in their local area, followed by choosing a restaurant and ordering from the menu. The next step is choosing a method of delivery; whether by delivery or collecting the food themselves which is followed by choosing a mode of payment (COD or online payment). The market segmentation of Just Eat varies, from students who normally order more frequently at low cost, or the family segment which orders in larger quantities, but paying more (Just Eat, 2015). The

convenience services provided by Just Eat suit the shifting lifestyles of consumers which they demand. Moreover, with technology advancements nowadays, a company cannot ignore the importance of using emerging technologies in their operation. From just having a presence on a computer laptop via the internet, Just Eat has expanded its operations by utilising smartphone apps; Android (2013), Apple Store (2012) and Windows Store (Just Eat, 2013b; Just Eat, 2014a; Just Eat, 2015b) and the application of smart TV and Apple TV.

Though, to understand Just Eat's operational management regime, it is useful to examine their organisation chart. Although, the study found that it was difficult to examine given only the board of directors was shown along with the position of the management team without explanation of the authority or roles. All information regarding corporate governance was gathered from Just Eat's Annual Reports and accounts between 2016 and 2017. From the information that was obtained, an organisational chart has been created as illustrated in Figure 6.2.

Figure 6.2 Just Eat's global organisation structure



Source: Just Eat (2017a)

From the figure, it can be seen that Just Eat's organisation structure for 2017 consisted of the board of directors which comprised of nine members which included an interim Chairman as well as a Senior Independent Director – Andrew Griffith; two Non-Independent Non-Executive Directors – Frederic Coorevits and David Buttress; two executive directors comprising of the Chief Executive Officer (CEO) – Peter Plumb and Chief Financial Officer (CFO) - Paul Harrison; four independent Non-Executive Directors – Gwyn Burr, Roisin Donnelly, Alistair Cox and Diego Oliva. David Buttress who was the previous CEO of Just Eat had been in the company since it was first established, stepping down from this role in 2016 (Just Eat, 2017b). The board appointed Peter Plumb in September 2017 as the new CEO.

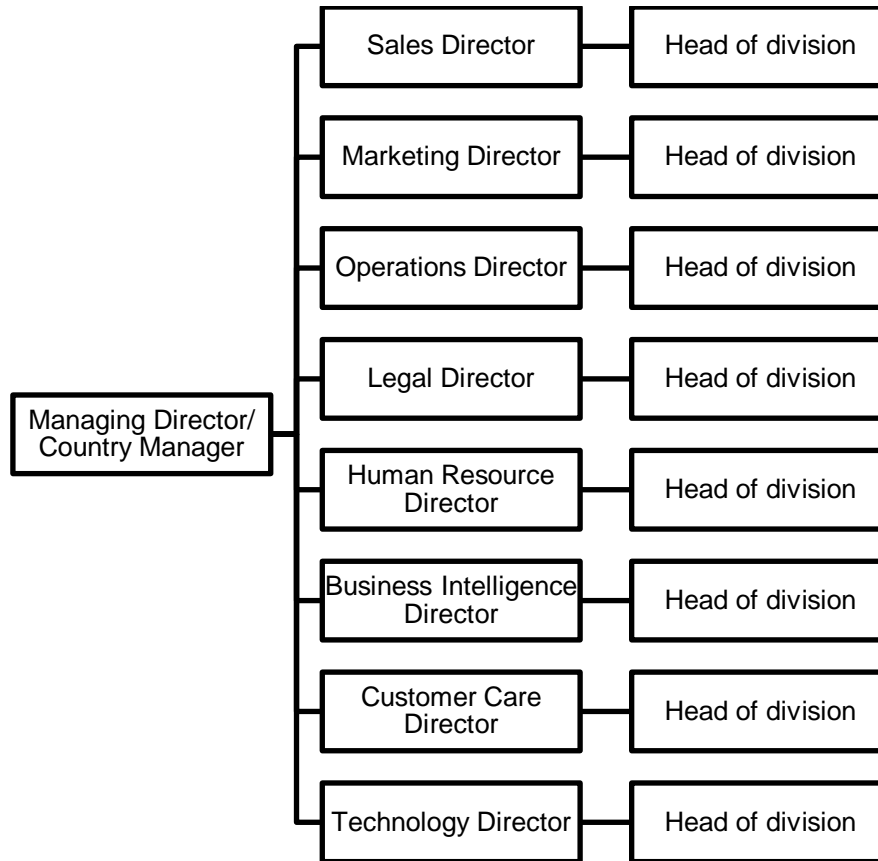
The board of directors is responsible for ensuring Just Eat has sufficient resources and skills, along with financial means and other resources needed for the company to operate efficiently. While corporate governance includes the controls (internal and external), over risk management and senior executive remuneration. To ensure the smooth operation of the Just Eat group, the board has created several divisions within the company and delegated operational authority of Just Eat's operations to the executive group. However, managers within the system have limited authority. The chairman is responsible for managing and overseeing the board of directors, to ensure all directors contribute effectively and to ensure satisfactory dialogue with shareholders and that the board members are aware of shareholder opinions. The executive group comprises of the CEO and the CFO who ensure that the leadership of the senior management team runs the business efficiently, implementing the business strategies and carrying out the board's decisions related to group operations.

There is also a Senior Independent Director along with the other Non-Executive Directors and a shareholder if there are any individual or collective matters to be dealt with.

Furthermore, three committees reporting to the board with clear terms of reference have been established to resolve any problems or other concerns, which report to the board periodically. The three committees address the areas associated with auditing, remuneration and board nominations. The Audit Committee has been established to examine financial reporting, to work and to oversee the internal and external auditors and risk management aspects. The Nomination Committee is responsible for examining the members of the board that they have the right balance of skills and experience and support the board and senior management in succession planning. The Remuneration Committee is responsible for managing the income of the board.

The following section describes Just' Eat's operational team. Figure 6.3 illustrates Just Eat's operations in all countries except for the UK, which is managed centrally (see Figure 6.2). Focusing on the UK, the country's operations comprise of regional directors and territory managers responsible for the growth and development of each area. For example, the Territory Manager for Hull/York is accountable for driving consumers' choice in Hull/York by getting as many takeaway restaurants to register and participate to increase the number of consumer orders. The directors and managers fall under the responsibility of the sales department who search and acquire new restaurant partners and to ensure they understand the restaurant partner, through selling Just Eat's unique selling proposition to them. It is the responsibility of the marketing department to understand and communicate with consumers and participating restaurants.

Figure 6.3 Just Eat's country organisation chart



Source: Just Eat (2017)

The technology department which is among the most important departments in Just Eat is responsible for ensuring that consumers ordering from Just Eat have a satisfying experience. The department is responsible for innovating new ways to serve consumers including the use of technology such as virtual reality and voice-controlled ordering. Consumer data and businesses information is also important for the sustained growth of the company. As such, Just Eat established a business intelligence (BI) department to collect and analyse consumer information to benefit the company and in decision making. The BI department is responsible for collecting data from different sources, cleansing the data and interpreting the data into useful information to distribute within the company.

Many studies have revealed the BI department as the most important department for the development of a company given the benefits and supporting business activities such as through data mining, decision support systems, data warehousing and financial analysis (Hedgebeth, 2007; Ranjan, 2008). The other departments within Just Eat include the Human Resources (HR) department, the Legal department, Finance department and the Operations department with similar responsibilities as the rest of the company including their job descriptions. Under each department, there are many other divisions led by the head of each division. However, it was difficult to recognise all divisions under each department from reviewing the documentation.

Therefore, from the above discussion, it can be presumed that Just Eat uses a hybrid organisational structure by combining two types of structures; functional and geographic territory. It is important to choose to use an organisational structure that is suitable, and that supports the business model to achieve both efficiency and organisational effectiveness, including innovation (Adams et al., 2006; Cosh et al., 2012; Ouchi, 1977). Various types of organisation structures can be combined to benefit the organisation. Shane, (1996) discovered that by using a franchising hybrid organisation structure, it allowed entrepreneurs to address managerial restrictions to firm growth, allowing a company to grow much faster. Using a suitable organisation structure can also help to influence creativity and innovation in a company (Alves et al., 2007; Martins and Terblanche, 2003; Schippers et al., 2015).

Therefore, it can be assumed that there is a possible relationship between organisational structure and firm growth. The following will discuss the

organisation's growth in more detail based on the company's financial statements.

6.3 Financial growth

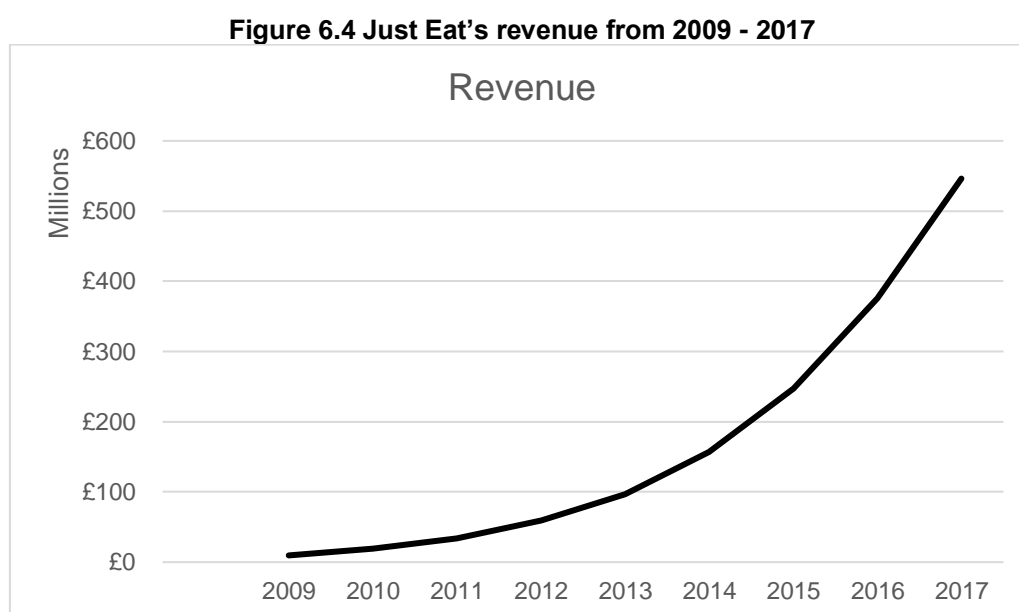
In order to understand the growth and size of Just Eat, the study examined Just Eat's Annual Reports and accounts between 2009 and 2017. According to Rahaman (2011), a financial source is quantitatively important to the development of a firm. Also, through financial statement analysis, companies are able to conduct business activities such as mergers and acquisitions and control and manage their resources more effectively. Therefore, it is important to depict and explain a financial statement of Just Eat. Some of the financial information used included the following:

- i. The financial year of Just Eat ends on 31 December each year between 2009 and 2017.
- ii. Approximately 95% of Just Eat's revenue originated from their business and 5% from their investment income. The business activities originate from the UK, with established markets in France, Ireland, Denmark, Canada, Switzerland and Norway, and developing markets in Spain, Italy, Mexico, Australia and New Zealand.
- iii. The corporation's tax is changing each year depending on the budget imposed by respective governments.

The financial documents were gathered from Just Eat's official website and the Company House website which included income statements, balance sheets and cash flow statements (see Appendices 2 to 10). Each statement had a different

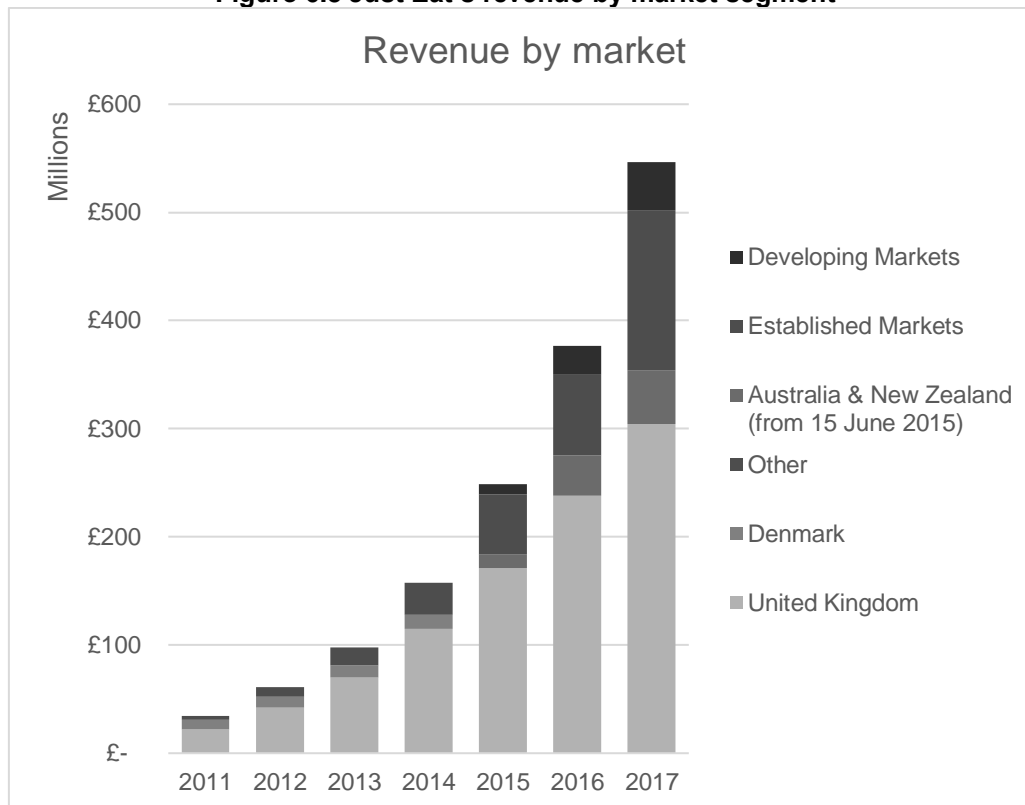
function, displaying a different purpose. The income statement was used to understand the performance of the company in the past and also predicting (forecasting) the future, summarising the results from all operations of the company for a certain period (Gibson, 2012). However, the balance sheet is a statement showing how much a business has and how much they have borrowed, and in some cases how much they need to borrow to maintain operations or investments (Graham and Meredith, 1998). Lastly, the cash flow statement shows the cash balance in a company whether it is short-term or high liquidity or long-term.

Figure 6.4 shows Just Eat's generated revenue between 2009 and 2017. From the figure, it can be seen that the company's income steadily increased each year. Detailed examination of Just Eat's revenue showed that their income originated from several segments: the UK, the established market and the developing market (see Figure 6.5). From the diagram, it can also be seen that the UK contributed the highest revenue from sales for Just Eat from the beginning of their establishment, followed by Denmark until 2014.



Source: Just Eat (2015, 2016b, 2017a). Notes: see Appendix 2.

Figure 6.5 Just Eat's revenue by market segment



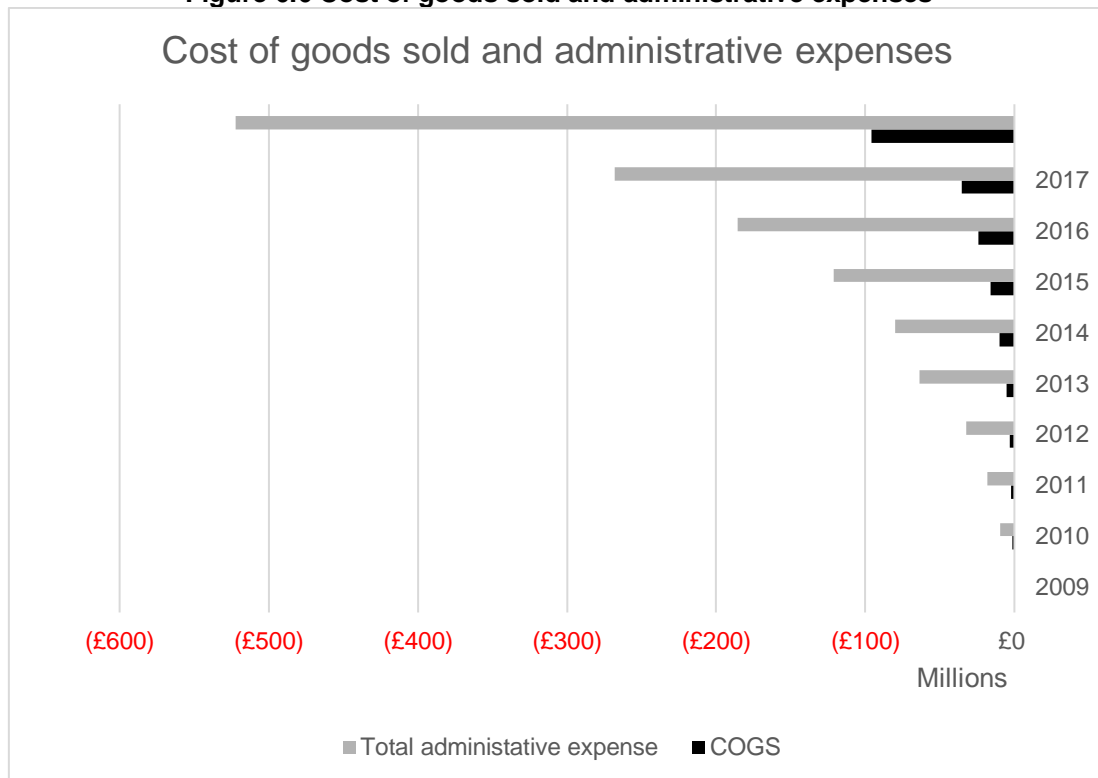
Source: Just Eat (2015, 2016b, 2017a). Notes: see Appendix 8.

In 2015, Just Eat decided to group their market into four different segments: the UK, Australia and New Zealand, the established market and the developing market. The segmentation was divided based on the similarity of each country regarding the operating characteristics and their growth stage. Denmark was placed under the established market given they continue to expand and grow and setting a benchmark for other companies in this segment. The illustration shows that between 2015 and 2017, the established market showed high revenue followed by the Australian and New Zealand developing market. Although Australia and New Zealand had just been acquired in 2015, their sales surpass the developing market that consists of three different countries. The possible reason for the success in Australia and New Zealand is because the acquired companies are the main players with a strong market presence.

In contrast, in the developing segment, Just Eat still needs to develop its marketing strategy to increase its market presence and thus will increase the sales in the countries. There is a huge difference in the population of Australia and New Zealand and the developing market. If Just Eat is able to capture the market in the developing market, the revenue of the segment is capable of exceeding the Australia and New Zealand market

However, examining the revenue this way does not show the actual profit of a company. Therefore, to study the profit and loss for the year, the revenue needs to deduct all expenditure including the cost of goods sold, administrative costs, finance costs and additions and other related costs and income. The cost of goods sold (COGS) was expensed for each product or service that was sold by Just Eat. Figure 6.6 displayed the COGS and other expenses for each product area that Just Eat sold. From the figure, it can be seen that the COGS increase each year; the same goes for the total administrative expenses. Many ways influence the changes in the COGS, among them, include an increase in labour costs, increases in service or product prices and increases in raw materials. Santhanam and Hartono, (2003) discovered the COGS in an information technology company was much lower compared to a company in another industry. This demonstrated that there is a possibility that the company is able to generate more profit compared to another firm.

Figure 6.6 Cost of goods sold and administrative expenses



Source: Just Eat (2015, 2016b, 2017a). Notes: see Appendix 2.

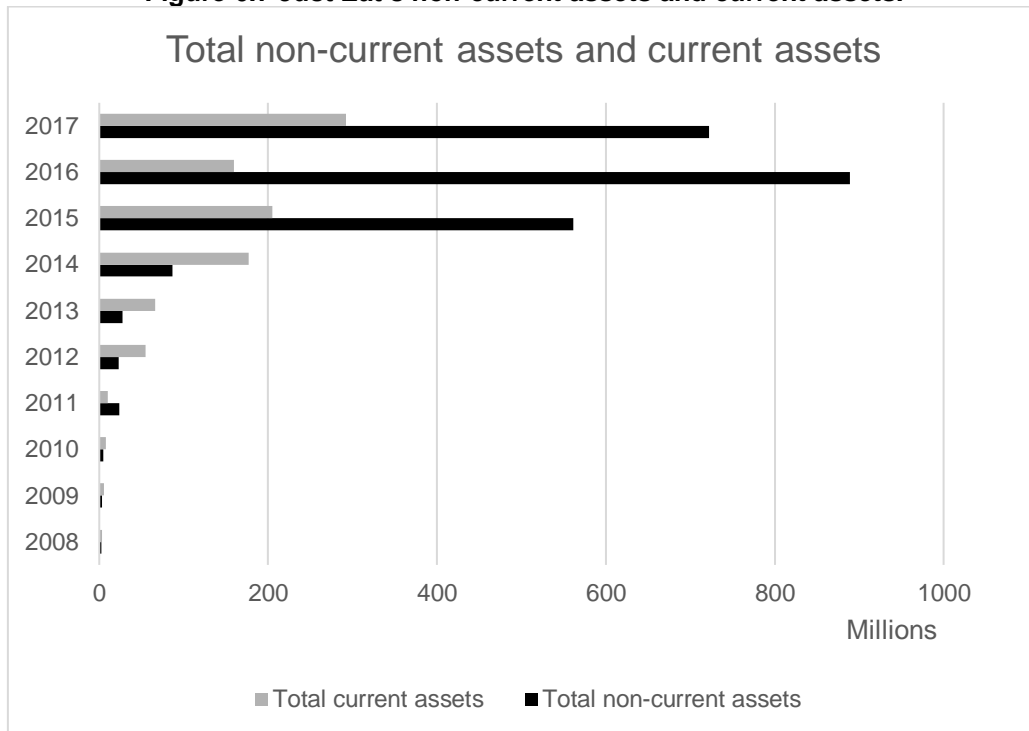
The horizontal analysis of the income statement over the preceding year (see Appendix 4) revealed a 662% increase in the net income in 2014 which was the highest increase in net income for Just Eat for the period under review. The growth in Just Eat’s net income in the year was due to their gains from investment in FBA Invest for Alloresto.fr in France. Whereas, in 2013, it showed a -251% decrease in net income; the lowest since they were first established. The examination of the 2013 net income was related to the increase of the COGS, which decreased profit/loss before tax and increased taxable income. The high taxable income resulted from a large amount of deferred tax that Just Eats needed pay that caused a temporary difference between Just Eat’s accounting and tax value for the year. Also, the amount of revenue also influenced the amount a company have to pay its taxes.

The vertical analysis of the income statement compared between 2009 and 2017 (see Appendix 3), showed that the income statements as a percentage of total revenue varied each year. The year 2014 indicated the highest percentage of net income over the total revenue from 7% to 33%. There are several reasons for this increment. Firstly, an increase in long-term incentive costs from 1.8% to 3.1% followed by a slight increase in exceptional items from 1.0% to 1.7%. While this increase may not appear to affect the net income by a significant amount, the vertical analysis revealed that there was also a huge increase in other gains/losses from 3.51% to 24.33%. The overall increase of several aspects of the income statement, as determined by the horizontal and vertical analysis indicated that Just Eat's net income did not grow steadily over the year. This suggested that the company was still developing and many aspects of the business that needed to be examined by Just Eat to ensure the company could continue to grow.

Also, by focusing on the balance sheet statement, Just Eat uses the financial position format to show the net worth of its company. Different from the traditional balance sheet, the balance sheet financial position needs to balance between total assets and total equity (Kieso, Weygandt and Warfield, 2014). From the horizontal analysis of the balance sheet statement (see Appendix 7), it revealed that in 2015 it had the largest growth of total assets increasing from 179% to 191%. When examining Just Eat's assets, it also showed that there was a huge increment of non-current assets from 212% to 547%. To understand this further, Figure 6.7 shows the total assets between 2008 and 2017. In 2014, the non-current or fixed assets amount was £86.8 million. However, the figure increased to £561.5 million in 2015 resulting from a massive investment when Just Eat

decided to increase their fixed assets which have not changed since between 2008 and 2013.

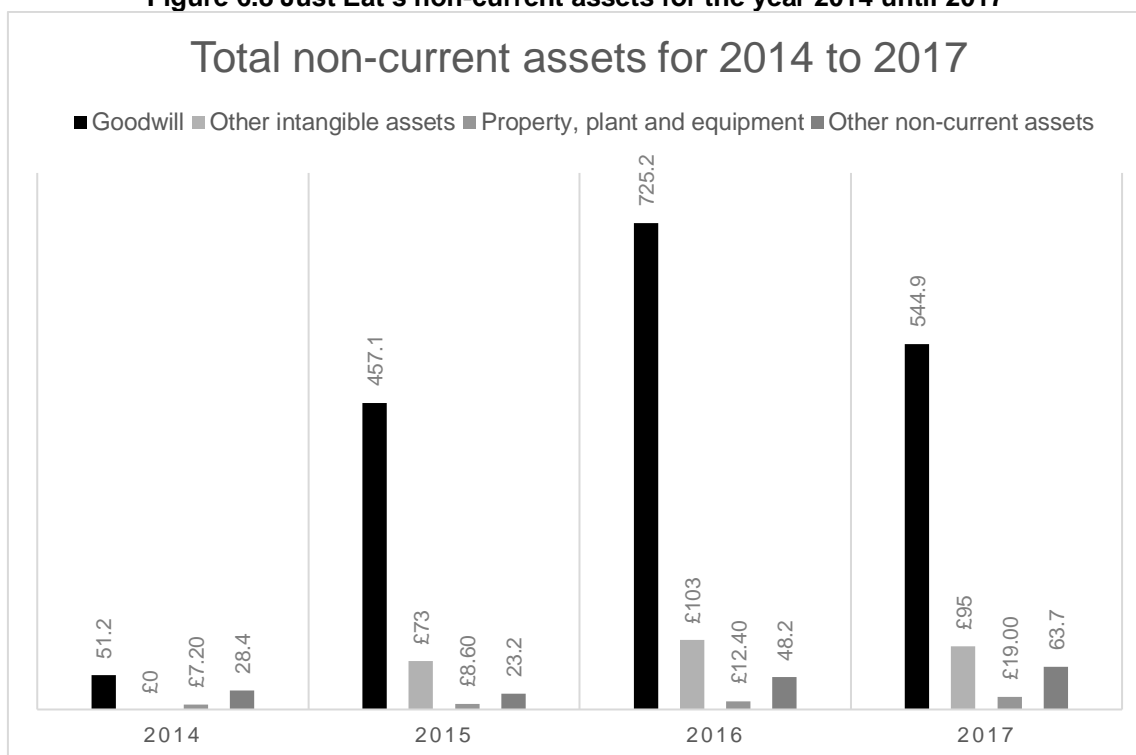
Figure 6.7 Just Eat's non-current assets and current assets.



Source: Just Eat (2015, 2016b, 2017a). Notes: see Appendix 2.

Further examination of the total non-current assets between 2014 and 2017 as shown in Figure 6.8 found an increase in goodwill from £457.1 million to £725.2 million, followed by another intangible asset and other non-current assets. The increase of goodwill was related to the merger and acquisition (M&A) activities. Among the largest acquisition made in 2016 was in Australia and New Zealand, by acquired Menulog Group Limited. However, little investment has been made by Just Eat in property, plant and equipment.

Figure 6.8 Just Eat's non-current assets for the year 2014 until 2017



Source: Just's Eat Balance Sheet statement 2014-2017. Notes: see Appendix 5.

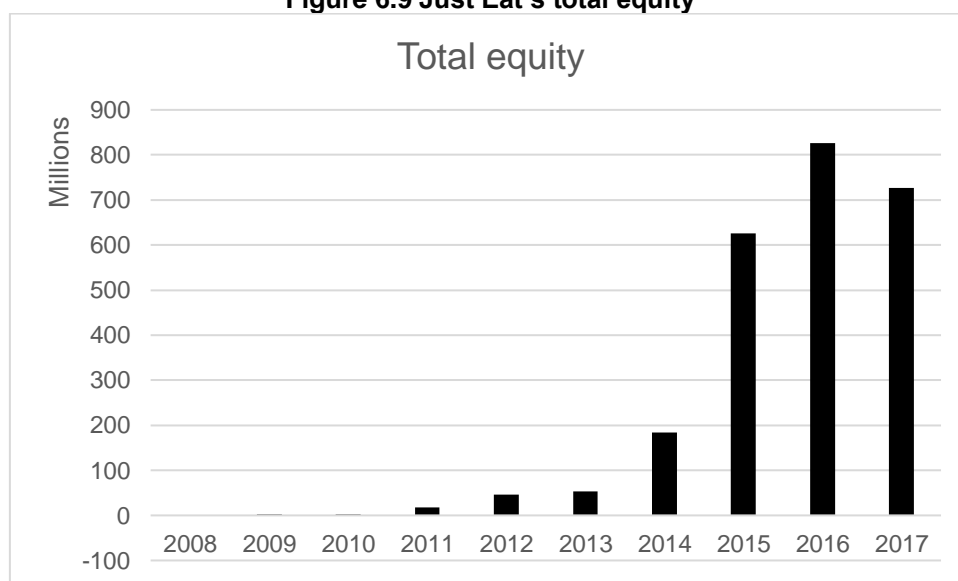
From the horizontal analysis, it was shown that the smallest growth of total assets was in 2017. In this year, there was a decrease in total non-current assets from 58% in 2016 to -19% in 2017. However, total current assets increased from -22% to 84% in 2017, particularly in cash and cash equivalents and inventories. From the analysis of the balance sheet, it can be seen that Just Eat slowed M&A activities. The latest acquisition made by the company was HungryHouse in the UK at the end of 2016 and completion of the acquisition occurred in January 2018. Just Eat have appeared to have changed their strategy after the new CEO was appointed and instead, they seemed to be much subtler and taking time to understand the market properly.

The focus was next on total equity and liabilities. Here the horizontal analysis revealed that 2015 had the largest percentage of total equity and liabilities. Further investigation within the year also revealed that there was a decrease in

several items such as total non-current liabilities or long-term liabilities from 545% to 118% and a slight decline for current liabilities from 70% to 67%. Whereas, the study also found that 2017 had the smallest amount of total equity and liabilities compared to previous years. Likewise, from the financial statements, it was discovered that they suffered a large loss attributed to shareholder equity. This means that Just Eat was not able to provide much profit to shareholders. In 2017, Just Eat slashed the value of Menulog, with shares falling by 10% (Mitchell, 2018; Turner, 2018). However, to overcome this issue, the newly appointed CEO has planned on developing markets and delivery in 2018 (Turner, 2018).

Additionally, Figure 6.9 also shows Just Eat's total equity between 2008 and 2017. The graph displays the amount doubled in 2014. The rise was corresponding with Just Eat's launch in the London Stock Exchange with a market valuation of £1.4 billion, said to be the largest UK technology initial public offering (IPO) in eight years. In 2016, total equity still showed signs of increasing, however, due to the issue discussed previously, it also affected total equity in 2017.

Figure 6.9 Just Eat's total equity

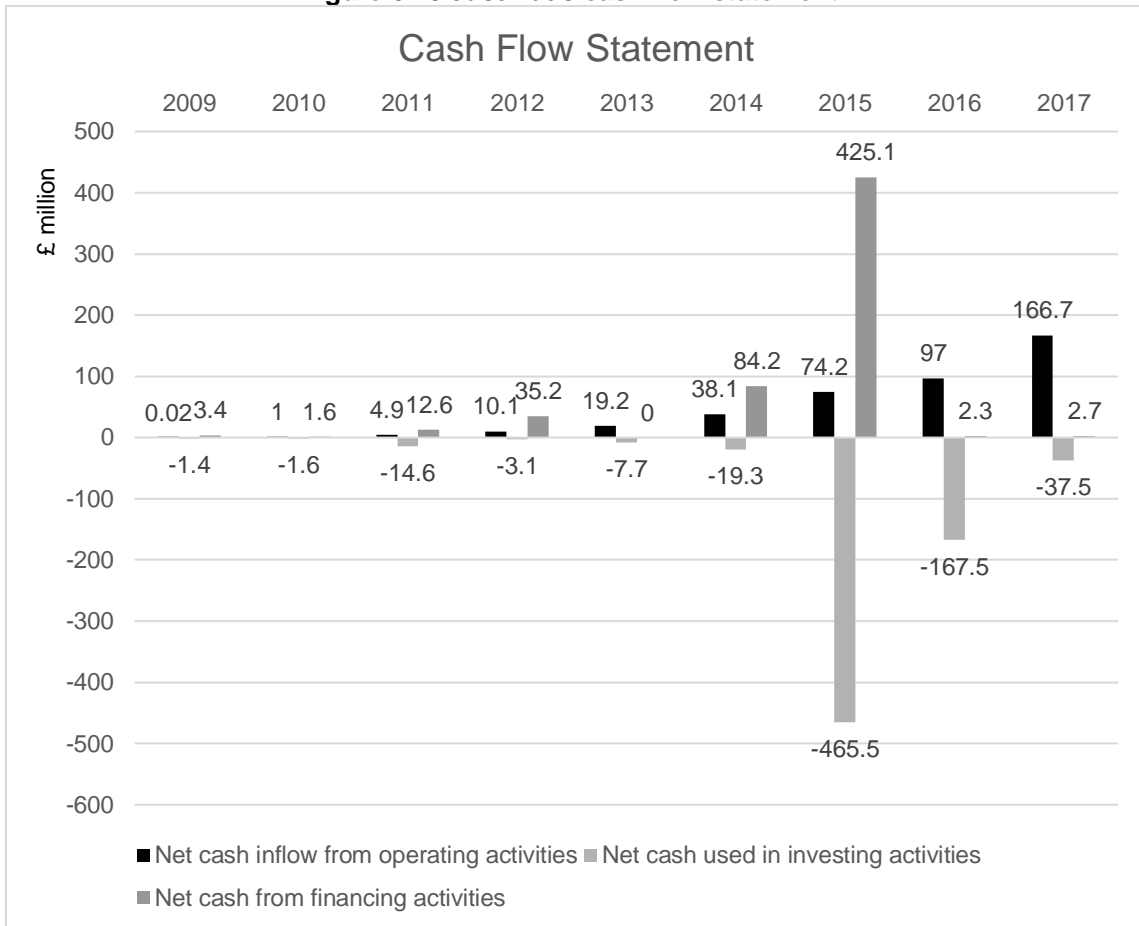


Source: Just's Eat financial statement 2008-2017. Notes: see Appendix 5.

Following the analysis that focused the cash flow statements, Figure 6.10 presents the cash flow including cash received from operating activities, cash used in investing activities and net cash used in financing activities. From the diagram, it can be seen that from among all years, 2015 had the greatest amount of cash from financing activities with £425.1 million and investing activities with negative £465.5 million. According to Brycz and Pauka (2012), when the operating and financing activities are positive, and the investing activities are in a negative condition, it means that the cash from operating activities is not sufficient compared to the investing activities. Thus, Just Eat needs to gain additional external capital to support this issue. This is a typical situation that occurs for developing firms that need to gain credibility to gain the needed capital. However, in 2017, the cash inflow from operating activities had the largest increment compared to all other years. This was due to the impairment charges or the value slashed by Just Eat on Menulog which resulted in a cash flow gain. This action was related to the loss made by Just Eat in order to ensure that the business would continue to operate operating smoothly.

Therefore, from the financial statement analysis that was performed, it can be concluded that between 2008 and 2014, the financial statements revealed that the company was still developing, and there were several financial aspects that they needed to carefully address to ensure that their operations would generate profit. For example, the large value of total administrative expenses and the need to increase sales in the developing market instead of only focusing on the UK market. Although, from 2015 the company has been experiencing fluctuations, both up and down. Therefore, Just Eat needs to re-evaluate this issue and take appropriate actions to solve the problem.

Figure 6.10 Just Eat's cash flow statement.



Source: Just's Eat Cash Flow statement 2009-2017. Notes: see Appendix 10.

The analysis of Just Eat's financial statements analysis has also shown that Just Eat's profit was mostly acquired from customers' orders given their aim is to be a market leader in the OTFO sector. Thus they invest their money in the M&A of other companies for growth.

6.4 Business operation

To understand their business operations, the following discussion focuses on Just Eat's business model, growth strategies and marketing strategies.

6.4.1 Business model

According to Teece (2010), a business model is defined as an idea of how a company designs the business to operate. A business model aims to create value for customers, to encourage payment and convert the payment to profit for the company. Through the reviews of Just Eat's Annual Reports and Accounts, it showed the business model of Just Eat is based on four key drivers and three strategic initiatives. The four drivers are technology, scalability, brand and people and the three strategic initiatives are for restaurants, consumers and for the organisation itself. Just Eat's mission is to empower consumers to enjoy their takeaway experience. Their short term goal is to focus on growth and be a clear market leader, and their long-term goal is to focus on profit, sustainability and increasing market share (Just Eat, 2015). Although a company's mission does not have a direct effect on the firm's performance (Bart, 1996), it does affect the firm in the way it manages the business strategy such as its marketing strategies. From the interview with Mr R, he described Just Eat as an organisation that is based on marketing, where they use marketing to drive people.

According to Foxall (1999), a marketing-based firm can be defined as an organisation which focuses on retaining customers in the competitive food ordering sector. The success of the firm (such as Just Eat) also relies on the acceptance of the marketing mix (i.e. product, price, promotion, people, physical environment, place and process) in the online food ordering sector. However, as a company that depends on innovation, commercialisation is an important factor for successful innovation (Adams et al., 2006). Concerning Just Eat, they have a successful product which provides online home delivery services to consumers and charges a reasonable price for each placed by the customer supported by

great marketing and promotion. However, Just Eat needs to ensure their marketing plan performs correctly to encourage more restaurants to join them along with a greater number of consumers using their service.

Further examination revealed other elements contributing to the success of Just Eat, which included the business environment (internal and external). The business environment can influence the growth or decline of a company either positively or negatively. In the case of Just Eat, in 2016, they faced a difficult situation due to the UK's decision to withdraw from the European Union, also known as Brexit. Although Just Eat claimed that Brexit does not affect Just Eat's operation, to ensure the external environment does not influence the operation of the organisation, Just Eat decided to undertake a risk management assessment (Just Eat, 2016b). In progressing this assessment, Just Eat developed a risk assessment framework (see Figure 6.11) which could help regarding any unforeseen situations arising given the diversity of the business in other countries. The framework focused on several key risk areas including competition and the market, regulation and legislation, technology dependency, cybersecurity, data protection and business growth. However, these risks will continually be reviewed and monitored and may change depending on the risks faced by the company in the future.

Figure 6.11 Risk assessment framework



Source: Just Eat (2017a, p.22)

The risk management assessment started with identifying the risks to determine the type and nature of each risk, followed by assessing the probability of the risk occurring and impact on the business. Following the assessment, each risk is assigned to a risk owner to mitigate the activities. All the risks management program will be implemented and monitored by the board regularly, with the support of the executive team. A risk register is also maintained of all corporate and internal risks. Senior management is responsible for the continuous review of the risks, risk register and methodology. Moreover, they also need to update and reflect on any of the new and developing areas that impact the business strategy. If for example, there is external exposure, this risk will be communicated to the board for further action in order to mitigate the risk. For the corporate risk register, it is reviewed by the Audit Committee regularly.

6.4.2 Growth strategies

From the financial statement analysis, it has been discovered that Just Eat has been active in M&A activities over the last few years which allowed them to become the market leader in this sector. There are several benefits of being a market leader. Firstly, they are able to attract new consumers and new restaurants to participate. Also, as there are food establishments that do not have any technological presence, Just Eat helps these establishments to better cope with technology.

“I think for many independent restaurants out there we added extra revenue on them. If you talk to them (participating restaurants) they will say Just Eat has added extra order for them. I think, it’s difficult to understand whether or not Just Eat in anyway cannibalised this. If people are moving from telephone to online, then it difficult to know whether they were adding extra news restaurant to businesses. I certainly think for restaurants, certainly successful restaurant, Just Eat has played a large part in their business.” – Mr R, Just Eat.

The success of Just Eat has also provided benefits to stakeholders (i.e. customers and participating restaurants). Just Eat’s business model states the value they provide to restaurants that participate in their business. For example, receiving more orders of higher value given that the customers can view the restaurant’s menu online or via their mobile app, and the restaurant likewise has access to Just Eat’s brand and technology. Also, customer orders are processed

efficiently with many other benefits provided such as menu printing and feedback on consumer preferences and usage. Similarly, customers also benefit in several ways including being informed about choices from every participating restaurant's menu, customer reviews, convenience in ordering via mobile apps or online, the trusted brand, and easy payment methods. While for Just Eat, the benefit of the business model allows the company with the ability to grow financially and strive for growth by investing in developing and retaining people.

Just Eat aims of becoming a market leader can be seen in their M&A of several companies in the UK and in several other countries in which they operate. Table 6.1 shows the list of M&As by Just Eat between 2011 and 2018. The M&A of companies has allowed Just Eat to become a market leader and enter into local markets. The evidence is seen in countries such as Australia where Just Eat acquired Menulog, and in Mexico through the acquisition of SinDelantal (Just Eat, 2016a). Similar to Menulog and SinDelantal as they are the top OTFO companies in both countries. The acquisition of Menulog and SinDelantal made it easier for Just Eat to expand its market in Australia and Mexico without needing to introduce Just Eat to the local community. In fact, the expansion of the company within the UK is based on the acquisition of many OTFO players based in the UK such as Fillmybelly.com, Eat Student and Urban Bite (Just Eat, 2011c, 2012).

Table 6.1 List of merger and acquisition by Just Eat

Chronology years of acquisition	Online takeaway food ordering sites	Country
2010	EatStudent Ltd	UK
2011	HungryZone (Acquired by Foodpanda in 2015) YummyWeb ClickEat.it RestauranteWeb GrubCanada UrbanBite	India Canada Italy Brazil Canada London, UK
2012	SinDelantal Fillmybelly.com Eat.ch Just Eat Benelux Alloresto.fr	Spain Nottingham, UK Switzerland Netherlands France
2014	Meal2Go (POS company) MenuExpress Deliverytown Eatcity.ie Orogo (Technology company)	Birmingham, UK Canada Ireland UK
2015	Menulog Clicca e Mangia DeliveRex Nifty Nosh Orderit.ca	Australia and New Zealand Italy Northern Ireland Canada
2016	Hellofood Brazil PizzaBo/ Hellofood Italy Hellofood Mexico La Nevera Roja Takeaway.com UK SkipTheDishes	Brazil Italy Mexico Spain Denmark Canada
2018	HungryHouse (Full Acquisition)	UK

Source: Just Eat (2011a,b,c,d,e,f; 2012; 2013a; 2016b)

The latest acquisition by Just Eat was of their main competitor in the UK; HungryHouse and a company in Canada called SkipTheDishes. The purchase of HungryHouse by Just Eat has been argued ever since the company announced its intention to acquire the business. By purchasing HungryHouse, the UK government recognised that Just Eat could monopolise the OTFO market. Therefore, in order for a company to acquire its main competitor, they needed to

go through The Competition and Markets Authority (CMA) to gain approval. After a thorough investigation, the CMA ruled that Just Eat could acquire HungryHouse because of several reasons (Williams, 2017). First, HungryHouse was not Just Eat's largest competitor, given the market has been dominated by other companies such as Deliveroo and UberEats. Secondly, the competition in the OTFO sector was eased given that consumers could order using a different channel such as directly from the restaurant via the phone, website or walk-in (Williams, 2017). By gaining all the OTFO market share in the UK, Just Eat was able to compete with Deliveroo. According to Just Eat's 2015 annual report, Just Eat choose companies to merge with based on where the e-commerce companies are established and where the takeaway market is highly fragmented. This finding was significant with (Pigatto et al., 2017), who discovered the main online takeaway ordering company in Brazil was growing due to the M&A that was made, making them the market leader in the country.

However, several countries still do not have a Just Eat presence such as the United States, which is dominated by GrubHub, Asian countries with Food Panda and Germany (see Table 6.1). Questions regarding M&As strategies by Just Eat were also asked to Mr R and his answer as follows:

“Possibly yeah, we have merger and acquisition (M&A) team. So, they will look at different market and work on different potential likely higher value market.... Yeah, I think we would never say never come to Asia. They would look it a case by case. I know that Deliveroo is in Hong Kong now.... But there is some market everyone always asks us about: Germany and USA the two. The problem is in USA have 16 different competitors fiercely

competitor competitive environment, and then we have people like Uber Eats coming in, so there are really big companies coming into that space, Amazon potentially and the chances of us being no 1 quite difficult. So, it easier for us to operate in a market where we have a good chance of being number one and think of those markets than to try to enter a market than already competitive...” Mr.R, Just Eat.

Also, an article describing the interview with ex-Just Eat CEO, Klaus Nyengaard was also found answering the reasons for not investing in America where the CEO stated that although the US is larger than the UK, it is more complex and highly competitive. Therefore, it is better to avoid the complexity and focus on a market that you can be successful in (Johnson, 2012).

In India, Just Eat established its name as HungryBangalore in 2006 (Foodpanda, 2015). In 2011, Just Eat acquired HungryZone a local India OTFO business and changed its name to Just Eat India. The aim of Just Eat as the market leader in the OTFO sector in India stopped when Just Eat’s competitor Foodpanda acquired the TastyKhana.in and acquired Just Eat India in November 2014 (Foodpanda, 2015). In exchange for the sale, Just Eat receives a minority holding in Foodpanda (Foodpanda, 2015).

In Brazil, Just Eat established a joint venture with a local mobile company called Movile that owned iFood an online takeaway food app (Sreeharsha, 2014). The joint venture was called IF-JE, and Movile owns the largest stake with 50.02% while Just Eat has a 25 % stake. iFood’s founders take the remaining 24.98%. In 2016, Just Eat sold Hellofood Brazil, SinDelantal and HelloFood Mexico to its joint venture company. From the sales, Just Eat received USD 11 million for both

transactions and also benefited in the services offered by local IF-JE management in Mexico (Just Eat, 2016d). In Mexico, Just Eat now has 51% of the OTFO business. Also, Just Eat holds a 30% stake of IF-JE ownership. In the Netherlands and Belgium, Just Eat needs to sell its Benelux business after the company failed as the market leader. David Buttress, CEO of Just Eat, commented also discussed this aspect.

“We have always been clear that the competitive dynamics of our industry demand clear market leadership to drive sustainable profitability. The disposal of our Benelux business, where we are number two, delivers on that strategy and comes at the right time for Just Eat. We are the clear leader in our remaining 12 markets and it is appropriate that our time and resources are focused on building on the strong growth we are seeing across those businesses in future.” - (Just Eat, 2016c).

Therefore, from the evidence above, it appears that Just Eat is unable of being the market leader in every country. The consequences after trying to be a market leader in the country like Benelux are that they need to sell the businesses as they could not afford to be placed second in the market. Whereas, in Brazil, they need to incorporate with the local company as part of their strategy to be number one in the country.

In order to understand further Just Eat’s objective for M&As, the interviewee was asked questions related to monopoly. The interview was conducted in 2015 and was different compared to 2018 when Just Eat had taken over almost every

competitor using a similar type of system (separated system) including their main competitor, HungryHouse.

“I don’t think we would necessary buy our competitors completely. I think there’s a level of healthy competition. In e-commerce, there’s always disruptors. We can talk about our competitors, company just like Deliveroo whose sprang up those competitions and we would never want wish in a situation where we are the only operator in the business. One of the keys of Just Eat is to be the most top of mind in consumer idea, so when they come to think about ordering food online, they think of Just Eat before they think of anything else. That’s come from broad marketing activities.” – Mr R, Just Eat.

However, from the analysis, it showed Just Eat did not have any interest in Deliveroo as they had a different business model, but still saw them as a competitor in the same sector. Based on this finding, Just Eat’s M&As are based on their desire to be the market leader in the OTFO sector, but not to monopolise the overall market. The monopoly theory or market power hypothesis refers to the capability of the organisation to take over the price, quality and supply of its products as a result of the acquisition (Piesse et al., 2013). M&As are the quickest and most effective way for an organisation to grow. However, the acquired businesses also impact the acquiring firm (Leigh and North, 1978). Some of the M&As made by Just Eat have been successful, while others have not. From the previous research, it was revealed that the history of M&As in the UK had a

negative effect long-term (Dickerson, Gibson and Tsakalotos, 1997; Papadakis, 2005).

6.4.3 Marketing strategies

In order to understand how Just Eat built its image, it is important to understand their marketing strategies. From the information extracted from the video interview with Rik Moore, Head of Creative Strategy, Havas Media stated several marketing strategies that had been implemented by Just Eat for them to be a larger known brand. The strategies included:

1. Having strong leadership: "Give something to people as a reason for them to come to us and jump to us and listen to what we have to say".
2. Strong investment: "The idea of... the restaurant see us big, consumers see us big, and we will become big. So, it is a bit to invest in the brand and all sorts of speculating to immaculate [perfect] the approach if you will".
3. Be present everywhere: "This is an idea to surround you with our message but in the heart of that is the TV which links all that together and really drives fame and the brand idea".

From the information above, it showed that Just Eat's first steps were to develop a strong brand. A strong brand shows the consumer that they are in the big league in the OTFO market. By creating a strong marketing campaign such using the tagline 'Don't cook, Just Eat!' in their previous year's marketing promotion, they successfully let people know that they were available in the market. Knowing the importance of marketing, they increased their marketing budget by up to 50 %, which is significant for a small company at that time. If they were to succeed in

the campaign, they would be known and able to establish the company and brand, while the campaign failing would mean the end for Just Eat. Putte (2009) explained that marketing expenditure does not have any impact on the effectiveness of marketing promotion as the most important aspect is the content associated with advertising. To understand more about the marketing investment, the following discusses Just Eat's marketing strategies.

In understanding marketing strategies, it is important to first understand the ideas and factors that are needed. From the video interview, Mat Braddy, a former chief marketing officer for Just Eat mentioned that they had developed the brand by brainstorming ideas across cultural teams and departments within the organisation. They gathered employees from the sales department and from the finance department to work together for several days. Generating ideas through multi-disciplinary departments provided excellent results relating to quantity, quality and the diversification of ideas (Alves et al., 2007). Therefore, this was an effective approach for Just Eat to use this technique to generate ideas for branding the company. This statement is related to the idea of how Just Eat built their brand and brand identity.

To be a successful business, based on the previous interview and document reviews, the Just Eat brand was an important aspect for them. Brand positioning has placed Just Eat as the market leader in many countries including the UK. The first brand identity initiative that positioned Just Eat in the UK market began with their advertising and identity. In this case, the mini-fist pump was the physical symbol and identity of Just Eat, while 'Don't cook, Just Eat' being the well-known tagline for Just Eat.

A similar study by Ghodeswar (2008), discovered the positioning of the brand would attract the attention of the target audience by using traditional media channels such as newspapers, magazines, sponsorships, internet and television. Moreover, Sääksjärvi and Samiee (2011) discovered that a cyber brand was different from an offline brand where brand identity is more important than other brand components. A company may employ many other marketing techniques. One of them is called integrated marketing communication that ensures the marketing plan or marketing strategy are properly integrated. For example, a television advertisement has the same advertisement theme as used on the radio and the internet.

Rik Moore, Head of Creative Strategy for Havas Media mentioned that the multi-channel marketing used by Just Eat proved to be successful for them. Among the other marketing channels used by Just Eat included online advertising and traditional advertising such as television and radio. However, the focus of the promotion for Just Eat was more towards television advertising as the medium which proved to increase their brand name but also had the most frequently recalled ads (Goldsmith and Lafferty, 2002).

To make sure that Just Eat's brand positioning was successful, television advertising supported with a powerful message was needed. David Butress and Rik Moore mentioned:

“So, a thing about having a big idea a big flexible idea of don't cook just eat where could we go with it. So, the first things were the TV ads, which we cast to do this idea of chefs, this idea of renegade chefs unhappy that people were still cooking, so they

go out and stop them cooking. Led by Mr. Mozzarella with the big moustache, big cooking hat.” - (Thinkbox, 2015).

And

“Very reservoir dodge, to breaking people house to stop them from cooking. And then there were a short one, where they in a forest having a rave with giant Fargo style wood chipper, chopping up celebrity cookbook and other things they were using trolley to make barricade, to stop people cooking. So, those are really fun ads.” - (Thinkbox, 2015).

Besides, Just Eat also took a spot on a television show called ‘Ant and Dec’ to end the previous campaign and changing their marketing strategies. However, to ensure consumers knew them, substantial and strong advertising was required. Thus viral advertising was created. Successful viral marketing depends on whether consumers think there is a need for the message to be passing on to others without feeling abused or used in the process (Dobele, Toleman and Beverland, 2005). The process of Just Eat’s viral marketing began when they sponsored a political party called ‘Don’t cook, Just Eat!’ in November 2012. Rik Moore mentioned the viral advertising occurred along the following lines.

“So, the actor guy from our advert manfully change his name by repoll, so his first name is Mr and his surname is Mozzarella, which is the character in the advert. And he even had a jetpack, flew around Corby on it to over committing to running an election, how we gonna stand out in Corby.... That’s flying around Corby

on a jetpack obviously. TV was a really big part of it, by giving us so much more in term of talking to the public socialising with the public than social media. Our advert being kidnap connected with social media, we started to really become two screen brands.” – (Thinkbox, 2015).

The viral marketing was successful, word-of-mouth among consumers would increase the identity and reputation of the brand. Just Eat was being voiced by the public 45% more compared to Domino's Pizza following their promotional campaign. This showed that the power of marketing successfully introduced the Just Eat brand to consumers.

In summary, Just Eat employed two approaches to their marketing strategies which included online and offline marketing. All their marketing campaigns were successful as they knew how to select the type of marketing promotions suitable for their brand and image.

6.5 Innovation and technology development

The third sub-topic is related to innovation (apps) and technology development in Just Eat. Based on the previous topic, it is clear that Just Eat made a strong statement on how important innovation and technology meant to Just Eat. The innovation and technology development theme focused on innovation and technology development and consumer reaction to the technology and innovation developed by Just Eat. The innovation concept can be interpreted differently for

various people for varied purposes. The interview with Mr R, on the innovation, was described based on the narrative below.

“There is an innovation that gets you to market standard and then you get to your competitor level and then you could be at upper market, the broader market and then moving beyond that. The best sense of word, innovation is moving ahead and innovating features that put you in competitive advantages compare to your competitors.” - Mr R, Just Eat.

Just Eat believed it was utilising innovation far ahead of its competitors by developing and improving their products or services. Innovation for Just Eat mainly focused on the technology and the product they offered. The technological aspect can be seen in the company’s investment in technology by opening a technology hub in Bristol, (UK) which focused on software development on native apps for iOS, Android and Windows (Saran, 2014). The technology hub in Bristol worked closely with a technology office in London, that concentrated on improving Just Eat’s e-commerce and back-office systems for Just Eat’s customers and takeaway partner restaurants globally. The technology hub was used to innovate new technology such as new mobile apps and a new point-of-sale system. The interviewee also mentioned that the innovation and development team in Just Eat was always trying to develop new technology to compete with the company’s competitors. The answer by the interviewee continues:

“And then, we have a product development side of it, which is partly running to stand still... in order to keep up with Uber,

Amazon and Deliveroo, we continuously developing a new feature to be more delightful for consumer. But also, because consumers are hoping for more and more.” - Mr R, Just Eat.

Besides investing in the new technology office, Just Eat also acquired many technology companies to improve their technology. The companies acquired by Just Eat included an electronic point-of-sale company, Meal2Go and a collection apps from Orogo. Acquiring similar technologies as used in the acquiring company (i.e. Just Eat) also helps with the compatibility of systems and smooth integration of technologies to enhance the performance of the company (Tsai and Wang, 2008). To improve their services, Just Eat always ensures its customers and restaurant partners attain the best experience from using Just Eat's technology upgrades and improvements such as improving payment by reducing the number of steps for customers to get their order, auto-debit feature if the customer has credit and a summarised payment/order receipt.

Just Eat also developed several incremental innovations to support Apple pay, an order tracker for participating restaurants informing them of the customer's order and order notification. In 2015, Just Eat launched a new customer relationship management (CRM) tool to improve the delivery of marketing news and relevant promotions to their target customers. In 2016, Just Eat adopted Apple pay and launched their first Apple TV app and smart TV app that enabled customers to order from their TV.

According to Mr R, all innovations were developed by Just Eat. However, the design is often outsourced to a third-party company. For example, when Just Eat develops ideas on how they wish their apps to be designed, the designer

company will bring their ideas to fruition through the functional design of the innovation. However, it is the responsibility of Just Eat to ensure that consumers accept the app.

6.5.1 Just Eat mobile app

Just Eat's mobile application was one of their sources of income where the customer was able to order and pay for their takeaway food. To understand this innovation further the information obtained from the document search related to the development and use of their app and questions regarding the app is next presented.

In the beginning, Just Eat only offered their customers an ordering service via their website. The interviewee was asked why Just Eat introduced a mobile application to users with the answer next described.

"...But I think what happens was we introduce the apps and the epic system alongside the desktop, but we don't particularly promote it and only after we did some analysis of profile of the users of the apps that we know this people were more valuable to us. And so, because they are more valuable and tends to spend more. That we began promoting the apps a little more..."

- Mr R, Just Eat.

Just Eat started to develop their mobile app for the iPhone and Android in 2012, and many versions have since been developed. In 2016, Just Eat developed an application for smart TV and Apple TV. All applications enabled users to place

their orders whether on a tablet, smartphone or television. In 2013, Just Eat celebrated the success of their iOS and Android app with 1.3 million downloads of the app by users. Just Eat targeted anticipated the apps growing over time as they assumed consumers who used the apps would continue being loyal towards them. A statement further supported this at the time by Just Eat's Mobile Product Manager who worked at Just Eat between 2012 and 2015.

"This continued strong app growth is a testament not only to the fact that happy JUST EAT customers want to order on their mobile, but to the awesome quality of the apps, the strength of our brand and the amazing marketing that has gone on globally."
- (Just Eat, 2014c)

Also, Mr R also mentioned the following:

"We know that apps consumers are more loyal. They tend to be more upmarket, they tend to earn more and spend more as well. For desktop, they tend to be older and less loyal." - **Mr R, Just Eat.**

The reason why the young consumer is inclined to adopt the mobile application is that of their knowledge and access to technology devices which increases a higher level of trust with minimal effort of understanding its use (Liébana-Cabanillas, Muñoz-Leiva and Sánchez-Fernández, 2015). This is in contrast to the older users who are reluctant to use the new technology (Liébana-Cabanillas, Muñoz-Leiva and Sánchez-Fernández, 2015).

Through researching their consumers, Just Eat discovered that consumers who used their mobile apps were loyal and provided more profit for the company. That is the main reason why Just Eat started to focus more on developing and refining their mobile app; they wanted to drive consumers from using the phone and website to using their mobile application. This can be evidenced in their television advertising. In the early years, Just Eat inserted the tag 'tap to order' on online, however, from 2015, they began to advertise their app by adding the tag 'tap the app' in their television advertising.

According to Chang (2015), for consumers, loyalty was determined by whether the mobile application was valuable for them. This finding was also supported by Lin & Wang (2006), who discovered consumer loyalty is affected by consumer satisfaction, trust, habit and perceived value of m-commerce. Thus, for Just Eat to ensure their mobile app's users were loyal, they needed to develop an app that was perceived as valuable.

6.5.2 Consumer reaction

From prior discussion, it can be seen that Just Eat made many improvements regarding innovation in their company. Therefore, it is interesting to understand the consumers' reaction to innovation. Mr R explained that not all the innovation had been positively received.

"So, they don't always react positively. Several experiences in the online world where we put a site redesign. The visit decreases after the initial built, and that's because user don't always, even in the design doesn't particularly useful or

outdated, users because become quickly become used to that some box design. So, we need changes to something that is more optimised, actually that means consumer needs to unlearn that behaviour so what tends to happen is that there's are small bit usage straight after that innovation. And that hopefully if the innovation a good one, we looked for a benchmark for a slightly long-term, maybe medium term. If we look at the usage straight after an innovation or a feature comes through into the apps. Then, there often a short terms dip and then longer-term increase in innovation. So, the important what things to do is make sure that we are looking at medium and long-term matrix.

- Mr R, Just Eat.

Therefore, to gain further insight into the customers' reaction to the innovation, the respondent was asked about customer readiness when confronted with the innovation and how Just Eat introduced the innovation to customers.

"It isn't always; it depends on the source of innovation. If it's really big things. If you redesign a front page. It may be difficult to do that. But in a situation where you are innovating around the edges, features that it's maybe slightly smaller, then what you do is sort wait and see and you do sort of bench-testing as well. You know, one of the techniques is to do what they called a false door. If you have innovation before you built it, you might put a button on your website that's said for example reorder button.

You haven't built it yet, but you put reorder button on your apps and you see how many people click on the button. The button just said thanks for your interest and come back another time or something. Do bit disappointing for the consumer in the first place but it gives you a sense of how well the innovation will be an interest." - Mr R, Just Eat.

Both of the responses indicated that any incremental innovation needs to be informed beforehand to the consumer before proceeding with the innovation. By conducting testing or by trial and error (i.e. pilot) on consumers, it will provide the company with initial feedback on whether the consumer has a positive or negative reaction to the innovation. However, for every innovation that is developed by a company, it is important to provide the consumer with enough information or support (Murray, 1991), as it will reduce consumer resistance towards the innovation (Kleijnen, Lee and Wetzels, 2009).

6.5.3 Consumer acceptance

Based on the conceptual framework of this study, several questions regarding customer acceptance toward Just Eat's mobile app emerged including convenience, trust, security and privacy. The first question regarding the consumer's acceptance of technology was related to convenience. Mr R was asked about the definition of convenience, and it related to Just Eat's mobile apps? The answer is next described.

“Okay, there’s a lot of the understanding on how of consumer value on Just Eat is to make it easy as possible and quick as possible to order food. And that will be a big driver increase usage. So, if you cut down number of hurdles or steps consumer to get the food then we think they will use us more and they will happier.” - Mr R, Just Eat.

The convenience afforded to the Just Eat mobile app is shown in the design of the application.

“So, you can see it in the design, if you in the front page of the Just Eat. Its look a bit like Google use tool. Literally, just use a single postcode. Just type in your postcode and that all you need to do and then we ask you to login once you choose your foods, but we try to emphasise simplicity and try not to confuse our consumer.” - Mr R, Just Eat.

The response can be interpreted as relating to the design aesthetics of the mobile application. This finding was supported by (Cyr, Head and Ivanov, 2006) who stated that the design aesthetics have a significant impact on the perceived ease of use, perceived usefulness and perceived enjoyment. It also proves that the design aesthetics of the mobile interface has a significant impact on consumer loyalty to use the mobile application.

Regarding the convenience of the app, Mr R was then asked about the effectiveness of the mobile application during busy hours given there is a

possibility that the application might crash or not function. The answer below was provided.

“So, we devote significant resources to it. We need someone, like we have a dedicated team that makes sure they monitor the response time for usage. They will build in what they call a latency. So, they always make sure if usage increase by a 100% they will be able to cope.” - Mr R, Just Eat.

The team of experts in Just Eat will make sure the Just Eat app will operate smoothly during such events. However, if an accident does occur after surveillance, the team will take extra to develop a new security measure or to rectify the issue. An example was mentioned by the interviewee of an incident that occurred in December 2015, in which the team managed to control the situation successfully.

“Yes, exactly. The good example of that we had there were a phishing ... Where someone was trying to get credit card details, we shut develop. We develop in a single week a used captcha login, extra security benefit for security features for the site. So, that was a huge issue for us when we discovered there were potential problem.” - Mr R, Just Eat.

Just Eat considers security issues as an important aspect of their services. In e-commerce, security refers to the consumer’s perspective regarding the security

of transactions made online that include the protection of financial information from unauthorised access during the transaction (Limbu, Wolf and Lunsford, 2011). The evidence of Just Eat's concern regarding security matters is also evidenced in the maintenance of the app and how they improve the functionality and robustness of the app and website. Especially given customers are able to save their card and personal details on their website. Details are stored securely and encrypted with using an online payment provider, and the customer's card details are never stored on Just Eat systems or are accessible to any of Just Eat's employees. This finding was supported by (Roca, García and Vega, 2009) who discovered, and consumers are more likely to have positive intention to purchase online when the security interaction between the organisation and consumer is robust.

Moreover, to gain customer trust towards their service, Just Eat complies with several regulations and provides training to all staff. The interviewee also mentioned further details.

“We conform, there a lot of EU laws and UK laws now, so, we comply with all of those laws. We also have internal training, so when you arrived at Just Eat you have to take complete a data privacy course. So, everyone understands the obligation they have and yes, we have compliance officer as well. Who look after...” - Mr R, Just Eat.

Concerning trust and reliability towards Just Eat apps, the teams are always making sure the apps are functioning correctly and ensuring to every customer, their awareness of each incident that occurs. The interviewee answered further by mentioning:

“I suppose trustworthy in the sense of make knowing that the apps work and you know we takes great store in monitoring the performance of the apps and that said in terms of trustworthiness and data privacy we do reassure customer that, and send an e-mail to all of our customer. After the phishing, we reassure them there are no data breaching or something like that.” - Mr R, Just Eat.

The consumer will develop trust in the online retailing business where the organisation develops strategic measures to reduce the risks (Vos et al., 2014). The action taken by Just Eat has resulted in a trust relationship with the consumer, which helps to increase the consumers' intention to purchase more (McCole, Ramsey and Williams, 2010; Abbasi, Bigham and Sarencheh, 2011).

6.6 Challenges and issues

Challenges and issues are a topic that focuses on the difficulties faced by Just Eat. The topic of challenges and issues that emerged from the document review and interviews, related to consumers, social media and participating restaurants.

6.6.1 Consumer

Retaining customers and participating restaurants that sign up with Just Eat are one of the challenges for Just Eat. Mr R answered several questions relating to this area as described next.

*“We know we retain more customer with the apps. But the challenges to retaining customers is continuing to be relevant to customer. Maintaining the ideas of their needs, as I grow older, I care about more of my health and my family health. We have to adapt our offering to make sure we are in tune with people means and interest. That’s is one thing on consumer side.” - **Mr R, Just Eat.***

The answers that were provided related to the food offering of the participating restaurant. Most restaurants that participate in their directory are quick-casual restaurants, known for selling unhealthy food. Therefore, to address this issue Just Eat needed to attune itself to the demands of the consumer. For example, the health-conscious consumer may want a healthier choice. Also, there are many other techniques used by Just Eat to facilitate the increase in consumer traffic on their website. Among them are SEO and Pay-Per-Click (PPC).

*“... we used television advertising to build our name, when people go online, we used SEO. PPC around obviously, keywords, to drive people online.” - **Mr R, Just Eat.***

SEO was used to increase the search performance of Just Eat as a search engine for example in Google (Cui and Hu, 2011). By using SEO, the consumer was able to find out what online food ordering services existed in the market by keyword searching. Meanwhile, PPC is used by advertisers to increase their audience by measuring the number of clicks on advertisements (Fjell, 2009). Both of these techniques are important and have been useful for Just Eat as their company requires a good web presence to attract customers.

6.6.2 Participating restaurant relationship

While customers generally like the convenience of Just Eat, there are also many complaints made by participating restaurants. Most negative comments and complaints are due to the commission Just Eat charges for each order from restaurants (Preoday, 2014). Many participating restaurants of online takeaway food ordering sector found that the commission charged burdened them, and they were ready to leave Just Eat (Preoday, 2014).

“On the restaurant side, making sure we show our relevant them to as well. Making sure we are valuable business partner, understand their needs and can help their business grow in the same way. Whether we are providing services or just providing more order for them. Continuing to be more relevant for them I think it also be a part of what we do.” - Mr R, Just Eat.

However, despite these complaints, Just Eat continues to be utilised by many local restaurants given it can attract many customers. The following response from the interviewee also highlighted this fact.

*“We had situation in Denmark, where Just Eat increased its commission and all of the restaurant decided to boycott the Danish Just Eat brand. But we raise our rate quite recently so, there not many complaints. We were expecting more actually and so, no one want to pay money. You know for those 30 orders, what did you do for Just Eat. All you do was sending people to me. I suppose, the jobs that we have to do is have to communicate to those restaurants the benefits and the activities that we do. For example, spending all the money on TV but also what we are looking forwards to do more is to develop a better relationship with those restaurants to explain what can we do to helps them. So, in the past we look in things like helping them with services, like legal services and things that we have. Maybe buying food at bulk rate and giving them discount. So, there are opportunities for us to develop a better relationship with the restaurant.” - **Mr R, Just Eat.***

The participating restaurant has many benefits by registering with Just Eat such as getting their restaurant listed in the Just Eat directory including on the website and using the mobile app, extra marketing campaigns and also others benefits such as legal services and helping local restaurants to generate more income.

For a restaurant, using a website such as Just Eat's may help to bring more profit their way, but the disadvantage of the fees may erode some of the profit from the sales they gain from working with Just Eat.

6.6.3 Social media

Another issue for Just Eat is social media. When social media first emerged, many consumers not aware of its potential. This was also a significant challenge for Just Eat once social media began to flourish, becoming a popular channel for people.

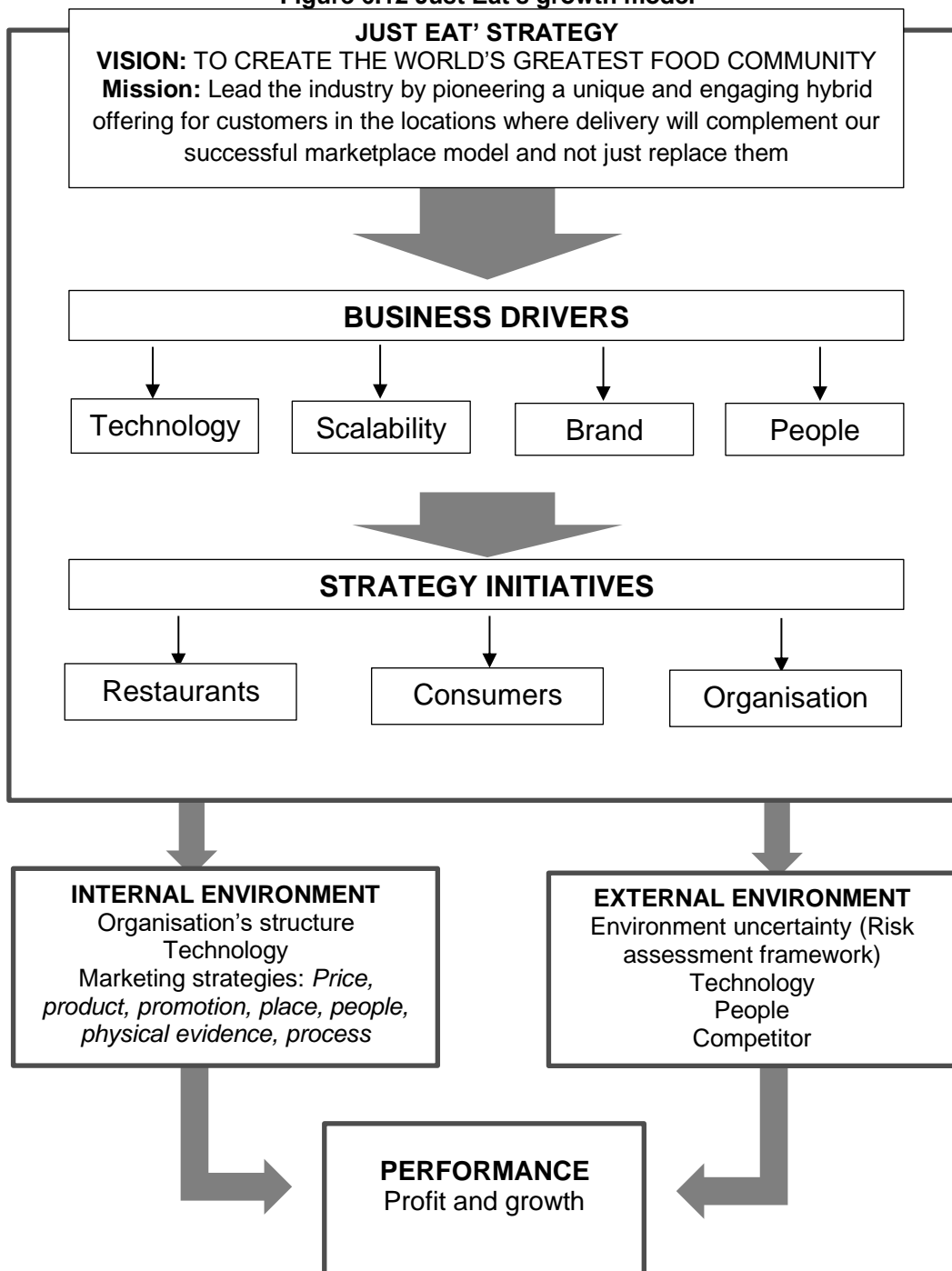
"It's very very fantastic for us. Really great advert, but there was a problem, social media took off, Facebook arrived... all this Twitter arrived, all this channel where we need to talk as a brand to public more and more which we didn't have in the first couple of years." - (Thinkbox, 2015).

At the beginning of Just Eat's establishment in 2014, social media was not considered to be a popular or valued platform, as it is today. This was an issue not just for Just Eat but also for companies that failed to adopt social media for marketing given the rising trend of social media. There are various social media applications in the market and companies do not need to adopt all forms but instead, choose those that are best suited to their purpose (Kaplan and Haenlein, 2010).

6.7 Just Eat's growth framework

Based on the above discussion, the author has developed a Just Eat growth framework as illustrated in Figure 6.12. The framework was developed using Just Eat's strategy which comprised of its vision and mission statement. As mentioned previously, Just Eat's business is based on technology, scalability, brand and people. They initially developed their business strategy founded on three different propositions founded on restaurants, consumers and organisations. To ensure that their mission and vision are fulfilled, they need to choose an organisational design structure that is suited to their current and future needs. However, to develop a proper organisation design, there are several factors they need to be considered such as the type of organisational structure, technology, internal environment and external environment. Additionally, a successful firm is built on effective marketing plans. These aspects as mentioned will help to build a sustainable environment and business performance that will inevitably support the firm's growth and profitability.

Figure 6.12 Just Eat's growth model



Source: Author. Adapted from Just Eat (2017a).

6.8 Summary

Based on the findings and discussion in this chapter, it is evident that Just Eat is the market leader in the OTFO sector in the UK. Having existed in the market for more than 10 years, they have demonstrated that they are a force to be reckoned

with. As the aim of this chapter was to understand the company's growth, several methods have been used to obtain information related to their development. Firstly, face-to-face interviews were conducted to understand the details regarding the company's operations. This was followed by thematic analysis of a video interview that was acquired via the internet and analysis of relevant documentation to understand Just Eat's financial growth, organisational design and business operations.

This study employed a single case study approach to illustrate the growth of the OTFO market in the UK by assessing a successful company operating within the market. The relevance of employing a case study is expressed by Yin (2003) as it is able to explain a phenomenon in a real-life context. The findings presented in this chapter are founded on a semi-structured interview enabling the author to understand Just Eat's business operations that consisted of their business aims, objectives and target market. However, due to insufficient information gained through the interview process, the study successfully gained electronic data such as video and online documents. Previous studies have revealed that using several different sources in a case study will enhance research (Eisenhardt, 1989; Meyer, 2001; Yin, 2003), which is presented through this research.

Notwithstanding, from the findings, themes have been identified and developed to understand the growth and operating characteristics of Just Eat. Four themes were developed from the study namely business strategies, innovation and technology and challenges and issues. Regarding the business strategies, the discussion related to Just Eat's business model, M&A and marketing strategies. While innovation and technology development related to the development of the mobile app and consumers' reaction to the technology. The last theme focused

on the challenges faced by Just Eat including consumers, participating restaurants and social media.

Before discussing the themes, the chapter described Just Eat's business profile, exploring the history and development of Just Eat and the business operations. Several elements were discussed including the company's aims, short-term and long-term objectives, their organisation chart and the function of each department. From the examination of Just Eat's organisational chart, it was found that Just Eat operates based on the hybrid formation of an organisation, combining functions and geographical divisions. This type of formation allowed the company to become more organised and easier for the executive team to monitor and supervise the progress of the company. Just Eat's main business operation and the main distribution of authority resides in the UK. Thus, the organisation chart in the UK is different from other countries they are operating in. Furthermore, the study also analyses the financial statements between 2009 and 2017 to understand the growth of the company through their financial history.

The growth of Just Eat has mostly depended on their business model based on its marketing strategy. Just Eat's mission is to be the number one OTFO company in the UK and also in other countries they have invested in. However, it is difficult for Just Eat to sustain its position as a market leader in every country. This was evidenced by several actions taken by Just Eat in Brazil where they established a joint venture agreement with a local e-commerce company. Creating a partnership means Just Eat was able to remain in the market without having to compete with the local businesses. The collaboration is seen as an advantage to both parties, as they can maintain their position in the business.

Besides investing in the collaboration and acquisition of small and local companies, Just Eat continues to innovate new features to upgrade their business offerings to consumers and participating restaurants. An example can be seen in the opening of their new office and also the acquisition of technology companies, such as Orogo. Just Eat strives to ensure their business is equipped with the latest technology such as creating apps for the Apple iPhone, Android phone and also smart television. Like any other business, Just Eat faced many challenges before becoming successful. Some of the challenges that they experienced as a company included understanding consumer, restaurant, and market needs and how to build their brand and reputation. Facing many difficulties has also helped Just Eat to become an experienced company in the OTFO sector in the UK.

CHAPTER 7 IN-DEPTH INTERVIEWS: STUDENTS LIFESTYLE AND EATING HABITS

The previous chapter focused on the supply-side of the OTFO sector. As highlighted in the introduction chapter, another important aspect of this study was to understand the consumer perspective of OTFO apps. To address this aspect, this study has targeted and focused on university students as the consumer as it is important to understand the lifestyle of students and the impact on their eating habits. Students are known to eat many unhealthy foods, particularly when it involves fast foods (Larson et al., 2008). By examining students' eating behaviour, the intention is to understand the students' acceptance of using OTFO services. Therefore, this chapter will form part of this understanding by examining students' lifestyles and socio-demographic characteristics of consumers who are consuming takeaway food, as it relates to Objective 3 of this study. However, in order to achieve this goal, 12 in-depth interviews were conducted among students who attended the University of Exeter. The respondents were chosen based on different demographic factors such as gender, age group, nationality and types of study.

Referring to Chapter 3, there has been much discussion surrounding the environment of university students, their lifestyle and the factors that influence their eating habits. Students are noted as being a busy consumer with limited time and skills. By entering and experiencing a new phase in their life, transitioning to a university or college, these students quickly learn to become independent. Previous studies have found that the lifestyle of students also altered along with their eating habits upon entering university. They need to learn

new skills such as preparing and cooking food (outside of studying) and more importantly manage their time. Taking the above discussion into account, this chapter will present findings from conducting interviews with the 12 university students and examine the significance of the findings.

This chapter begins by identifying the profile of the respondents and will then focus on the respondents' use of the internet and mobile devices. The respondents' daily routines will also be described which includes their weekday and weekend routines. It is anticipated that based on the information obtained from the respondents, their eating habits and patterns will also be understood. Although the respondents will mainly attend classes and study during weekdays, they still spend time socialising with friends and eating out. The respondents' differences between eating out and ordering takeaway foods will be described along with identifying the occasions that led to eating out. Finally, the respondents explain some of the factors that have influenced their eating habits including taste, value, financial constraints, healthiness and stress level.

7.1 The demographic profile of respondents

Table 7.1 outlines the demographic and food ordering behaviour of the 12 participants in this study, including gender, nationality, type of study and the approaches used to purchase takeaway food. From the twelve respondents, six have used OTFO apps, while the remainder used other methods to order takeaway food. It is important to highlight this aspect as it will aid in understanding the range of the student population concerning this aspect, who are users and non-users of OTFO apps. The study found that the methods of purchasing takeaway food were also influenced by other factors such as convenience,

examinations, location and social influence. These results are similar to a study by Deliens et al. (2014) on university students eating behaviours. Their study found that students eating behaviour were influenced by five different factors: individual, social environment, physical environment, the macro environment and the university's characteristics. Accordingly, this chapter has been structured based on the themes developed and discussed in Chapter 4, subsection 4.5.1.

Table 7.1 Demographic characteristics of the respondents

Number	Pseudonym	Age	Gender	Nationality	Types of study	Takeaway methods
01	Zack	19	Male	Malaysia	Undergraduate	Website and mobile apps
02	Lao	25	Female	China	Master	Website, calling restaurant directly
03	Rine	24	Female	Romania	Master	Mobile apps, calling direct
04	Rina	25	Female	Indonesia	Master	Mobile apps, website
05	Elly	25	Female	Turkish	Doctoral	Calling restaurant directly
06	Linda	25	Female	Hungarian	Doctoral	Website, calling restaurant directly
07	Rith	21	Male	British	Undergraduate	Websites
08	Paul	30-35	Male	Thai	Doctoral	Calling restaurant directly
09	Dan	21	Male	Malaysia	Undergraduate	Mobile apps
10	Ika	21	Female	Malaysia	Undergraduate	Website
11	Arif	21	Male	Malaysia	Undergraduate	Mobile apps
12	Ahid	25-30	Male	British	Doctoral	Mobile apps

Source: Author's fieldwork

7.2 Student technology usage

7.2.1 Students internet usage

Nowadays, the internet has quickly become an important tool which is widely used in different industries such as banking (Marakarkandy, Yajnik and

Dasgupta, 2017), tourism (Amaro and Duarte, 2013; Dickinson et al., 2014) and retailing (Agrebi and Jallais, 2015). Given the benefits afforded by technology, the education sector has also adopted the internet as an important tool to supplement the learning environment (Parkes, Stein and Reading, 2015). Aiken et al. (2003) claimed university and college students were the most tech-savvy consumers as they the facilities available to them to connect to the internet. The statement from Rith also supported this finding, saying that he had been using the internet to gain access to the services provided by the university in order to obtain information related to his studies.

Besides using the internet for business and learning, people also use it for entertainment and leisure activities. Leisure is defined as using the internet for communication such as using social networking sites and entertainment such as watching videos, listening to media and so forth (Peng, Tsai and Wu, 2006). Margaryan, Littlejohn and Vojt (2011) found that students are aware of tools that are available on the internet for learning, in particular, for leisure and entertainment. It was found in this study, that internet use for leisure was mostly used for listening to music, watching movies or drama, playing games and for communicating with friends or family.

For example, Rine mentioned that she mainly used the internet for social purposes where she would communicate with her family and friends via social network sites such as Facebook, Snapchat and Instagram. While Lao mentioned, she is likely to use WeChat and Facebook for communicating with friends and also watch movies and listen to music. These results were also supported by Hooi Ting et al. (2011) who found that the current younger generation prefers to use online methods to communicate as it is more flexible.

Besides using the internet for leisure, students are likely to relate to using the internet for shopping (Natwest, 2017). The responses from two respondents also supported this statement who also related to using the internet for shopping and to order food. One of the respondents was Dan who mostly used the internet for anything that he could think of including ordering food. Another respondent was Rina who used the internet to shop and on occasions would use it for purchasing takeaway food.

7.2.2 Students device ownership

Students are known to be experts when it comes to technology. Several studies discovered that students have a high level of ownership of technological devices such as tablets, laptops and smartphones (Kobus et al., 2013; Song and Lee, 2012). Their finding was similar to the finding in this study that most respondents have access to a laptop or desktop, and all have a smartphone. The respondents will use their device(s) either for studying or entertainment. Moreover, it was found that they would only tend to use their laptop for studying or for working purposes and their mobile phone for leisure purposes. Each mobile device will suit different purposes, as it was found in this study that individuals will perceive the smartphone as playful and a laptop quite the opposite (Adepu and Adler, 2016).

For instance, Rine mentioned that she only used a laptop for studying and a mobile phone for communicating. Also, for her, the screen size of the device was important to carry out complex and important tasks. She preferred using a laptop for study and would not use other devices for study purposes given the screen size. Another respondent, called Arif mentioned that it was easier to organise

using a laptop compared to a tablet or phone for studying. The characteristics of the device such as screen size and the keyboard are important for studying given the importance of obtaining the right information which is vital.

On the other hand, Paul said the usage of a laptop or desktop was important because it can also use software that was difficult to use on a mobile phone. For Ahid, using a mobile phone for work was difficult and prone to making mistakes because, on the phone, people only type using one or both thumbs. Whereas, when writing or typing using a laptop or desktop pc, people utilise all their fingers, which is more convenient. On the other hand, when the respondents were asked which device, they preferred to use besides studying or working purposes, most preferred using a mobile phone or smartphone device. Rine mentioned the device's characteristics were important. As with a phone, it has everything you need, and you can simply click to access the features.

The comparison between a laptop/desktop and a mobile phone also comes down to the portability of the device. The laptop/desktop are much larger, and difficult to carry. In contrast, a mobile phone is smaller, more portable and convenient to take anywhere. The respondents also related to using devices with certain tasks that they needed to perform. If the respondent needed to accomplish a complex task, they would prefer using a laptop or desktop and also used a desktop or laptop to watch movies given the larger screen size. In contrast, a smartphone can be used for communication such as checking e-mail, entertainment and socialising. This finding was similar to previous studies that found that screen size will influence consumer usage of a device (Chae and Kim, 2004; Kim and Sundar, 2014).

7.3 Students lifestyle - daily routine

Being a university or college student means that their lifestyle will mainly be focussing on study (Calderwood et al., 2014; Nonis and Hudson, 2010). To understand the student's lifestyle, the respondents were asked about their daily activities and routines as this could be related to their eating patterns.

Most of the respondents, whether undergraduate or postgraduate, mentioned they would begin their day around 8 am or 9 am and end around 6 pm. Further to knowing their weekday schedule, it is important to understand the respondents weekend activities. The interview results showed that the respondents were likely to spend their weekend time for leisure, however, if the respondents had a significant workload they might come to the university to study.

The results from the interviews indicated that the respondents would tend to go to the university if they needed to finish an assignment or to undertake other work. However, they still tended to spend their weekend time for leisure activities or to relax. It is important for an individual to participate in recovery activities during the weekend as it will help to reduce their stress (Ragsdale et al., 2011). Various recovery activities may be undertaken such as cooking, eating out and so forth. However, different individuals may have different perspectives when it comes down to the type of activities they perceive as recovery activities or stressful activities, for example cooking. The following section provides a further understanding of their perception of cooking.

7.4 Student's perspective of cooking

From the responses described above, most respondents, if not all, will be very busy studying during weekdays with some free time on weekends for leisure. Because of this lifestyle, students face limited time being able to prepare food for their consumption, which results in eating unhealthy food, particularly during weekdays (Larson et al., 2006). Therefore, because of this reason, it is important to learn more about the respondents' perspective of food.

The definition of cooking is universal and can include heating food, cooking convenience foods or preparing food from scratch (Wolfson et al., 2016). In this study, the respondents' perspective of cooking is grouped into four themes based on their responses (see Table 7.2). The first group was categorised as 'necessity' as respondents' mentioned that they only cooked given their need to eat and not enjoying the task. All respondents' in this category were male which is similar to Hartmann et al.'s study (2013) in which male users mostly do not cook for pleasure. For men, cooking is not a leisure activity or work but is 'work-leisure' because it is not their responsibility and they do not need to cater to other needs such as looking after children and preparing family meals (Szabo, 2013).

Table 7.2 Respondents' perspective of cooking

Reason	Response
Necessity"	"Sometime, when I want to try new food it's like a pleasure but most of the time it is a duty for me to stay alive". – Zack, Malaysian, Male, 19 years old, undergraduate student.
	"If you say chores, is something I needs to do I would take it as chores, is not something I do for fun. It's not something fun". – Paul, Thailand, Male, 30-35 years old, doctoral student.
	"Its troublesome. Cause you to have to prepare the ingredients, if you cook for example pasta you have to wait for the water to boil and then you have to clean up after that". – Dan, Malaysian, male, 21 years old, undergraduate student.
	"It is necessary evil. Because cooking for yourself is quite troublesome maybe". – Arif, Malaysian, Male, 21 years old, undergraduate student.

Healthiness	<p>“Because... sometimes if I eat outside, I can’t see how they cook the food. So, I don’t know what the procedure is. So, maybe the foods are not so fresh. But other things I don’t know so I don’t trust”.</p> <p>- Lao, China, Female, 25 years old, master student.</p>
	<p>“I like it better than ordering, as I said I’m on plant-based diet, so I like to be creative with my foods. In term of what vegetable to include, in term of what properties they have, in term of protein, vitamin. So, I more cautious”.</p> <p>- Rine, Romanian, Female, 24 years old, Master student</p>
	<p>“I’m quite happy with cooking my own food, I do a lot of Italian, or I quite health conscious and start cooking less pasta and then doing more of rice”.</p> <p>- Linda, female, 25 years old, doctoral student.</p>
Leisure	<p>“It’s fun, I think. I also baking. It’s like stress reliever for me. I really like to cook”.</p> <p>- Rina, Indonesian, Female, 25 years old, master student.</p>
	<p>“I really enjoy cooking personally. Something offers to unwind an enjoy. I think it’s mainly for me to cook is quite relaxing”.</p> <p>- Rith, British, Male, 21 years old, undergraduate student.</p>
	<p>“I love cooking my own food. Cause I can cook many cuisines from many country Malay, India, African, Chinese, Thai, anything. For me it is pleasure, I love cooking”.</p> <p>– Ahid, British, Male, 25-30 years old, doctoral student.</p>
Taste	<p>“In Exeter we don’t have so much options, so I tried to cook on my own, but I don’t want to cook anything. I don’t prefer outside foods so much, because the taste is not the same as in my country or in London”.</p> <p>– Elly, Turkish, female, 25 years old, doctoral’ student.</p>
	<p>“I prefer to cook my own foods cause, in here we can’t get those typical Malaysian foods here”.</p> <p>- Ika, Malaysian, Female, 21 years old, undergraduate student.</p>

Source: Author’s fieldwork

The next group associated cooking with well-being. Many studies have investigated concerns related to the health of students as many students are likely to eat improper foods (AlFaris et al., 2015; Boek et al., 2012). This study found that the female respondents were more conscious concerning food and what they were eating and believed by preparing their own food that they were aware of the ingredients and knowing how the food was prepared. This result is supported by Boek et al. (2012) finding that gender played an important role in the students’ food decision. The food decision of female students is more likely to be influenced by health as compared to their male counterparts. This finding is

similar to Tam et al. (2017)'s study where women or females are likely to consider various aspects of dietary requirements such as eating fibre food, limiting salt and eating more fruits.

The following group of respondents viewed cooking as enjoyable and as a leisure activity. This group consisted of mixed genders, comprising of students from different types of studies. Cooking has always been related to women given their important role in preparing food for their household and family (Hartmann, Dohle and Siegrist, 2013; Szabo, 2013). Due to this reason, women have acquired excellent cooking skills. While for men, cooking is not compulsorily, as they will only cook on occasions seen as a leisure activity (i.e. barbeque) (Szabo, 2013).

The last group related cooking to the taste of food. For them, cooking is tasting something familiar to their home-cooked dishes. The respondents in this group were international students who mentioned that location played a significant role in their decision to prepare their own food. If the respondents had access to food that suited their preferences, they were likely to purchase the food. This finding is in agreement with Brown et al. (2010)'s finding which showed that international students favoured home-cooked national dishes and viewed as comfort food, healthy and tasty.

7.5 Students eating habits

Previous studies have found that students often experience difficulties in eating proper food following their transition from secondary education to university education (Deliens et al., 2014; Hilger, Loerbroks and Diehl, 2017). Therefore, to understand this aspect, the next section discusses the student's eating pattern,

particularly their daily meals, eating out pattern, takeaway food purchasing pattern and online takeaway food purchasing pattern.

7.5.1 Main meals

As previously mentioned, the respondents in this study were busy during weekdays and tended to spend their weekends for leisure or socialising. However, based on the responses there were no clear views on the respondents' eating habits or patterns. In this section, the study examines the respondent's daily meal habits particularly breakfast, lunch and dinner in order to comprehend whether their daily activities affected their eating pattern. Many studies have shown that eating breakfast is the most important meal of the day and skipping it will affect the individual's health and vitality (Schnettler *et al.*, 2015; Sun *et al.*, 2013). The results from this study showed that most respondents who tended to eat breakfast during weekdays only skipped breakfast due to a tight study schedule. This result was similar to Hilger *et al.* (2017) who found that students in Germany are most likely to eat breakfast during weekdays. For those who did not eat breakfast during weekdays, it was also related to their routine such as waking up late, or the class was early in the morning. However, the respondents spent the time to eat breakfast on the weekend.

Similar to the results of this study, Pan *et al.* (1999) discovered that students tended to skip breakfast due to their class schedule. Besides breakfast, having lunch or dinner are the following meals. Having a proper lunch and dinner is important for the well-being of students (Hilger, Loerbroks and Diehl, 2017). In this study, the results revealed that for lunch, the respondents would either eat in

the university cafeteria, bring a packed lunch to eat or go to their residence to eat.

Rine was one of the respondents who would eat lunch at the university cafeteria, as she preferred having company around her. While, those who brought a packed lunch, they were likely to bring a light lunch to eat such as a sandwich or from a prepared lunch from the day before. Among the respondents that were to bring a packed lunch prepared from the previous day, were Rina, Paul, Elly and Ika. Rina said that she was likely to pack lunch that she prepared before going to the campus.

Whereas, Paul preferred cooking meals in bulk and saving them for the next day's meal. On the other hand, Elly was a person that preferred having home-cooked dishes and having the same style of meals as prepared by Paul. She would cook for dinner and also lunch for the following day the night before. As for dinner, most respondents had a proper time to enjoy their meal by preparing their own food at their residence or on occasion they would purchase takeaway food or eat out at a restaurant. Ahid and Rith were among the respondents who mentioned cooking their own food for dinner and enjoying it.

7.5.2 Eating out

As described earlier, most respondents' would spend their weekend for leisure by going out with friends, eating at a restaurant or enjoying spending the days in town or at nearby attractions such as going to the beach, During weekends, they would also dedicate time to eat a proper meal which would include breakfast, lunch and dinner. Although, the eating behaviours were slightly different between

respondents compared to weekends as they would enjoy eating out or purchasing takeaway food or even cooking for the entire day. However, the respondents believed that frequently eating out was something they tried to avoid and was only occasionally done or to experience something new. This finding was also supported by Narine and Badrie (2007) and Paddock et al. (2017) revealing that consumers would eat out for several reasons such as on social occasions, special occasions, at friends and family gatherings and for convenience. This means that the motives for eating out were similar to students. The following are the respondents' views towards eating out.

*“For special event, at a birthday or somebody come in the city, being with friends or I meet a friend in a city. We going to have a meal, a dinner or lunch or we want to try a new restaurant cause they have interesting menu or interesting systematic to go out and eat.” – **Linda, Hungarian, female, 25 years old, doctoral’ student.***

Additionally,

“I think it’s more than its, I think it is a way to socialise with people. To gathering with people, because for me eating out is more fun with somebody because you can explore that food together or sharing that food together. The purpose is not just for meeting, its more to chat or discuss. For me, it’s beyond eating.”
*- **Rina, Indonesia, female, 25 years old, master student.***

When eating out, the respondents mentioned that they liked the experience, hospitality and ambience of the restaurant which was special for them and a completely different experience compared to purchasing takeaway food. Additionally, eating out was also to gather and converse among their friends and experience new places and food with their friends or family.

*“...by eating out going to restaurant not takeaway, taking your order, ask what you would like then to come back and ask was the meal good, just get your opinion on your needs while you are eating and then you don't have to do dishes, so that is important as well... Because if you go to restaurant, you could have considered almost like a lot of experience, because not everyone can go to restaurant. In some contact, people would either not afford it or people maybe would be go eat out during Christmas or something.” – **Linda, Hungarian, female, 25 years old, doctoral student.***

For Rith, the important aspect of eating out was the experience and company. Asked about food choices while eating out, interestingly there were different descriptions given by the respondents. Zack mentioned that he wanted to taste something different. For Ika, she would choose meals that she could not cook by herself which were outside of her comfort zone [for cooking].

“Eating out mean to me to go to a restaurant and like enjoy the experience at the restaurant. Is not the matter of eating anywhere, it's about going somewhere like enjoying with a friend

or with a company to have like a good foods.” – Rith, British, male, 21 years old, undergraduate’ student.

Ahid mentioned he liked to taste new and different meals than what he usually ate. Although, the limited foods choices in Exeter was a limitation for him. He also mentioned that the recommendations of friends would encourage his decision to choose places to dine, along with his choice of foods. Elly said, her choices were often influenced by the person she was with and would follow her friends to where they would often go to eat. Interestingly, Rine, a vegetarian would change her eating habits if she was going outside to eat at a restaurant. When asked her about her decision, she mentioned eating out related to entertainment, new tastes, different cuisine and as an experiment but not a habit.

7.5.3 Takeaway foods

Besides eating out, many studies have associated students with high consumption of takeaway food particularly fast food (Tanton *et al.*, 2015; AlFaris *et al.*, 2015) and mainly regarding the negative perspectives of takeaway food (Jaworowska *et al.*, 2013; Timperio *et al.*, 2009). However, takeaway food nowadays is not the same as from previous years as there are many types of restaurants now offering different takeaway options for consumers (Deliveroo, 2016). This means that consumers have a variety of food choices according to their preferences. Although, one respondent, Rith did not agree with takeaway food options and still believed that takeaway is only for casual restaurants such as Chinese, Indian and fish and chip shops. He did not perceive the other

established restaurants such as KFC or Wagamama as standard takeaway outlets.

The other respondents also shared their views on takeaway foods. The first views related to the convenience of acquiring takeaway foods and consumer attitudes towards these foods; stereotyping consumers as being too lazy and wanting something quick, easy and cheap to eat.

“Takeaway also when I lazy to cook, takeaway is solutions for me. For example, last year when I’m in the library sometimes we will be calling the Turkish restaurant and they will just deliver the meals to the library.” - Elly, Turkish, female, 25 years old, doctoral’ student.

And,

“Takeaway food is when you lazy to go outside and just want to get everything fast and easy so that’s when you choose to purchase takeaway food.” - Ika, Malaysian, female, 21 years old, undergraduate’ student.

The following describes the feedback received from the respondents where the views related to affordability. The respondents believed that bought takeaway foods are less expensive compared to eating out at a restaurant. Paul associated meals with purchasing habits regarding the affordability of purchasing food; segmented by highest, middle and lowest affordability. For him, the lowest affordability meals were eating at restaurants, given their expense and were only eaten on special occasions. Even though purchasing takeaway food can be

carried out regularly compared to eating out, he classified this as average. Lastly, the highest affordability was preparing his own food given he could buy ingredients cheaply, saving him money compared to takeaway food or eating out at a restaurant.

“Takeaway is something in the middle. Between eating out and cooking for myself. So, to me takeaway doesn’t give me good value because it something in the middle. Cause it doesn’t mean we have special occasion and we eat takeaway food and its doesn’t save me much money comparing with cooking for myself.” - Paul, Thailand, male, 30-35 years old, doctoral’ student.

Ahid supported Paul’s statement, mentioning that eating takeaway foods was something of a convenience, and typically eaten with several other friends and was much cheaper than dining out at a restaurant. Their statements showed that there is a high likelihood that they would purchase take way food compared to eating outside.

“Takeaway food means to me something convenient, usually with a group of people and something that you pay less for than if you would go out and have like a sit-down dinner.” – Ahid, British, male, 25-30 years old, doctoral’ student.

The last view was of Rina who mentioned a different definition of takeaway food purchase in which she related the purchase to the lack of satisfaction as

compared to the ambience of a restaurant and having insufficient time to eat in a restaurant.

*“Takeaway food for me is just because we want to food from outside but not to eat at that place... The purpose is to eat that particular foods without the ambience. Somehow, I takeaway the food is because I love the foods of course, but that doesn't like the environment. I do love the environment, it just maybe I want to eat at home. It's just because I love the foods, but I don't have time to eat at that place or maybe something at home. I rarely do that, because If I arrived at a restaurant, I tend to order the food and just eat there, so it will be fresh. So, for example, if I order something hot, it still hot. I will eat it there and go home.” - **Rina, Indonesian, female, 25 years old, master' student.***

7.5.4 Online takeaway food purchasing

As discussed in Chapter 5, the online takeaway food sector is quickly becoming popular in this social networking era. Consumers are starting to view the convenience of this sector; thus, its popularity is growing. In the UK, there are two main OTFO providers: Just Eat, and Deliveroo and most of the respondents in this study were likely to use them. However, the respondents also have different perspectives on the sites. For Deliveroo, the respondents think their services are expensive and are not standard takeaway food. In contrast, Just Eat has cheaper options which are standard as a casual takeaway restaurant. Additionally, the respondents also described the features and characteristics of the suppliers they

preferred. Some of the respondents were loyal to one particular supplier. For example, Zack preferred Deliveroo over Just Eat given the variety of food choices.

“I prefer Deliveroo because Just Eat doesn’t provide wide range of food. It does provide many different restaurants. But most of the restaurant sells food like chicken and Asian food. Whereas Deliveroo offers me something like Wagamama. Something different. Yes, because of the wide range of choices I have. Like instead of ordering chicken I can order prawn, I can order squid, I can order fish.” – Zack, Malaysian, male, 19 years old, undergraduate student.

Similar to Zack, Rine was also likely to choose Deliveroo because of the menu choices which are unique and something unusual for takeaway foods, especially for home delivery.

“But I feel the Deliveroo has more option as I heard we can also order ice cream, so we can go to places that they would think that the delivery that it should do. Like KFC, you don’t think about delivery when we think about KFC. But Deliveroo offers that option, whereas the other platform or programme does not consider the fast food as part of their services.” - Rine, Romanian, female, 24 years old, master student.

Although, Ahid preferred using Just Eat or Hungryhouse, given the convenience of ordering using the phone to place an order for takeaway food.

“I call them directly sometimes I order them order through Just Eat or HungryHouse. Because it’s easy all the menu is there, and you just click and then pay them or pay by cash.” - Ahid, British, male, 25-30 years old, doctoral student.

While Dan, on the other hand, favoured Just Eat, as he used this supplier when he wanted something that was convenient and provided easy options to select and order food. Although, on occasions, he would use Deliveroo. Arif also used Just Eat only when he was too busy, did not have time to prepare his own food. However, his preferences were altered and found Deliveroo more to his liking.

The next discussion further prescribes the differences between suppliers. Rith summarised each supplier based on his experience and believed that people using Just Eat are looking for cost-saving options compared to Deliveroo. However, the additional delivery charges which will burden buyers are a disadvantage. Although he said that, the added delivery charges are worthy as they perform their service well and as he receives his order quickly. On the other hand, it was not known the performance of Just Eat’s delivery services given individual food establishments deliver the food.

“First compare to Deliveroo, Just Eat is more cheaper options. It has more standard takeaway. Whereas Deliveroo has more like your upper up restaurant. That you would go and have like a sit-in meal in. The advantage of Just Eat is you can browse the

menu, it's got a wide selection and it relatively cheaper than Deliveroo...However, it is more expensive. You have what it's called the Roo's charges that you have to pay in for the actual deliveries. However, the delivery is also usually quite strived.” –
Rith, British, male, 21 years old, undergraduate student.

As discussed in Chapters 5 and 6, OTFO suppliers have developed two methods to use their services, either via websites, desktop or laptop or using mobile apps. Therefore, to understand consumer choice methods to purchase takeaway food using these platforms the respondents were asked which methods they preferred. The results revealed that most respondents preferred using a pc or laptop over a smartphone, tablet or mobile apps. Only a small proportion preferred using apps to purchase takeaway food. The respondents described that the screen size of devices such as a phone and storage were important aspects in consideration of using these services.

For instance, Rith associated his choices regarding the method to purchase takeaway food depended on the regularity of using the services. He believed that if he used the services regularly, he would consider downloading and using the apps. However, because he only used these services occasionally, he believed that websites were more convenient.

“Obviously, I suppose on smartphone I don't have enough memory to can actually download the application. But obviously you know I feel like takeaway is something relatively not something regular, I feel like there is not point of having the apps.

Where it is just easy where you can go online, I got an account I can just sign in and to have food delivered to my house.” – Rith, British, male, 21 years old, undergraduate student.

Additionally, Arif associated the use of websites with screen size and navigation. He found it was difficult to navigate through using apps compared to websites. He also compared the website’s navigability between Just Eat and Deliveroo.

“I used Deliveroo through website, I never have the apps. I don’t know maybe because I prefer to see everything, cause when you are on the apps it showed a lot less and it hard to navigate with apps, that is also the problem I found with Just Eat. That the website is not the best but the app is a lot harder to harder. For Just Eat the website is not the best but the app is worst.” – Arif, Malaysian, male, 21 years old, undergraduate student.

Ahid had a similar response as Arif as he discovered that he preferred using a laptop over a mobile given the screen was larger and navigation of the sites was easier to use.

“Yeah, If I don’t have my laptop with me, I can just use this once. I always used laptop, because you can see at a bigger screen, it is easy. Phone is got, but Just Eat is relatively a new app, so they still developing a lot of things in there. Ease of access is very important. It has to be user-friendly when you are using an app.

*If it's not user-friendly I will just use the computer.” – Ahid,
British, male, 21 years old, undergraduate student.*

7.6 Factors influencing respondents' eating habits

Various debates and discussions have been evidenced in the literature related to students eating habits and the factors influencing these habits (Deliens *et al.*, 2014; Papadaki *et al.*, 2007; Schnettler *et al.*, 2015; Hilger, Loerbroks and Diehl, 2017). Deliens *et al.* (2014) employed a focus group to understand this segment, discovering several factors that influence students eating habits such as the social environment, university surroundings, taste, financials and peer influences. After the respondents' responses were evaluated in this study, similar themes were revealed to Delien *et al.*'s study which included taste, value, healthiness, convenience and stress level.

7.6.1 Taste versus value

When it came to eating out or purchasing takeaway food, the value of meals was an important element viewed by the respondents. For them, the most valuable factor was the taste of the food followed by price. This finding was also supported by Boek *et al.* (2012), and Deliens *et al.* (2014) in that young adults are highly influenced by the taste of food, and although the food may be expensive, on occasion, the respondents would willingly spend money on purchasing them.

Among the responses in this study, Lao perceived cheaper foods as not being as good as expensive meals. Lao also mentioned value versus the volume of food. Whereas, Rith mentioned that the quality of the food was more important than

the volume they receive according to the different price of the foods. Elly also mentioned that the value of the foods was not important when she eats outside. The reason may be related to the occasion and the frequency of eating out.

“Actually, I prefer expensive foods. But, I won’t buy it too often because it is expensive for me. But I still not choose the cheap foods because I don’t think they have a very good quality.” - Lao, China, female, 25 years old, master student.

“I think a lot of people take value for money as like quantity of the food. Which I agree to certain degree, but I also think that the quality of food is just as important in term of value for money. Quantity obviously the amount of you were given for the price you pay, which is I understand is important for a certain degree. However, the quality of food is as well as just important even though it is simple to get, you know the quality of food what it tastes like obviously and the quality of it itself. For example, sometimes you buy chips you expect to get what you paid for. If you buy chips you take the risk of being a less quality and people may argue it value for money because it cheap and you get a lot of them, but it might not be in term of quality whether it’s good and it the same of you pay slightly more like things it’s much more favourable to pay something more but you get a middle range price like a quality and the quantity that is reasonable”. – Rith, British, Male, 21 years old, undergraduate student.

*“When I’m at home I just cooking easy things. If I’m at outside, if I give money, volume is important for me. I tried to eat nice meal and I tried to give reasonable money. Actually, I know there a will be different between takeaway and dine-in. It does not affect my opinion. The cost not so much important for me”. – **Elly, Turkish, female, 25 years old, doctoral student.***

As mentioned previously, the respondents would only tend to eat at a restaurant on occasion and for special occasions such as a birthday celebration. Therefore, given this reason the respondents would be willing to spend more than normal given the experience of eating out is different from purchasing takeaway or eating at home.

7.6.2 Financial constraint

Aside from the above factor, there are other constraints for consumers in purchasing takeaway food. Among these included financial limitations relating to the funds provided by parents or by the respondent’s sponsor. For Rine, she needed to spend wisely given the limitations on the funds given to her by her parents.

“Yes... that’s why I prefer to cook it myself... And considering that my parent support me and changing money from Romanian currency to the UK currency, we kind of lose a part of the money. So, I prefer to spend only for a coffee or cake on the city but not

for a meal every single day.” - Rine, Romanian, female, 24 years old, master student.

For Elly, buying foods outside would only be occasionally as she only has a certain allocation of money that she can use to spend on meals. She compared purchasing foods outside with the amount of money she was able to save by purchasing the cooking ingredients herself and cooking at home.

“Yes. For example, it will be expensive if I buy food from outside. Even if you buy some sandwich three or four pound. If I have more money I would just prefer buying from outside. But I also consider my budget so its affect. Maybe for shopping for ingredients I just spend 10 or 11 pounds for a week.” - Elly, Turkish, female, 25 years old, doctoral student.

Similar cases were for Dan and Ahid where they mentioned that towards the end of the month when their allowance was almost at an end, they would consider carefully about their food choice and value of the food. They too would tend to cook when the funds were limited given it is also about saving money as well.

7.6.3 Well-being versus takeaway foods

Interestingly, although most of the respondents' tended to care about their personal well-being, purchasing takeaway food did not have any influence on their eating behaviour. This aspect was related to the frequency of purchasing

takeaway food. As most respondents only bought takeaway food several times a week, they did not consider eating the food would affect their health. However, this result contradicted with previous studies as most research found that respondents were likely to spend their money on purchasing fast food (Boek *et al.*, 2012; Stevenson *et al.*, 2007). Hence, it affected their eating pattern particularly in taking care of their health and well-being.

“That’s why as I said, I like to cook by myself. I know what it in it is. So, I know it is not fried, I know how grease is in. So, takeaway I see it as a fun thing to do for once in a while. But I don’t think it’s healthy.” - Rine, Romanian, female, 25 years old, master’ student.

This perception is also similar to Linda’s view, who considered what was most important was the quality and taste of the food. Eating takeaway food several times a week would not impact her well-being long-term.

“I think the fact that, it is important to taste good. Because if I wanted takeaway that has Chinese in it. The whole point is I don’t want something that’s dry or taste bad even though its healthy. Or its already really late, and you hungry and you don’t really want a salad. The first and foremost aspect is convenient, the fact that it should arrive in time and it should taste good. For example, I order Chinese and its arrive something that is really dry, no one want to eat it. So, it should have a certain standard to it I guess. I’m more concern about the healthy aspect on the

long-term, rather than in the immediate effect of being healthy. So, I'll have the takeaway maybe the next day, maybe I'll be like you had a takeaway maybe you should, the next couple of days eating more healthily". - Linda, Hungarian, female, 25 years old, doctoral' student.

Rith shared the same opinion as Linda when it came to the impact of takeaway food. Whereas, for Arif, he related to eating healthy would be costly compared to eating takeaway foods.

"I suppose it important, there are some food that you can't eat comfortably, I suppose you won't eat like a kebab or like fish and chips every time you have takeaway especially if you take takeaway a lot as it have quite bad health influences. I suppose if like Chinese or Indian that types of takeaway if you have it once in a while, I think reasonably that is the best. I suppose I don't relate it with healthy options, you know if I have had fish and chips a week before, cause obviously it was not healthy I won't eat it again like a long time. But I not necessarily directly like when I am thinking of getting takeaway worry about my health. I suppose, like the end of week treat." - Rith, British, male, 21 years old, undergraduate student.

“None whatsoever. Because usually healthy foods are a lot more expensive compared to takeout the typical that you get”. - **Arif, Malaysian, male, 21 years old, undergraduate student.**

On the other hand, Rao et al. (2013) found that a person with socioeconomic disadvantages limited their healthy food consumption. Most of the respondents in this study shared that they had a limited monthly allowance. Thus their food choices are towards food that can fulfil their hunger. For Elly, she associated eating healthily related to the physical location where she was at the time. If she had access to more healthy food choices in the area, she might choose these foods. Moreover, it is important for students to have a healthy environment particularly a food environment as it plays a vital role in developing a healthy eating pattern (Davis and Carpenter, 2009; Timperio *et al.*, 2009). However, it also depends on various other factors that might also contribute to good eating habits such as the frequency of takeaway food consumption.

“Actually, I know they are not so healthy. But sometimes I don’t have any other options. I mean if I’m at a library and I don’t have any other foods. So, it’s difficult to prepare something, the options are calling takeaway places and buy some foods.” - **Elly, Turkish, Female, 25 years old, doctoral student.**

7.6.4 Stress levels

Deliens *et al.* (2014) and Ragsdale *et al.* (2011) found that college students’ level of stress is related to their study life. This means it will also affect their eating

behaviour as it was mentioned previously that during a busy period students tend to concentrate less on preparing their own food. One respondent, Lao stated that during the exam period, she would concentrate more time on studying and less time on cooking and satisfied her hunger by purchasing convenience food and takeaway food.

“Yes, sometimes when the exam is coming, I won’t cook by myself. I become more lazy person. Sometimes, our major got a lot of dissertation also essay papers. I will just eat some instant noodles also bread. And somewhere I can get just like Subway (a sandwich shop), I will buy the foods there. A burger or something like that.” - Lao, China, female, 25 years old, master student.

While another group of respondents did not mention their main meal consumption, they associated their level of stress with an increase in snacking such as eating sweets (see Table 7.3). This also means that students eat less healthy food as their level of stress increases. This finding was also supported by Papier et al. (2015) finding that stressed students would consume high fat and sugary foods compared to unstressed students. Moreover, it was found that individuals tended to eat food they normally avoided eating for health reasons (Zellner et al., 2006).

For Rina, when she was stressed, she would likely eat snacks following her main meal to help her recover. Linda, Elly and Ika also mentioned their consumption of snacks increased especially when they were stressed. Even though most of

the respondents were female, the males also tended to eat unhealthy food when feeling stressed (Papier *et al.*, 2015). The differences between each gender were related to their choice of food. Interestingly, Paul and Ahid wanted to eat comfort foods when stressed. Comfort foods are noticeably different by gender. Female comfort foods are related to snacks whereas male choices of comfort foods are notably more nutritious (Wansink *et al.*, 2003).

Table 7.3 Student's food choices associates with stress level

	Respondents	Food's choices
FEMALE	Rina Indonesian, female, 25 years old, master' student.	Snack, chips
	Linda Hungarian, female, 25 years old, doctoral' student.	Peanuts, pistachios, cracker
	Elly Turkish, Female, 25 years old, doctoral' student.	Chocolate, biscuits
	Ika Malaysian, female, 21 years old, undergraduate' student	Junk food
MALE	Paul Thailand, male, 30-35 years old, doctoral' student.	Broccoli stir-fry, curry, fried rice, fried noodle
	Ahid, <i>British, Male, 25-30 years old, doctoral' student.</i>	Mexican foods, Peri-peri chicken

Source: Author's fieldwork

It was evident from the feedback received from those respondents that comfort food related to stress was different for each gender. This finding was found to be significant with that of Wansink, Cheney and Chan (2003) who discovered different gender have different specifications for comfort foods. Although the respondents in this study did not convey any relation between stress and comfort foods, it can be assumed that the female respondents, Linda, Ika and Elly

preferred eating snacks when stressed while the male respondents preferred eating foods that comprised of different flavours when stressed.

7.7 Summary

The purpose of this chapter was to identify the students' lifestyle and eating habits while attending the University of Exeter in the UK. Furthermore, the study aimed to collect information in helping to build a relationship with the following chapter which is to understand the students' acceptance of takeaway food. The results in this chapter proved that several lifestyles influenced the respondents eating habits. Although the data collected from a different demographic background showed a level of significance in most of the findings. The differences in the background supported the outcomes of the results and validated the data.

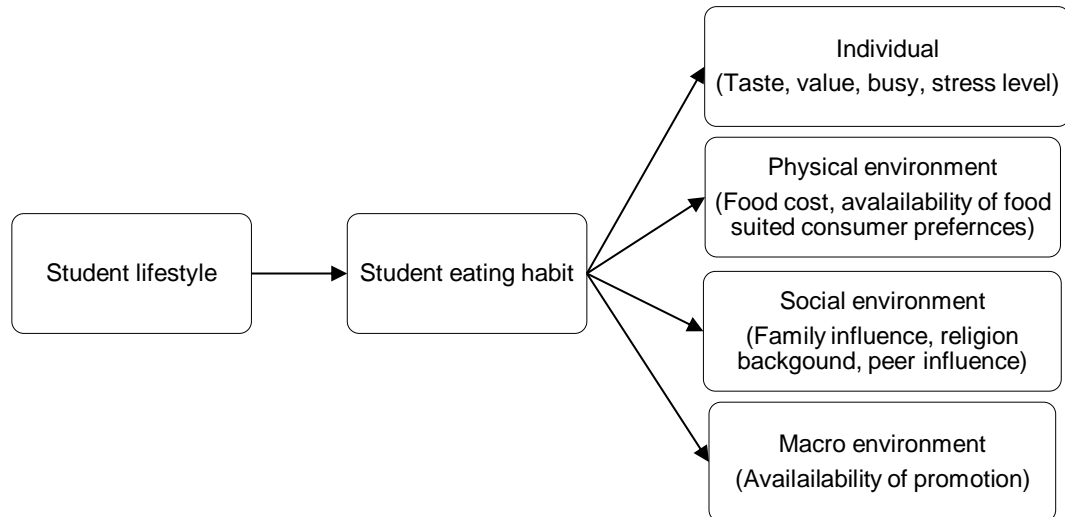
Students have a hectic lifestyle while at university, with most attending classes each day and not having sufficient time to prepare their own food. Larson et al. (2006) associated limited time and lack of cooking skills with students' food choices. Although the respondents in this study had different views on cooking, there were some negative perspectives given the amount of time to cook and preparation effort. On the other hand, there were some positive opinions on cooking which included, the need to prevent starvation, it is a trustful source and to comfort homesickness by eating home-dished meals. Most international students' viewed English food as plain and preferred eating home-dished foods that are much tastier and healthier (Brown, Edwards and Hartwell, 2010).

Moreover, when it came to eating meals, most respondents ate a light breakfast and packed their lunch that had been prepared from the previous day. For those

who skipped breakfast, it was associated with their limited time to prepare and consume it. Besides studying, the respondents mentioned that they would like to go out on weekends to eat out and meet with their friends to socialise. They considered dining in a restaurant only for special events in which they experienced the hospitality, ambience, foods and the surrounding company. In contrast, takeaway foods were associated with a more casual atmosphere such as being at home, gathering with friends or even during exam periods.

Focusing on food choices, several factors were recognised that influenced the respondents' eating habits. Figure 7.1 summarises the results of the interviews, displaying many of the factors that influenced the respondents' takeaway eating habits such as taste, cost, financial constraints, health and stress level. This finding was significant as with previous studies that discovered university students prioritised food taste when choosing meals (Deliens *et al.*, 2014). Moreover, if healthy foods were tasteless, they preferred eating unhealthy foods. However, the price was also an important aspect when students decided to purchase meals. For example, if healthy foods were costly, they would not choose the meal, but preferred to purchase convenience or takeaway foods instead. Discussing food choices concerning stress, there were noticeable differences between genders. The female respondents preferred eating sweet snacks while the male respondents believed that eating nutritious meals would provide comfort in reducing stress. Many other factors were discussed in this chapter including food suited to consumer preferences such as the availability of home-cooked dishes in the respondent's food environment, religious background and peer influence.

Figure 7.1 Summary of student lifestyle and eating pattern



Source: Author. Adapted from Deliens et al. (2014).

Therefore, in summary, student lifestyle was found to have a significant impact on their eating lifestyles such as their busy timetable and limited time to prepare and cook their own meals. However, it was unknown whether the respondents would use other resources to obtain meals. Accordingly, to understand further, the following chapter a quantitative approach to further progress this discussion by exploring the students' acceptance of OTFO services.

CHAPTER 8 CONSUMERS' ACCEPTANCE OF TAKEAWAY APPS

In the previous chapter, it was revealed that students eating habits were associated with their lifestyle while attending university, which included their purchasing habits for takeaway food. Among the influencing factors for the students to purchase takeaway food included taste, convenience, cost and time-saving. Also, since the development of e-commerce and software applications on various platforms, consumers can purchase takeaway food through internet websites and mobile apps. Considering the ease and convenience of purchasing takeaway food, this chapter aims to understand students' acceptance of takeaway apps in addressing Objective 4 of this study.

This chapter will begin by outlining the respondents' profiles and individual technology style, and then understand the respondents' use of OTFO services in the UK. Univariate and bivariate analyses of the respondents' usage of OTFO services will also be performed to further comprehend the respondents' responses regarding the use of these services. Furthermore, the association between the use of OTFO sites and mobile apps using Pearson's chi-test of the association will be outlined.

In order to examine the influencing factors that lead to the actual use of the takeaway apps, this study will employ PLS-SEM as presented in Section 8.3. From the analysis, the study will be in a better position to understand the relationship between perceived usefulness, perceived ease of use, perceived security, perceived trust, perceived social influence on the intention to use and actual usage. The chapter concludes with a summary of the findings.

8.1 Survey profile

Table 8.1 displays the profile of the respondents that participated in this study that used OTFO sites, identifying that 77% of participants had used takeaway food ordering sites, aged between 18 and 24 years old. This is not all surprising as many technology consumers tend to be in the younger age category (Agrebi and Jallais, 2015; Liébana-Cabanillas, Muñoz-Leiva and Sánchez-Fernández, 2015). Additionally, it was also found that the majority of respondents were single, not from the UK or Europe and living in off-campus accommodation. While from the gender perspective, it was evenly balanced between male respondents (82.9%) and female respondents (73.8%). Therefore, it can be inferred that the majority of respondents in this study that used OTFO sites were younger, single, studying at the undergraduate level and were international students.

Table 8.1 The profile of respondents – online takeaway food ordering sites

		User (77%)		Non-user (23%)	
Age group	18 – 24	83	83.0%	17	17.0%
	25 – 34	23	74.2%	8	25.8%
	35 or older	11	57.9%	8	42.1%
Gender	Female	59	73.8%	21	26.3%
	Male	58	82.9%	12	17.1%
Marital status	Single	92	82.9%	19	17.1%
	Married with children	16	66.7%	8	33.3%
	Have a partner	9	60.0%	6	40.0%
Country origin	Europe/ Home	34	77.3%	10	22.7%
	International	83	78.3%	23	21.7%
Types of study	Foundation & undergraduate	77	85.6%	13	14.4%
	Postgraduate & post-doctorate	40	66.7%	20	33.3%
Year of study	1	33	68.8%	15	31.3%
	2	47	90.4%	5	9.6%
	3	29	74.4%	10	25.6%
	4 and above	8	72.7%	3	27.3%
Types of accommodation	On-campus	21	61.8%	13	38.2%
	Off-campus	96	82.8%	20	17.2%

Source: The Author's fieldwork

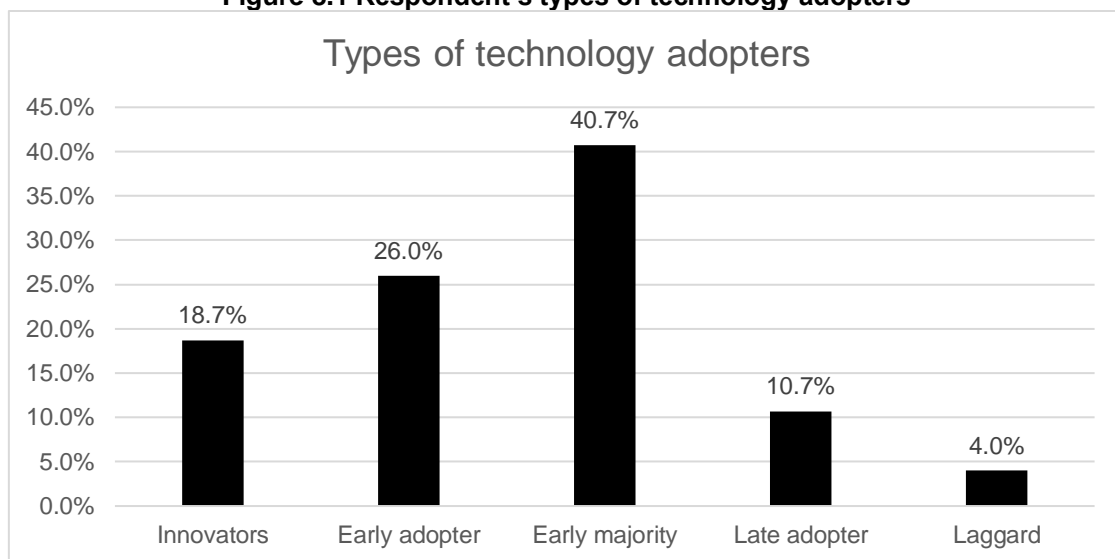
On the other hand, 23% of participants that represented non-users were dominated by single (un-married) respondents and who did not originate from the UK and were living outside the campus. Several differences can be seen. Firstly, the age group distribution of the non-users is evenly balanced between the younger generation and the age group between 25 and 35 years old and above. This means that the age group cannot be used to indicate the population of the non-users in this sample. Secondly, the majority of non-users were female and studying at a postgraduate level. Thus, it can be summarised that the non-users were mostly female without any age group differences.

The discussion will continue by understanding the individual's perceptions of technology usage according to the types of technology adopter(s). Based on Rogers (1983), the study developed statements representing five categories of technology adopters (see Section 2.2, Chapter 2). The statement 'I love new technologies, and I am among the first to experiment with and use them' refers to the innovators. 'I like new technologies and use them before most people I know' refers to the early adopters. 'I usually use new technologies when most people I know do' indicates the early majority, while 'I am sceptical of new technologies and use them only when I have to' refers to the late adopters and 'I am usually one of the last people I know to use new technologies' refers to the laggards.

Further details regarding the various types of technology adopters can be referred to subsection 2.1.1. Figure 8.1 shows that most respondents in this study were among the 'early majority', which means they would use the technology knowing the people before them who used the technology. Next were the 'early adopters' respondents that loved technology and would use it before their friends and

families used it. The third highest percentage related to the 'innovators' whose love for technology prompted them to be the first to try and use the innovation. The results showed that 15% of respondents were interested in using technology. Hence, it can be concluded that most of the respondents in this study were familiar with technology and were not afraid to use it. These results are vital as it shows that the respondents were not inexperienced in using technology.

Figure 8.1 Respondent's types of technology adopters



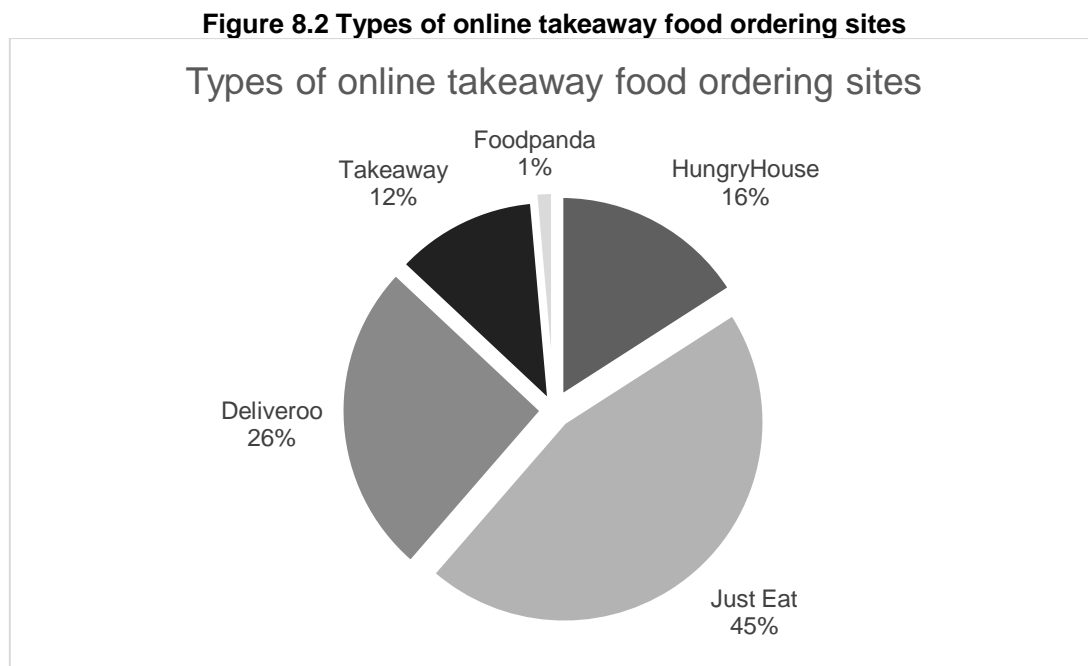
Source: Author's fieldwork.

8.2 The online takeaway food ordering services usage

In order to understand the usage of OTFO services, the respondents were asked several questions related to OTFO sites that they knew about or had used. To discuss the respondents use of the OTFO services, this section is separated into three parts; the respondent's usage of the sites and its characteristics, the preferences and motivation to use the sites and the association between the sites and the takeaway apps. Furthermore, to identify the respondent's usage characteristics of OTFO sites, the section will present information related to the

devices used to access the sites, the location used by the respondent to access the sites, the frequency of usage and their spending habits.

Figure 8.2 illustrates the different types of OTFO sites obtained from the quantitative data. As shown in the chart, it was evident that the respondents preferred using Just Eat compared to using other OTFO companies. Referring to Chapters 5 and 6, Just Eat was recognised as a market leader in the UK and maintaining this position and market share by acquiring its competitors. Acquiring HungryHouse by Just Eat clearly demonstrated that their approach has been effective given they are the market leader in this sector following the acquisition. Similarly, they have also been aggressive in their marketing campaigns to become number one in this sector and seems to be effective given consumers know the 'Just Eat' brand and the services offered.

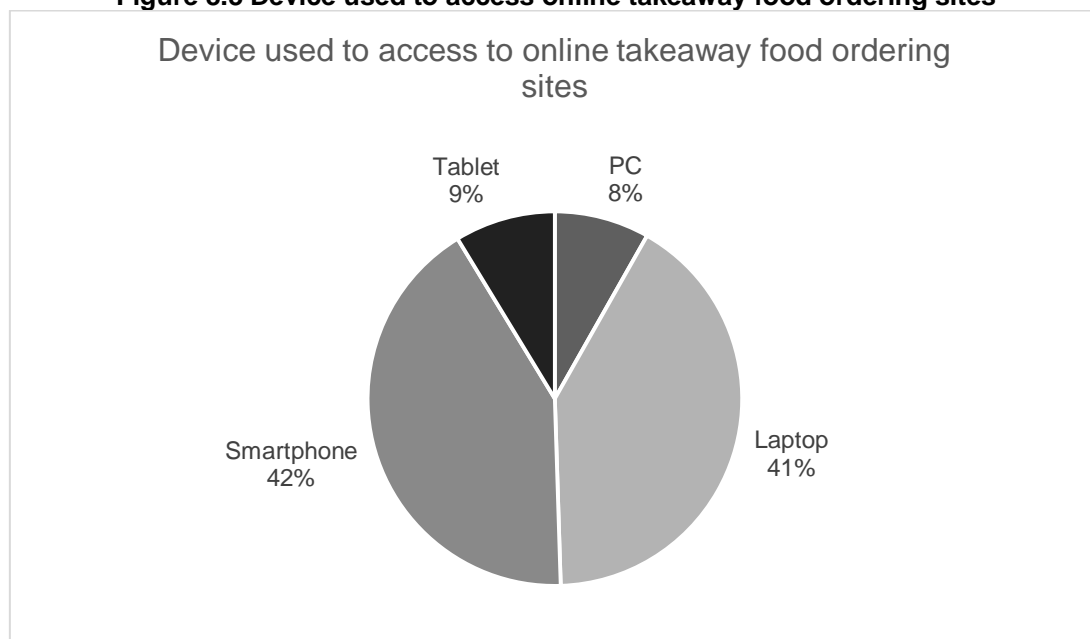


Source: Author's fieldwork.

The second most used site identified by respondents was Deliveroo. As mentioned in the previous chapter, Deliveroo provides transportation services for

the restaurants that are registered with them. Although given they have different charges such as transportation charges and tips, this may limit the number of consumers that will use their service. For instance, from the interview with Ahid, a British male student aged between 25 and 30 years and a doctoral student, revealed that he preferred using Just Eat compared to Deliveroo. Because, if he chose to use Deliveroo it would incur extra charges called a 'Roo' charge covering both tips and transportation which is not worth paying, for a one person meal. The other reason may be attributed to the fact that Deliveroo only provided takeaway delivery services from premium restaurants which are not always affordable for students.

Figure 8.3 Device used to access online takeaway food ordering sites



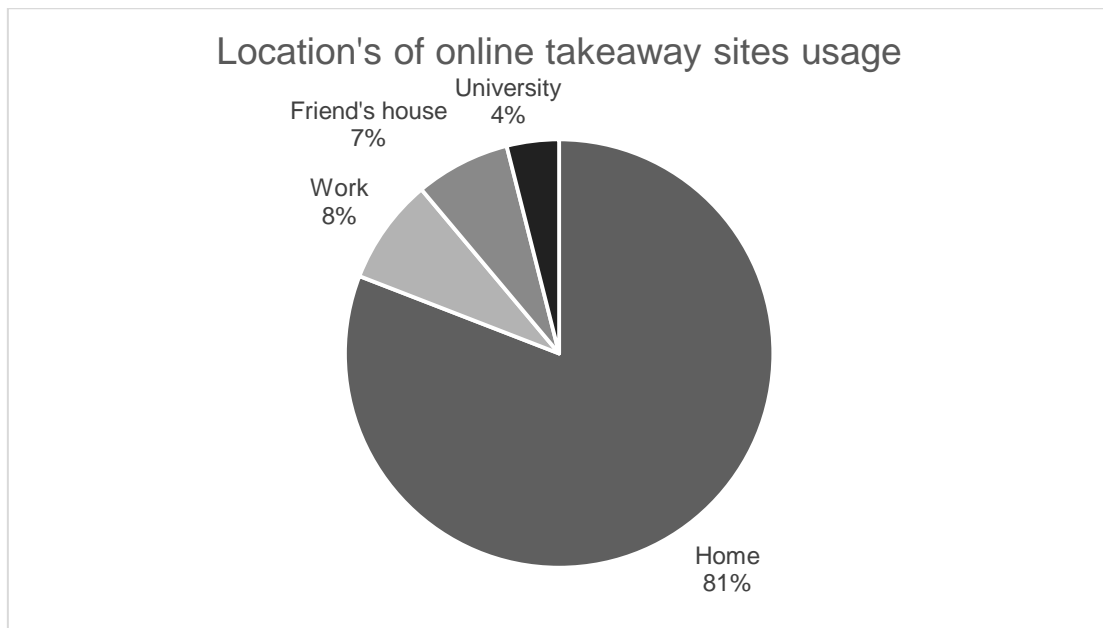
Source: Author's fieldwork.

The second most used site identified by respondents was Deliveroo. As mentioned in the previous chapter, Deliveroo provides transportation services for the restaurants that are registered with them. Although given they have different charges such as transportation charges and tips, this may limit the number of

consumers that will use their service. For instance, from the interview with Ahid, a British male student aged between 25 and 30 years and a doctoral student, revealed that he preferred using Just Eat compared to Deliveroo. Because, if he chose to use Deliveroo it would incur extra charges called a 'Roo' charge covering both tips and transportation which is not worth paying, for a one person meal. The other reason may be attributed to the fact that Deliveroo only provided takeaway delivery services from premium restaurants which are not always affordable for students.

Figure 8.3 shows the range of devices used by the respondents to access OTFO sites. As can be seen, the proportion of respondents using a smartphone to a laptop is almost equal. This finding is different from The National Student (2016) report revealing that students prefer to use a smartphone or tablet instead of a laptop for online shopping. Furthermore, the finding from the interviews revealed that most respondents preferred using a laptop in performing complex tasks such as purchasing online or buying takeaway foods as respondents believed that by using a laptop, they could easily browse and navigate the sites.

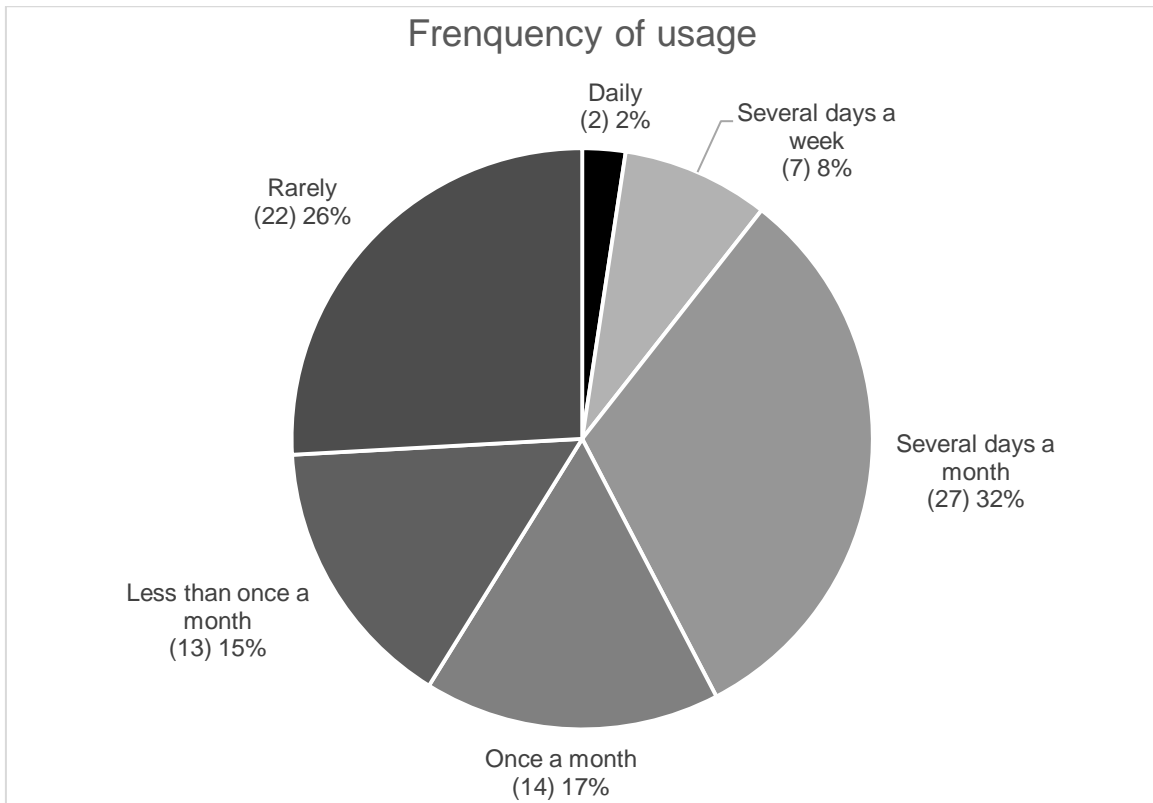
Figure 8.4 Location of online takeaway food ordering sites usage



Source: Author's fieldwork.

Additionally, the respondents were asked from which location they tended to purchase from. Several options were provided such as from home, work, a friend's house and so forth, including the university. Figure 8.4 displays the location from where the respondent tended to access and use OTFO sites. From the diagram, the majority of the respondents (81%) accessed and used takeaway food ordering sites from their home. However, they did not access these sites from other locations which may be related to the occasion or event, and the time the respondents would purchase takeaway food. As mentioned by the respondents from the interviews, most students were likely to purchase a takeaway meal in the evening for dinner as they were unable to purchase during the day given that the majority of takeaway restaurants were only open in the afternoon.

Figure 8.5 Frequency of online takeaway food ordering services usage



Source: Author's fieldwork.

Notwithstanding, Figure 8.5 displays the frequency of use regarding online food ordering services among the respondents. This result shows that that largest proportion of use was several days each month (32%) meaning that the respondents only occasionally used the services, and 26% of respondents rarely used the service. The possible reason for the limited use could be due to the respondent's preference to only use the services when they needed to (i.e. when they were too busy to cook, etc.). On the other hand, if they were not busy, they would have more time to eat at restaurants and buy takeaway food such as on weekends. However, there were other factors that the respondents' considered when deciding to purchase through OTFO sites as next discussed.

Figure 8.6 Respondents' spending on takeaway food ordering sites

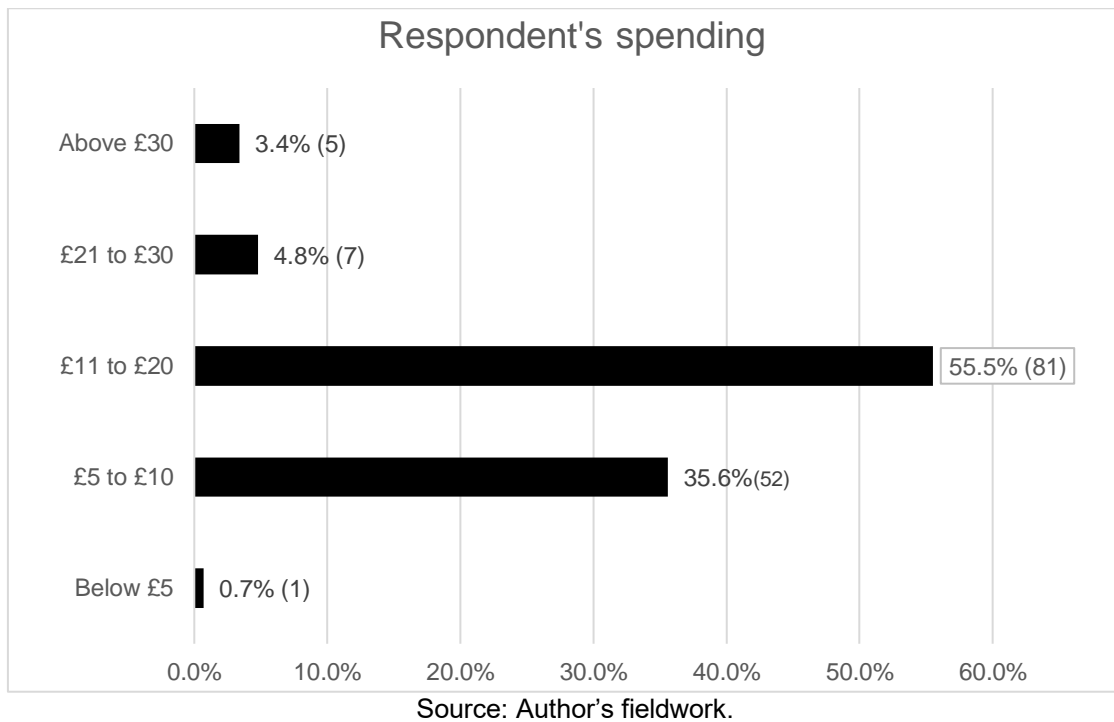


Figure 8.6 displays the respondents' average spending per order on takeaway food ordering sites, although, four respondents preferred not to report their spending. The results revealed that the highest spending was between £11 and £20 (55%) followed by £5 to £10. The spending value seems reasonable for the price of a meal which may cost on average between £5 and £20 depending on the type of food, the type of restaurant and the size of the respondent's order. However, it is unlikely for an order to be below £5 as most of the cost would account for transportation (delivery) above £5.

8.2.1 The univariate analysis

In order to understand the respondents' use of OTFO sites, the respondents were asked to rate their preferences using a five-point Likert scale; 1 is "very unlikely", 2 is "unlikely", 3 is "neither unlikely, or neither likely", 4 is "likely", and 5 indicates "very likely". Table 8.2 exhibits the results of the mean scores ranked in

descending order, as well as the standard deviation value for each of the nine items on the Likert scale. The table shows that the item 'busy' has the highest mean score of 4.11 and the lowest standard deviation score among the other seven items. This suggests that the item is the closest to the mean. Whereas, the other items that have the highest score and lowest standard deviation are 'friends' 'gathering' and 'weeknight'. While the lowest mean score with the highest standard deviation among the other items is 'special occasion' and 'family gathering'.

Table 8.2 Respondents' usage of online takeaway food ordering sites based on occasion

Items	N	Mean	Standard deviation
Busy	149	4.11	1.104
Friends' gathering	149	3.54	1.211
Weeknight	149	3.38	1.287
Holiday	149	2.90	1.330
Daily meals	149	2.74	1.338
Family gathering	149	2.44	1.347
Special occasion	148	2.45	1.500

Source: Author's fieldwork.

The results also show that consumers are most likely to use OTFO sites during busy times such as exam times. The results were expected because, on a busy day especially during the exam period, respondents would prefer to focus on studying instead of preparing their own meal. This result is supported by a response given in the interviews with participants. Rith, a 21-year-old male, an undergraduate student, said that he would use Just Eat during exam weeks because, during that time, he was busy and gathering information and studying. This suggests that respondents viewed takeaway delivery services as an easy

way to get food, without the hassle of preparing their own meals or going out to buy takeaway from a restaurant.

On the other hand, the other reason that they may order from OTFO sites would be on weekends or when meeting with friends. Respondents preferred to purchase takeaway foods at a casual event as this is also their way of relaxing (Kimes, 2011a). This fact was confirmed during the interviews which found that most respondents would buy through online takeaway ordering services when they were too lazy to cook, at a friend's gathering or during busy times, such as during exam periods (see subsection 7.5.3).

The results also suggest that respondents were unlikely to use takeaway food ordering sites for special occasions or at family gatherings. The findings from the interviews also found that on special occasions, such as a birthday celebration, most respondents would prefer going out to eat at a restaurant (see subsection 7.5.2, Chapter 7). This finding was supported in a study by Kimes (2011) finding that the tendency of students to order from restaurants via electronic platforms was infrequent for business, special and romantic occasions.

Table 8.5 displays the factors that influence the respondents' use of OTFO sites, ranked based on the mean score in descending order. The results indicate that students used OTFO sites given their 'previous experience' and exposure to them. This factor obtained a mean score of 3.97 and had the second lowest standard deviation value after 'Brand'. The other factors from among the highest mean and lowest standard deviation are 'Availability of delivery' and 'Availability of dish', and the lowest mean value was 'Online Reviews' and 'Brand'.

Table 8.3 Factors influencing respondents usage of online takeaway food ordering sites

Factors	N	Mean	Standard deviation
Previous experience	149	3.97	1.062
Availability of delivery	150	3.90	1.067
Availability of dishes	149	3.74	1.067
Promotion	146	3.67	1.181
Location	149	3.66	1.155
Recommendation	148	3.61	1.091
Online payment	147	3.45	1.159
Brand	147	3.35	1.046
Online reviews	148	3.30	1.210

Source: Author's fieldwork.

The results as shown in the table, also support the finding of a previous study which found consumers may be influenced to purchase through an online medium (Kimes, 2011). When consumers are familiar with using technology, they are less likely to experience anxiety in using technology (Meuter *et al.*, 2003; Sattler and Gelbrich, 2014). Respondents with experience in using OTFO sites had less anxiety given their previous exposure and use. This is further discussed in subsection 8.4.3. The non-experienced users may experience difficulties in handling technology given their limited exposure and use (Sattler and Gelbrich, 2014).

Another important factor in using these sites is regarding the availability of delivery services. This factor is related as to whether a specific restaurant can deliver food at a specified time. Interestingly, one respondent highlighted this issue during interviews suggesting that it was difficult for them to purchase breakfast meals as no restaurant was open at that time.

Additionally, promotion as another factor refers to the marketing activities undertaken by OTFO companies such as offering discounts and special sales promotions. Although, it is important for these online vendors to choose their promotion method wisely to ensure they target the right market and consumer group (Chong *et al.*, 2016, 2016). Also, different kinds of marketing promotions have different effects on consumers (Heerde and Neslin, 2017). Although, in this study, a promotion will influence the consumer's intention to use OTFO services. Evidence from the interviews also supported this finding. For example, Rine mentioned that she only used 'Deliveroo' once because the apps offered her a discount on her first purchase. While Paul said, he would only use the apps if they gave him some discount or special offers.

Additionally, the less influential factors included an online review followed by brand and online payment. The results were similar to a study by Kimes (2011) who found that an online review was the lowest factor that influences consumers to use an electronic platform to order from a restaurant. The effects of an online review are low because the respondents do not know the reviewer; therefore the trust level is low (Cheng and Ho, 2015). However, there are also other factors that influence the value of online reviews such as the number of followers, the reviewer's level of expertise in that field, image and word count (Cheng and Ho, 2015). Thus, it is up to the business whether to use online reviews as a component of their marketing campaigns and promotions.

8.2.2 The bivariate analysis

The following section summarises the results of the bivariate analysis of the respondents' use of OTFO services. The test was employed in order to discover

if there were any statistically significant differences and associations that existed between the variables. Among the tests that were employed were the Mann-Whitney U test and Chi-Square.

The Mann Whitney U test was employed to test for statistically significant differences between users and non-users and their answers regarding their preferences and motivation to use OTFO sites. The results that are shown in Table 8.4 highlight that statistically significant differences were found between users in two variables: 'holiday' and 'weeknight'. Furthermore, what affected users more than non-users were the use of OTFO services during the 'holiday' ($Z = -2.196, p < 0.05$) and on 'weeknight' ($Z = -2.888, p < 0.05$). Although from the previous results, it showed that the variable is not the main reason for the respondents to use the sites. However, if they decided to use the sites because of this reason, the users would have a higher propensity.

Table 8.4 Descriptive analysis of respondents' usage of the sites based on occasion

Factors	User		Non-user		Mann Whitney U test	Z	Asymp. Sig. (2- tailed)
	N	Mean Rank	N	Mean Rank			
Special occasion	115	76.34	33	68.09	1668.0	-1.013	.311
Daily meal	116	78.28	33	63.45	1533.0	-1.790	.073
Friend's gathering	116	77.94	33	68.53	1700.5	-1.050	.294
Family's gathering	117	77.94	32	64.23	1527.5	-1.646	.100
Holiday	113	77.52	33	59.73	1410.0	-2.196	.028
Busy period	116	77.71	33	65.48	1600.0	-1.550	.121
Weeknight	116	80.25	33	56.56	1305.5	-2.888	.004

Source: Author's fieldwork.

Accordingly, further investigation was required to understand the association between users and non-users on the factors that influence the use of online takeaway sites. Table 8.5 shows two variables to have a significant statistical difference. The variables are 'availability of delivery' ($Z = -2.155, p < 0.05$) and 'availability of dish' ($Z = -1.972, p < 0.05$) that have affected users more than non-

users. This showed that if the OTFO suppliers were able to provide the meal and transportation service to users, it would have a greater influence on the users compared to the non-users.

Table 8.5 Factors influencing consumer usage of online takeaway food ordering sites

Factors	User		Non-user		Mann Whitney U test	Z	Asymp. Sig. (2- tailed)
	N	Mean Rank	N	Mean Rank			
Previous experience	117	77.20	32	66.97	1615.0	-1.262	.207
Availability of delivery	116	78.76	33	61.79	1478.0	-2.155	.031
Availability of dish	114	76.88	32	61.45	1438.5	-1.972	.049
Promotion	113	73.66	32	70.67	1733.5	-.370	.712
Location	116	74.29	32	75.25	1832.0	-.119	.905
Recommendation	115	73.38	32	76.22	1769.0	-.354	.723
Online payment services	116	75.63	32	70.42	1725.5	-.635	.525
Brand	115	76.74	31	61.47	1409.5	-1.898	.058
Online reviews	116	76.19	31	65.81	1544.0	-1.254	.210

Source: Author's fieldwork.

Furthermore, an analysis of the association using the Pearson Chi-Square test was carried out between the respondents' that used OTFO sites and apps (see Table 8.6). The results as shown in the table reveal that most users that used OTFO sites will also download the takeaway food ordering apps. Additionally, the examination of the Chi-Square test discovered that there is an association between the use of sites and takeaway apps downloaded, $X^2(1, n = 150) = 14.87$, $p < .05$. The test met the requirement of minimum cell expectations with a count of 16.28. Thus the results can be used. The Phi and Cramer's V test of association showed that there was a strong relationship between the use of OTFO sites and the use of the app.

Table 8.6 Used sites and download

	Download			Chi-square test			Phi and Cramer's V		
	Yes	No	Total	Chi-value	df	Sig.	Phi	Cramer's V	Sig.
Usedsite	68	49	117 (78%)	16.425	1	.000	.331	.331	.000
Yes	(91.9%)	(64.5%)							
No	6 (8.1%)	27 (35.5%)	33 (22%)						

Source: Author's fieldwork.

Therefore, the result indicates that the respondents' use of OTFO apps would be affected by the use of the websites. Although the website is different from the mobile app, it will have the same content regarding the OTFO company. The majority of OTFO companies will develop their app to attract and retain consumers and to maintain their loyalty (Lin and Wang, 2006; Chang, 2015).

However, there are several differences between websites and mobile apps. If consumers are accessing and using the website, there is no need to download it, whereas when using mobile apps consumers are required to first download the app, and register before using it on their device. Also, users need to ensure that the app is compatible with their device and also in some cases, pay for the use of the app before downloading on to their device. Also, if their device had limited storage, downloading the app would be difficult unless they removed other apps to free up storage. In many cases, users will prefer using the website. Another difference is regarding design functionality and navigation of the apps that can also influence consumers (Tarute, Nikou and Gatautis, 2017). Even though the look and feel of the app may be similar to the content on the website, the developer still needs to consider various aspects of different devices to ensure the app can function as intended.

Furthermore, when consumers have prior experience purchasing from sites, it will also influence their future purchasing intention using e-commerce (Nunkoo and Ramkissoon, 2012; Yeo *et al.*, 2017). Therefore, this shows that consumer knowledge of OTFO sites will affect consumer use of takeaway food ordering apps. However, there are additional factors that also contribute to the consumer's use of takeaway apps which is discussed in Sections 8.3 and 8.4.

8.3 The assessment of consumer's acceptance takeaway apps model

To understand consumer acceptance of takeaway food mobile apps, referring to Objective 3 of this study, a multivariate analysis called Partial Least Square - Structural Equation Modelling (PLS-SEM) was used. PLS-SEM is similar to regression analysis which relies on data and theory (Yeo, Goh and Rezaei, 2017) and the process requires some data extraction to suit the model (Hair *et al.*, 2017). Unlike covariance-based SEM (CB-SEM), PLS-SEM enables a study to test exploratory and confirmatory research in the assessment of a large or small model (Yeo, Goh and Rezaei, 2017). While CB-SEM is based on a robust theory to develop a model, it needs the theoretical relationships to be modelled (Richter *et al.*, 2016).

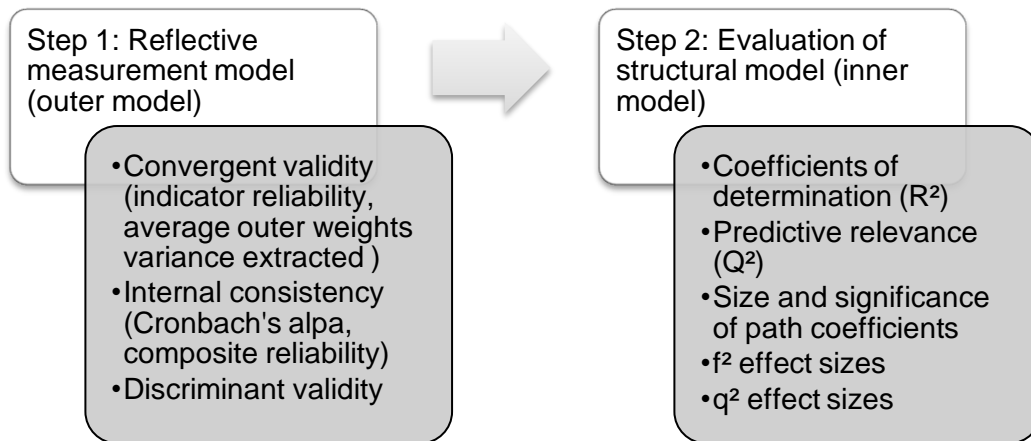
Nonetheless, it was found that CB-SEM was unable to develop a detailed and precise specification of research or develop a causal model with an invariant structural relationship (Richter *et al.*, 2016). While using PLS-SEM enabled the study to analyse the model for exploratory and predictive purposes and was deemed accurate for predicting individuals on the latent variables Richter *et al.*, 2016). Besides, PLS-SEM can also be used to study multi-group analysis such as required by this study. By using the test, the study was able to analyse the

relationship between perceived usefulness, perceived ease of use, perceived trust and perceived security on the respondents' intention to use takeaway food apps and actual use of takeaway apps.

Notwithstanding, as the aim of this study was to understand consumer adoption of technology, it was also important to understand both technology users and non-users. In the case of this study, the analysis of the relationship between the factors was conducted between the users and non-users of takeaway food apps and the assessment of reflective measure constructs. The reflective measure constructs were referred to as effect indicators and understood as a representative sample of all possible items available in a conceptual construct's domain (Hair et al., 2017). When indicators are from the same domain, there should be some association between the particular construct and the indicators (Hair et al., 2017).

The analysis of PLS-SEM consisted of two steps. First, the reflective measurement model consisted of a reliability and validity test. The second step was to evaluate the structural model which referred to the significance test which contained several analyses including coefficients of determination, predictive relevance and size and significance of path coefficients. For more details see Figure 8.7.

Figure 8.7 Systematic evaluation of PLS-SEM results



Source: Hair, Hult, Ringle, and Sarstedt (2013, p. 97)

8.3.1 Reliability and validity test

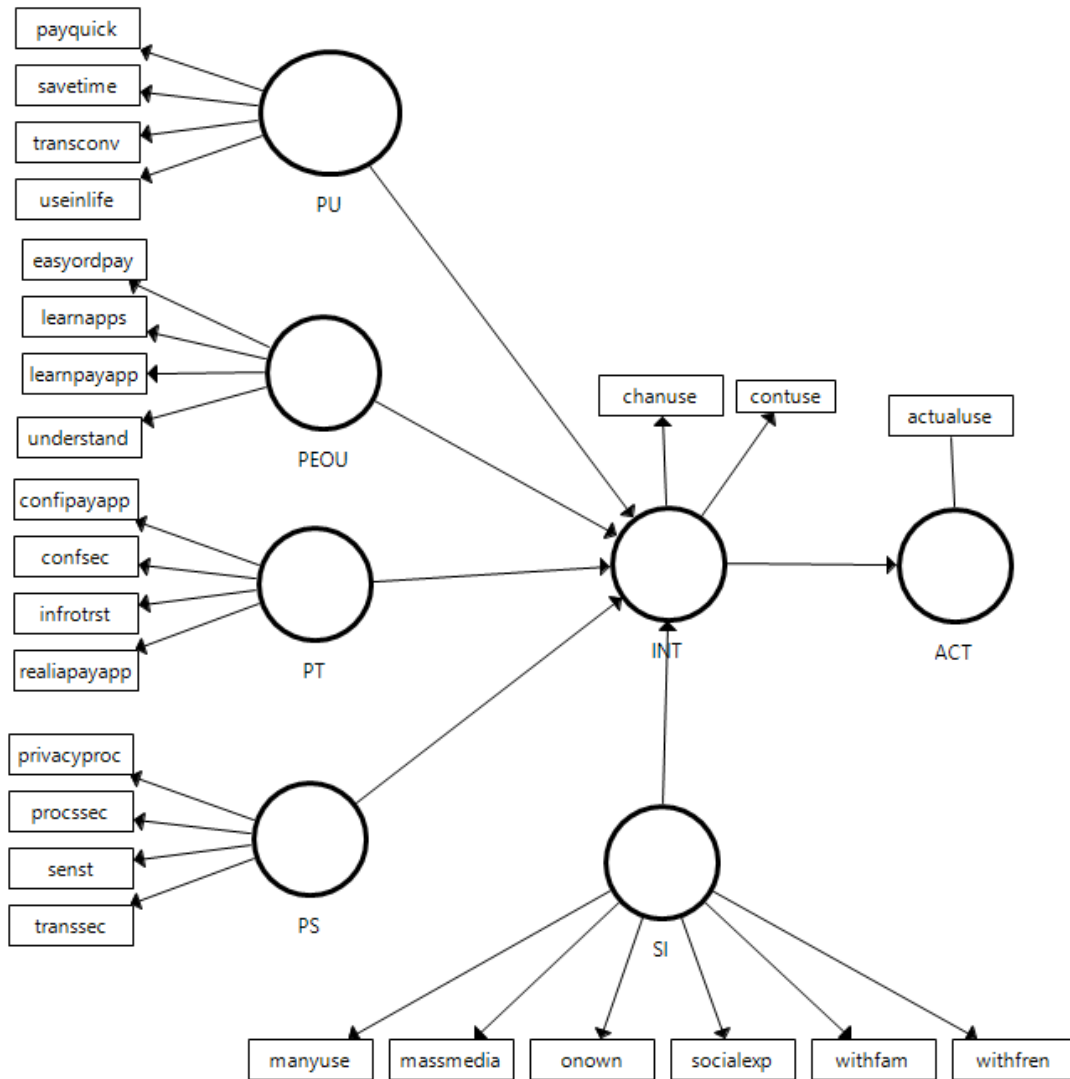
Before proceeding to the main test, it was important to assess the validity and reliability of the conceptual model. To proceed with the assessment, it was important to start by examining the convergent validity. Convergent validity refers to the extent which a measure correlates positively with an alternative measure of the same construct (Hair *et al.*, 2017). In PLS-SEM, the convergent validity was measured using the indicator reliability and the average outer weights variance extracted (AVE). To achieve the requirement of the convergent validity, the outer loading should be 0.708 or higher (Hair *et al.*, 2017). If the outer loadings are between 0.40 and 0.70, the indicators should be considered to be removed only if the deletion causes the increase in composite reliability or AVE, if not, retain the indicator (Hair *et al.*, 2017).

Table 8.7 Initial assessment of reflective indicator reliability

Latent variable	Loadings	Users					Non-users				
		Outer loadings	Indicator reliability	AVE	Composite reliability	Cronbach's alpha	Outer loadings	Indicator reliability	AVE	Composite reliability	Cronbach's alpha
Perceived usefulness (PU)	payquick	0.792	0.627	0.592	0.853	0.771	0.766	0.687	0.682	0.895	0.845
	savetime	0.815	0.664				0.867	0.752			
	transconv	0.745	0.555				0.851	0.724			
	useinlife	0.722	0.521				0.815	0.664			
Perceived ease of use (PEOU)	easyordpay	0.858	0.736	0.648	0.879	0.820	0.817	0.667	0.683	0.896	0.844
	learnapps	0.794	0.630				0.753	0.567			
	learnpayapp	0.887	0.787				0.906	0.821			
	understand	0.661	0.437				0.822	0.676			
Perceived trust (PT)	confipayapp	0.874	0.764	0.736	0.917	0.885	0.929	0.863	0.607	0.837	0.728
	confsec	0.881	0.776				0.887	0.787			
	infrotrst	0.765	0.585				0.880	0.774			
	realipayapp	0.904	0.817				0.154	0.024			
Perceived security (PS)	privacyproc	0.888	0.789	0.719	0.911	0.873	0.808	0.653	0.712	0.908	0.864
	procssec	0.817	0.667				0.924	0.854			
	senst	0.830	0.689				0.733	0.537			
	transsec	0.854	0.729				0.898	0.806			
Social Influence (SI)	manyuse	0.760	0.578	0.216	0.577	0.436	0.579	0.335	0.318	0.71	0.52
	massmedia	0.246	0.061				0.771	0.594			
	onown	0.247	0.061				0.341	0.116			
	socialexp	0.608	0.370				0.791	0.626			
	Withfam	0.386	0.150				0.297	0.088			
	withfren	0.284	0.080				0.387	0.150			
Intention to use (INT)	chanceuse	0.883	0.780	0.814	0.897	0.774	0.846	0.716	0.759	0.863	0.685
	contuse	0.921	0.848				0.895	0.801			
Actual usage (ACT)	Actuse	Single item construct									

Source: Author's fieldwork.

Figure 8.8 Initial conceptual framework



Notes: SI = social influence; PT = perceived trust; PS = perceived risk security; PEOU = perceived ease of use; PU = perceived usefulness; INT = intention to use; ACT = actual usage

Source: Author.

Table 8.7 displays the initial assessment of reflective indicator reliability for users and non-users of takeaway food ordering apps and shows whether the indicators are reliable and valid. Figure 8.8 illustrates the initial conceptual framework of this study. The table shows that all outer loadings or the indicators' reliability have met the requirement value except in the PEOU and SI for the users and PT and SI for non-users. The users' initial assessment found that the PEOU with its indicator UNDERSTAND was below 0.708. While the SI with indicators

MASSMEDIA, ONOWN, SOCIALEXP, WITHFAM and WITHFREN was below the minimum value. For the non-users, PT with its indicator REALPAYAPP was below the value, while the SI is ONOWN, WITHFAM and WITHFREN. Most of the items under the social influence were below 0.708, and it was unknown as to the real reason for the rejection. Although, it must be associated with the items that are not related or interpret the meaning of the indicators.

To ensure the model was valid for both groups, a similar deletion was performed, followed by retesting the reliability and validity. Therefore, based on this, indicators below 0.70 were deleted beginning with the lowest outer loading until the thresholds were met. As a result, REALPAYAPP, MASSMEDIA, ONOWN, WITHFAM and WITHFREN were deleted. Although some indicators were below 0.70, they were all above 0.4, and all the necessary measures were within the thresholds.

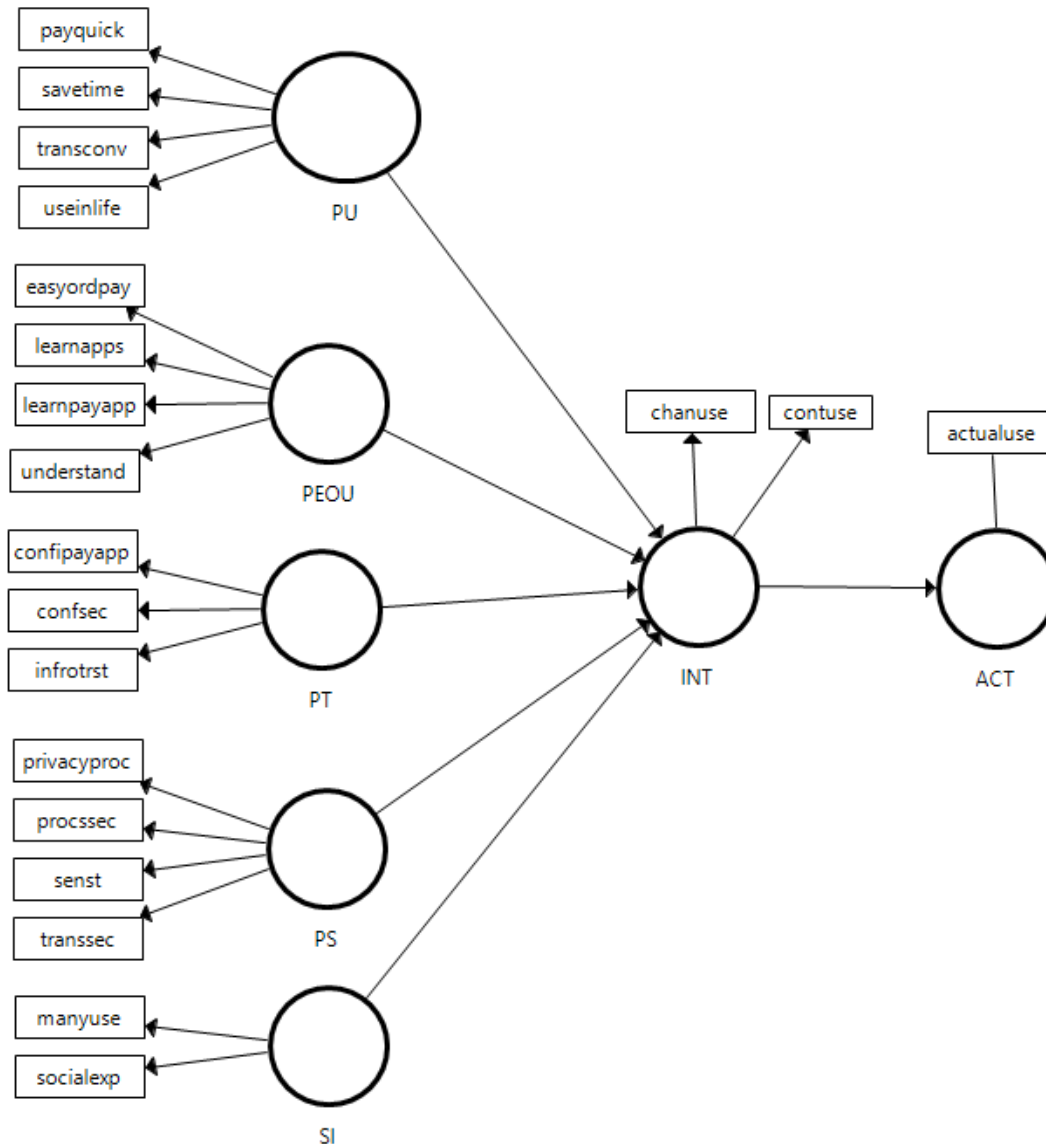
The second assessment of reflective indicator reliability is shown in Table 8.8 and Figure 8.9 which display the effect of the deletion in the model. The table shows that the outer loadings have met the requirement value. Next was the assessment of the AVE which is defined as the “grand value of the squared loadings indicators associated with the construct” (Hair *et al.*, 2017). Hair *et al.*, (2017) suggested the acceptable AVE value of 0.50 or higher which shows the construct is more than half of the variance of its indicators. From Table 8.8, it was found that all the indicators’ AVE showed a value above 0.50. Therefore it was an appropriate measure. For the single construct ACT, the AVE was not an appropriate measure since the indicator’s outer loading was fixed at 1.00.

Table 8.8 Second assessment of reflective indicator reliability

Latent variable	Loadings	Users					Non-users				
		Outer loadings	Indicator reliability	AVE	Composite reliability	Cronbach's alpha	Outer loadings	Indicator reliability	AVE	Composite reliability	Cronbach's alpha
Perceived usefulness (PU)	payquick	0.792	0.627	0.592	0.853	0.771	0.766	0.687	0.682	0.895	0.845
	savetime	0.815	0.664				0.867	0.752			
	transconv	0.745	0.555				0.851	0.724			
	useinlife	0.722	0.521				0.815	0.664			
Perceived ease of use (PEOU)	easyordpay	0.858	0.736	0.648	0.879	0.820	0.817	0.667	0.683	0.896	0.844
	learnapps	0.794	0.630				0.753	0.567			
	learnpayapp	0.887	0.787				0.906	0.821			
	understand	0.661	0.437				0.822	0.676			
Perceived trust (PT)	confipayapp	0.874	0.764	0.786	0.917	0.863	0.929	0.863	0.804	0.925	0.879
	confsec	0.881	0.776				0.887	0.787			
	infrotrst	0.765	0.585				0.880	0.774			
Perceived security (PS)	privacyproc	0.888	0.789	0.719	0.911	0.873	0.808	0.653	0.712	0.908	0.864
	procssec	0.817	0.667				0.924	0.854			
	senst	0.830	0.689				0.733	0.537			
	transsec	0.854	0.729				0.898	0.806			
Social Influence (SI)	manyuse	0.870	0.757	0.515	0.667	0.066	0.737	0.543	0.595	0.746	0.320
	socialexp	0.523	0.274				0.804	0.646			
Intention to use (INT)	chanceuse	0.883	0.780	0.814	0.897	0.774	0.846	0.716	0.759	0.863	0.685
	contuse	0.921	0.848				0.895	0.801			
Actual usage (ACT)	Actuse	Single item construct									

Source: Author's fieldwork.

Figure 8.9 The second assessment of the conceptual model



Notes: SI = social influence; PT = perceived trust; PS = perceived risk security; PEOU = perceived ease of use; PU = perceived usefulness; INT = intention to use; ACT = actual usage

Source: Author.

The assessment of the internal consistency was next conducted regarding the reliability of the variable in the model. Internal consistency measures the consistency of the variable and questions how well the set of items measure the behaviour in the test (Drost, 2011). In PLS-SEM, the internal consistency was measured by examining the traditional criterion test which was Cronbach's Alpha and composite reliability. To ensure that the internal consistency is reliable,

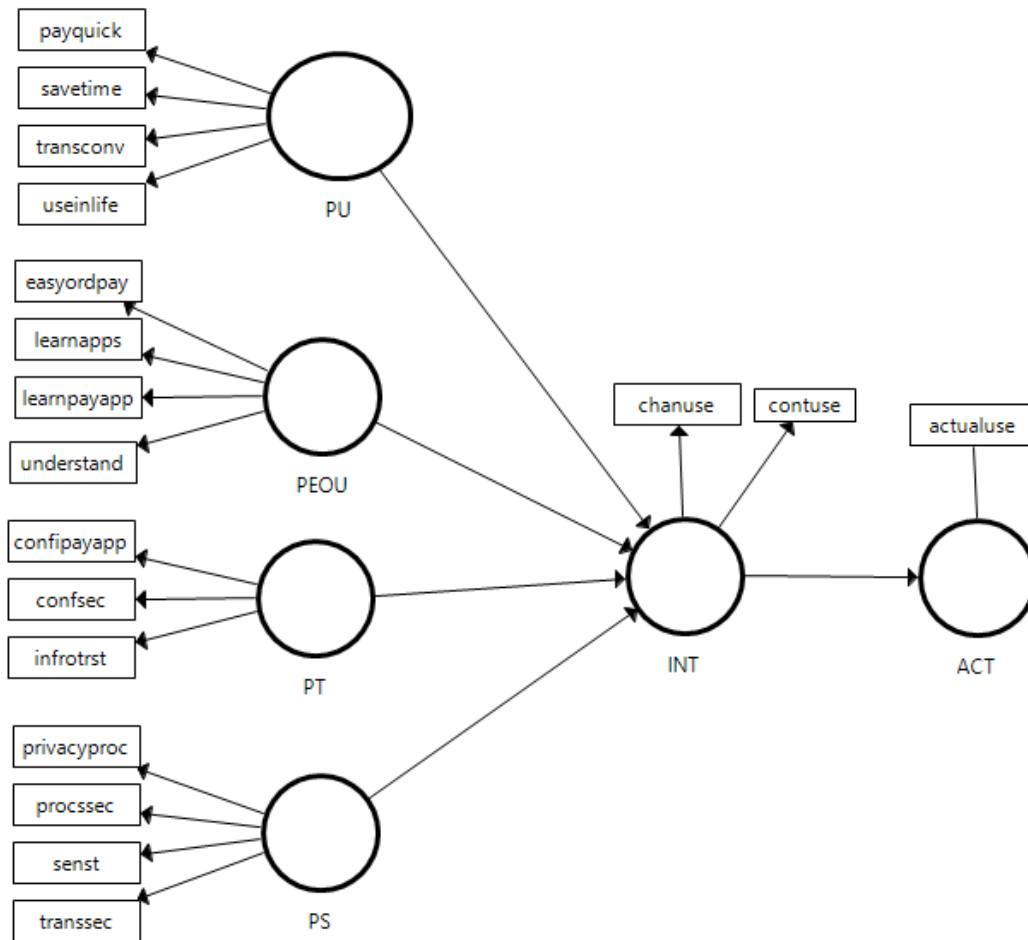
according to (Saunders, Lewis and Thornhill, 2009), Cronbach's Alpha must be 0.7 and above to be acceptable. Although, different kinds of research have different acceptable values. For example, in exploratory research values between 0.60 and 0.70 are acceptable, whereas, in more advanced research values between 0.70 and 0.90 are satisfactory (Hair *et al.*, 2017). However, the limitations of Cronbach Alpha are that it is too sensitive to the number of items in scale and tends to undervalue the internal consistency reliability. In this situation, Hair *et al.* (2017) suggested applying composite reliability which is to apply a different measure of internal consistency reliability; the composite reliability value is between 0 and 1, and the interpretation is the same as Cronbach Alpha. From the second assessment, it was found that all the indicators met the acceptable value for Cronbach Alpha and Composite Reliability excluding SI. Hence, it was decided to delete all the items in the SI as the indicators did not meet the reliability and validity. The results of the final assessment are displayed in Table 8.9, meeting all the requirements of the internal consistency reliability.

Table 8.9 Final assessment of reflective indicator reliability

Latent variable	Loadings	Users					Non-users				
		Outer loadings	Indicator reliability	AVE	Composite reliability	Cronbach's alpha	Outer loadings	Indicator reliability	AVE	Composite reliability	Cronbach's alpha
Perceived usefulness (PU)	payquick	0.792	0.627	0.592	0.853	0.771	0.810	0.656	0.732	0.916	0.877
	savetime	0.815	0.664				0.905	0.819			
	transconv	0.745	0.555				0.843	0.711			
	useinlife	0.722	0.521				0.860	0.74			
Perceived ease of use (PEOU)	easyordpay	0.858	0.736	0.648	0.879	0.820	0.863	0.745	0.757	0.926	0.893
	learnapps	0.794	0.630				0.825	0.681			
	learnpayapp	0.887	0.787				0.926	0.857			
	understand	0.661	0.437				0.864	0.747			
Perceived trust (PT)	confipayapp	0.874	0.764	0.786	0.917	0.863	0.929	0.863	0.837	0.939	0.903
	confsec	0.881	0.776				0.887	0.787			
	infrotrst	0.765	0.585				0.880	0.774			
Perceived security (PS)	privacyproc	0.888	0.789	0.719	0.911	0.873	0.854	0.729	0.756	0.925	0.891
	procssec	0.817	0.667				0.932	0.869			
	senst	0.830	0.689				0.769	0.591			
	transsec	0.854	0.729				0.914	0.835			
Intention to use (INT)	chanceuse	0.883	0.780	0.814	0.897	0.774	0.876	0.767	0.806	0.893	0.762
	contuse	0.921	0.848				0.919	0.845			
Actual usage (ACT)	Actuse	Single item construct									

Source: Author's fieldwork.

Figure 8.10 Final structural model



Notes: SI = social influence; PT = perceived trust; PS = perceived risk security; PEOU = perceived ease of use; PU = perceived usefulness; INT = intention to use; ACT = actual usage

Source: Author.

Lastly, was the assessment of discriminant validity. Discriminant validity describes to what extent a construct is different from other constructs by empirical standards (Hair et al., 2017). Two methods can be employed to examine discriminant validity. The first method is to use the cross-loadings where each of the outer loadings of the indicators must have the highest loading on other constructs. The second method is to use the Fornell-Larcker criterion. The Fornell-Larcker criterion compares the square root of the AVE values with latent variable correlations. In other words, the square root of each AVE construct must

be greater than its highest correlation of other constructs. For example, in the users cross-loadings analysis, the INT indicators CONTUSE and CHANUSE were greater than the other indicators' variable. To support the study, both assessments were carried out to indicate its validity. Table 8.10 presents the cross-loadings analysis for users and non-users of takeaway apps, showing that there were no issues with the cross-loadings as each indicator was greater compared to the other constructs as highlighted in grey.

Table 8.10 Cross-loadings analysis (Discriminant validity)
Users of takeaway apps (N=74)

		ACT	INT	PEOU	PS	PT	PU
ACT	actualuse	1	-0.254	-0.084	-0.13	-0.041	-0.172
	INT	contuse	-0.245	0.928	0.377	0.378	0.247
chanuse		-0.211	0.874	0.267	0.326	0.221	0.365
PEOU	easyordpay	-0.096	0.341	0.858	0.311	0.474	0.578
	learnapps	-0.082	0.26	0.793	0.219	0.484	0.534
	learnpayapp	-0.049	0.355	0.887	0.348	0.5	0.647
	understand	-0.033	0.156	0.663	0.175	0.374	0.452
PS	privacyproc	-0.195	0.447	0.169	0.889	0.423	0.382
	procssec	-0.11	0.316	0.413	0.817	0.69	0.367
	transsec	-0.002	0.264	0.429	0.854	0.656	0.532
	senst	-0.071	0.218	0.202	0.83	0.56	0.26
PT	infrotrst	-0.067	0.217	0.47	0.677	0.855	0.286
	confipayapp	-0.003	0.231	0.633	0.444	0.857	0.507
	confsec	-0.042	0.244	0.42	0.642	0.945	0.321
PU	savetime	-0.211	0.379	0.521	0.157	0.105	0.815
	transconv	-0.018	0.387	0.635	0.317	0.468	0.745
	payquick	-0.126	0.441	0.529	0.431	0.345	0.792
	useinlife	-0.189	0.307	0.437	0.521	0.383	0.722

Non-users of takeaway apps (N=76)

		ACT	INT	PEOU	PS	PT	PU
ACT	actualuse	1	-0.177	-0.172	-0.036	-0.041	-0.188
	INT	contuse	-0.138	0.919	0.727	0.638	0.652
chanuse		-0.185	0.876	0.635	0.439	0.519	0.544
PEOU	easyordpay	-0.111	0.696	0.863	0.699	0.677	0.695
	learnapps	-0.154	0.584	0.825	0.577	0.573	0.628

	learnpayapp	-0.184	0.698	0.926	0.628	0.688	0.789
	understand	-0.151	0.666	0.864	0.636	0.695	0.69
PS	privacyproc	-0.115	0.466	0.611	0.854	0.735	0.609
	procssec	0.03	0.615	0.71	0.932	0.777	0.698
	transsec	-0.011	0.574	0.702	0.914	0.811	0.654
	senst	-0.058	0.439	0.494	0.769	0.589	0.505
	infrotrst	-0.01	0.552	0.656	0.721	0.906	0.549
PT	confipayapp	-0.028	0.683	0.735	0.798	0.938	0.718
	confsec	-0.077	0.555	0.686	0.791	0.901	0.587
PU	savetime	-0.118	0.673	0.755	0.594	0.562	0.905
	transconv	-0.119	0.652	0.722	0.704	0.688	0.843
	payquick	-0.104	0.553	0.595	0.596	0.508	0.81
	useinlife	-0.295	0.664	0.679	0.555	0.571	0.86

Notes: PT = perceived trust; PS = perceived risk security; PEOU = perceived ease of use; PU = perceived usefulness; INT = intention to use; ACT = actual usage

Source: Author's fieldwork.

Additionally, a Fornell-Larcker criterion was performed as shown in Table 8.11. From the table, it is clear that the AVE of each latent variable is larger than the other correlation value among the latent variables. For example, the latent variable INT's AVE of takeaway apps users was found to be 0.814. Therefore its square root becomes 0.902 (see Table 8.11). This value was greater compared to the correlation value in the column INT (0.364, 0.393, 0.261 and 0.498) and larger than those in the row of INT (-0.254).

Table 8.11 Fornell-Larcker criterion analysis (Discriminant validity)

Users of takeaway apps

	ACT	INT	PEOU	PS	PT	PU_
ACT	1					
INT	-0.254	0.902				
PEOU	-0.084	0.364	0.805			
PS	-0.13	0.393	0.342	0.848		
PT	-0.041	0.261	0.571	0.661	0.887	
PU	-0.172	0.498	0.694	0.456	0.419	0.769

Non-users of takeaway apps

	ACT	INT	PEOU	PS	PT	PU
ACT	1					
INT	-0.177	0.898				
PEOU	-0.172	0.762	0.87			
PS	-0.036	0.61	0.731	0.869		
PT	-0.041	0.658	0.759	0.842	0.915	
PU	-0.188	0.746	0.807	0.715	0.682	0.855

Notes: PT = perceived trust; PS = perceived risk security; PEOU = perceived ease of use; PU = perceived usefulness; INT = intention to use; ACT = actual usage

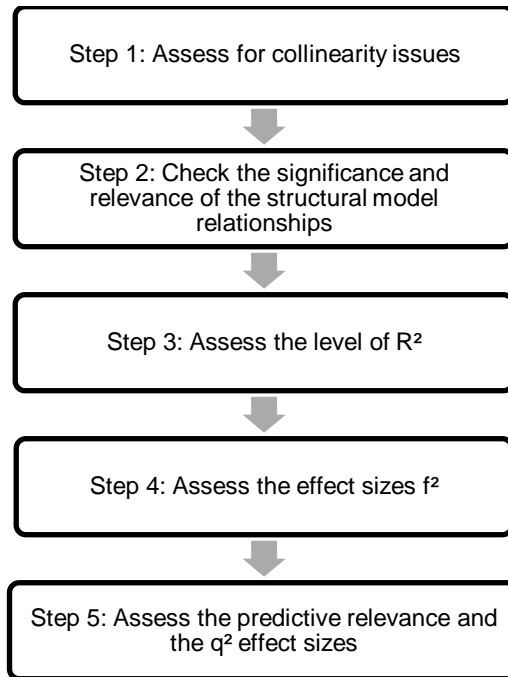
Source: Author's fieldwork.

Overall, the reliability and validity test received a satisfactory result and indicated that the measurement model for this study was valid and suitable to be used to estimate the parameters in the structural model.

8.3.2 Significance test

After proving that the model was reliable and valid for the study, the next step was to test for the significance of the model for this study. To measure the conceptual model in PLS-SEM, five steps needed to be followed (see Figure 8.11).

Figure 8.11 Procedure to evaluate the structural model



Source: Hair et al. (2017: 191)

Step one: the assessment of collinearity. Table 8.12 exhibits the results for collinearity statistics for this study. In a multiple regression analysis, collinearity refers to when two predictor variables are inter-correlated. If any items have potential collinearity, the items may be eliminated, merged or developed into a higher-order latent variable (Wong, 2013).

To assess the collinearity, Hair et al. (2013) recommend that the VIF value needs to be a minimum of 0.2 and a maximum of 5. Table 8.12 displays the results of the collinearity test for the consumer of online takeaway food apps. It can be seen from the table that all the inner VIF values and outer VIF value have the value of the minimum and maximum value. The highest inner VIF value for users is PEOU (2.565), and for non-users is PT (4.063). For the outer VIF value, the highest is for user CONFSEC (3.835) and non-user PROSSEC (4.889), whereas the lowest outer VIF value for the user is TRANSCOV (1.492) and for the non-user is

CHANCEUSE AND CONTUSE (1.609). Thus, it can be concluded that collinearity does not extend the critical level in any reflective constructs and is not an issue for estimation of the PLS path model for both users.

Following the assessment of the measuring model, next was the assessment of the structural model. According to (Hair *et al.*, 2017), it is important to discuss the size and significance of the path coefficient, determination coefficient (R^2), predictive relevance (Q^2) and effect sizes (f^2) and (q^2) when assessing the structural model. The first assessment of the model began by analysing the inner and outer weight for significance and relevance by comparing the weight of the indicators to verify their relative contribution to forming the construct (Hair *et al.*, 2017).

Table 8.12 Results for collinearity statistics

Latent variable	Inner VIF values		Loadings	Outer VIF values	
	Users	Non-users		Users	Non-users
Perceived usefulness (PU)	2.246	3.175	payquick	1.500	1.953
			savetime	1.787	2.992
			transconv	1.492	2.158
			useinlife	1.526	2.232
Perceived ease of use (PEOU)	2.565	3.758	easyordpay	2.153	2.263
			learnapps	1.901	2.423
			learnpayapp	2.365	4.008
			understand	1.592	2.554
Perceived trust (PT)	2.438	4.063	confipayapp	2.233	3.255
			confsec	3.835	2.69
			infrotrst	2.401	2.818
Perceived security (PS)	2.075	3.958	privacyproc	2.363	2.357
			procssec	2.145	4.889
			senst	2.494	1.785
			transsec	2.667	4.563
Intention to use (INT)	1.000		chanuse	1.661	1.609
			contuse	1.661	1.609

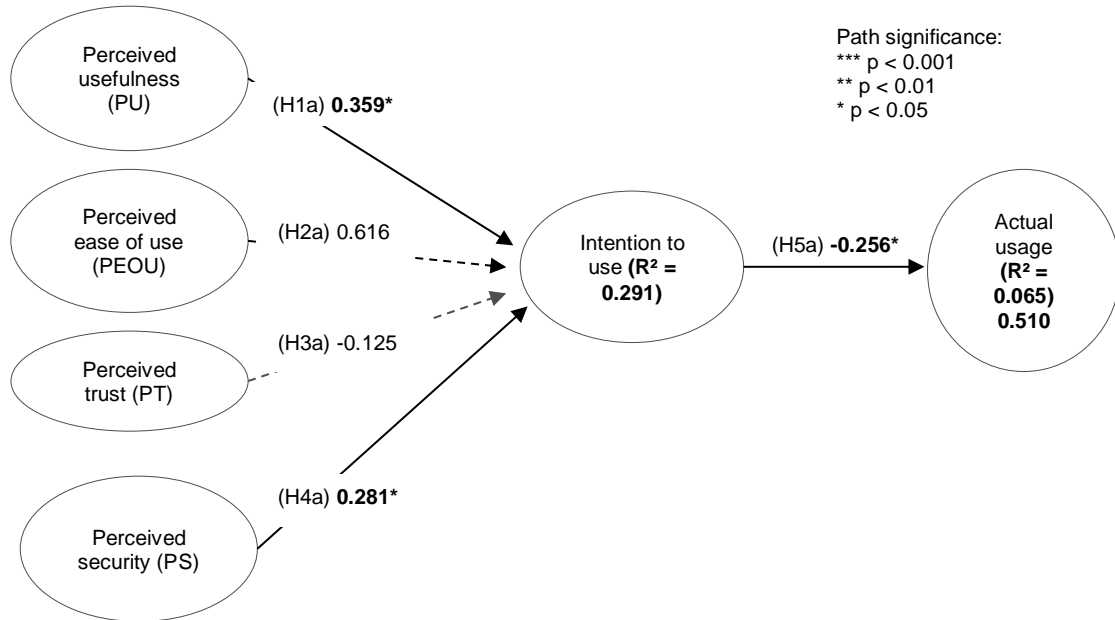
Source: Author's fieldwork.

The significant test for both inner and outer models can be generated using a T-statistics analysis called bootstrapping in PLS-SEM. As this study aimed to find and examine the factors influencing the adoption of takeaway apps between users and non-users, multigroup analysis was used. However, similar to the bootstrapping procedure, PLS-MGA a non-parametric multigroup analysis was used. The approach enabled each bootstrap to estimate one group with all other bootstrap estimates of the same parameter in the other group (Hair et al., 2017).

Bootstrapping can be described as a resampling process which draws a large number of subsamples from the original data and estimates models for the subsample (Hair et al., 2017). To proceed with the analysis, many studies tend to suggest using 500 subsamples (Hair et al., 2017; Streukens and Leroi-Werelds, 2016) taken from the original sample to give bootstrap standard errors that in turn will provide an approximate T-value for significance testing of the structural path. At the end of the bootstrapping test, it will then produce the results of the structural model. Also, most studies use p-value to examine significance that refers to erroneously rejecting a true null hypothesis (Hair et al., 2017). Therefore, assuming the significance level of .05 or 5% was used and the p-value must be smaller to consider the relationship to be significant. The significance level of .01 can be used for stricter testing of the relationship. Figure 8.12 and Figure 8.13 display the results of the full structural model for users and non-users. The users' results showed that three of the five hypotheses were supported with 29.1% of the variance in intention to use and 6.5% of the variance in actual usage. This indicated that the relationship between the other factors (PU, PEOU, PS, PT) on the intention was medium but acceptable. However, for the actual usage,

although the hypothesis was supported, the variance was shown to be weak in explaining the users' intention to use.

Figure 8.12 Result of structural model test without control variable (users)



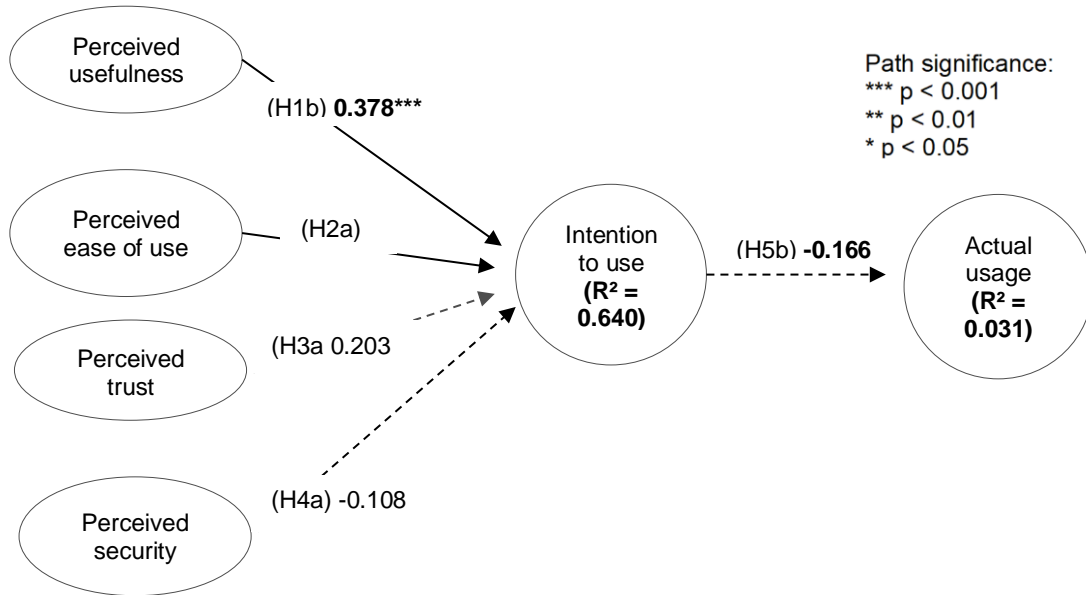
Source: Author's fieldwork.

On the other hand, the non-users' results displayed that two hypotheses were accepted which were perceived usefulness and perceived ease of use (see Figure 8.13). Examination of R² discovered the non-users' intention to use takeaway apps was 64% in explaining the variances and 3.1% of the variance on actual usage. This result showed that the non-users' intention to use had a large effect size on the variance, while the non-users' actual usage was weak in order to explain the non-users' intention to use.

Note that it was not surprising to see that the proportion of explained variance for the construct's actual usage was lower than the intention to use mobile takeaway apps. A brief look at the literature dealing with mobile apps usage revealed a vast number of possible determinants such as functionality and usability (Cyr, Head and Ivanov, 2006; Oh, Lehto and Park, 2009; Wang and Li, 2017). The low value

of R² was also supported by the work of (Eberl, 2010) who found a low R² between 20% and 30% was large in the context of consumer satisfaction study.

Figure 8.13 Result of structural model test without control variable (non-users)



Source: Author's fieldwork.

Table 8.13 Result test of PLS-MGA

	Path Coefficients-diff (USER - NON-USER)	p-Value (USER vs NON-USER)	Significance
INT -> ACT	0.078	0.683	No
PEOU -> INT	0.296	0.895	No
PS -> INT	0.397	0.021	Yes
PT -> INT	0.333	0.938	No
PU_ -> INT	0.015	0.525	No

Notes: PT = perceived trust; PS = perceived risk security; PEOU = perceived ease of use; PU = perceived usefulness; INT = intention to use; ACT = actual usage

Source: Author's fieldwork.

Nonetheless, the results of the PLS-MGA of the structural model in Table 8.13 was used to examine the comparison between the results of users and non-users. The results showed that there was no significant difference between the users and non-users in all indicators except for PEOU on INT ($p < .05 = 0.034$). If different approaches or a larger sample was used, it could help to indicate results

that are more profound. However, the finding with the approach indicates that the other factors do not have any significant impact.

Table 8.14 Assessment of size of predictive power
User of takeaway food ordering apps

	ACT		INT		Q ²	q ² Effect size
	Path coefficient	f ²	Path coefficient	f ²		
ACT					0.050	
INT	-0.254	0.069			0.186	0.167 (Medium)
PEOU			0.092	0.005		
PS			0.284	0.055		
PT			--0.131	0.010		
PU			0.360	0.081		

Non-user of takeaway food ordering apps

	ACT		ACT		Q ²	q ² Effect size
	Path coefficient	f ²	Path coefficient	f ²		
ACT					0.012	
INT	-0.177	0.032			0.441	0.767 (Large)
PEOU			0.388	0.111		
PS			-0.112	0.009		
PT			0.202	0.028		
PU			0.375	0.123		

Notes: PT = perceived trust; PS = perceived risk security; PEOU = perceived ease of use; PU = perceived usefulness; INT = intention to use; ACT = actual usage

Source: Author's fieldwork

After assessing the structural model, it was also important to understand whether the model structure fits the empirical data and thus, helped to identify model misspecification. The best approach to estimate the parameter was by applying goodness-of-fit measures. In order to measure that in PLS-SEM, heuristic criteria determined by a predictive power was assessed (Hair *et al.*, 2017). Among the assessment is effect size (f^2), predictive relevance Q^2 and q^2 effect size as displayed in Table 8.14.

The first evaluation was the assessment of effect size f^2 which was used to assess the impact of each exogenous construct. In order to assess f^2 , the following

guideline was given: 0.02 (small), 0.15 (medium) and 0.35 (large) effects on exogenous latent variable. Values that are less than 0.02 indicate that there is no effect (Hair et al., 2017). Referring to the users' results, PEOU (0.005) and PT (0.010) did not have any effect on the user's intention to use takeaway apps, whereas the other constructs had minor effects on intention to use. In contrast, the non-users PS were found not to affect INT. The other result of the non-users was also contrary to the users such as INT on ACT and PT on INT having minor effects, and PEOU and PU having medium effects on INT.

In addition to R^2 , predictive relevance can be assessed by examining Q^2 using the blindfolding technique. The blindfolding procedure is an iterative procedure that is a continuous process that repeats until the data has been omitted and the model revalued. To evaluate the Q^2 values, all exogenous constructs above zero have to indicate predictive relevance for the endogenous construct using a reflective model. Using an omission distance of 7, it was found that the predictive relevance for the model existed for both groups because all the exogenous constructs were above 0.

Additionally, the assessment of the q^2 effect size was evaluated. The effect size q^2 is to assess an exogenous construct's contribution to an endogenous latent variable's Q^2 . The examination of q^2 needs to be assessed by manually computing it. To measure q^2 as a relative measure of predictive relevance, if q^2 values are 0.02, it indicates small, while 0.15 is medium and 0.35 is large. It was found that the q^2 values of INT for users had a medium effect on the ACT, whereas q^2 values of INT for non-users showed a large effect on the ACT.

8.4 Consumers acceptance of online takeaway food apps

Following the success of the OTFO websites, these suppliers then introduced OTFO apps in anticipation that consumers would use and accept them. Motivated by the desire of these companies to gain consumer acceptance of the websites using these apps, this study then sought to understand what led to the acceptance and use of mobile apps. In progressing this work, the study extended TAM to predict the intention and use of takeaway food mobile apps for two different profiles of individuals: users and non-users. Table 8.15 shows the hypotheses results of the study based on the significance test illustrated in Figure 8.12 and Figure 8.13. The results show that there are dissimilarities between users and non-users.

The primary hypothesis tested in this study was the relationship between intention to use and actual use of OTFO apps. The results showed that user adoption and the use of the apps could be predicted from the users' intention which is affected significantly by perceived usefulness and perceived security. This finding is consistent with the work of (Davis, Bagozzi and Warshaw, 1989; Wu and Wang, 2005; Rauniar et al., 2014) which means users' behavioural intent is an important determinant of takeaway app usage.

Table 8.15 Hypothesis results

Hypothesis	Results	
	Users (a)	Non-users (b)
H1: There is a positive relationship between perceived usefulness and the intention to use of online takeaway food ordering apps	Supported	Supported
H2: There is a positive relationship between perceived ease of use and the intention to use of online takeaway food ordering apps	Not supported	Supported
H3: There is a positive relationship between perceived trust and the intention to use of online takeaway food ordering apps	Not supported	Not supported
H4: There is a positive relationship between perceived security and the intention to use of online takeaway food ordering apps	Supported	Not supported
H5: There is a positive relationship between intention to use and the actual usage of online takeaway food ordering apps	Supported	Not supported

Source: Author's fieldwork.

However, it appears that the model is not suitable to measure the acceptance of non-users because no significant path coefficient could be estimated between intention to use and actual usage. Although, the model can be used to test non-users' intention to use takeaway apps due to several factors that proved the relationship on intention to use. The reason for the hypothesis not being supported for the non-users is related to the variable that predicted non-users' intention to use and sufficient enough to determine the actual usage of the apps. Hence, to understand the user and non-users' factors that influence intention to use the app, several themes such as practicability, functionality and usability and individual experience and knowledge are next discussed.

8.4.1 The practicability

The practicability refers to the usefulness or value which can be defined as convenience, time-saving and the ability to pay promptly in this study. Users and

non-users supported the hypotheses related to the effect of perceived usefulness on the intention to use mobile apps which refers to H1. This finding is consistent with the work of a previous study by Agrebi and Jallais (2015), Amin (2008), Cobanoglu et al. (2015), Davis, Bagozzi and Warshaw (1989), Koenig-Lewis et al. (2015) meaning that the users and non-users believed the mobile app was useful and had influenced them to use the technology. To understand the usefulness of the app, several themes have been developed, among them are the convenience, the restaurant's information and technology features.

8.4.1.1 Convenience

When a consumer decided to use the OTFO services, they viewed the service as an enabler to purchase takeaway food quickly and easily. Many studies have also associated the consumption of fast food to convenience (Papadaki et al., 2007; Dave et al., 2009; van der Horst, Brunner and Siegrist, 2011; AlFaris et al., 2015). Convenience, in this sense, makes it easier for a consumer to purchase takeaway food without the need to go to a restaurant and purchase takeaway. Using the app is simply a matter of choosing a restaurant, selecting the food, paying for the order, and then the order will be delivered. Consumers are presented with a list of restaurants and menu that they can choose their food according to their preferences. This is also easy for a consumer to compare prices on the menu between restaurants.

Likewise, they can use the mobile app anywhere as it is easy to carry around with them compared to using a laptop or desktop computer (Kim et al., 2010; Wang et al., 2014). Many respondents from the interviews also mentioned the same reason. For instance, Zack preferred to use the service given the ability to obtain

different food types without any preparation needed. As for Rina, she used the services due to safety concerns, as she believed it unsafe for a woman to go outside alone at night to buy takeaway food. Whereas Ahid, Lao and Rith, used the OTFO services given it was convenient and saved time.

Even though using takeaway apps means that consumers will have less direct contact with the seller, the advantage is that it can reduce any miscommunication during the purchasing process. The difference in demographic backgrounds such as country of origin and language between the seller and buyer makes it difficult for a transaction to occur. For example, a consumer orders takeaway food at a restaurant or via the phone and the seller does not understand the buyer, which will stress the consumer, making them feel anxious and frustrated with the entire process. Whereas using the app, it means that the language barrier is reduced, making the whole experience of purchasing pleasant and easy.

“...cause if I phone them sometimes they don’t speak very good English. So, they either don’t understand me, they make a mistake in the order because they don’t understand me. They put something else in my order. Because most of them are east European. Mostly because of the language barrier. Even the Chinese people, they have very different accent. So, you’ll speak with them, then you kind of stress what if they don’t understand what you order. And it happens many time when I called them...”.

– Ahid, British, Male, 25-30 years old, doctoral’ student.

Lao agreed with Ahid, as she believed using the apps would reduce the level of miscommunication given she was not a fluent English speaker.

“...I think because you use phone to call, make misunderstanding, because the language. If I order sometimes I’m not sure the pronunciation, maybe they have the same pronunciation. In order to avoid that mistake, I more prefer to use the software.” - Lao, China, female, 25 years old, master’ student.

8.4.1.2 Restaurant information

The usefulness is also associated with the availability of information regarding the restaurant and its services. Besides browsing to view the menu and finding information about the restaurant such as the opening time, and location, using the app allows the consumer to view the restaurant’s rating and consumer feedback and reviews of the restaurants listed on the site. Many e-commerce businesses utilise e-word-of-mouth information to invite consumers to share their experiences with others via consumer reviews (Qiu, Pang and Lim, 2012, 2012). When consumers generate positive comments and feedback concerning the restaurant’s service, price and food quality, it increases the popularity of the restaurant (Zhang et al., 2010; Jeong and Jang, 2011). This information is also valuable and useful to consumers as it enables them to make the right choice when selecting and ordering takeaway food from a restaurant using the app. This finding was supported by the responses from the interview respondents, for instance, Linda said that she liked seeing the online star rating in the apps. The

rating can be used as a recommendation for a good restaurant and to stop her from ordering from a bad or poorly rated restaurant or a takeaway food services establishment.

“I guess It’s nice to see it have rating because that is inspire confident, you can see some of the rating like 4 or 5 stars. You can click on it, saw the comment. Because some of the comment said, I have to wait for two hours but my food never arrives, then I would probably will never use their service. Because it doesn’t inspire confident.” – Linda, Hungarian, female, 25 years old, doctoral’ student.

Rith also had similar views as he described how he viewed the star ratings in making a decision based on the ratings.

“First of all, you look at the categories of foods, and then when you are in the category one I think there is are some stars rating. You know if a restaurant gets a 2.5 star I will more likely to choose them from someone that got 1-star rating.” – Rith, British, Male, 21 years old, undergraduate’ student.

While for Ika, she believed the apps were beneficial as she is then aware of the rating and food prices on the menu of the restaurant.

“The apps are good, I like the apps. I like it because you can easily what restaurant offer the service. It also good because you know the rank and the price of their foods. And you can easily

see the price of the food and see which one are the popular, so you want to try those foods that are popular.” - Ika, Malaysian, female, 21 years old, undergraduate’ student.

Therefore, based on the information provided on the website and using the app, it will provide a suggestion to the consumer, whether to proceed with ordering from the restaurant or not.

8.4.2 The functionality and usability

Besides convenience and usefulness, the next important aspect considered by consumers is the functionality and usability of the app. Functionality refers to the content and usability in the design of the app. Developing mobile apps requires developers to research consumer behaviour in adopting the technology. In the case of the OTFO app, the developer needs to tailor and shape the technology based on the similar functionality and content of the website. When technology is deemed user-friendly, consumers will tend to use the technology given they are comfortable in using it, feeling a sense of trust regarding the app (Bhatti, 2007; Giovanis, Binioris and Polychronopoulos, 2012; Liébana-Cabanillas, Muñoz-Leiva and Sánchez-Fernández, 2015). Several of the respondents from the interviews also agreed that the ease of using takeaway apps was the main reason for them to use the technology. For example, Rina believed that good technology would provide all the information that would be needed by consumers.

“Because I think the features of the website or the application itself, it interactive, easy to use, it’s clear. The information is over

there like it appear they really there for promotion every restaurant available. For example, the discount the something like that. It's very easy to use and just in one click, it's very friendly user that what make me very enjoy.” - Rina, Indonesian, female, 25 years old, master' student.

While for Ika, the most important thing was the easiness or smoothness of the app, making it easier for her to navigate.

“I think it has like a clean interface, for me it pretty much the same when you open in the laptop. I like it because it clean and you can easily see what restaurant they offer you and how many minutes that they can reach you.” - Ika, Malaysian, female, 21 years old, undergraduate' student.

Also, Dan believed that a sophisticated design and ease of using the app would influence his perceived trust in the technology.

“I'd said the design, it's really nice, user-friendly, it looks really legitimate as well so you can trust it.” - Dan, male, 21 years old, undergraduate student.

In contrast, the effects of improper design of the technology will cause consumers to reject it and choose another option. In the case of this study, even though Just Eat was a reasonably established company compared to Deliveroo, they still developed and launched an app as they were confident that the users would use

the app and continue using their services. If the app is difficult to use and navigate and obstructs their ability to purchase consumers will consider that the technology is not trustworthy or insecure (Liu and Arnett, 2000). This finding was also supported by the responses shared by the respondents from the interviews.

For example, Ahid believed that the apps were still developing and were not easy to use. His negative evaluation of the apps deterred him from using the apps.

“Just Eat is relatively a new app, so they still developing a lot of things in there. Ease of access is very important. It has to be user-friendly when you are using an app. If it’s not user-friendly I will just use the computer.” – Ahid, British, Male, 25-30 years old, doctoral’ student.

While for Arif, a savvy technology user described that the design or the features in the apps were important and influenced him to use the apps. Arif’s statement was supported by Rith who mentioned that graphic images were very important as it influenced him to use the apps.

“First, how’s it looks. The design of the interfaces it’s (refers to Deliveroo) a lot pleasing to look at compared to Just Eat. The interfaces are means by the layout.” – Arif, Malaysian, male, 21 years old, undergraduate student

8.4.2.1 Design aesthetic

Researchers have found that various design aesthetic elements can influence consumer trust including colour, logo, icon, photographs, layout, font and font style (Li and Yeh, 2010; Wang and Li, 2017). In this study, it was found that

different companies have different product presentation elements in their takeaway food apps. In this sense, consumers will tend to make a comparison between the app and the services provided by the company. For example, in the Deliveroo app, consumers are able to view photos for each restaurant listed, whereas in the Just Eat app it only shows a written list. Accordingly, the presentation of products and information can increase the app's informative content thereby influencing the apps perceived usefulness, ease of use and reliability of the app. (Cyr, Head and Ivanov, 2006; Vila and Kuster, 2011). This finding is consistent with the views shared by the respondents in the interviews. For instance, Zack mentioned that he liked to see pictures in the apps to compare suppliers, for example, Just Eat to Deliveroo. While Rine said that if she could see the supplier's page along with their name and some food images that would add value to using the apps.

8.4.2.2 Additional features

Besides the visual element, additional features that could increase the consumer's intention to order via the takeaway app relate to location-based service (LBS) and tracking order tools. The LBS in the context of the takeaway app is the ability to detect the consumer's present location. Instead of searching and typing in a name for a restaurant close by, the service will detect the consumer's location automatically and show a list of all restaurants in the vicinity (Turban *et al.*, 2018). For example, when a consumer uses the app in London, the app would provide a list of all restaurants nearby. This development is useful, which adds value to existing services (Choi, 2017). Although, developers need to display clear instructions and also present the service's availability (i.e. opening

and closing times). Likewise, the location of the user is only allowed based on the user's ability to activate the functionality via the device's settings. The ease for consumers to utilise the service could also provide a positive outcome for the user in attracting them to use the technology (Lin and Sun, 2009). This finding was supported by the respondents who were interviewed believing that the additional service might influence their intention to use the technology. For Rine and Rina, the additional service such as GPS helped her to use the apps without the need to enter her location. It was helpful and convenient as mentioned by Rine and Rina.

*"I think now, maybe the GPS services is open and they deliver on-campus more, there are more options. Whereas where I live, is there less options. So, in my areas there will not be many options. But looking at the app, I like the options." - **Rine, Romanian, Female, 24 years old, master' student.***

"I think the one that I like its very location based, for example now we are at Exeter. The restaurant that will appear is Tyepedong, Five Guys, Burger King, Fireazza, everything that in Exeter. So, it's very exact what are restaurant that near us. When we arrive at London and we open Deliveroo, the list will be change drastically. For example, there will be bone Daddies, there will be local restaurant in London. We can't find Tyepedong in London, something like that. It is very easy, we don't need to type our location, no needs! the restaurant will appear based on the

exact location., That's what I like about Deliveroo, it's very real-time based.” - Rina, Indonesian, female, 25 years old, master' student.

Another additional service that is noteworthy in the app is the real-time information tracking service. The tracking system can help consumer's track the status of their food delivery to their location. Based on the interviews, it was found that this service was only available in the Deliveroo app. Rine, one of the interviewed respondents, mentioned that having real-time information had really helped her to know when she would be receiving her takeaway food. While in Zack's case, he said apps like Deliveroo were very organised, displaying when the food would be arriving, and the app notified him when it arrived. This demonstrated that consumers tended to judge the app based on the additional services provided. Also, knowing that the service is convenient helps the consumer to manage their time which is important (Gummerus and Pihlström, 2011).

8.4.2.3 Navigability

Another important feature of an app is its navigability. Navigability refers to the ease for consumers to search, view products and conduct transactions using the app. When consumers feel confident to perform a transaction using the app, this will also help to influence the consumer's trust and their perceived security of the app (Gummerus and Pihlström, 2011).

In the context of this study, the decision by the OTFO companies to develop mobile apps may cause consumers to feel dissatisfied and disassociated from the company as they are used to accessing and using the service via their website. By using the website, consumers are able to view all product categories on a single page, whereas using an app with a different design, layout and screen size may not be suitable.

For consumers, purchasing takeaway food is an important and emotional process, and sometimes they require their friends to help in deciding on which app to use. Consumers may perceive an app with limited navigability as unreliable. This finding was also supported by Chae & Kim, (2004) who found that a complex task like online shopping makes the consumer consider the ability of the device to view the products successfully on the page and scrolling through the product range on the device without causing any issues. Moreover, the respondents from the interviews also mentioned that navigability was an important feature that would influence their use of an app. Linda said that screen size influenced her willingness to use mobile apps because it meant that information would be presented much smaller, and reduce her ability to read the information.

“Because I can actually see the menu properly on website. Whereas on the mobile you have to scroll, go like this and this. I think it is because of the size of the screen and also the readability of the menu. Cause if you can only see like only four options on the screen. Whereas with the laptop you can see all the menu, what you want.” – Linda, Hungarian, female, 25 years old, doctoral’ student.

Rine also mentioned the problem she had when using an app. Instead, she preferred using a laptop as it had a larger screen for better readability and made it easier for her to make comparisons.

*“I think I would probably go with the laptop version. Because I usually order when I with somebody. It’s not a habit to order by myself. So, it easy to look at the desktop and talk with my friends, it easy to visualise. Then, the smartphone the screen is quite small. And you can’t open more screen and make a comparison between the certain restaurant within the app. Because, I like to talk with my friends before order.” - **Rine, Romanian, Female, 24 years old, master’ student.***

8.4.3 Individual experience and knowledge

In this study, the sample population consisted of university students who represented a younger more tech-savvy generation of users. Indeed, they were competent and proficient in the use of technology and the internet (Parkes et al., 2015). When consumers are frequently exposed to technology, they tend to be skilful in using the technology (Chong, 2013; Cobanoglu *et al.*, 2015; Venkatesh, 2000; Venkatesh and Davis, 1996). Moreover, they develop familiarity in using and applying technology, and in this case, the respondents had no issues in using the takeaway apps. Although the apps are a relatively new concept in this market, for experienced and knowledgeable users of mobile apps, it is not an issue (Chong, 2013; Cobanoglu *et al.*, 2015; Venkatesh, 2000; Venkatesh and Davis,

1996). The main outcome relating to consumer experiences in the context of purchasing mobile apps app is the positive intention to use the technology (Rose, Hair and Clark, 2011). On the other hand, users who are not comfortable in using technology will find it is difficult and feel frustrated and reject using the app.

Besides the experiences that are gained from using technology, prior experience of using the OTFO service can also help to influence consumer intention to use takeaway apps (Weisberg, Te'eni and Arman, 2011). Experience in the context of this study refers to the use of OTFO sites. Consumers that have been using the sites for some time will quickly foresee the usefulness of the app, although at this stage they may not know if the app is trustworthy or secure. Accordingly, they would try first before using it and then decide if the app is reliable and useful. For inexperienced users, they will need to use the app first and experience it before considering whether to continue using the app. When using new technology for the first time, even though the consumers have not used that particular technology before, they will think the technology is easy to use and requires little effort on their part (Davis, Bagozzi and Warshaw, 1989). This finding was found to be similar to the finding from the respondents who had never used a takeaway app before. For example, Arif, he was aware that the OTFO sites had developed the same services as on the apps. However, preferred to continue using the sites, given it was easier and did not require any effort on his part.

“Nope on the mobile phone, it’s pretty much the same the apps and the website because you can see the restaurant they offer in the apps. I think it has like a clean interface, for me it pretty much the same when you open in the laptop. I like it because it

clean and you can easily see what restaurant they offer you and how many minutes that they can reach you.” – Arif, Malaysian, male, 21 years old, undergraduate student

His response was also supported by Rith and Ika, as they believed it was easier to continue using the sites as they needed to be able to open the link and view the same information as in the apps.

“Yeah, I used Just Eat (website). It feels like your stereotypical takeaway on a website. You can browse the menu and then you can have all the list up online... it’s just a matter of go online, you know you can pay by a card. Which you can’t do it if you call up. It’s much easier.” – Rith, British, Male, 21 years old, undergraduate’ student.

“Nope on the mobile phone, it’s pretty much the same the apps and the website because you can see the restaurant they offer in the apps...” - Ika, Malaysian, female, 21 years old, undergraduate’ student.

8.5 Summary

This chapter addressed Objective 4, which was to identify the factors that would influence the consumer’s acceptance of takeaway food ordering apps. The study focussed on university students that did not originate from the UK. The study

found that the respondents were familiar and quite knowledgeable about using technology particularly in using the latest technologies available to them. For instance, their use of OTFO sites was directly related to their actual use of OTFO apps.

Further investigation was carried out via multivariate analysis of PLS-SEM. The conceptual framework passed the validity and reliability test following several adjustments. The results of the test revealed that there are differences between users and non-users of OTFO apps. Also, the users' intention to use the app can be used to determine the actual use of takeaway apps. However, for the non-users, the model can only be used to measure the relationship between the variables and intention to use the takeaway apps. The study also found that perceived usefulness and perceived security are both significant factors for users. Whereas non-users believed that perceived usefulness and perceived ease of use are the determinants for the intention to use the app. However, both users and non-users agreed that perceived trust does not influence them to use the current takeaway food ordering apps because they are generally felt dissatisfied with the technology.

CHAPTER 9 CONCLUSION

This study aimed to investigate the growth of mobile apps in the OTFO sector in the UK and the changing patterns of customer acceptance. The OTFO sector has existed since the early 1990s, but it has only been since 2010 that the sector has quickly evolved to what it has become today (Wauters, 2014). In response to the growth of this sector, in 2014, Just Eat an OTFO company located in the UK began developing and distributing mobile apps for the convenience of customers to order takeaway food (Shead, 2015). These developments have fascinated the author to explore the factors that influenced the growth of this sector and the reasons why consumers decided to use or reject using the apps. Moreover, as a new technology introduced into the marketplace, it is important to investigate the perceptions of consumers towards the innovation given the limited studies in this area, which could contribute to the body of knowledge. In line with the study, four research objectives were developed and presented in Section 1.2 of Chapter One.

The purpose of this chapter is to reflect on the main findings of the study in consideration of the four objectives of this study and to discuss, clarify and compare with other research studies. The contribution of this study will also acknowledge and describe the limitations of the study. Lastly, the chapter will present recommendations for future research that could help benefit from both academic and corporate perspectives.

9.1 Summary of research findings

This section presents a summary of the main findings of this research from both qualitative and quantitative research. It can be concluded that the OTFO sector has continually developed and evolved since the early 1990s influenced by consumer demand to what it has become today. Table 9.1 presents the objectives of this research with the associated research questions and sections.

Table 9.1 Directory of results in relation to research objectives

Research aim		
Investigate the growth of mobile apps in the online takeaway food ordering sector and the changing patterns of customer acceptance of such developments within the UK market.		
Objectives	Research questions	Sections
1. To examine the consumer reactions to the innovation in the foodservice sector	How does OTFO sector have been developed in the foodservice industry?	Chapter 5
2. To explore the growth and operating characteristics of organisations supplying mobile apps within the online takeaway food ordering sector	What is the operating characteristic of the organisation supplying takeaway mobile app in the UK?	6.2/6.3/6.4
	What innovations have been created and how is the consumer reaction?	6.5/6.6
3. To identify the socio-demographic characteristics of customers who use mobile apps to order takeaway food	What are the socio-demographic characteristics of customers who use mobile apps to order takeaway food?	7.2/ 7.3/ 7.4/ 7.5
4. To analyse the factors influencing consumer acceptance of mobile apps within the online takeaway food ordering sector	What are the factors influencing consumer acceptance of mobile apps within the online takeaway food ordering sector?	7.6

Source: Author's fieldwork

9.1.1 Objective 1

To understand the development of online takeaway food ordering sector in the foodservice industry

To examine consumer reactions to innovations within the foodservice industry, the present study revisited a number of studies related to innovations previously

developed in the sector, finding that 'consumer reactions' are different from that of 'consumer acceptance'. Consumer reactions are related to positive and negative responses to a specific phenomenon or trends. Moreover, to obtain relevant information, qualitative data of past research was collected from online research studies that focused on the earlier innovations which were developed between the 1950s and 2016. Content analysis is the best approach to understand a phenomenon under study (Downe-Wamboldt, 1992). Also, by reviewing previous research, the study will have a much better understanding of the state of the sector, particularly consumer reactions to the development of the innovations in the sector (Dahlberg et al., 2008).

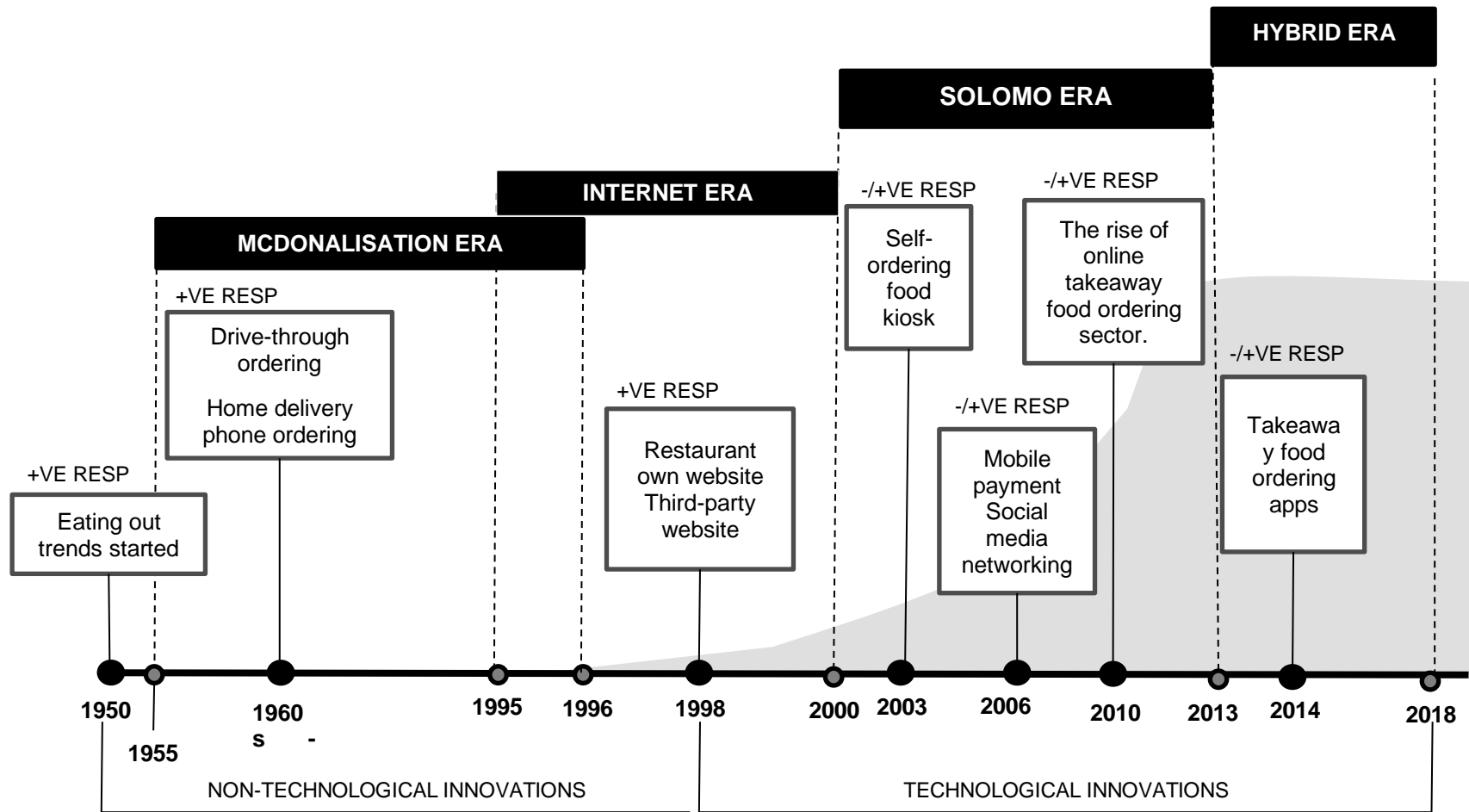
Firstly, to understand consumer reactions to the innovations in the sector, it was important for the study to present the innovation development aspects. From the findings, it has been discovered that the foodservice industry has been developing innovations since the early 1950s. Figure 9.1 shows the development of various innovations in this sector from the 1950s until 2018. The study found that there were two phases of innovation in the sector during this period: non-technological and technological innovations. The sector began with the non-technological era beginning from the 1950s until 1998. While from 1998 onwards most innovations were related to technological innovations. The finding was different from that of the hospitality industry which revealed that their innovations related to technological innovations that started from around the 1980s (Emmer et al., 2003). This suggested that innovation in the foodservice industry was not an early adopter of innovation compared to other sectors such as the hospitality sector (Rogers, 2003). Being innovators or early adopters of technological innovation means a sector will be among the first to adopt new technologies

(Rogers, 2003). However, the uncertainty of not knowing consumer feedback affected the growth of the sector to adopt and take advantage of the various innovations. Therefore, it is important to understand and examine the reactions of the consumer given it will influence the growth and adoption of innovation in this sector.

The examination of consumer feedback regarding innovations that have been introduced into the foodservice sector suggests that consumer reactions to date, have been positive (refer to Figure 9.1). With a focus on the OTFO sector as shown in the figure, the grey area shows that consumers had been slowly accepting the new method to ordering foods as compared to the development of innovation in the hospitality or tourism industries.

Using Rogers' study to compare the development of innovation, this study found that consumers categorised as 'innovators' had been using OTFO service services since 1993. Consumers, in this case, are excited about new technologies by following the news of the latest trends and will be the first to use the technology (Rogers, 1983). Next were the consumers classed as 'early adopters' that adopted the innovation between 1993 and 2010, or the beginning of the Solomon era. This period was when consumers began to recognise and use social media platforms and mobile-based applications (Hwang and Park, 2015; Thakran and Verma, 2013) as many people saw the potential of technology and started using it. Then in 2010, given that many people had been using the technology, many of their friends and family were also interested in using the technology and began using it. This result possibly showed that peer influence might have influenced the development of the sector either positive or negatively.

Figure 9.1 The Development of innovations in the distribution channel of the foodservice sector



Source: Author. Based on figure 2.6 in Chapter 2 and figure 5.1 in Chapter 5. Adapted from Thakran & Verma (2013), Boyer et al. (2003) and Cullen (1994).

9.1.2 Objective 2

To explore the growth and operating characteristics of organisations supplying mobile apps within the online takeaway food ordering sector

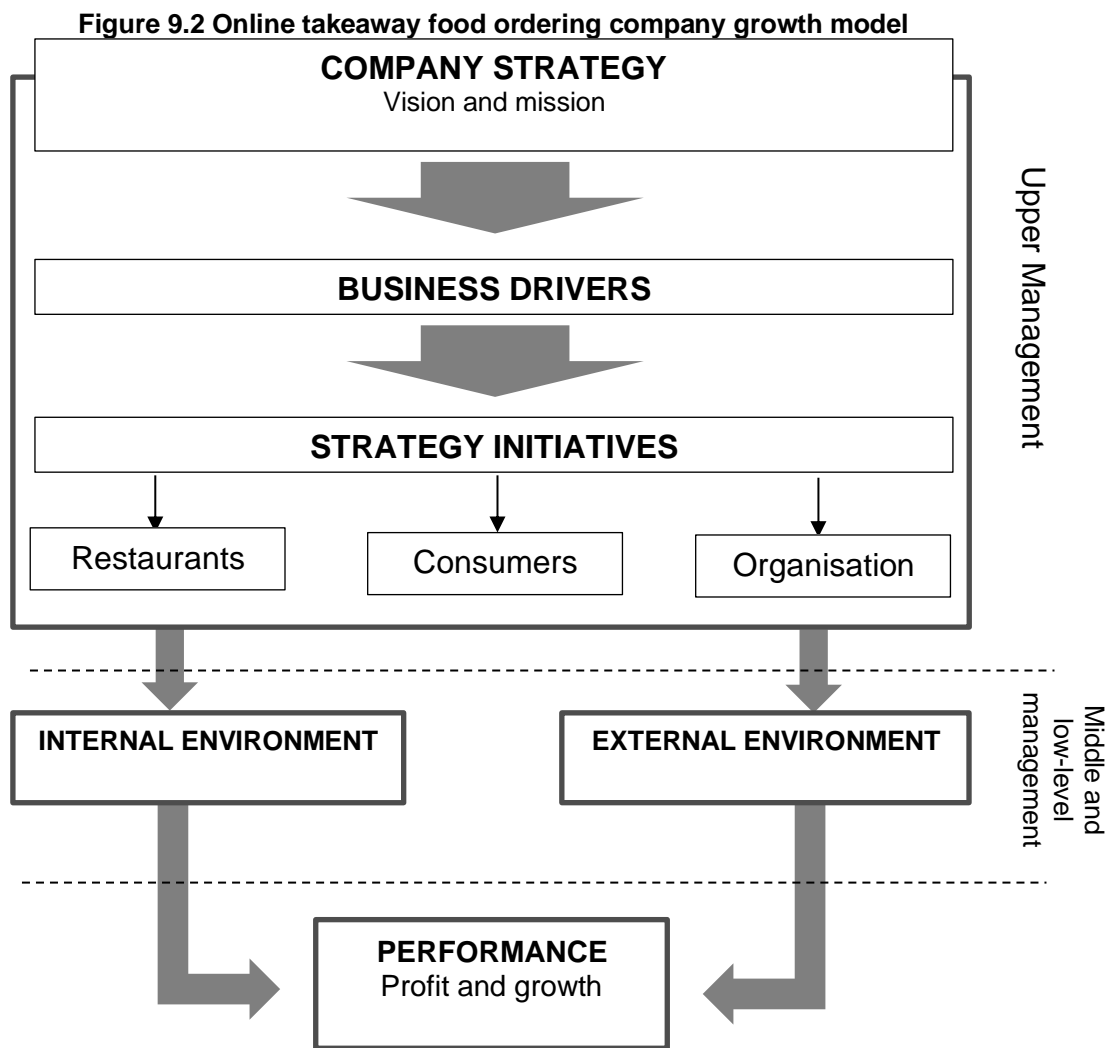
To achieve Objective 2, the study applied a single case study approach to understanding the growth and characteristics of an organisation that developed and supplied a takeaway app to consumers. The data collection for the case study was undertaken in 2016 of a company called Just Eat located in the UK, an OTFO company. The case study approach was adopted as it enabled the study to investigate and collect evidence of the growth of OTFO apps from the perspective of a supplier. Although previous studies such as Patton and Appelbaum (2003) argued that a single case study could not be used to generalise the findings, Yin (2003) believed that it depends on the investigator to expand and generalise the story. However, this study believed it was significantly important to use this approach to achieve the objective.

In this study, the Just Eat company was selected due to the development of the OTFO industry in the UK. Moreover, since the takeover of HungryHouse, Just Eat had the largest market share in the UK OTFO sector. Compared to another large UK player in the OTFO industry, Deliveroo, Just Eat is more mature given it has been operating in the industry for more than 10 years. Also, the company has undergone a number of innovations and improvements in order to cater to consumers in the OTFO sector. Although this industry sector has been around for at least 20 years, it was only since 2010, that the sector started to become popular with consumers (see Figure 9.1). Therefore, in this study, it was important to select an organisation that had experienced the challenges and pitfalls in this sector before becoming popular. Also, selecting a company that is well-

established means that the company has invested more in the business to innovate and grow (Coad et al., 2018).

The findings in this study also revealed that Just Eat is a technology and marketing-based company, providing a one-stop directory allowing consumers to order and pay for their takeaway food online via the internet or mobile apps. The organisation's operations also consisted of marketing activities such as using their website and apps as tools to reach out to a broader audience using various methods to promote its technology platform. From the inception of Just Eat, they created a powerful image and brand through various marketing campaigns and associated their brand with a red colour and tagline, "Don't Cook, Just Eat" (Just Eat, 2018b). They aimed to ensure that other companies would also view them as a strong company and that consumers would remember them when ordering takeaway food. However, in 2016 the company rebranded itself again by adding a splash of colour into their brand with a new mission; "To make food discovery existing for everyone" (Just Eat, 2018b). The creation of the new brand was important for the company as it conveyed the benefit of the brand to the audience (Mindrut, Manolica and Roman, 2015; Nandan, 2005).. By creating a new image, Just Eat believed its consumer-base that included restaurants and platform users would continue using the technology.

Furthermore, the analysis of the company's operations led to the development of the company's business growth model, discovering that several aspects contributed to Just Eat's development. Figure 9.2 displays the model based on Just Eat's business operations.



Source: Author. Based on Just Eat's growth model (see Figure 6.13 in Chapter 6).

For Just Eat, the main and most important determinant of a successful company is its vision and mission. The company's effort to develop a great vision and mission was evident in the development of the new brand identity. This fact is supported by Gordon (2017) and Bart (1996) who found that to develop a successful company, and it is important for senior management to define and share the mission and vision of the organisation with the employees. Further, a well-defined strategy also helps the company to develop business drivers which initiate the strategy in moving towards its target segment. Additionally, middle and

low management are responsible for ensuring the company acts and performs based on the strategy and also need to ensure that the external and internal environmental aspects are aligned with the company's strategy (Gupta et al., 2013).

The most important external environmental factor for Just Eat is the consumer. The rapid growth of the company and consumer demand for convenience technology meant that the organisation needed to invest in and improve their technology. This statement is aligned with a study by Sundström and Radon (2015) finding that the supply of convenience technology in a convenient atmosphere like the internet is the main reason why consumers need technology. To adapt to the latest technology, Just Eat actively engaged in various innovation activities such as investing in a technology development company in Bristol, UK and the acquisition of other technology companies. Furthermore, investing in digital marketing was also an important activity for Just Eat. For example, once social media became popular in the market, Just Eat adjusted their marketing campaign applying this technology (see Appendix 1, No. 10). The use of social media among the population of users also became increasingly widespread, so by taking advantage of this channel, the company became aware of the intention of consumers towards the company's brand and services (He, Zha and Li, 2013; Hwang and Park, 2015; Thakran and Verma, 2013).

The other external environmental factor that needed to be considered by many of these companies were the changes in government policy. In Just Eat's case, situated in the UK and part of the European Union, the company was exposed to Brexit. Given this reason, Just Eat decided to develop a risk management framework to mitigate against major threats related to competition, regulation,

technology, cybersecurity and business growth. Previous studies agreed that performing a risk assessment is important to ensure the organisation is protected against threats or unforeseen risks (Torabi, Giahi and Sahebjamnia, 2016; Feng, Wang and Li, 2014). Although risk assessments mean nothing to the consumer, the framework is important for Just Eat to gain loyalty and trust from their business partners.

Besides that, competition is another aspect that influenced the external environment of this OTFO company. In the UK, Just Eat is one of the major companies operating in this sector that has acquired and merged with several OTFO companies to grow and compete with other companies such as Deliveroo. The most discussed acquisition made by Just Eat was the takeover of HungryHouse. M&A activities by OTFO companies was a common activity to grow the company. In fact, OTFO companies from other countries are also engaged in M&As. For example, in the US, GrubHub has taken over several other OTFO companies such as Fodler (GrubHub, 2018). This finding showed that in order for OTFO companies to grow, it is important for them to merge by acquiring small and medium OTFO companies.

The research also identified that internal environmental factors were important aspects related to organisational design. In the case of Just Eat, two significant internal environment elements appear to underpin Just Eat's growth; the organisation structure and technological aspects. The organisation structure in this context refers to the authority of control. As an international organisation, using a hybrid organisational structure enables the company to extend its authority to middle management quickly and efficiently from a different location. A firm that applies a hybrid organisation structure will benefit from the firm's

growth given they are more capable of overcoming managerial limitations (Shane, 1996). Figures 6.2 and 6.3 illustrate the hybrid organisational structure for Just Eat, showing the division of authority using a functional and geographical structure to manage the organisation.

The most important determinant for Just Eat was in developing its technological assets. OTFO companies are built around creating a technology atmosphere which is convenient for consumers to access and use. The study found that the company has invested heavily in technology innovation and is continuously innovating and employing new ideas to improve the company's range of services. They are adopting and adapting new technology to ensure that the technologies are relevant and convenient for their customers to use and for efficient operations. The ideas regarding innovation stem from within Just Eat, however, to create a new product or innovation, third-party developers are needed. For example, the idea to create the takeaway food app was generated from within Just Eat where they used a third-party app developer to turn the idea into reality. This finding also supports Chesbrough and Crowther (2006) believing that high-tech companies adopt open innovation to stimulate growth and use external sources in addition to using internal sources.

9.1.3 Objectives 3 and 4: The acceptance of takeaway food apps

To understand consumer acceptance of takeaway food apps, the study developed two objectives. Objective 3, to identify the socio-demographic profile of the consumer that used the OTFO services and Objective 4, to analyse factors influencing consumer acceptance of takeaway apps. In addressing these objectives, two methods were employed: using a questionnaire survey and

conducting in-depth interviews. Questionnaire surveys were distributed and collected from convenience sampling of students at Exeter University which helped the study to address Objective 3, while in-depth interviews were conducted to achieve Objective 4, to provide an understanding of student lifestyles associated with takeaway food purchases and the use of takeaway apps.

Objective 3: To identify the socio-demographic characteristics of consumer who use mobile apps to order takeaway food

Concerning Objective 3, it was extremely important to understand consumer's profile particularly their characteristics, type of technology adopter, frequently used online takeaway food sites, factors for using a specific site and factors for using the service. Engaging university students as the respondents, given their young age, anticipated that the respondents would be familiar in using technology (Chong, 2013; Cobanoglu *et al.*, 2015; Venkatesh, 2000; Venkatesh and Davis, 1996). This finding was supported by the results which showcased that the respondents mostly categorised themselves within the first three categories for technology adopters as discussed by Rogers (2003) (see subsection 2.2.1). The categories chosen by the respondent revealed that they either viewed themselves as innovators, loving technology and being the first to use new technology, or early adopters, that used new technology before other people they knew used it, or early majority adopters representing consumers that commonly used new technology when other people they knew used it. It is important to highlight this finding because their knowledge of technology will reflect on the use of takeaway apps.

Furthermore, the results showed that most of the respondents had at least a smartphone and a laptop, which means that they had access to use OTFO services. The main internet sites that they chose to order takeaway food from was either Just Eat or Deliveroo. These sites also capture consumer information (i.e. user profile, frequency of access, chosen food orders, etc.). The study also found that students were likely to use a specific site given their previous experience, availability of delivery and promotion of the site and contents. This finding was supported by previous studies that found that prior experience is important when users decided to use technology Kimes (2011).

Similarly, the reason for the students to use these sites were influenced by their lifestyle (i.e. busy with classes, exams or with limited allowances). However, their use of the sites was also related to the typologies of the students as discussed in Section 3.1. For example, a money-conscious student is more likely to use Just Eat because the menu choices are more casual, and the takeaway food is more affordable (The Sodexo, 2017), while, a healthy and ethical student might use Deliveroo because they provide a variety of food choices which include healthier options (The Sodexo, 2017).

Notwithstanding, it was also discovered from the interviews that the frequency of OTFO services was quite diverse, with no dominant answer signifying this aspect given by the respondents. This showed that the respondents were occasional users of the sites. As students have a limited budget, this also constrains them from spending too much money on food (Shim *et al.*, 2009; Jorgensen and Savla, 2010). On the other hand, a student lacking cooking skills and a place to prepare food may also opt to use an OTFO service as it is cheaper and an easier option to obtain food (Deliens *et al.*, 2014). Due to this reason, the respondents did not

consider purchasing takeaway using this service as unhealthy as they only purchased the food occasionally.

Regarding their spending habits per order, most respondents would spend between £11 and £20 or between £5 and £10. This finding is in line with the price of food to feed one person. However, the other reason for them to spend this amount is that most OTFO services have a minimum spend which varies with each restaurant (see subsection 5.5.1). Likewise, the amount spent would not exceed the specific amount because of the previous reason. Although, there is the possibility that spending will be lower if the restaurants imposed a minimum spend per order.

Furthermore, respondents would mostly use OTFO services from their home and only when they were either too lazy or too tired to cook, too busy or when gathering and socialising with friends. Similarly, they would only use the services for common use and not for special occasions. This is because they related takeaway food with foods that were convenient, fast, comfortable and not special. The respondents also related this intention with their intention to use online takeaway sites. Therefore, companies that wish to attract different target markets or segmentation need to change consumer perceptions that takeaway food is not only for casual use but also for other uses as well (i.e. for special occasions, etc.). Marketing campaigns and how companies present their services might also cause consumers to change their eating habits.

Bivariate analysis and the Mann-Whitney U test were performed to understand the respondents' preferences and motivations to use OTFO sites. The results showed that users were likely to use OTFO services during holidays and on weeknights. However, non-users were not likely to use these services during

such occasions. Also, the likelihood of users to choose sites that were preferred was based on selecting OTFO services that are available to deliver the desired meals. Both mentioned findings affected users more than non-users given users are more experienced and adept at using the sites and know what to expect (Doherty and Ellis-Chadwick, 2010; Yeo *et al.*, 2017).

To understand the acceptance of consumers of OTFO services, the study needed to test the association between the website and the use of the apps. Findings from performing Chi-Square analysis discovered that there was a strong correlation between the consumer's use of OTFO sites and apps. This means that website acceptance will influence consumers to either reject or accept takeaway apps. Among the factors that might influence consumers to use the apps is based on previous experience. Several studies discovered that previous experience of technology would influence consumer use in the future (Doherty and Ellis-Chadwick, 2010; Yeo *et al.*, 2017). For a website service to attract existing consumers to use the apps, they need to ensure that they are providing the best if not, the same experience as accessing the website via the internet. However, if the consumer still rejects to use the apps, it means that the supplier needs to improve the technology associated with the apps (i.e. functionality, ease of use, etc.) (Cornescu and Adam, 2013).

Objective 4: To analyse the factors influencing consumer acceptance of mobile apps within the online takeaway food ordering sector

Addressing Objective 4, the study developed a concept based on TAM to analyse the factors that influenced the acceptance of takeaway apps (see Figure 2.10). It

was found that using the theory to construct the conceptual model proved to be useful and helpful to achieve the objective. Although there are concerns on using the theory based on previous research, recent studies have still applied the theory (Kim *et al.*, 2017; Liu and Guo, 2017; Marakarkandy *et al.*, 2017). Furthermore, this study has maintained two original variables from the model which are perceived usefulness and ease of use and four additional variables to support the conceptual model. Other variables have also been added to increase the understanding of consumer acceptance of takeaways apps using the model. This also accords with earlier studies, which mentioned that by modifying TAM it will still be valid and beneficial to a study (Holmes *et al.*, 2013). Therefore, it showed that the study's decision to adopt the model was justified.

The study also employed PLS-SEM analysis to analyse the model, finding that there were notable differences in the results between the users and non-users. First, the perceived usefulness of the takeaway apps was determined to be significant to both types of users. This is also supported in previous studies that perceived usefulness is an important aspect that leads the consumer to use a specific technology (Davis, 1986; Im and Hancer, 2014; Kucukusta *et al.*, 2015; Lu and Su, 2009; Nunkoo and Ramkissoon, 2012). Indeed, this is an important finding because it showed that the development of the app was not viewed as a waste of time or was not used, given the respondents viewed the apps as convenient and saving time when purchasing takeaway food. On the other hand, non-users only supported the link between perceived ease of use on the intention to use takeaway apps.

As previous studies have also mentioned, the fewer efforts made by a person to use technology will increase their intention to use the technology (Venkatesh and

Davis, 1996). This showed that the non-users believed the takeaway apps required less effort to operate because they do not have any experiences of using it. However, in contrast, the users that have more experience in using the app view the technology have many drawbacks (Ling, Chai and Piew, 2010; Nunkoo and Ramkissoon, 2012) such as device's features and functionality (Im and Hancer, 2014). Therefore, to improve user perception, the supplier needs to enhance its takeaway food apps to improve functionally and usability (Pigatto et al., 2017).

Notwithstanding, the functionality and usability aspects of the apps and device will also influence the consumer's perception regarding perceived trust and perceived security. The perceived trust was found to be insignificant for both user types. However, this result differed from previous studies discovering that trust was an important element when carrying out a transaction using a smartphone device (Duane, O'Reilly and Andreev, 2014). Other researchers have also mentioned that perceived trust leads the consumer to use technology. Elements of perceived trust are important in the context of this study because it will show that the takeaway app is reliable when engaged in carrying out a transaction.

In contrast, lack of perceived trust will result in consumers not using the takeaways apps given they will believe they are unreliable and of little value. The reason for the lack of perceived trust was also discussed during the interviews, where most respondents believing that takeaway apps are still undeveloped and lack exciting and useful features such as viewing images of the food menu items (see subsection 8.4.2, Chapter 8,). It is not known whether suppliers have since improved the functionality of their takeaway apps to incorporate images, but this functionality was considered to be important to the respondents. This was also

one of the main reasons why consumers continued to use the supplier's website to order, and also the poor take-up of using the apps.

Whereas, the last variable, perceived that security risk was found to affect the user's intention to use takeaway apps positively. This was also similar to the studies by Amoroso and Magnier-Watanabe (2012), Chang and Chen (2008), Dahlberg et al. (2003), Morosan (2014), Takyi and Gyaase (2012) in the context of e-commerce. While there are various aspects associated with a security risk that may be addressed and studied, this study focused on the transaction and content of the takeaway apps. Interestingly, users considered the use of takeaway apps as low risk and likely to use them (Amoroso and Magnier-Watanabe, 2012) whereas, in contrast, non-users considered the apps unreliable and therefore their perception of the app's security features was negative.

Therefore, based on the above discussion it is evident that the users, but not the nonusers supported the intention to use OTFO apps. This also suggests that users are moving from their intention to use the apps to be actually using the apps. Whereas, the non-users have no intention of using the apps given they believe the apps to be unreliable and insecure. Even though it was found that the apps were beneficial for both types of users, it does not guarantee they will use the apps given that the main elements and functionality that support the intention to use the technology are not satisfying (Salisbury *et al.*, 2001). Further, even though some suppliers similar content to their website, both the functionality and technical aspects associated with the website are distinctly different compared to the apps. Accordingly, the supplier needs to be mindful in designing their apps in order to attract consumers to use them.

9.2 Key contributions

The empirical findings in this study provide a new understanding of student lifestyle and the acceptance of takeaway food apps in the UK. Figure 9.3 shows the student lifestyle influences the purchase of takeaway food via different methods based on the results from the data collection. There are several contributions from Figure 9.3:

- The study has confirmed the findings of Deliens et al (2014) which found that the university student eating habits were influenced by four factors and were moderated by university characteristics. The concept was validated and can be used to understand student eating habit on takeaway food. Students lifestyle such as eating habit influence them to purchase takeaway food via different methods of purchase. The students are attracted to technology that is convenient because it will save them some time and efforts.
- This work contributes to the existing knowledge of TAM by supporting and extending the model. The model by Davis, et al. (1989) was valid to be used to understand consumer acceptance of takeaway apps and was extended by added variables such as perceived trust and perceived security.
- This study has demonstrated, for the first time, that several factors may influence student switching behaviour from using online takeaway food ordering sites to takeaway food apps. Switch factors consist of consumer loyalty to the brand, individual experience and knowledge of a supplier, and the device availability and capability (see subsection 7.5.4). The switch factors have been derived from the actual usage of OFTO services.

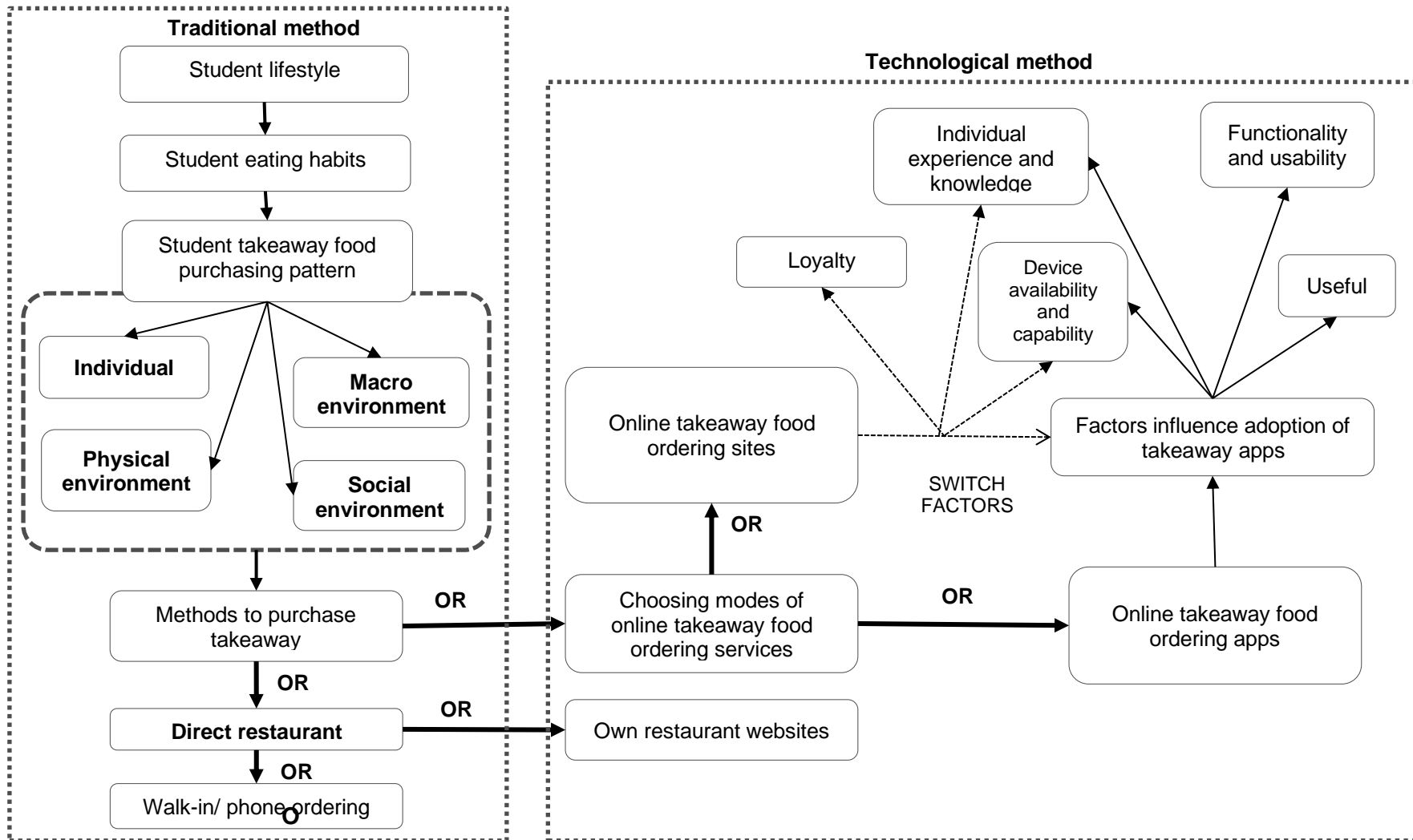
Individual knowledge and experience are created when a consumer uses the services and when they trust the ability of the supplier to provide the service.

In methodological terms, the study was the first study of its kind in the UK. Previous studies have mostly been undertaken in different places such as Malaysia and Brazil. By understanding the growth of OTFO sector in the UK and the international student acceptance of OTFO apps, this research is of benefit to practitioners and organisations involved in market research through provision of further insights relating to consumers and the use of OTFO apps.

Furthermore, by using mixed method approaches combining case studies, questionnaire survey and in-depth interviews, this study provides a general understanding of online takeaway food ordering sector. The method employed enabled the exploration of the development of takeaway apps which gave a meaningful context of consumer acceptance on such apps.

In practical terms, the findings from the current study may assist the supplier of takeaway food ordering services on constructing a better technology for the app's development. Identifying the important features that influence consumer acceptance of takeaway apps will help to increase consumer usage of the apps. The finding also informs the supplier of online takeaway food services that they need to develop a different strategy for different customers.

Figure 9.3 Student lifestyle influence on the usage of takeaway apps



Source: Author

9.3 Limitation of the study

There are several limitations inherent in this study concerning the research process, and findings. Also due to the limitation of the qualitative and quantitative methods employed in this study, the study applied the mixed-methods approach to reducing the limitations. However, certain constraints still need to be considered.

The first limitation concerns the use of a case study approach which may be challenged given its limited generalisability. A case study approach is complex as it depends on researcher's ability to identify data, methods and types of analysis that able to support a case study (Crowe et al., 2011). In the current study, a single-case study approach was selected. Thus, it was important to select a company that could represent the online takeaway food sector in this study. Furthermore, using single case-study meant that the study needed to ensure all the data whether secondary or primary could be interpreted into meaningful findings that could represent a significant element of the sector. In terms of methodological problems in this study, limited access to direct information from Just Eat was an issue as only one interview from the organisation was gained, which constrained data collection. To address this issue, further data collection was based on documentary sources and other materials, such as the video interview and Just Eat's financial statements. The supporting material helped to overcome data constraints through obtaining information about the company that could be used to create the case study.

The second limitation is the sampling for the questionnaire survey. As mentioned in Chapter 4, the study has a small sample size of students and used convenience sampling. Although the study has a small sample size, the

application of PLS-SEM designed for small samples helped to produce meaningful results. Furthermore, the study used convenience sampling where the data were collected from university students, particularly international students which means that the study was not able to generalise to a larger population. However, given this limitation, the study was able to evaluate other attributes associated with the sample, such as international students living in the UK and in particular, their reason of using OTFO apps to purchase home delivery food via the service. This is important given the large and growing population of international students, and market opportunities for app providers.

Furthermore, students were used as a sample to understand the consumer usage of the takeaway app. As mentioned in the study, the takeaway app was introduced to the public in the year 2014, so the data collection in 2016 meant the apps were still considered to be in the early stage of development. It is believed that further data collection with the same market to test the consumer acceptance of the apps would be more beneficial to the study at a point when the apps have been fully developed.

9.4 Future research

The study aimed to understand the growth and acceptance of OTFO apps from the perspective of both the supplier and consumer. Through an examination of the findings and assessing the limitations of this study, there remain many issues and ideas that could be used for future research. Among these suggestions is using different types of samples to recreate the study. In this study, the research of the case study was gathered from a single source (i.e. supplier). A future study could consider using data from several suppliers comprising of organisations that

used similar systems to operate an OTFO business. Using several case studies would allow understanding the common issues and present an overall perspective of the OTFO sector.

Moreover, future studies could also utilise a different sample and settings to understand the consumer acceptance of takeaway apps. As discussed previously, it was already known that takeaway food purchasing is more popular in urban areas such as in London and Manchester. Using a sample that focuses on these areas may generate different results given the high probability of buying takeaway food with a greater variety of food choices. Also, using participants different from this study would add to the existing body of knowledge in this field. For example, understanding the acceptance of takeaway apps of an older generation of users and non-users, families or working adults.

The study has attempted to understand consumer acceptance of takeaway apps and other associated aspects. Future research could also focus on certain aspects of these apps, for instance, the aesthetic design, functionality and other characteristics such the availability of graphics, audio, video or additional services such as real-time information tracking and the use of GPS to locate and detect the consumer's location.

REFERENCES

- Abbasi, P., Bigam, B.S. and Sarencheh, S. (2011) Good's history and trust in electronic commerce. *Procedia Computer Science*. 3 pp. 827–832. doi:10.1016/j.procs.2010.12.136.
- Adams, R., Bessant, J. and Phelps, R. (2006) Innovation management measurement: A review. *International Journal of Management Reviews*. 8 (1), pp. 21–47. doi:10.1111/j.1468-2370.2006.00119.x.
- Adepu, S. and Adler, R.F. (2016) A comparison of performance and preference on mobile devices vs. desktop computers. In: *2016 IEEE 7th Annual Ubiquitous Computing, Electronics Mobile Communication Conference (UEMCON)*. October 2016 pp. 1–7. doi:10.1109/UEMCON.2016.7777808.
- Agrebi, S. and Jallais, J. (2015) Explain the intention to use smartphones for mobile shopping. *Journal of Retailing and Consumer Services*. 22 pp. 16–23. doi:10.1016/j.jretconser.2014.09.003.
- Aiken, M., Vanjani, M., Ray, B. and Martin, J. (2003) College student Internet use. *Campus-Wide Information Systems*. 20 (5), pp. 182–185. doi:10.1108/10650740310507371.
- Ajzen, I. (1991) The theory of planned behavior. *Organizational Behavior and Human Decision Processes*. 50 (2), pp. 179–211. doi:10.1016/0749-5978(91)90020-T.
- Ajzen, I. and Fishbein, M. (1970) The prediction of behavior from attitudinal and normative variables. *Journal of Experimental Social Psychology*. 6 (4), pp. 466–487. doi:10.1016/0022-1031(70)90057-0.
- Ajzen, I. and Fishbein, M. (1980) *Understanding Attitudes and Predicting Social Behavior* [online]. New Jersey: Prentice-Hall. [Accessed 13 February 2014].
- Alagoz, S.M. and Hekimoglu, H. (2012) A Study on Tam: Analysis of Customer Attitudes in Online Food Ordering System. *Procedia - Social and Behavioral Sciences*. 62 pp. 1138–1143. doi:10.1016/j.sbspro.2012.09.195.
- Alexander, S. (2017) Hungry Brits' favourite takeaway food revealed [online]. *Daily Star* 1 March. Available from: <http://www.dailystar.co.uk/news/latest-news/592466/Takeaway-order-favourite-best-research-study> [Accessed 4 April 2017].
- AlFaris, N.A., Al-Tamimi, J.Z., Al-Jobair, M.O. and Al-Shwaiyat, N.M. (2015) Trends of fast food consumption among adolescent and young adult Saudi girls living in Riyadh. *Food & Nutrition Research* [online]. 59 . Available

from:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4366480/doi:10.3402/fnr.v59.26488>.

- AlGhamdi, R., Nguyen, A. and Jones, V. (2013) A Study of Influential Factors in the Adoption and Diffusion of B2C E-Commerce. *arXiv:1302.0272 [cs]* [online]. Available from: <http://arxiv.org/abs/1302.0272> [Accessed 20 February 2018].
- Al-Jabri, I.M. and Sohail, M.S. (2012) *Mobile Banking Adoption: Application of Diffusion of Innovation Theory*. Available from: <https://papers.ssrn.com/abstract=2523623> [Accessed 19 May 2017].
- Allen, J., Piecyk, M. and Piotrowska, M. (2017) *An analysis of online shopping and home delivery in the UK* [online]. Available from: http://www.ftc2050.com/reports/Online_shopping_and_home_delivery_in_the_UK_final_version_Feb_2017.pdf [Accessed 8 March 2017].
- Allen, R. (2017) Mobile users still not converting *Smart Insights* [online]. Available from: <http://www.smartinsights.com/mobile-marketing/mobile-commerce/mobile-users-still-not-converting/> [Accessed 6 April 2017].
- Almirall, E. and Casadesus-Masanell, R. (2010) Open versus Closed Innovation: A Model of Discovery and Divergence. *The Academy of Management Review*. 35 (1), pp. 27–47.
- Alqatan, S., Singh, D. and Ahmad, K. (2011) A Theoretic Discussion of Tourism M-commerce. *Research Journal of Applied Sciences*. 6 (6), pp. 366–372. doi:10.3923/rjasci.2011.366.372.
- Alves, J., Marques, M.J., Saur, I. and Marques, P. (2007) Creativity and Innovation through Multidisciplinary and Multisectoral Cooperation. *Creativity and Innovation Management*. 16(1), pp. 27–34. doi:10.1111/j.1467-8691.2007.00417.x.
- Amaro, S. and Duarte, P. (2013) Online travel purchasing: A literature review. *Journal of Travel & Tourism Marketing*. 30(8), pp. 755–785. doi:10.1080/10548408.2013.835227.
- Amazon (2016) *Amazon Prime Now*. Available from: <https://primenow.amazon.com/onboard?sourceUrl=/restaurants> [Accessed 16 August 2016].
- Amin, H. (2008) Factors affecting the intentions of customers in Malaysia to use mobile phone credit cards. *Management Research News*. 31 (7), pp. 493–503. doi:10.1108/01409170810876062.
- Amoroso, D.L. and Magnier-Watanabe, R. (2012) Building a Research Model for Mobile Wallet Consumer Adoption: The Case of Mobile Suica in Japan. *J. Theor. Appl. Electron. Commer. Res.* 7 (1), pp. 94–110. doi:10.4067/S0718-18762012000100008.

- Andajani-Sutjahjo, S., Ball, K., Warren, N., Inglis, V. and Crawford, D. (2004) Perceived personal, social and environmental barriers to weight maintenance among young women: A community survey. *The International Journal of Behavioral Nutrition and Physical Activity*. 1 (1), pp. 15. doi:10.1186/1479-5868-1-15.
- Andrea, N. (2012) A Review of Tourism and Hospitality Innovation Research. *Annals of Faculty of Economics*. 1 (2), pp. 364–370.
- Andreev, P., Duane, A. and O'Reilly, P. (2011) *Conceptualizing consumer perceptions of making M-payments using smart phones in Ireland*. In: IFIP Advances in Information and Communication Technology. 2011
- Andrews, L. and Bianchi, C. (2013) Consumer internet purchasing behavior in Chile. *Journal of Business Research*. 66 (10), pp. 1791–1799. doi:10.1016/j.jbusres.2013.01.012.
- Ang, C.-S. (2017) Internet habit strength and online communication: Exploring gender differences. *Computers in Human Behavior*. 66 pp. 1–6. doi:10.1016/j.chb.2016.09.028.
- Anshari, M., Alas, Y., Hardaker, G., Jaidin, J.H., Smith, M. and Ahad, A.D. (2016) Smartphone habit and behavior in Brunei: Personalization, gender, and generation gap. *Computers in Human Behavior*. 64 pp. 719–727. doi:10.1016/j.chb.2016.07.063.
- Anuar, J., Musa, M. and Khalid, K. (2014) Smartphone's Application Adoption Benefits Using Mobile Hotel Reservation System (MHRS) among 3 to 5-star City Hotels in Malaysia. *Procedia - Social and Behavioral Sciences*. 130 pp. 552–557. doi:10.1016/j.sbspro.2014.04.064.
- Armstrong, A. (2017) Business rates rise threatens London's restaurants [online]. *The Telegraph* 13 February. Available from: <https://www.telegraph.co.uk/business/2017/02/13/business-rates-rise-threatens-londons-restaurants/> [Accessed 15 May 2019].
- Arnett, J.J. (2000) Emerging adulthood. A theory of development from the late teens through the twenties. *The American Psychologist*. 55 (5), pp. 469–480.
- Arora, R. and Singer, J. (2006) Customer Satisfaction and Value as Drivers of Business Success for Fine Dining Restaurants. *Services Marketing Quarterly*. 28 (1), pp. 89–102. doi:10.1300/J396v28n01_05.
- Arvidsson, N. (2014) Consumer attitudes on mobile payment services – results from a proof of concept test. *International Journal of Bank Marketing*. 32 (2), pp. 5–5.
- Aspray, W., Royer, G. and Ocepek, M.G. (2013) Food Online: An Introduction to a Complex Environment. In: *Food in the Internet Age* SpringerBriefs in Food, Health, and Nutrition [online]. (no place) Springer International Publishing. pp. 1–23. Available from:

http://link.springer.com/chapter/10.1007/978-3-319-01598-9_1 [Accessed 20 February 2015].

- Audretsch, D.B., Coad, A. and Segarra, A. (2014) Firm growth and innovation. *Small Business Economics*. 43 (4), pp. 743–749. doi:10.1007/s11187-014-9560-x.
- Awa, H.O., Ojiabo, O.U. and Emecheta, B.C. (2015) Integrating TAM, TPB and TOE frameworks and expanding their characteristic constructs for e-commerce adoption by SMEs. *Journal of Science and Technology Policy Management*. 6 (1), pp. 76–94. doi:10.1108/JSTPM-04-2014-0012.
- Bagozzi, R.P. and Lee, K.-H. (1999) Consumer Resistance To, and Acceptance Of, Innovations. *NA - Advances in Consumer Research Volume 26* [online]. Available from: <http://acrwebsite.org/volumes/7902/volumes/v26/NA-26> [Accessed 22 December 2016].
- Ball, B. and Brown, L.B. (2012) Qualitative Description of College Students' Dinner Groups. *Journal of Nutrition Education and Behavior*. 44 (1), pp. 29–35. doi:10.1016/j.jneb.2011.04.008.
- Ball, S. (1996) Whither the small independent take-away? *International Journal of Contemporary Hospitality Management*. 8 (5), pp. 25–29. doi:10.1108/09596119610126121.
- Stephen Ball (ed.) (1992) *Fast Food Operations and Their Management*. Cheltenham, England: Nelson Thornes Ltd.
- Baranowski, T., Cullen, K.W. and Baranowski, J. (1999) Psychosocial correlates of dietary intake: advancing dietary intervention. *Annual Review of Nutrition*. 19 pp. 17–40. doi:10.1146/annurev.nutr.19.1.17.
- Bart, C.K. (1996) High tech firms: Does mission matter? *The Journal of High Technology Management Research*. 7 (2), pp. 209–225. doi:10.1016/S1047-8310(96)90005-X.
- Bergeron, S., Doyon, M., Saulais, L. and Labrecque, J. (2018) Using insights from behavioral economics to nudge individuals towards healthier choices when eating out: A restaurant experiment. *Food Quality and Preference* [online]. Available from: <http://www.sciencedirect.com/science/article/pii/S0950329317303099>doi: 10.1016/j.foodqual.2018.12.001 [Accessed 13 December 2018].
- Berman, B. (2016) Referral marketing: Harnessing the power of your customers. *Business Horizons*. 59 (1), pp. 19–28. doi:10.1016/j.bushor.2015.08.001.
- Bhaskaran, S. (2006) Incremental Innovation and Business Performance: Small and Medium-Size Food Enterprises in a Concentrated Industry Environment. *Journal of Small Business Management*. 44 (1), pp. 64–80. doi:10.1111/j.1540-627X.2006.00154.x.

- Bhatti, T. (2007) Exploring Factors Influencing the Adoption of Mobile Commerce. *Journal of Internet Banking and Commerce*. 12 (3), pp. 1–13.
- Birkinshaw, J., Hamel, G. and Mol, M.J. (2008) Management Innovation. *Academy of Management Review*. 33 (4), pp. 825–845. doi:10.5465/amr.2008.34421969.
- Bliss, P. (1960) Schumpeter, the 'Big' Disturbance and Retailing. *Social Forces*. 39 (1), pp. 72–76. doi:10.2307/2573578.
- Boek, S., Bianco-Simeral, S., Chan, K. and Goto, K. (2012) Gender and Race are Significant Determinants of Students' Food Choices on a College Campus. *Journal of Nutrition Education and Behavior*. 44 (4), pp. 372–378. doi:10.1016/j.jneb.2011.12.007.
- Bouhleb, O., Mzoughi, N., Ghachem, M.S. and Negra, A. (2010) Online Purchase Intention: Understanding the Blogosphere Effect. *International Journal of e-Business Management*. 4 (5), . doi:doi: 10.3316/IJEBM0402037.
- Bouwman, H., Carlsson, C., Walden, P. and Molina-Castillo, F.J. (2008) Trends in mobile services in Finland 2004-2006: from ringtones to mobile internet. *info*. 10 (2), pp. 75–93.
- Bowen, G.A. (2009) Document Analysis as a Qualitative Research Method. *Qualitative Research Journal*. 9 (2), pp. 27–40. doi:10.3316/QRJ0902027.
- Boyer, K.K., Tomas Hult, G. and Frohlich, M. (2003) An exploratory analysis of extended grocery supply chain operations and home delivery. *Integrated Manufacturing Systems*. 14 (8), pp. 652–663. doi:10.1108/09576060310503465.
- Braun, V. and Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology*. 3 (2), pp. 77–101. doi:10.1191/1478088706qp063oa.
- Bromley, R. (2006) On and off campus: Colleges and universities as local stakeholders. *Planning Practice & Research*. 21 (1), pp. 1–24. doi:10.1080/02697450600901400.
- Brooke, J. (1996) SUS-A quick and dirty usability scale. *Usability evaluation in industry*. 189 (194), pp. 4–7.
- Brown, L., Edwards, J. and Hartwell, H. (2010) A taste of the unfamiliar. Understanding the meanings attached to food by international postgraduate students in England. *Appetite*. 54 (1), pp. 202–207. doi:10.1016/j.appet.2009.11.001.
- Bruening, M., Eisenberg, M., MacLehose, R., Nanney, M.S., Story, M. and Neumark-Sztainer, D. (2012) Relationship between Adolescents' and Their Friends' Eating Behaviors: Breakfast, Fruit, Vegetable, Whole-Grain, and Dairy Intake. *Journal of the Academy of Nutrition and Dietetics*. 112 (10), pp. 1608–1613. doi:10.1016/j.jand.2012.07.008.

- Brunt, A.R. and Rhee, Y.S. (2008) Obesity and lifestyle in U.S. college students related to living arrangements. *Appetite*. 51 (3), pp. 615–621. doi:10.1016/j.appet.2008.04.019.
- Brycz, B. and Pauka, M. (2012) Analysis of cash flow statement. *Nauki o Finansach*. (10), pp. 131–140.
- Bryman, A. (2012) Research designs. In: *Social Research Methods* 4th edition. Oxford ; New York: OUP Oxford. pp. 45–77.
- Bugge, A.B. (2011) Lovin' It? *Food, Culture & Society*. 14 (1), pp. 71–89. doi:10.2752/175174411X12810842291236.
- Burgess, M. (2017) Deliveroo has built a bunch of tiny kitchens to feed more hungry Londoners *Wired UK* [online]. Available from: <https://www.wired.co.uk/article/deliveroo-editions-local-restaurants> [Accessed 30 September 2019].
- Calderwood, C., Ackerman, P.L. and Conklin, E.M. (2014) What else do college students “do” while studying? An investigation of multitasking. *Computers & Education*. 75 (Supplement C), pp. 19–29. doi:10.1016/j.compedu.2014.02.004.
- Campbell, B.L., Jr, R.M.N. and Lin, B.-H. (2014) Analysis of Food Away from Home Expenditures by Meal Occasion: Are Transactional Variables and Prior Purchase Behavior Important? *Journal of Foodservice Business Research*. 17 (3), pp. 179–197. doi:10.1080/15378020.2014.926729.
- Centre for Economics and Business Research (2014) *The Takeaway Economy Report* [online] p.pp. 17. Available from: http://je-ict-live-corpsite-assets-eu-west-1.s3.amazonaws.com/wp-content/uploads/2015/08/The-Takeaway-Economy-Report_email.compressed.pdf.
- Chae, M. and Kim, J. (2004) Do size and structure matter to mobile users? An empirical study of the effects of screen size, information structure, and task complexity on user activities with standard web phones. *Behaviour & Information Technology*. 23 (3), pp. 165–181. doi:10.1080/01449290410001669923.
- Chandra, S., Srivastava, S. and Theng, Y.-L. (2010) Evaluating the Role of Trust in Consumer Adoption of Mobile Payment Systems: An Empirical Analysis. *Communications of the Association for Information Systems* [online]. 27 (1), . Available from: <http://aisel.aisnet.org/cais/vol27/iss1/29>.
- Chang, C.-C. (2015) Exploring mobile application customer loyalty: The moderating effect of use contexts. *Telecommunications Policy*. 39 (8), pp. 678–690. doi:10.1016/j.telpol.2015.07.008.
- Chang, H.H. and Chen, S.W. (2008) The impact of online store environment cues on purchase intention: Trust and perceived risk as a mediator. *Online Information Review*. 32 (6), pp. 818–841. doi:10.1108/14684520810923953.

- Charitou, C.D. and Markides, C.C. (2003) Responses to Disruptive Strategic Innovation *MIT Sloan Management Review* [online]. Available from: <http://sloanreview.mit.edu/article/responses-to-disruptive-strategic-innovation/> [Accessed 22 December 2016].
- Chen, H.-J. and Lu, J.-T. (2016) Clarifying the Impact of Social Escapism in Users' Acceptance for Online Entertaining Services—An Extension of the Technology Acceptance Model Based on Online Karaoke Television Services Users. *Information Systems Management*. 33 (2), pp. 141–153. doi:10.1080/10580530.2016.1155949.
- Chen, J.J. and Adams, C. (2005) User Acceptance of Mobile Payments: A Theoretical Model for Mobile Payments. In: *Proceedings of the Fifth International Conference on Electronic Business* [online]. 2005 Hong Kong: . pp. 619–624. Available from: https://www.researchgate.net/profile/Carl_Adams2/publication/267718578_User_Acceptance_of_Mobile_Payments_A_Theoretical_Model_for_Mobile_Payments/links/54993e590cf21eb3df5f72ba.pdf.
- Chen, L., Gillenson, M.L. and Sherrell, D.L. (2002) Enticing online consumers: an extended technology acceptance perspective. *Information & Management*. 39 (8), pp. 705–719. doi:10.1016/S0378-7206(01)00127-6.
- Cheng, Y.-H. and Ho, H.-Y. (2015) Social influence's impact on reader perceptions of online reviews. *Journal of Business Research*. 68 (4), pp. 883–887. doi:10.1016/j.jbusres.2014.11.046.
- Chesbrough, H. and Brunswicker, S. (2014) A Fad or a Phenomenon?: The Adoption of Open Innovation Practices in Large Firms. *Research-Technology Management*. 57 (2), pp. 16–25. doi:10.5437/08956308X5702196.
- Chesbrough, H. and Crowther, A.K. (2006) Beyond high tech: early adopters of open innovation in other industries. *R&D Management*. 36 (3), pp. 229–236. doi:10.1111/j.1467-9310.2006.00428.x.
- Chesbrough, H.W. (2003) Google-Books-ID: 4hTRWStFhVgC. *Open Innovation: The New Imperative for Creating and Profiting from Technology*. (no place) Harvard Business Press.
- Cho, M., Bonn, M.A. and Li, J. (Justin) (2018) Differences in perceptions about food delivery apps between single-person and multi-person households. *International Journal of Hospitality Management* [online]. Available from: <http://www.sciencedirect.com/science/article/pii/S0278431918301762>doi: 10.1016/j.ijhm.2018.06.019 [Accessed 24 July 2018].
- Choi, J. and Zhao, J. (2014) Consumers' behaviors when eating out: Does eating out change consumers' intention to eat healthily? *British Food Journal*. 116 (3), pp. 494–509. doi:10.1108/BFJ-06-2012-0136.

- Choi, S. (2017) What promotes smartphone-based mobile commerce? Mobile-specific and self-service characteristics. *Internet Research*. (just-accepted), pp. 00–00.
- Chong, A.Y.-L. (2013) A two-staged SEM-neural network approach for understanding and predicting the determinants of m-commerce adoption. *Expert Systems with Applications*. 40 (4), pp. 1240–1247. doi:10.1016/j.eswa.2012.08.067.
- Chong, A.Y.-L., Chan, F.T.S. and Ooi, K.-B. (2012) Predicting consumer decisions to adopt mobile commerce: Cross country empirical examination between China and Malaysia. *Decision Support Systems*. 53 (1), pp. 34–43. doi:10.1016/j.dss.2011.12.001.
- Chong, A.Y.L., Li, B., Ngai, E.W.T., Ch'ng, E. and Lee, F. (2016) Predicting online product sales via online reviews, sentiments, and promotion strategies: A big data architecture and neural network approach. *International Journal of Operations & Production Management*. 36 (4), pp. 358–383. doi:10.1108/IJOPM-03-2015-0151.
- Chopra, S.T. (2012) How Just-Eat became UK's most popular food website [online]. *London Loves Business* 20 July. Available from: <http://www.londonlovesbusiness.com/entrepreneurs/fast-growing-businesses-and-sme/how-just-eat-became-uks-most-popular-food-website/3005.article> [Accessed 27 July 2015].
- Chou, C.-J., Chen, K.-S. and Wang, Y.-Y. (2012) Green practices in the restaurant industry from an innovation adoption perspective: Evidence from Taiwan. *International Journal of Hospitality Management*. 31 (3), pp. 703–711. doi:10.1016/j.ijhm.2011.09.006.
- Christensen, C. (2013) *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail*. (no place) Harvard Business Review Press.
- Christensen, C. and Raynor, M. (2013) *The Innovator's Solution: Creating and Sustaining Successful Growth*. (no place) Harvard Business Review Press.
- Chung, N. and Kwon, S.J. (2009) Effect of trust level on mobile banking satisfaction: a multi-group analysis of information system success instruments. *Behaviour & Information Technology*. 28 (6), pp. 549–562. doi:10.1080/01449290802506562.
- Clark, B.R. and Trow, M. (1966) The organizational context. In: *College peer groups: Problems and prospects for research* 1st edition. Chicago: Aldine. pp. 17–70.
- Coad, A., Holm, J.R., Krafft, J. and Quatraro, F. (2018) Firm age and performance. *Journal of Evolutionary Economics*. 28 (1), pp. 1–11. doi:10.1007/s00191-017-0532-6.

- Cobanoglu, C. and Demicco, F.J. (2007) To Be Secure or Not to Be. *International Journal of Hospitality & Tourism Administration*. 8 (1), pp. 43–59. doi:10.1300/J149v08n01_03.
- Cobanoglu, C., Yang, W., Shatskikh, A. and Agarwal, A. (2015) Are Consumers Ready for Mobile Payment? An Examination of Consumer Acceptance of Mobile Payment Technology in Restaurant Industry. *Hospitality Review* [online]. 31 (4), . Available from: <http://digitalcommons.fiu.edu/hospitalityreview/vol31/iss4/6>.
- Cochran, W.G. (1977) *Sampling Techniques, 3rd Edition*. [online].[Accessed 28 March 2016].
- Cohen, D.A. (2008) Obesity and the Built Environment: Changes in Environmental Cues Cause Energy Imbalances. *International journal of obesity (2005)*. 32 (0 7), pp. S137–S142. doi:10.1038/ijo.2008.250.
- Cohen, J. (1992) A power primer. *Psychological Bulletin*. 112 (1), pp. 155–159.
- comScore (2016) *How Food Delivery Services Have Kept Customers Reaching For The Phone*. Available from: <http://www.comscore.com/Insights/Data-Mine/How-Food-Delivery-Services-Have-Kept-Customers-Reaching-For-The-Phone> [Accessed 14 September 2016].
- Conroy, D.E., Yang, C.-H. and Maher, J.P. (2014) Behavior Change Techniques in Top-Ranked Mobile Apps for Physical Activity. *American Journal of Preventive Medicine*. 46 (6), pp. 649–652. doi:10.1016/j.amepre.2014.01.010.
- Cornescu, V. and Adam, C.-R. (2013) The Consumer Resistance Behavior towards Innovation. *Procedia Economics and Finance*. 6 pp. 457–465. doi:10.1016/S2212-5671(13)00163-9.
- Cosh, A., Fu, X. and Hughes, A. (2012) Organisation structure and innovation performance in different environments. *Small Business Economics*. 39 (2), pp. 301–317. doi:10.1007/s11187-010-9304-5.
- Crowe, M., Rysman, M. and Stavins, J. (2010) Mobile Payments at the Retail Point of Sale in the United States: Prospects for Adoption. *Review of Network Economics* [online]. 9 (4), . Available from: <http://search.ebscohost.com/login.aspx?direct=true&db=eoh&AN=29044002&site=eohost-live> [Accessed 2 May 2015].
- Crowe, S., Cresswell, K., Robertson, A., Huby, G., Avery, A. and Sheikh, A. (2011) The case study approach. *BMC Medical Research Methodology*. 11 pp. 100. doi:10.1186/1471-2288-11-100.
- Crunchbase (2015) *Deliveroo*. Available from: <https://www.crunchbase.com/organization/deliveroo> [Accessed 28 July 2015].

- Cruwys, T., Bevelander, K.E. and Hermans, R.C.J. (2015) Social modeling of eating: A review of when and why social influence affects food intake and choice. *Appetite*. 86 (Supplement C), pp. 3–18. doi:10.1016/j.appet.2014.08.035.
- Cui, M. and Hu, S. (2011) Search Engine Optimization Research for Website Promotion. In: *2011 International Conference of Information Technology, Computer Engineering and Management Sciences*. September 2011 pp. 100–103. doi:10.1109/ICM.2011.308.
- Cullen, P. (1994) Time, Tastes and Technology: The Economic Evolution of Eating out. *British Food Journal*. 96 (10), pp. 4–9. doi:10.1108/00070709410072445.
- Cumming, D., Rui, O. and Wu, Y. (2016) Political instability, access to private debt, and innovation investment in China. *Emerging Markets Review*. 29 pp. 68–81. doi:10.1016/j.ememar.2016.08.013.
- Cyr, D., Head, M. and Ivanov, A. (2006) Design aesthetics leading to m-loyalty in mobile commerce. *Information & Management*. 43 (8), pp. 950–963. doi:10.1016/j.im.2006.08.009.
- Dabholkar, P.A. (1996) Consumer evaluations of new technology-based self-service options: An investigation of alternative models of service quality. *International Journal of Research in Marketing*. 13 (1), pp. 29–51. doi:10.1016/0167-8116(95)00027-5.
- Daft, R.L., Murphy, J. and Willmott, H. (2010) Google-Books-ID: s6MAkpcuaZQC. *Organization Theory and Design*. (no place) Cengage Learning EMEA.
- Dahlberg, T., Guo, J. and Ondrus, J. (2015) A critical review of mobile payment research. *Electronic Commerce Research and Applications*. 14 (5), pp. 265–284. doi:10.1016/j.elerap.2015.07.006.
- Dahlberg, T., Mallat, N., Ondrus, J. and Zmijewska, A. (2008) Past, present and future of mobile payments research: A literature review. *Electronic Commerce Research and Applications*. 7 (2), pp. 165–181. doi:10.1016/j.elerap.2007.02.001.
- Dahlberg, T., Mallat, N. and Öörni, A. (2003) *Trust enhanced technology acceptance model - consumer acceptance of mobile payment solutions*. In: 2003 Stockholm: .
- Damanpour, F. (1991) Organizational Innovation: A Meta-Analysis of Effects of Determinants and Moderators. *The Academy of Management Journal*. 34 (3), pp. 555–590. doi:10.2307/256406.
- Danneels, E. (2004) Disruptive Technology Reconsidered: A Critique and Research Agenda. *Journal of Product Innovation Management*. 21 (4), pp. 246–258. doi:10.1111/j.0737-6782.2004.00076.x.

- Darian, J.C. and Cohen, J. (1995) Segmenting by consumer time shortage. *Journal of Consumer Marketing*. 12 (1), pp. 32–44. doi:10.1108/07363769510146787.
- Dave, J.M., An, L.C., Jeffery, R.W. and Ahluwalia, J.S. (2009) Relationship of Attitudes Toward Fast Food and Frequency of Fast-food Intake in Adults. *Obesity*. 17 (6), pp. 1164–1170. doi:10.1038/oby.2009.26.
- Davis, B. and Carpenter, C. (2009) Proximity of Fast-Food Restaurants to Schools and Adolescent Obesity. *American Journal of Public Health*. 99 (3), pp. 505–510. doi:10.2105/AJPH.2008.137638.
- Davis, F.D. (1986) *A technology acceptance model for empirically testing new end-user information systems: Theory and results*.
- Davis, F.D., Bagozzi, R.P. and Warshaw, P.R. (1989) User Acceptance of Computer Technology: A Comparison of Two Theoretical Models. *Management Science*. 35 (8), pp. 982–1003.
- De Leeuw, E.D. (2005) To mix or not to mix data collection modes in surveys. *Journal of Official Statistics*. 21 (5), pp. 233–255.
- Deliens, T., Clarys, P., Bourdeaudhuij, I.D. and Deforche, B. (2014) Determinants of eating behaviour in university students: a qualitative study using focus group discussions. *BMC Public Health*. 14 (1), pp. 1–12. doi:10.1186/1471-2458-14-53.
- Deliveroo (2015) *Frequently asked question*. Available from: <https://deliveroo.co.uk/> [Accessed 5 August 2015].
- Deliveroo (2016) *Frequently asked questions*. Available from: <https://deliveroo.co.uk/> [Accessed 6 April 2016].
- Delivery Hero (2015) Delivery Hero acquires Turkish food delivery giant Yemeksepeti [online]. *Delivery Hero* 5 May. Available from: <http://www.deliveryhero.com/delivery-hero-acquires-turkish-food-delivery-giant-yemeksepeti/> [Accessed 30 July 2015].
- Department of Education (2013) *National curriculum in England: design and technology programmes of study - GOV.UK*. Available from: <https://www.gov.uk/government/publications/national-curriculum-in-england-design-and-technology-programmes-of-study/national-curriculum-in-england-design-and-technology-programmes-of-study> [Accessed 26 September 2017].
- van Deursen, A.J.A.M., Bolle, C.L., Hegner, S.M. and Kommers, P.A.M. (2015) Modeling habitual and addictive smartphone behavior: The role of smartphone usage types, emotional intelligence, social stress, self-regulation, age, and gender. *Computers in Human Behavior*. 45 pp. 411–420. doi:10.1016/j.chb.2014.12.039.

- Dewan, S.G. and Chen, L. (2005) Mobile Payment Adoption in the US: A Cross-industry, Crossplatform Solution. *Journal of Information Privacy and Security*. 1 (2), pp. 4–28. doi:10.1080/15536548.2005.10855765.
- Dickerson, A.P., Gibson, H.D. and Tsakalotos, E. (1997) The Impact of Acquisitions on Company Performance: Evidence from a Large Panel of Uk Firms. *Oxford Economic Papers*. 49 (3), pp. 344–361.
- Dickinson, J.E., Ghali, K., Cherrett, T., Speed, C., Davies, N. and Norgate, S. (2014) Tourism and the smartphone app: capabilities, emerging practice and scope in the travel domain. *Current Issues in Tourism*. 17 (1), pp. 84–101. doi:10.1080/13683500.2012.718323.
- DiPietro, R.B., Crews, T.B., Gustafson, C. and Strick, S. (2012) The Use of Social Networking Sites in the Restaurant Industry: Best Practices. *Journal of Foodservice Business Research*. 15 (3), pp. 265–284. doi:10.1080/15378020.2012.706193.
- Dixon, M., Kimes, S. and Verma, R. (2009) *Customer Preferences for Restaurant Technology Innovations* [online]. Available from: <https://www.hotelschool.cornell.edu/research/chr/pubs/reports/abstract-15027.html> [Accessed 11 February 2015].
- Dobele, A., Toleman, D. and Beverland, M. (2005) Controlled infection! Spreading the brand message through viral marketing. *Business Horizons*. 48 (2), pp. 143–149. doi:10.1016/j.bushor.2004.10.011.
- Doherty, N.F. and Ellis-Chadwick, F. (2010) Internet retailing: the past, the present and the future. *International Journal of Retail & Distribution Management*. 38 (11/12), pp. 943–965. doi:10.1108/09590551011086000.
- Dolnicar, S., Laesser, C. and Matus, K. (2009) Online Versus Paper Format Effects in Tourism Surveys. *Journal of Travel Research*. 47 (3), pp. 295–316. doi:10.1177/0047287508326506.
- Downe-Wamboldt, B. (1992) Content analysis: Method, applications, and issues. *Health Care for Women International*. 13 pp. 313–321. doi:10.1080/07399339209516006.
- Driskell, J.A., Kim, Y.-N. and Goebel, K.J. (2005) Few Differences Found in the Typical Eating and Physical Activity Habits of Lower-Level and Upper-Level University Students. *Journal of the American Dietetic Association*. 105 (5), pp. 798–801. doi:10.1016/j.jada.2005.02.004.
- Drost, E.A. (2011) Validity and reliability in social science research. *Education Research and Perspectives*. 38 (1), pp. 105.
- Duane, A., O'Reilly, P. and Andreev, P. (2014) Realising M-Payments: modelling consumers' willingness to M-pay using Smart Phones. *Behaviour & Information Technology*. 33 (4), pp. 318–334. doi:10.1080/0144929X.2012.745608.

- Duffill, D. and Martin, H. (1993) The UK Chain Restaurant Market: Developments in this Evolving Industry. *British Food Journal*. 95 (4), pp. 12–16. doi:10.1108/00070709310038048.
- Eberl, M. (2010) An Application of PLS in Multi-Group Analysis: The Need for Differentiated Corporate-Level Marketing in the Mobile Communications Industry. In: *Handbook of Partial Least Squares* Springer Handbooks of Computational Statistics [online]. (no place) Springer, Berlin, Heidelberg. pp. 487–514. Available from: https://link.springer.com/chapter/10.1007/978-3-540-32827-8_22 doi:10.1007/978-3-540-32827-8_22 [Accessed 8 January 2018].
- Eisenhardt, K.M. (1989) Building Theories from Case Study Research. *The Academy of Management Review*. 14 (4), pp. 532–550. doi:10.2307/258557.
- El Ansari, W., Stock, C. and Mikolajczyk, R.T. (2012) Relationships between food consumption and living arrangements among university students in four European countries - A cross-sectional study. *Nutrition Journal*. 11 pp. 28. doi:10.1186/1475-2891-11-28.
- Ellins, J. (2017) Google Analytics: Desktop vs. Mobile vs. Tablet Metrics *Hallam Internet Ltd* [online]. Available from: <https://www.hallaminternet.com/google-analytics-desktop-vs-mobile-vs-tablet-metrics/> [Accessed 21 January 2018].
- Emarketer (2013a) *Ecommerce Sales Topped \$1 Trillion for First Time in 2012*. Available from: <http://www.emarketer.com/Article/Ecommerce-Sales-Topped-1-Trillion-First-Time-2012/1009649> [Accessed 17 March 2013].
- Emarketer (2013b) *Nearly Half of UK Consumers Will Use Smartphones This Year* [online]. Available from: <http://www.emarketer.com/Article/Nearly-Half-of-UK-Consumers-Will-Use-Smartphones-This-Year/1009956> [Accessed 3 March 2015].
- Emmer, R.M., Tauck, C., Wilkinson, S. and Moore, R.G. (2003) Global Distribution Systems. *Cornell Hotel and Restaurant Administration Quarterly*. 44 (5–6), pp. 94–104. doi:10.1177/001088040304400514.
- Erkuş-Öztürk, H. and Terhorst, P. (2016) Innovative restaurants in a mass-tourism city: Evidence from Antalya. *Tourism Management*. 54 pp. 477–489. doi:10.1016/j.tourman.2016.01.003.
- Escobar-Rodríguez, T. and Carvajal-Trujillo, E. (2013) An evaluation of Spanish hotel websites: Informational vs. relational strategies. *International Journal of Hospitality Management*. 33 pp. 228–239. doi:10.1016/j.ijhm.2012.08.008.
- Euromonitor International (2015) *100% Home Delivery/Takeaway in the United Kingdom* [online]. Available from: <http://www.portal.euromonitor.com/portal/analysis/> [Accessed 9 December 2015].

- Euromonitor International (2017a) *Category definition*. Available from: <http://www.portal.euromonitor.com/portal/help/definitionstab> [Accessed 20 April 2017].
- Euromonitor International (2016a) *Category definition - 100% Home delivery/Takeaway*. Available from: <http://www.portal.euromonitor.com/portal/help/definitionstab> [Accessed 6 November 2016].
- Euromonitor International (2018) *Consumer Foodservice Global Industry Overview* [online]. Available from: <https://www.portal.euromonitor.com/portal/analysis/tab#> [Accessed 26 November 2018].
- Euromonitor International (2017b) *Eat-in vs Take-away Sales* [online]. Available from: <https://www.portal.euromonitor.com/portal/statistics/tab> [Accessed 27 February 2017].
- Euromonitor International (2016b) *Fast Food in Sweden* [online]. Available from: <http://www.euromonitor.com/fast-food-in-sweden/report> [Accessed 6 April 2017].
- Euromonitor International (2016c) *Fast Food in the US* [online]. Available from: <http://www.portal.euromonitor.com/portal/analysis/tab> [Accessed 5 April 2017].
- Euromonitor International (2016d) *Home delivery and takeaway market sizes*. Available from: <http://www.portal.euromonitor.com/portal/statistics/tab> [Accessed 11 November 2016].
- Eurostat (2016) *Database - Eurostat*. Available from: http://ec.europa.eu/eurostat/data/database?node_code=isoc_ec_ebuyn2 [Accessed 10 November 2016].
- Fagiolo, G., Giachini, D. and Roventini, A. (2017) *Innovation, finance, and economic growth: An agent-based approach* [online]. Available from: <https://www.econstor.eu/handle/10419/174580> [Accessed 17 December 2018].
- Fang, K. (1998) An analysis of electronic-mail usage. *Computers in Human Behavior*. 14 (2), pp. 349–374. doi:10.1016/S0747-5632(98)00012-0.
- Fantasia, R. (1995) Fast food in France. *Theory and Society*. 24 (2), pp. 201–243. doi:10.1007/BF00993397.
- Feng, N., Wang, H.J. and Li, M. (2014) A security risk analysis model for information systems: Causal relationships of risk factors and vulnerability propagation analysis. *Information Sciences*. 256 pp. 57–73. doi:10.1016/j.ins.2013.02.036.

- Fishman, C. (2004) *The Toll of a New Machine* [online]. Available from: <https://www.fastcompany.com/49359/toll-new-machine> [Accessed 11 December 2016].
- Fjell, K. (2009) Online advertising: Pay-per-view versus pay-per-click — A comment. *Journal of Revenue and Pricing Management*. 8 (2–3), pp. 200–206. doi:10.1057/rpm.2008.39.
- Foodpanda (2015) *Foodpanda acquires competitors in 7 Asian markets*. Available from: <https://www.foodpanda.com/2015/02/06/foodpanda-acquires-competitors-in-7-asian-markets/> [Accessed 18 July 2016].
- Foxall, G.R. (1999) The marketing firm. *Journal of Economic Psychology*. 20 (2), pp. 207–234. doi:10.1016/S0167-4870(99)00005-7.
- Friedman, G. (2014) Workers without employers: shadow corporations and the rise of the gig economy. *Review of Keynesian Economics*. 2 (2), pp. 171–188. doi:10.4337/roke.2014.02.03.
- Gao, J. and Cai, J. (2005) *A wireless payment system*. In: 2005 pp. 8. doi:10.1109/ICISS.2005.17.
- Garrett, J.L., Rodermund, R., Anderson, N., Berkowitz, S. and Robb, C.A. (2014) Adoption of Mobile Payment Technology by Consumers. *Family and Consumer Sciences Research Journal*. 42 (4), pp. 358–368.
- Gartner (2017) *Gartner Says Top Five Smartphone Vendors Achieved Growth in the Third Quarter of 2017* [online]. 30 November. . Available from: <https://www.gartner.com/newsroom/id/3833964> [Accessed 21 January 2018].
- Gartner (2015) *Smartphone Sales Surpassed One Billion Units in 2014* [online]. Available from: <http://www.gartner.com/newsroom/id/2996817> [Accessed 5 March 2015].
- Gartner (2006) *Top Six Vendors Drive Worldwide Mobile Phone Sales to 21 Percent Growth in 2005* [online]. 3 January. . Available from: <http://www.gartner.com/newsroom/id/492248> [Accessed 31 March 2015].
- Gebauer, J. and Shaw, M.J. (2004) Success Factors and Impacts of Mobile Business Applications: Results from a Mobile e-Procurement Study. *International Journal of Electronic Commerce*. 8 (3), pp. 19–41. doi:10.1080/10864415.2004.11044304.
- Ghodeswar, B.M. (2008) Building brand identity in competitive markets: a conceptual model. *Journal of Product & Brand Management*. 17 (1), pp. 4–12. doi:10.1108/10610420810856468.
- Gibson, C.H. (2012) Google-Books-ID: gMD_wkk2in0C. *Financial Reporting and Analysis*. (no place) Cengage Learning.

- Giovanis, A.N., Binioris, S. and Polychronopoulos, G. (2012) An extension of TAM model with IDT and security/privacy risk in the adoption of internet banking services in Greece. *EuroMed Journal of Business*. 7 (1), pp. 24–53. doi:10.1108/14502191211225365.
- Goldgehn, L.A. (2004) Generation Who, What, Y? What You Need to Know About Generation Y. *International Journal of Educational Advancement*. 5 (1), pp. 24–34. doi:10.1057/palgrave.ijea.2140202.
- Goldsmith, R.E. and Lafferty, B.A. (2002) Consumer response to Web sites and their influence on advertising effectiveness. *Internet Research*. 12 (4), pp. 318–328. doi:10.1108/10662240210438407.
- Gordon, G. (2017) Communication, Vision, and Mission. In: Gus Gordon (ed.). *Leadership through Trust: Leveraging Performance and Spanning Cultural Boundaries* [online]. Cham: Springer International Publishing. pp. 63–69. Available from: https://doi.org/10.1007/978-3-319-56955-0_5 doi:10.1007/978-3-319-56955-0_5 [Accessed 15 October 2018].
- Goyal, A. and Singh, N. p. (2007) Consumer perception about fast food in India: an exploratory study. *British Food Journal*. 109 (2), pp. 182–195. doi:10.1108/00070700710725536.
- Graham, B. and Meredith, S.B. (1998) *The Interpretation of Financial Statements*. New edition edition. New York: HarperBusiness.
- Gray, R., Vitak, J., Easton, E.W. and Ellison, N.B. (2013) Examining social adjustment to college in the age of social media: Factors influencing successful transitions and persistence. *Computers & Education*. 67 (Supplement C), pp. 193–207. doi:10.1016/j.compedu.2013.02.021.
- Greenberg, C. (1986) Analyzing Restaurant Performance Relating Cost and Volume to Profit. *Cornell Hotel and Restaurant Administration Quarterly*. 27 (1), pp. 9–11. doi:10.1177/001088048602700109.
- Groß, M. (2014) Exploring the acceptance of technology for mobile shopping: an empirical investigation among Smartphone users. *The International Review of Retail, Distribution and Consumer Research*. 0 (0), pp. 1–21. doi:10.1080/09593969.2014.988280.
- GrubHub (2015) *About Us*. Available from: <http://about.grubhub.com/about-us/what-is-grubhub/default.aspx> [Accessed 7 December 2015].
- GrubHub (2018) *Grubhub Enters Into Agreement To Acquire Fodler*. Available from: <https://media.grubhub.com/media/press-releases/press-release-details/2017/Grubhub-Enters-Into-Agreement-To-Acquire-Fodler/default.aspx> [Accessed 15 October 2018].
- Gummerus, J. and Pihlström, M. (2011) Context and mobile services' value-in-use. *Journal of Retailing and Consumer Services*. 18 (6), pp. 521–533. doi:10.1016/j.jretconser.2011.07.002.

- Gupta, P.D., Guha, S. and Krishnaswami, S.S. (2013) Firm growth and its determinants. *Journal of Innovation and Entrepreneurship*. 2 (1), pp. 15. doi:10.1186/2192-5372-2-15.
- Guttentag, D. (2015) Airbnb: disruptive innovation and the rise of an informal tourism accommodation sector. *Current Issues in Tourism*. 18 (12), pp. 1192–1217. doi:10.1080/13683500.2013.827159.
- Habib, F.Q., Abu Dardak, R. and Zakaria, S. (2011) Consumers' preference and consumption towards fast food: evidences from Malaysia / Farzana Quoquab Habib , Rozhan Abu Dardak , Sabarudin Zakaria. *Business & Management Quaterly Review*. 2 (1), pp. 14–27.
- Hair, J.J.F., Hult, G.T.M., Ringle, C. and Sarstedt, M. (2017) *A Primer on Partial Least Squares Structural Equation Modeling*. 2 edition. Los Angeles: Sage Publications, Inc.
- Harrington, R.J. and Ottenbacher, M.C. (2009) The product innovation process of quick-service restaurant chains. *International Journal of Contemporary Hospitality Management*. 21 (5), pp. 523–541. doi:10.1108/09596110910967782.
- Harrington, R.J., Ottenbacher, M.C. and Fauser, S. (2017) QSR brand value: Marketing mix dimensions among McDonald's, KFC, Burger King, Subway and Starbucks. *International Journal of Contemporary Hospitality Management*. 29 (1), pp. 551–570. doi:10.1108/IJCHM-06-2015-0300.
- Hartmann, C., Dohle, S. and Siegrist, M. (2013) Importance of cooking skills for balanced food choices. *Appetite*. 65 (Supplement C), pp. 125–131. doi:10.1016/j.appet.2013.01.016.
- He, W., Wang, F.-K. and Zha, S. (2014) Enhancing social media competitiveness of small businesses: insights from small pizzerias. *New Review of Hypermedia and Multimedia*. 20 (3), pp. 225–250. doi:10.1080/13614568.2014.889225.
- He, W., Zha, S. and Li, L. (2013) Social media competitive analysis and text mining: A case study in the pizza industry. *International Journal of Information Management*. 33 (3), pp. 464–472. doi:10.1016/j.ijinfomgt.2013.01.001.
- Hedgebeth, D. (2007) Data-driven decision making for the enterprise: an overview of business intelligence applications. *VINE*. 37 (4), pp. 414–420. doi:10.1108/03055720710838498.
- Heerde, H.J. van and Neslin, S.A. (2017) Sales Promotion Models. In: *Handbook of Marketing Decision Models* International Series in Operations Research & Management Science [online]. (no place) Springer, Cham. pp. 13–77. Available from: https://link.springer.com/chapter/10.1007/978-3-319-56941-3_2 doi:10.1007/978-3-319-56941-3_2 [Accessed 12 December 2017].

- Henderson, R.M. and Clark, K.B. (1990) Architectural Innovation: The Reconfiguration of Existing Product Technologies and the Failure of Established Firms. *Administrative Science Quarterly*. 35 (1), pp. 9–30. doi:10.2307/2393549.
- Hernandez, B., Jimenez, J. and Jose Martin, M. (2009) The impact of self-efficacy, ease of use and usefulness on e-purchasing: An analysis of experienced e-shoppers. *Interacting with Computers*. 21 (1–2), pp. 146–156. doi:10.1016/j.intcom.2008.11.001.
- HESA (2017) *Students and graduates*. Available from: <https://www.hesa.ac.uk/data-and-analysis/students> [Accessed 20 September 2017].
- Hiester, M., Nordstrom, A. and Swenson, L.M. (2009) Stability and Change in Parental Attachment and Adjustment Outcomes During the First Semester Transition to College Life. *Journal of College Student Development; Baltimore*. 50 (5), pp. 521–538.
- Hilger, J., Loerbroks, A. and Diehl, K. (2017) Eating behaviour of university students in Germany: Dietary intake, barriers to healthy eating and changes in eating behaviour since the time of matriculation. *Appetite*. 109 pp. 100–107. doi:10.1016/j.appet.2016.11.016.
- Hill, L., Casswell, S., Maskill, C., Jones, S. and Wyllie, A. (1998) Fruit and Vegetables as Adolescent Food Choices in New Zealand. *Health Promotion International*. 13 (1), pp. 55–65. doi:10.1093/heapro/13.1.55.
- Hill, R. (1998) What sample size is “enough” in internet survey research? *Interpersonal Computing and Technology: An Electronic Journal for the 21st Century*. 6 pp. 3–4.
- Hirschberg, C., Rajko, A., Schumacher, T. and Wrulich, M. (2016) The changing market for food delivery [online]. *McKinsey & Company* November. . Available from: <http://www.mckinsey.com/industries/high-tech/our-insights/the-changing-market-for-food-delivery> [Accessed 15 December 2016].
- HM Treasury (2018) *Business rates: delivering more frequent revaluations: summary of responses* [online]. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/689236/Business_rates_revaluations.pdf [Accessed 15 May 2019].
- Holmes, A., Byrne, A. and Rowley, J. (2013) Mobile shopping behaviour: insights into attitudes, shopping process involvement and location. *International Journal of Retail & Distribution Management*. 42 (1), pp. 25–39. doi:10.1108/IJRDM-10-2012-0096.
- Hooi Ting, D., Fong Lim, S., Siuly Patanmacia, T., Gie Low, C. and Chuan Ker, G. (2011) Dependency on smartphone and the impact on purchase

- behaviour. *Young Consumers*. 12 (3), pp. 193–203. doi:10.1108/17473611111163250.
- van der Horst, K., Brunner, T.A. and Siegrist, M. (2011) Fast food and take-away food consumption are associated with different lifestyle characteristics. *Journal of Human Nutrition and Dietetics*. 24 (6), pp. 596–602. doi:10.1111/j.1365-277X.2011.01206.x.
- Hospitality technology (2015) Online Ordering Makes the Move to Mobile [online]. *Hospitality technology* 17 February. Available from: hospitalitytechnology.edgl.com/news/Online-Ordering-Makes-the-Move-to-Mobile98286 [Accessed 4 March 2015].
- Hristov, L. and Reynolds, J. (2015) Perceptions and practices of innovation in retailing: Challenges of definition and measurement. *International Journal of Retail & Distribution Management*. 43 (2), pp. 126–147. doi:10.1108/IJRDM-09-2012-0079.
- Humbani, M. and Wiese, M. (2018) A Cashless Society for All: Determining Consumers' Readiness to Adopt Mobile Payment Services. *Journal of African Business*. 19 (3), pp. 409–429. doi:10.1080/15228916.2017.1396792.
- Humphrey, D.B., Pulley, L.B. and Vesala, J.M. (1996) Cash, Paper, and Electronic Payments: A Cross-Country Analysis. *Journal of Money, Credit and Banking*. 28 (4), pp. 914–939. doi:10.2307/2077928.
- HungryHouse (2015) *Hungryhouse*. Available from: <https://hungryhouse.co.uk/> [Accessed 7 December 2015].
- Hwang, J. and Park, S. (2015) Social Media on Smartphones for Restaurant Decision-Making Process. In: Iis Tussyadiah and Alessandro Inversini (eds.). *Information and Communication Technologies in Tourism 2015* [online]. 2015 (no place) Springer International Publishing. pp. 269–281. Available from: http://link.springer.com/chapter/10.1007/978-3-319-14343-9_20 [Accessed 6 March 2015].
- Im, J.Y. and Hancer, M. (2014) Shaping travelers' attitude toward travel mobile applications. *Journal of Hospitality and Tourism Technology*. 5 (2), pp. 177–193. doi:10.1108/JHTT-11-2013-0036.
- International Telecommunication Union (2017) *Measuring the Information Society Report 2017 - Volume 1* [online]. Available from: <http://www.itu.int/en/ITU-D/Statistics/Pages/publications/mis2014.aspx>.
- Israel, M. (2006) *Research Ethics for Social Scientists*. London ; Thousand Oaks, Calif: SAGE Publications Ltd.
- Jafari Momtaz, N., Alizadeh, S. and Sharif Vaghefi, M. (2013) A new model for assessment fast food customer behavior case study: An Iranian fast-food restaurant. *British Food Journal*. 115 (4), pp. 601–613. doi:10.1108/00070701311317874.

- Jaworowska, A., Blackham, T., Davies, I.G. and Stevenson, L. (2013) Nutritional challenges and health implications of takeaway and fast food. *Nutrition Reviews*. 71 (5), pp. 310–318. doi:10.1111/nure.12031.
- Jennings, G.R. (2005) Interviewing: A focus on qualitative techniques. In: *Tourism Research Methods: Integrating Theory with Practice*. (no place) CABI Publishing. pp. 99–118.
- Jeong, E. and Jang, S. (Shawn) (2011) Restaurant experiences triggering positive electronic word-of-mouth (eWOM) motivations. *International Journal of Hospitality Management*. 30 (2), pp. 356–366. doi:10.1016/j.ijhm.2010.08.005.
- Jia, L., Hall, D. and Sun, S. (2014) *The effect of technology usage habits on consumers' intention to continue use mobile payments*. In: 2014
- Jin, N. (Paul), Line, N.D. and Merkebu, J. (2016) Examining the Impact of Consumer Innovativeness and Innovative Restaurant Image in Upscale Restaurants. *Cornell Hospitality Quarterly*. 57 (3), pp. 268–281. doi:10.1177/1938965515619229.
- Johanson, G. and Brooks, G. (2010) Initial Scale Development: Sample Size for Pilot Studies. *Educational and Psychological Measurement*. 70 (3), pp. 394–400. doi:10.1177/0013164409355692.
- Johnson, B. (2012) *Why Just-Eat won't spend its \$64m on devouring America*. Available from: <https://gigaom.com/2012/05/02/why-just-eat-wont-spend-its-64m-on-devouring-america/> [Accessed 17 May 2016].
- Johnson, V.L., Kiser, A., Washington, R. and Torres, R. (2018) Limitations to the rapid adoption of M-payment services: Understanding the impact of privacy risk on M-Payment services. *Computers in Human Behavior*. 79 pp. 111–122. doi:10.1016/j.chb.2017.10.035.
- Jones, P. (1985a) Fast Food Operations in Britain. *The Service Industries Journal*. 5 (1), pp. 55–63. doi:10.1080/02642068500000005.
- Jones, P. (1990) Managing foodservice productivity in the long term: strategy, structure and performance. *International Journal of Hospitality Management*. 9 (2), pp. 143–154. doi:10.1016/0278-4319(90)90009-M.
- Jones, P. (1985b) The growth of fast food operations in Britain. *Geography*. 70 (4), pp. 347–350.
- Jones, P. and Wan, L. (1992) Innovation in the UK Food-Service Industry. *International Journal of Contemporary Hospitality Management*. 4 (4), pp. 1.
- Jorgensen, B.L. and Savla, J. (2010) Financial Literacy of Young Adults: The Importance of Parental Socialization. *Family Relations*. 59 (4), pp. 465–478. doi:10.1111/j.1741-3729.2010.00616.x.

- Just Eat (2016a) *Acquisition of takeaway food businesses from Rocket Internet in Spain and Italy, and from foodpanda in Brazil and Mexico* [online]. 5 February. Available from: <http://www.just-eat.com/acquisition-of-takeaway-food-businesses-from-rocket-internet-in-spain-and-italy-and-from-foodpanda-in-brazil-and-mexico/> [Accessed 4 May 2016].
- Just Eat (2014a) *Annual Report and Account 2014* [online]. Available from: <http://www.just-eat.com/annual-report/> [Accessed 29 July 2015].
- Just Eat (2015) *Annual Report and Account 2015* [online]. Available from: <http://www.just-eat.com/annual-report/> [Accessed 29 July 2015].
- Just Eat (2016b) *Annual Report and Account 2016* [online]. Available from: <http://www.just-eat.com/annual-report/> [Accessed 29 July 2015].
- Just Eat (2017a) *Annual Report and Account 2017* [online]. Available from: <http://www.just-eat.com/annual-report/> [Accessed 29 July 2015].
- Just Eat (2017b) *David Buttress to step down as CEO*. Available from: <https://www.justeatplc.com/news-and-media/press-releases/david-buttress-step-down-ceo> [Accessed 17 December 2018].
- Just Eat (2018a) *Download the Just Eat app*. Available from: <https://www.just-eat.co.uk/apps> [Accessed 21 February 2018].
- Just Eat (2013a) *Indian Expansion Is On The Menu For Co-Investment* [online]. Available from: <http://www.just-eat.com/indian-expansion-is-on-the-menu-for-co-investment/> [Accessed 17 May 2016].
- Just Eat (2014b) *JUST EAT - Benefits*. Available from: <https://restaurants.just-eat.co.uk/benefits.html> [Accessed 27 July 2015].
- Just Eat (2016c) *Just Eat agrees sale of Benelux business* [online]. Available from: <http://www.just-eat.com/just-eat-agrees-sale-of-benelux-business/> [Accessed 15 August 2016].
- Just Eat (2014c) *JUST EAT App Hits 3 Million International Downloads* [online]. Available from: <http://www.just-eat.com/just-eat-app-hits-3-million-international-downloads/> [Accessed 17 May 2016].
- Just Eat (2013b) *JUST EAT Celebrates 1.3 Million UK App Downloads* [online]. Available from: <http://www.just-eat.com/just-eat-celebrates-1-3-million-uk-app-downloads/> [Accessed 17 May 2016].
- Just Eat (2011a) *Just-Eat acquires ClickEat.it*. Available from: <http://www.just-eat.com/just-eat-acquires-clickeat-it-3/> [Accessed 17 May 2016].
- Just Eat (2011b) *Just-Eat Canada acquires GrubCanada*. Available from: <http://www.just-eat.com/just-eat-canada-acquires-grubcanada/> [Accessed 17 May 2016].

- Just Eat (2012) *Just-Eat cements UK leadership with Fillmybelly.com acquisition*. Available from: <http://www.just-eat.com/just-eat-cements-uk-leadership-with-fillmybelly-com-acquisition/> [Accessed 17 May 2016].
- Just Eat (2011c) *Just-Eat digs in to corporate market with Urbanbite acquisition*. Available from: <http://www.just-eat.com/just-eat-digs-in-to-corporate-market-with-urbanbite-acquisition/> [Accessed 17 May 2016].
- Just Eat (2011d) *Just-Eat expands into South America*. Available from: <http://www.just-eat.com/just-eat-in-south-america/> [Accessed 17 May 2016].
- Just Eat (2011e) *Just-Eat no. 1 in Switzerland without the “Just”*. Available from: <http://www.just-eat.com/just-eat-no-1-in-switzerland-without-the-%e2%80%9cjust%e2%80%9d-2/> [Accessed 17 May 2016].
- Just Eat (2011f) *Just-Eat.ca goes West via Yummy acquisition*. Available from: <http://www.just-eat.com/just-eat-ca-goes-west-via-yummy-acquisition-2/> [Accessed 17 May 2016].
- Just Eat (2018b) *Our Brand*. Available from: <https://www.just-eat.co.uk/our-brand> [Accessed 28 October 2018].
- Just Eat (2017c) *Our department*. Available from: <https://careers.just-eat.com> [Accessed 25 May 2017].
- Just Eat (2016d) *Sale of acquired businesses to iFood joint venture* [online]. Available from: <http://www.just-eat.com/sale-of-acquired-businesses-to-ifood-joint-venture/> [Accessed 26 July 2016].
- Just-Eat (2015a) *Just Eat*. Available from: <http://www.just-eat.co.uk/> [Accessed 7 December 2015].
- Just-Eat (2015b) *Our story*. Available from: <http://www.just-eat.com/our-story/> [Accessed 27 July 2015].
- Kang, J., Tang, L. (Rebecca) and Fiore, A.M. (2015) Restaurant brand pages on Facebook: Do active member participation and monetary sales promotions matter? *International Journal of Contemporary Hospitality Management*. 27 (7), pp. 1662–1684. doi:10.1108/IJCHM-02-2014-0075.
- Kapinos, K.A. and Yakusheva, O. (2011) Environmental Influences on Young Adult Weight Gain: Evidence From a Natural Experiment. *Journal of Adolescent Health*. 48 (1), pp. 52–58. doi:10.1016/j.jadohealth.2010.05.021.
- Kaplan, A.M. and Haenlein, M. (2010) Users of the world, unite! The challenges and opportunities of Social Media. *Business Horizons*. 53 (1), pp. 59–68. doi:10.1016/j.bushor.2009.09.003.

- Kapoor, A.P. and Vij, M. (2018) Technology at the dinner table: Ordering food online through mobile apps. *Journal of Retailing and Consumer Services*. 43 pp. 342–351. doi:10.1016/j.jretconser.2018.04.001.
- Kapoor, K., Dwivedi, Y. and Williams, M. (2013) Role Of Innovation Attributes In Explaining Intention And Adoption: A Case Of The IRCTC Mobile Ticketing Application In The Indian Context. *UK Academy for Information Systems Conference Proceedings 2013* [online]. Available from: <http://aisel.aisnet.org/ukais2013/19>.
- Kattara, H.S. and El-Said, O.A. (2013) Customers' preferences for new technology-based self-services versus human interaction services in hotels. *Tourism and Hospitality Research*. 13 (2), pp. 67–82. doi:10.1177/1467358413519261.
- Katz, E., Levin, M.L. and Hamilton, H. (1963) Traditions of Research on the Diffusion of Innovation. *American Sociological Review*. 28 (2), pp. 237–252. doi:10.2307/2090611.
- Kaushik, A.K., Agrawal, A.K. and Rahman, Z. (2015) Tourist behaviour towards self-service hotel technology adoption: Trust and subjective norm as key antecedents. *Tourism Management Perspectives*. 16 pp. 278–289. doi:10.1016/j.tmp.2015.09.002.
- Kazan, E., Tan, C.-W., Lim, E.T.K., Sørensen, C. and Damsgaard, J. (2018) Disentangling Digital Platform Competition: The Case of UK Mobile Payment Platforms. *Journal of Management Information Systems*. 35 (1), pp. 180–219. doi:10.1080/07421222.2018.1440772.
- Kearney, J.M. and McElhone, S. (1999) Perceived barriers in trying to eat healthier--results of a pan-EU consumer attitudinal survey. *The British Journal of Nutrition*. 81 Suppl 2 pp. S133-137.
- Kemps, E., Tiggemann, M. and Hollitt, S. (2014) Exposure to television food advertising primes food-related cognitions and triggers motivation to eat. *Psychology & Health*. 29 (10), pp. 1192–1205. doi:10.1080/08870446.2014.918267.
- Keramati, A., Taeb, R., Larijani, A.M. and Mojir, navid (2012) A combinative model of behavioural and technical factors affecting 'Mobile'-payment services adoption: an empirical study. *The Service Industries Journal*. 32 (9), pp. 1489–1504. doi:10.1080/02642069.2011.552716.
- de Kerviler, G., Demoulin, N.T.M. and Zidda, P. (2016) Adoption of in-store mobile payment: Are perceived risk and convenience the only drivers? *Journal of Retailing and Consumer Services*. 31 pp. 334–344. doi:10.1016/j.jretconser.2016.04.011.
- Khalilzadeh, J., Ozturk, A.B. and Bilgihan, A. (2017) Security-related factors in extended UTAUT model for NFC based mobile payment in the restaurant industry. *Computers in Human Behavior*. 70 pp. 460–474. doi:10.1016/j.chb.2017.01.001.

- Khan, M. (2014) *How the world fell back into economic meltdown: 2014 in charts* [online]. 30 December. Available from: <http://www.telegraph.co.uk/finance/economics/11301059/How-the-world-fell-back-into-economic-meltdown-2014-in-charts.html> [Accessed 18 May 2017].
- Kieso, D.E., Weygandt, J.J. and Warfield, T.D. (2014) *Intermediate Accounting: IFRS Edition*. 2nd Revised edition edition. Hoboken, NJ: John Wiley & Sons.
- Kim, C., Mirusmonov, M. and Lee, I. (2010) An empirical examination of factors influencing the intention to use mobile payment. *Computers in Human Behavior*. 26 (3), pp. 310–322. doi:10.1016/j.chb.2009.10.013.
- Kim, E., Lin, J.-S. and Sung, Y. (2013) To App or Not to App: Engaging Consumers via Branded Mobile Apps. *Journal of Interactive Advertising*. 13 (1), pp. 53–65. doi:10.1080/15252019.2013.782780.
- Kim, E., Tang, L. (Rebecca) and Bosselman, R. (2018) Measuring customer perceptions of restaurant innovativeness: Developing and validating a scale. *International Journal of Hospitality Management*. 74 pp. 85–98. doi:10.1016/j.ijhm.2018.02.018.
- Kim, H., Kim, T. (Terry) and Shin, S.W. (2009) Modeling roles of subjective norms and eTrust in customers' acceptance of airline B2C eCommerce websites. *Tourism Management*. 30 (2), pp. 266–277. doi:10.1016/j.tourman.2008.07.001.
- Kim, H.-Y., Lee, J.Y., Mun, J.M. and Johnson, K.K.P. (2017) Consumer adoption of smart in-store technology: assessing the predictive value of attitude versus beliefs in the technology acceptance model. *International Journal of Fashion Design, Technology and Education*. 10 (1), pp. 26–36. doi:10.1080/17543266.2016.1177737.
- Kim, J., Christodoulidou, N. and Brewer, P. (2012) Impact of Individual Differences and Consumers' Readiness on Likelihood of Using Self-Service Technologies at Hospitality Settings. *Journal of Hospitality & Tourism Research*. 36 (1), pp. 85–114. doi:10.1177/1096348011407311.
- Kim, J. and Connolly, D.J. (2012) *Technology is Reshaping the Pathway to Loyal, Engaged Guests* [online]. Available from: <http://hospitalitytechnology.edgl.com/reports/143-Findings-on-How-Your-Competitors-are-Engaging-Guests-2013-Customer-Engagement-Tech-Study87653> [Accessed 23 September 2013].
- Kim, J. (Sunny) (2016) An extended technology acceptance model in behavioral intention toward hotel tablet apps with moderating effects of gender and age. *International Journal of Contemporary Hospitality Management*. 28 (8), pp. 1535–1553. doi:10.1108/IJCHM-06-2015-0289.
- Kim, K.J. and Sundar, S.S. (2014) Does Screen Size Matter for Smartphones? Utilitarian and Hedonic Effects of Screen Size on Smartphone Adoption.

Cyberpsychology, Behavior and Social Networking. 17 (7), pp. 466–473.
doi:10.1089/cyber.2013.0492.

Kim, Y.-S., Hertzman, J. and Hwang, J.-J. (2010) College Students and Quick-Service Restaurants: How Students Perceive Restaurant Food and Services. *Journal of Foodservice Business Research*. 13 (4), pp. 346–359. doi:10.1080/15378020.2010.524536.

Kimes, S. (2011a) *Customer Perceptions of Electronic Food Ordering* [online]. Available from: <https://www.hotelschool.cornell.edu/research/chr/pubs/reports/abstract-15560.html> [Accessed 14 February 2015].

Kimes, S. (2009) *How Restaurant Customers View Online Reservations* [online]. Available from: <https://www.hotelschool.cornell.edu/research/chr/pubs/reports/abstract-15006.html> [Accessed 8 February 2015].

Kimes, S. (2011b) *The Current State of Online Food Ordering in the U.S. Restaurant Industry* [online]. Available from: <http://www.hotelschool.cornell.edu/research/chr/pubs/reports/abstract-15779.html> [Accessed 25 September 2013].

Kimes, S. (2011c) The future of distribution management in the restaurant industry. *Journal of Revenue & Pricing Management*. 10 (2), pp. 189–194. doi:10.1057/rpm.2011.1.

Kimes, S. and Collier, J. (2014a) *Customer-Facing Payment Technology in the U.S. Restaurant Industry* [online]. Available from: <http://scholarship.sha.cornell.edu/chrpubs/76>.

Kimes, S. and Collier, J. (2014b) *Ready and Willing: Restaurant Customers' View of Payment Technology* [online]. Available from: <http://scholarship.sha.cornell.edu/chrpubs/78>.

Kimes, S. and Laqué, P. (2011) *Online, Mobile, and Text Food Ordering in the U.S. Restaurant Industry* - [online]. Available from: <http://www.hotelschool.cornell.edu/research/chr/pubs/reports/abstract-15521.html> [Accessed 2 October 2013].

Kimes, S.E. and Kies, K. (2012) The Role of Multi-Restaurant Reservation Sites in Restaurant Distribution Management. *Center for Hospitality Research Publications* [online]. Available from: <http://scholarship.sha.cornell.edu/chrpubs/109/> [Accessed 28 March 2017].

Kincaid, C.S. and Baloglu, S. (2005) An Exploratory Study on the Impact of Self-Service Technology on Restaurant Operations. *Journal of Foodservice Business Research*. 8 (3), pp. 55–65. doi:10.1300/J369v08n03_05.

King, A.A. and Baatartogtokh, B. (2015) How Useful Is the Theory of Disruptive Innovation? *MIT Sloan Management Review* [online]. Available from:

<http://sloanreview.mit.edu/article/how-useful-is-the-theory-of-disruptive-innovation/> [Accessed 22 December 2016].

- King, M. (2015) *US delivery takeaway food market sees GrubHub and Yelp adopt different strategies to expand their delivery capabilities*. Available from: <http://www.companiesandmarkets.com/News/Food-and-Drink/US-delivery-takeaway-food-market-sees-GrubHub-and-Yelp-adopt-different-strategies-to-expand-their-delivery-capabilities/N110051> [Accessed 28 July 2015].
- Kleijnen, M., Lee, N. and Wetzels, M. (2009) An exploration of consumer resistance to innovation and its antecedents. *Journal of Economic Psychology*. 30 (3), pp. 344–357. doi:10.1016/j.joep.2009.02.004.
- Knospe, H. and Schwiderski-Grosche, S. (2002) Secure mobile commerce. *Electronics & Communication Engineering Journal*. 14 (5), pp. 228–238. doi:10.1049/ecej:20020506.
- Kobus, M.B.W., Rietveld, P. and van Ommeren, J.N. (2013) Ownership versus on-campus use of mobile IT devices by university students. *Computers & Education*. 68 (Supplement C), pp. 29–41. doi:10.1016/j.compedu.2013.04.003.
- Koenig-Lewis, N., Marquet, M., Palmer, A. and Zhao, A.L. (2015) Enjoyment and social influence: predicting mobile payment adoption. *The Service Industries Journal*. 35 (10), pp. 537–554. doi:10.1080/02642069.2015.1043278.
- Kokkinou, A. and Cranage, D.A. (2013) Using self-service technology to reduce customer waiting times. *International Journal of Hospitality Management*. 33 pp. 435–445. doi:10.1016/j.ijhm.2012.11.003.
- Kourouthanassis, P.E. and Giaglis, G.M. (2012) Introduction to the Special Issue Mobile Commerce: The Past, Present, and Future of Mobile Commerce Research. *International Journal of Electronic Commerce*. 16 (4), pp. 5–18. doi:10.2753/JEC1086-4415160401.
- Kshetri, N. (2007) Barriers to e-commerce and competitive business models in developing countries: A case study. *Electronic Commerce Research and Applications*. 6 (4), pp. 443–452. doi:10.1016/j.elerap.2007.02.004.
- Kucukusta, D., Law, R., Besbes, A. and Legohérel, P. (2015) Re-examining perceived usefulness and ease of use in online booking: the case of Hong Kong online users. *International Journal of Contemporary Hospitality Management* [online]. Available from: <http://www.emeraldinsight.com/doi/abs/10.1108/IJCHM-09-2013-0413>doi:10.1108/IJCHM-09-2013-0413 [Accessed 12 February 2015].
- Kwon, J.M., Bae, J. (Stephanie) and Blum, S.C. (2013) Mobile applications in the hospitality industry. *Journal of Hospitality and Tourism Technology*. 4 (1), pp. 81–92. doi:10.1108/17579881311302365.

- Kypri, K., Gallagher, S.J. and Cashell-Smith, M.L. (2004) An internet-based survey method for college student drinking research. *Drug and Alcohol Dependence*. 76 (1), pp. 45–53. doi:10.1016/j.drugalcdep.2004.04.001.
- Larson, N.I., Neumark-Sztainer, D.R., Story, M.T., Wall, M.M., Harnack, L.J. and Eisenberg, M.E. (2008) Fast Food Intake: Longitudinal Trends during the Transition to Young Adulthood and Correlates of Intake. *Journal of Adolescent Health*. 43 (1), pp. 79–86. doi:10.1016/j.jadohealth.2007.12.005.
- Larson, N.I., Perry, C.L., Story, M. and Neumark-Sztainer, D. (2006) Food Preparation by Young Adults Is Associated with Better Diet Quality. *Journal of the American Dietetic Association*. 106 (12), pp. 2001–2007. doi:10.1016/j.jada.2006.09.008.
- Laska, M.N., Graham, D.J., Moe, S.G. and Van Riper, D. (2010) Young Adult Eating and Food-Purchasing Patterns: Food Store Location and Residential Proximity. *American Journal of Preventive Medicine*. 39 (5), pp. 464–467. doi:10.1016/j.amepre.2010.07.003.
- Laukkanen, T. (2016) Consumer adoption versus rejection decisions in seemingly similar service innovations: The case of the Internet and mobile banking. *Journal of Business Research*. 69 (7), pp. 2432–2439. doi:10.1016/j.jbusres.2016.01.013.
- Law, R., Buhalis, D. and Cobanoglu, C. (2014) Progress on information and communication technologies in hospitality and tourism. *International Journal of Contemporary Hospitality Management*. 26 (5), pp. 727–750. doi:10.1108/IJCHM-08-2013-0367.
- Law, R., Qi, S. and Leung, B. (2008) Perceptions of Functionality and Usability on Travel Websites: The Case of Chinese Travelers. *Asia Pacific Journal of Tourism Research*. 13 (4), pp. 435–445. doi:10.1080/10941660802420994.
- Lee, G. and Raghu, T.S. (2014) Determinants of Mobile Apps' Success: Evidence from the App Store Market. *Journal of Management Information Systems*. 31 (2), pp. 133–170. doi:10.2753/MIS0742-1222310206.
- Lee, H.G. and Clark, T.H. (1996) Market Process Reengineering through Electronic Market Systems: Opportunities and Challenges. *Journal of Management Information Systems*. 13 (3), pp. 113–136. doi:10.1080/07421222.1996.11518136.
- Lee, L.Y.-S. (2013) Hospitality Industry Web-Based Self-Service Technology Adoption Model: A Cross-Cultural Perspective. *Journal of Hospitality & Tourism Research*. pp. 1096348013495695. doi:10.1177/1096348013495695.
- Lee, M. and Ulgado, F.M. (1997) Consumer evaluations of fast-food services: a cross-national comparison. *Journal of Services Marketing*. 11 (1), pp. 39–52. doi:10.1108/08876049710158358.

- Leigh, R. and North, D.J. (1978) Regional aspects of acquisition activity in British manufacturing industry. *Regional Studies*. 12 (2), pp. 227–245. doi:10.1080/09595237800185191.
- Lester, D.H., Forman, A.M. and Loyd, D. (2008) Internet Shopping and Buying Behavior of College Students. *Services Marketing Quarterly*. 27 (2), pp. 123–138. doi:10.1300/J396v27n02_08.
- Li, Y.-M. and Yeh, Y.-S. (2010) Increasing trust in mobile commerce through design aesthetics. *Computers in Human Behavior*. 26 (4), pp. 673–684. doi:10.1016/j.chb.2010.01.004.
- Liébana-Cabanillas, F., Muñoz-Leiva, F. and Sánchez-Fernández, J. (2018) A global approach to the analysis of user behavior in mobile payment systems in the new electronic environment. *Service Business*. 12 (1), pp. 25–64. doi:10.1007/s11628-017-0336-7.
- Liébana-Cabanillas, F., Muñoz-Leiva, F. and Sánchez-Fernández, J. (2015) Behavioural Model of Younger Users in M-Payment Systems. *Journal of Organizational Computing and Electronic Commerce*. 0 (ja), pp. null. doi:10.1080/10919392.2015.1033947.
- Liébana-Cabanillas, F., Sánchez-Fernández, J. and Muñoz-Leiva, F. (2014a) Antecedents of the adoption of the new mobile payment systems: The moderating effect of age. *Computers in Human Behavior*. 35 pp. 464–478. doi:10.1016/j.chb.2014.03.022.
- Liébana-Cabanillas, F., Sánchez-Fernández, J. and Muñoz-Leiva, F. (2014b) Role of gender on acceptance of mobile payment. *Industrial Management and Data Systems*. 114 (2), pp. 220–240. doi:10.1108/IMDS-03-2013-0137.
- Limbu, Y.B., Wolf, M. and Lunsford, D.L. (2011) Consumers' perceptions of online ethics and its effects on satisfaction and loyalty. *Journal of Research in Interactive Marketing*. 5 (1), pp. 71–89. doi:10.1108/17505931111121534.
- Lin, C.-H., Shih, H.-Y. and Sher, P.J. (2007) Integrating technology readiness into technology acceptance: The TRAM model. *Psychology and Marketing*. 24 (7), pp. 641–657. doi:10.1002/mar.20177.
- Lin, G.T.R. and Sun, C.-C. (2009) Factors influencing satisfaction and loyalty in online shopping: an integrated model. *Online Information Review*. 33 (3), pp. 458–475. doi:10.1108/14684520910969907.
- Lin, H.-H. and Wang, Y.-S. (2006) An examination of the determinants of customer loyalty in mobile commerce contexts. *Information & Management*. 43 (3), pp. 271–282. doi:10.1016/j.im.2005.08.001.
- Ling, K.C., Chai, L.T. and Piew, T.H. (2010) The Effects of Shopping Orientations, Online Trust and Prior Online Purchase Experience toward Customers'

- Online Purchase Intention. *International Business Research*. 3 (3), pp. P63.
- Liu, C. and Arnett, K.P. (2000) Exploring the factors associated with Web site success in the context of electronic commerce. *Information & Management*. 38 (1), pp. 23–33. doi:10.1016/S0378-7206(00)00049-5.
- Liu, D. and Guo, X. (2017) Exploring gender differences in acceptance of mobile computing devices among college students. *Information Systems and e-Business Management*. 15 (1), pp. 197–223. doi:10.1007/s10257-016-0315-x.
- Lu, H.-P. and Su, P.Y.-J. (2009) Factors affecting purchase intention on mobile shopping web sites. *Internet Research*. 19 (4), pp. 442–458. doi:10.1108/10662240910981399.
- Lu, J., Yao, J.E. and Yu, C.-S. (2005) Personal innovativeness, social influences and adoption of wireless Internet services via mobile technology. *The Journal of Strategic Information Systems*. 14 (3), pp. 245–268. doi:10.1016/j.jsis.2005.07.003.
- Lu, Y., Yang, S., Chau, P.Y.K. and Cao, Y. (2011) Dynamics between the trust transfer process and intention to use mobile payment services: A cross-environment perspective. *Information & Management*. 48 (8), pp. 393–403.
- de Luna, I.R., Liébana-Cabanillas, F., Sánchez-Fernández, J. and Muñoz-Leiva, F. (2018) Mobile payment is not all the same: The adoption of mobile payment systems depending on the technology applied. *Technological Forecasting and Social Change* [online]. Available from: <http://www.sciencedirect.com/science/article/pii/S0040162517314282>doi: 10.1016/j.techfore.2018.09.018 [Accessed 3 December 2018].
- Lunden, I. (2015) Yelp Buys Delivery Network Eat24 For \$134M To Ramp Up In Food Operations *TechCrunch* [online]. Available from: <http://social.techcrunch.com/2015/02/10/yelp-gulps-eat24/> [Accessed 8 August 2015].
- Malhotra, Y. and Galletta, D.F. (1999) Extending the Technology Acceptance Model to Account for Social Influence: Theoretical Bases and Empirical Validation. In: *Proceedings of the Thirty-Second Annual Hawaii International Conference on System Sciences-Volume 1 - Volume 1 HICSS '99* [online]. 1999 Washington, DC, USA: IEEE Computer Society. pp. 1006–. Available from: <http://dl.acm.org/citation.cfm?id=874068.875913> [Accessed 16 December 2015].
- Mallat, N. (2007) Exploring Consumer Adoption of Mobile Payments - A Qualitative Study. *J. Strateg. Inf. Syst.* 16 (4), pp. 413–432. doi:10.1016/j.jsis.2007.08.001.

- Mallat, N. and Tuunainen, V.K. (2008) Exploring Merchant Adoption of Mobile Payment Systems: An Empirical Study. *e-Service Journal*. 6 (2), pp. 24–57. doi:10.2979/ESJ.2008.6.2.24.
- Marakarkandy, B., Yajnik, N. and Dasgupta, C. (2017) Enabling internet banking adoption: An empirical examination with an augmented technology acceptance model (TAM). *Journal of Enterprise Information Management*. 30 (2), pp. 263–294. doi:10.1108/JEIM-10-2015-0094.
- Margaryan, A., Littlejohn, A. and Vojt, G. (2011) Are digital natives a myth or reality? University students' use of digital technologies. *Computers & Education*. 56 (2), pp. 429–440. doi:10.1016/j.compedu.2010.09.004.
- Mari, M. (2016) How one Italian entrepreneur's business changed after riding along with Rocket Internet *TechCrunch* [online]. Available from: <http://social.techcrunch.com/2016/06/01/how-one-italian-entrepreneurs-dreams-crashed-after-riding-along-with-germanys-rocket-internet/> [Accessed 17 August 2016].
- Marinkovic, V., Senic, V., Ivkov, D., Dimitrovski, D. and Bjelic, M. (2014) The antecedents of satisfaction and revisit intentions for full-service restaurants. *Marketing Intelligence & Planning*. 32 (3), pp. 311–327. doi:10.1108/MIP-01-2013-0017.
- Markides, C. (2006) Disruptive Innovation: In Need of Better Theory*. *Journal of Product Innovation Management*. 23 (1), pp. 19–25. doi:10.1111/j.1540-5885.2005.00177.x.
- Marshall, C. and Rossman, G.B. (2006) *Designing Qualitative Research*. (no place) Sage Publications.
- Martin-Rios, C., Demen-Meier, C., Gössling, S. and Cornuz, C. (2018) Food waste management innovations in the foodservice industry. *Waste Management*. 79 pp. 196–206. doi:10.1016/j.wasman.2018.07.033.
- Martins, E.C. and Terblanche, F. (2003) Building organisational culture that stimulates creativity and innovation. *European Journal of Innovation Management*. 6 (1), pp. 64–74. doi:10.1108/14601060310456337.
- Matthews, J.I., Doerr, L. and Dworatzek, P.D.N. (2016) University Students Intend to Eat Better but Lack Coping Self-Efficacy and Knowledge of Dietary Recommendations. *Journal of Nutrition Education and Behavior*. 48 (1), pp. 12-19.e1. doi:10.1016/j.jneb.2015.08.005.
- Mazzarol, T. and Soutar, G.N. (2002) "Push-pull" factors influencing international student destination choice. *International Journal of Educational Management*. 16 (2), pp. 82–90. doi:10.1108/09513540210418403.
- MCA insight (2017) *Eating and drinking out insight*.
- McCole, P., Ramsey, E. and Williams, J. (2010) Trust considerations on attitudes towards online purchasing: The moderating effect of privacy and security

- concerns. *Journal of Business Research*. 63 (9–10), pp. 1018–1024. doi:10.1016/j.jbusres.2009.02.025.
- McCracken, H. (2017) Sprig is the latest casualty among meal-delivery services [online]. *Fast Company* 26 May. Available from: <https://www.fastcompany.com/4039021/sprig-is-the-latest-casualty-among-meal-delivery-services> [Accessed 13 December 2018].
- McEwan, B. (2011) Hybrid engagement: How Facebook helps and hinders students? social integration. In: *Higher Education Administration with Social Media Cutting-edge Technologies in Higher Education* [online]. (no place) Emerald Group Publishing Limited. pp. 3–23. Available from: <http://www.emeraldinsight.com/doi/abs/10.1108/S2044-9968%282011%290000002004>doi:10.1108/S2044-9968(2011)0000002004.
- McFarland, D.J. and Hamilton, D. (2006) Adding contextual specificity to the technology acceptance model. *Computers in Human Behavior*. 22 (3), pp. 427–447. doi:10.1016/j.chb.2004.09.009.
- Meuter, M.L., Ostrom, A.L., Bitner, M.J. and Roundtree, R. (2003) The influence of technology anxiety on consumer use and experiences with self-service technologies. *Journal of Business Research*. 56 (11), pp. 899–906. doi:10.1016/S0148-2963(01)00276-4.
- Meuter, M.L., Ostrom, A.L., Roundtree, R.I. and Bitner, M.J. (2000) Self-Service Technologies: Understanding Customer Satisfaction with Technology-Based Service Encounters. *Journal of Marketing*. 64 (3), pp. 50–64. doi:10.1509/jmkg.64.3.50.18024.
- Meyer, C.B. (2001) A Case in Case Study Methodology. *Field Methods*. 13 (4), pp. 329–352. doi:10.1177/1525822X0101300402.
- Mignot, M. (2015) The Billion Dollar Food Delivery Wars *TechCrunch* [online]. Available from: <http://social.techcrunch.com/2015/07/11/the-billion-dollar-food-delivery-wars/> [Accessed 21 March 2016].
- Mikkonen, T. and Antero, T. (2011) Apps vs. Open Web: The Battle of the Decade. In: *Proceedings of the 2nd Workshop on Software Engineering for Mobile Application Development*. 2011 pp. 22–26.
- Min, S., So, K.K.F. and Jeong, M. (2018) Consumer adoption of the Uber mobile application: Insights from diffusion of innovation theory and technology acceptance model. *Journal of Travel & Tourism Marketing*. 0 (0), pp. 1–14. doi:10.1080/10548408.2018.1507866.
- Mindrut, S., Manolica, A. and Roman, C.T. (2015) Building Brands Identity. *Procedia Economics and Finance*. 20 pp. 393–403. doi:10.1016/S2212-5671(15)00088-X.

- Mintel (2018a) *Attitudes Towards Home Delivery and Takeaway* [online]. Available from: http://reports.mintel.com/display/858881/?__cc=1 [Accessed 15 May 2019].
- Mintel (2019) *Attitudes Towards Home Delivery and Takeaway* [online]. Available from: <http://reports.mintel.com/display/920364/> [Accessed 15 May 2019].
- Mintel (2018b) *Eating Out: The Decision Making Proces* [online]. Available from: <http://reports.mintel.com/display/859309/> [Accessed 15 May 2019].
- Mitchell, S. (2018) Just Eat slashes value of Menulog by almost 40 per cent [online]. *Australian Financial Review* 7 March. . Available from: <https://www.afr.com/business/retail/just-eat-slashes-value-of-menulog-by-almost-40-per-cent-20180307-h0x4qa> [Accessed 18 December 2018].
- Molina-Azorin, J.F. (2016) Mixed methods research: An opportunity to improve our studies and our research skills. *European Journal of Management and Business Economics*. 25 (2), pp. 37–38. doi:10.1016/j.redeen.2016.05.001.
- Montgomery, K.C. and Chester, J. (2009) Interactive Food and Beverage Marketing: Targeting Adolescents in the Digital Age. *Journal of Adolescent Health*. 45 (3, Supplement), pp. S18–S29. doi:10.1016/j.jadohealth.2009.04.006.
- Morosan, C. (2014) Toward an integrated model of adoption of mobile phones for purchasing ancillary services in air travel. *International Journal of Contemporary Hospitality Management*. 26 (2), pp. 246–271. doi:10.1108/IJCHM-11-2012-0221.
- Morse, K.L. and Driskell, J.A. (2009) Observed sex differences in fast-food consumption and nutrition self-assessments and beliefs of college students. *Nutrition Research*. 29 (3), pp. 173–179. doi:10.1016/j.nutres.2009.02.004.
- Mozeik, C.K., Beldona, S., Cobanoglu, C. and Poorani, A. (2009) The Adoption of Restaurant-Based E-Service. *Journal of Foodservice Business Research*. 12 (3), pp. 247–265. doi:10.1080/15378020903158525.
- Mu, L. and Cole, J. (2017) Typology of Students: A View from Student Transition from High School to College. In: *American Educational Research Association Annual Meeting* [online]. 1 May 2017 San Antonio: . Available from: http://nsse.iub.edu/pdf/presentations/2017/AERA_2017_Mu_Cole_paper.pdf.
- Müller, A. (2018) Referral Marketing on Social Media Platforms—Guidelines on How Businesses Can Identify and Successfully Integrate Opinion Leaders in Their Online Marketing Strategy. In: Vittoria von Gizycki and Carola Anna Elias (eds.). *Omnichannel Branding: Digitalisierung als Basis erlebnis- und beziehungsorientierter Markenführung* [online]. Wiesbaden: Springer Fachmedien Wiesbaden. pp. 131–171. Available from:

https://doi.org/10.1007/978-3-658-21450-0_7doi:10.1007/978-3-658-21450-0_7 [Accessed 13 December 2018].

- Muller, C.C. and Woods, R.H. (1994) An Expanded Restaurant Typology. *Cornell Hotel and Restaurant Administration Quarterly*. 35 (3), pp. 27–37. doi:10.1177/001088049403500312.
- Murray, K.B. (1991) A Test of Services Marketing Theory: Consumer Information Acquisition Activities. *Journal of Marketing*. 55 (1), pp. 10–25. doi:10.2307/1252200.
- Muslim, M.H., Karim, H.A. and Abdullah, I.C. (2012) Satisfaction of Students' Living Environment between On-Campus and Off-Campus Settings: A Conceptual Overview. *Procedia - Social and Behavioral Sciences*. 68 (Supplement C), pp. 601–614. doi:10.1016/j.sbspro.2012.12.252.
- Nagy, D., Schuessler, J. and Dubinsky, A. (2016) Defining and identifying disruptive innovations. *Industrial Marketing Management*. 57 pp. 119–126. doi:10.1016/j.indmarman.2015.11.017.
- Najib, N., Ulyani M., Yusof, N. and Tabassi, A.A. (2015) Living in On-campus Student Housing: Students' Behavioural Intentions and Students' Personal Attainments. *Procedia - Social and Behavioral Sciences*. 170 (Supplement C), pp. 494–503. doi:10.1016/j.sbspro.2015.01.052.
- Namkung, Y., Shin, S.-Y. and Yang, I.-S. (2007) A Grounded Theory Approach to Understanding the Website Experiences of Restaurant Customers. *Journal of Foodservice Business Research*. 10 (1), pp. 77–99. doi:10.1300/J369v10n01_05.
- Nandan, S. (2005) An exploration of the brand identity–brand image linkage: A communications perspective. *Journal of Brand Management*. 12 (4), pp. 264–278. doi:10.1057/palgrave.bm.2540222.
- Narine, T. and Badrie, N. (2007) Influential Factors Affecting Food Choices of Consumers When Eating Outside the Household in Trinidad, West Indies. *Journal of Food Products Marketing*. 13 (1), pp. 19–29. doi:10.1300/J038v13n01_02.
- Natwest (2017) *Student Living Index 2017* [online]. Available from: <http://personal.natwest.com/personal/life-moments/student-living-index.html>.
- Navarro-Prado, S., González-Jiménez, E., Perona, J.S., Montero-Alonso, M.A., López-Bueno, M. and Schmidt-RioValle, J. (2017) Need of improvement of diet and life habits among university student regardless of religion professed. *Appetite*. 114 pp. 6–14. doi:10.1016/j.appet.2017.03.017.
- Neuman, W.L. (2013) *Social Research Methods: Qualitative and Quantitative Approaches*. 7 edition. (no place) Pearson.

- Nickols, S.Y. and Fox, K.D. (1983) Buying Time and Saving Time: Strategies for Managing Household Production. *Journal of Consumer Research*. 10 (2), pp. 197–208. doi:10.1086/208959.
- Nilashi, M., Ibrahim, O., Reza Mirabi, V., Ebrahimi, L. and Zare, M. (2015a) The role of Security, Design and Content factors on customer trust in mobile commerce. *Journal of Retailing and Consumer Services*. 26 pp. 57–69. doi:10.1016/j.jretconser.2015.05.002.
- Nilashi, M., Ibrahim, O., Reza Mirabi, V., Ebrahimi, L. and Zare, M. (2015b) The role of Security, Design and Content factors on customer trust in mobile commerce. *Journal of Retailing and Consumer Services*. 26 pp. 57–69. doi:10.1016/j.jretconser.2015.05.002.
- Nonis, S.A. and Hudson, G.I. (2010) Performance of College Students: Impact of Study Time and Study Habits. *Journal of Education for Business*. 85 (4), pp. 229–238. doi:10.1080/08832320903449550.
- Nooteboom, B. (1994) Innovation and diffusion in small firms: Theory and evidence. *Small Business Economics*. 6 (5), pp. 327–347. doi:10.1007/BF01065137.
- Nunkoo, R. and Ramkissoon, H. (2012) Travelers' E-Purchase Intent of Tourism Products and Services. *Journal of Hospitality Marketing & Management*. 0 (0), pp. 1–25. doi:10.1080/19368623.2012.680240.
- Ofcom (2014) *Innovation in UK consumer electronic payments*.
- Office for National Statistic (2017) *Retail Sales Index internet sales* [online]. Available from: <https://www.ons.gov.uk/businessindustryandtrade/retailindustry/datasets/retailsalesindexinternetsales> [Accessed 4 January 2018].
- Oh, S., Lehto, X.Y. and Park, J. (2009) Travelers' Intent to Use Mobile Technologies as a Function of Effort and Performance Expectancy. *Journal of Hospitality Marketing & Management*. 18 (8), pp. 765–781. doi:10.1080/19368620903235795.
- Okumus, B. and Bilgihan, A. (2014) Proposing a model to test smartphone users' intention to use smart applications when ordering food in restaurants. *Journal of Hospitality and Tourism Technology*. 5 (1), pp. 31–49. doi:10.1108/JHTT-01-2013-0003.
- Oliveira, T., Thomas, M., Baptista, G. and Campos, F. (2016) Mobile payment: Understanding the determinants of customer adoption and intention to recommend the technology. *Computers in Human Behavior*. 61 pp. 404–414. doi:10.1016/j.chb.2016.03.030.
- Ooi, K.-B. and Tan, G.W.-H. (2016) Mobile technology acceptance model: An investigation using mobile users to explore smartphone credit card. *Expert Systems with Applications*. 59 pp. 33–46. doi:10.1016/j.eswa.2016.04.015.

- Oppenheim, A. (1998) *Questionnaire Design, Interviewing and Attitude Measurement*. New edition. London; New York: Continuum-3PL.
- O'Reilly, P., Duane, A. and Andreev, P. (2012) To M-Pay or not to M-Pay—Realising the potential of smart phones: conceptual modeling and empirical validation. *Electronic Markets*. 22 (4), pp. 229–241. doi:10.1007/s12525-012-0105-3.
- Ouchi, W.G. (1977) The Relationship Between Organizational Structure and Organizational Control. *Administrative Science Quarterly*. 22 (1), pp. 95–113. doi:10.2307/2391748.
- Oulasvirta, A., Rattenbury, T., Ma, L. and Raita, E. (2012) Habits make smartphone use more pervasive. *Personal and Ubiquitous Computing*. 16 (1), pp. 105–114. doi:10.1007/s00779-011-0412-2.
- Oxygen8 (2014) *Mastering multichannel journeys: making engagement pay* [online]. Available from: <http://www.oxygen8.com/downloads/uk/whitepapers/mastering-multichannel-report-2015.pdf>.
- Ozturk, A.B., Bilgihan, A., Nusair, K. and Okumus, F. (2016) What keeps the mobile hotel booking users loyal? Investigating the roles of self-efficacy, compatibility, perceived ease of use, and perceived convenience. *International Journal of Information Management*. 36 (6, Part B), pp. 1350–1359. doi:10.1016/j.ijinfomgt.2016.04.005.
- Ozturk, A.B., Bilgihan, A., Salehi-Esfahani, S. and Hua, N. (2017) Understanding the mobile payment technology acceptance based on valence theory: A case of restaurant transactions. *International Journal of Contemporary Hospitality Management*. 29 (8), pp. 2027–2049. doi:10.1108/IJCHM-04-2016-0192.
- Paddock, J., Warde, A. and Whillans, J. (2017) The changing meaning of eating out in three English cities 1995–2015. *Appetite* [online]. Available from: <http://www.sciencedirect.com/science/article/pii/S0195666317301113>doi: 10.1016/j.appet.2017.01.030.
- Pagoto, S., Schneider, K., Jojic, M., DeBiase, M. and Mann, D. (2013) Evidence-Based Strategies in Weight-Loss Mobile Apps. *American Journal of Preventive Medicine*. 45 (5), pp. 576–582. doi:10.1016/j.amepre.2013.04.025.
- Palmer, J. and Griswold, M. (2011) Product And Service Innovation Within Small Firms: An Exploratory Case Analysis Of Firms In The Restaurant Industry. *International Journal of Business and Social Science*. 2 (13), pp. 221–223.
- Pan, Y.-L., Dixon, Z., Himburg, S. and Huffman, F. (1999) Asian Students Change their Eating Patterns After Living in the United States. *Journal of the American Dietetic Association*. 99 (1), pp. 54–57. doi:10.1016/S0002-8223(99)00016-4.

- Pantelidis, I.S. (2010) Electronic Meal Experience: A Content Analysis of Online Restaurant Comments. *Cornell Hospitality Quarterly*. 51 (4), pp. 483–491. doi:10.1177/1938965510378574.
- Papadaki, A., Hondros, G., A. Scott, J. and Kapsokefalou, M. (2007) Eating habits of University students living at, or away from home in Greece. *Appetite*. 49 (1), pp. 169–176. doi:10.1016/j.appet.2007.01.008.
- Papadakis, V.M. (2005) The role of broader context and the communication program in merger and acquisition implementation success. *Management Decision*. 43 (2), pp. 236–255. doi:10.1108/00251740510581948.
- Papaioannou, E., Georgiadis, C.K., Moshidis, O. and Manitsaris, A. (2015) Factors Affecting Customers' Perceptions and Firms' Decisions Concerning Online Fast Food Ordering: *International Journal of Agricultural and Environmental Information Systems*. 6 (1), pp. 48–78. doi:10.4018/ijaeis.2015010104.
- Papier, K., Ahmed, F., Lee, P. and Wiseman, J. (2015) Stress and dietary behaviour among first-year university students in Australia: Sex differences. *Nutrition*. 31 (2), pp. 324–330. doi:10.1016/j.nut.2014.08.004.
- Parasuraman, A. (2000) Technology Readiness Index (Tri) A Multiple-Item Scale to Measure Readiness to Embrace New Technologies. *Journal of Service Research*. 2 (4), pp. 307–320. doi:10.1177/109467050024001.
- Parkes, M., Stein, S. and Reading, C. (2015) Student preparedness for university e-learning environments. *The Internet and Higher Education*. 25 pp. 1–10. doi:10.1016/j.iheduc.2014.10.002.
- Patton, E. and Appelbaum, S.H. (2003) The case for case studies in management research. *Management Research News*. 26 (5), pp. 60–71. doi:10.1108/01409170310783484.
- Paulson-Box, E. and Williamson, P. (1990) The Development of the Ethnic Food Market in the UK. *British Food Journal*. 92 (2), pp. 10–15. doi:10.1108/00070709010141460.
- Pavlou, P.A. (2003) Consumer Acceptance of Electronic Commerce: Integrating Trust and Risk with the Technology Acceptance Model. *International Journal of Electronic Commerce*. 7 (3), pp. 101–134.
- Payments UK (2017) *UK Payment Markets Summary* [online]. Available from: file:///C:/Users/Sya%20Hisham/Dropbox/PhD/PHD%20Articles/PUK-UK-Payments-Markets-2017-Summary-AW-Online.pdf.
- Pedersen, P. (1994) Google-Books-ID: zszx6k5Y1HMC. *The Five Stages of Culture Shock: Critical Incidents Around the World: Critical Incidents Around the World*. (no place) ABC-CLIO.
- Peng, H., Tsai, C.-C. and Wu, Y.-T. (2006) University students' self-efficacy and their attitudes toward the Internet: the role of students' perceptions of the

- Internet. *Educational Studies*. 32 (1), pp. 73–86. doi:10.1080/03055690500416025.
- Peng, R., Xiong, L. and Yang, Z. (2012) Exploring Tourist Adoption of Tourism Mobile Payment: An Empirical Analysis. *Journal of Theoretical and Applied Electronic Commerce Research*. 7 (1), pp. 21–33. doi:http://dx.doi.org/10.4067/S0718-18762012000100003.
- Pew Research Centre (2014) *Mobile Technology Fact Sheet* [online]. Available from: <http://www.pewinternet.org/fact-sheets/mobile-technology-fact-sheet/> [Accessed 5 March 2015].
- Pi, S.-M., Liao, H.-L. and Chen, H.-M. (2012) Factors That Affect Consumers' Trust and Continuous Adoption of Online Financial Services. *International Journal of Business and Management*. 7 (9), pp. p108. doi:10.5539/ijbm.v7n9p108.
- Piesse, J., Lee, C.-F., Lin, L. and Kuo, H.-C. (2013) Merger and Acquisition: Definitions, Motives, and Market Responses. In: Cheng-Few Lee and C. Alice Lee (eds.). *Encyclopedia of Finance* [online]. Boston, MA: Springer US. pp. 411–420. Available from: http://dx.doi.org/10.1007/978-1-4614-5360-4_28.
- Pigatto, G., Machado, J.G. de C.F., Negreti, A. dos S. and Machado, L.M. (2017) Have you chosen your request? Analysis of online food delivery companies in Brazil. *British Food Journal*. 119 (3), pp. 639–657. doi:10.1108/BFJ-05-2016-0207.
- Pilar Opazo, M. (2012) Discourse as driver of innovation in contemporary haute cuisine: The case of elBulli restaurant. *International Journal of Gastronomy and Food Science*. 1 (2), pp. 82–89. doi:10.1016/j.ijgfs.2013.06.001.
- Pisano, G.P. (2014) *In Defense of Routine Innovation*. Available from: <https://hbr.org/2014/06/in-defense-of-routine-innovation> [Accessed 30 December 2016].
- Pisano, G.P. (2015) You need an innovation strategy. *Harvard Business Review*. 93 (6), pp. 44–54.
- Poyrazli, S. and Lopez, M.D. (2007) An Exploratory Study of Perceived Discrimination and Homesickness: A Comparison of International Students and American Students. *The Journal of Psychology*. 141 (3), pp. 263–280. doi:10.3200/JRLP.141.3.263-280.
- Prendergast, G. and Marr, N. (1994) Towards a Branchless Banking Society? *International Journal of Retail & Distribution Management*. 22 (2), pp. 18–26. doi:10.1108/09590559410054095.
- Preoday (2014) Takeaway restaurants fed up of being bitten by Just Eat Preoday [online]. Available from: <http://www.preoday.com/blog/takeaway->

restaurants-fed-up-of-being-bitten-by-just-eat/ [Accessed 10 August 2015].

- Price, S. (1997) The new fasces* of the fast food market? The potential for consortia in pizza home delivery. *International Journal of Contemporary Hospitality Management*. 9 (3), pp. 101–109. doi:10.1108/09596119710164632.
- Putte, B. van den (2009) What matters most in advertising campaigns? *International Journal of Advertising*. 28 (4), pp. 669–690. doi:10.2501/S0265048709200813.
- Qiu, L., Pang, J. and Lim, K.H. (2012) Effects of conflicting aggregated rating on eWOM review credibility and diagnosticity: The moderating role of review valence. *Decision Support Systems*. 54 (1), pp. 631–643. doi:10.1016/j.dss.2012.08.020.
- Raento, M., Oulasvirta, A. and Eagle, N. (2009) Smartphones An Emerging Tool for Social Scientists. *Sociological Methods & Research*. 37 (3), pp. 426–454. doi:10.1177/0049124108330005.
- Ragsdale, J.M., Beehr, T.A., Grebner, S. and Han, K. (2011) An integrated model of weekday stress and weekend recovery of students. *International Journal of Stress Management*. 18 (2), pp. 153.
- Rahim, A., Safin, S.Z., Kheng, L.K., Abas, N. and Ali, S.M. (2016) Factors Influencing Purchasing Intention of Smartphone among University Students. *Procedia Economics and Finance*. 37 pp. 245–253. doi:10.1016/S2212-5671(16)30121-6.
- Ram, S. (1987) A Model of Innovation Resistance. *NA - Advances in Consumer Research* [online]. 14 . Available from: <http://acrwebsite.org/volumes/6688/volumes/v14/NA-14> [Accessed 31 December 2016].
- Ram, S. and Sheth, J.N. (1989) Consumer Resistance to Innovations: The Marketing Problem and its solutions. *Journal of Consumer Marketing*. 6 (2), pp. 5–14. doi:10.1108/EUM0000000002542.
- Ranjan, J. (2008) Business justification with business intelligence. *VINE*. 38 (4), pp. 461–475. doi:10.1108/03055720810917714.
- Rao, M., Afshin, A., Singh, G. and Mozaffarian, D. (2013) Do healthier foods and diet patterns cost more than less healthy options? A systematic review and meta-analysis. *BMJ Open*. 3 (12), pp. e004277. doi:10.1136/bmjopen-2013-004277.
- Rauniar, R., Rawski, G., Yang, J. and Johnson, B. (2014) Technology acceptance model (TAM) and social media usage: an empirical study on Facebook. *Journal of Enterprise Information Management*. 27 (1), pp. 6–30. doi:10.1108/JEIM-04-2012-0011.

- Reiter, E. (1996) *Making Fast Food: From the Frying Pan Into the Fryer*. (no place) McGill-Queen's Press - MQUP.
- Renny, Guritno, S. and Siringoringo, H. (2013) Perceived Usefulness, Ease of Use, and Attitude Towards Online Shopping Usefulness Towards Online Airlines Ticket Purchase. *Procedia - Social and Behavioral Sciences*. 81 pp. 212–216. doi:10.1016/j.sbspro.2013.06.415.
- Revels, J., Tojib, D. and Tsarenko, Y. (2010) Understanding consumer intention to use mobile services. *Australasian Marketing Journal (AMJ)*. 18 (2), pp. 74–80. doi:10.1016/j.ausmj.2010.02.002.
- Richter, N.F., Sinkovics, R.R., Ringle, C.M. and Schlägel, C. (2016) A critical look at the use of SEM in international business research. *International Marketing Review*. 33 (3), pp. 376–404. doi:10.1108/IMR-04-2014-0148.
- Riley, M. (1994) Marketing Eating Out: The Influence of Social Culture and Innovation. *British Food Journal*. 96 (10), pp. 15–18. doi:10.1108/00070709410072463.
- Ritzer, G. (1993) Google-Books-ID: 3__cAAAIAAJ.*The McDonaldization of Society: An Investigation Into the Changing Character of Contemporary Social Life*. (no place) Pine Forge Press.
- Robertson, T.S. (1967) The Process of Innovation and the Diffusion of Innovation. *Journal of Marketing*. 31 (1), pp. 14–19. doi:10.2307/1249295.
- Roca, J.C., García, J.J. and Vega, J.J. de la (2009) The importance of perceived trust, security and privacy in online trading systems. *Information Management & Computer Security*. 17 (2), pp. 96–113. doi:10.1108/09685220910963983.
- Rodgers, S. (2007) Innovation in food service technology and its strategic role. *International Journal of Hospitality Management*. 26 (4), pp. 899–912. doi:10.1016/j.ijhm.2006.10.001.
- Rodgers, S. (2008) Technological innovation supporting different food production philosophies in the food service sectors. *International Journal of Contemporary Hospitality Management*. 20 (1), pp. 19–34. doi:10.1108/09596110810848541.
- Rogers, E.M. (1995) *Diffusion of Innovation*. 4th edition edition. New York: The Free Press.
- Rogers, E.M. (1983) *Diffusion of innovations*. (no place) Free Press.
- Rogers, E.M. (2003) Google-Books-ID: 9U1K5LjUOwEC.*Diffusion of Innovations*. 5th edition. (no place) Simon and Schuster.
- Rogers, M. (2004) Networks, Firm Size and Innovation. *Small Business Economics*. 22 (2), pp. 141–153. doi:10.1023/B:SBEJ.0000014451.99047.69.

- Rose, S., Hair, N. and Clark, M. (2011) Online Customer Experience: A Review of the Business-to-Consumer Online Purchase Context. *International Journal of Management Reviews*. 13 (1), pp. 24–39. doi:10.1111/j.1468-2370.2010.00280.x.
- Rozin, P. (2005) The Meaning of Food in Our Lives: A Cross-Cultural Perspective on Eating and Well-Being. *Journal of Nutrition Education and Behavior*. 37 (Supplement 2), pp. S107–S112. doi:10.1016/S1499-4046(06)60209-1.
- Rydell, S.A., Harnack, L.J., Oakes, J.M., Story, M., Jeffery, R.W. and French, S.A. (2008) Why Eat at Fast-Food Restaurants: Reported Reasons among Frequent Consumers. *Journal of the American Dietetic Association*. 108 (12), pp. 2066–2070. doi:10.1016/j.jada.2008.09.008.
- Sääksjärvi, M. and Samiee, S. (2011) Relationships among Brand Identity, Brand Image and Brand Preference: Differences between Cyber and Extension Retail Brands over Time. *Journal of Interactive Marketing*. 25 (3), pp. 169–177. doi:10.1016/j.intmar.2011.04.002.
- Saleh, F. and Ryan, C. (1991) Analysing Service Quality in the Hospitality Industry Using the SERVQUAL Model. *The Service Industries Journal*. 11 (3), pp. 324–345. doi:10.1080/02642069100000049.
- Salisbury, W.D., Pearson, R.A., Pearson, A.W. and Miller, D.W. (2001) Perceived security and World Wide Web purchase intention. *Industrial Management & Data Systems*. 101 (4), pp. 165–177. doi:10.1108/02635570110390071.
- Santhanam, R. and Hartono, E. (2003) Issues in Linking Information Technology Capability to Firm Performance. *MIS Quarterly*. 27 (1), pp. 125–153.
- Saran, C. (2014) *Just Eat opens Bristol centre to boost native app development*. Available from: <http://www.computerweekly.com/news/2240223666/Just-Eat-opens-Bristol-centre-to-boost-native-app-development> [Accessed 3 August 2016].
- Sattler, B. and Gelbrich, K. (2014) Anxiety, Crowding, and Time Pressure in Public Self-Service Technology Acceptance. *Journal of Services Marketing*. 28 (1), pp. 8–8.
- Saunders, M.N.K., Lewis, P. and Thornhill, A. (2009) *Research Methods for Business Students*. London: Pearson Education.
- Schierz, P.G., Schilke, O. and Wirtz, B.W. (2010) Understanding consumer acceptance of mobile payment services: An empirical analysis. *Electronic Commerce Research and Applications*. 9 (3), pp. 209–216. doi:10.1016/j.elerap.2009.07.005.
- Schippers, M.C., West, M.A. and Dawson, J.F. (2015) Team Reflexivity and Innovation: The Moderating Role of Team Context. *Journal of Management*. 41 (3), pp. 769–788. doi:10.1177/0149206312441210.

- Schnettler, B., Miranda, H., Lobos, G., Orellana, L., Sepúlveda, J., Denegri, M., Etchebarne, S., Mora, M. and Grunert, K.G. (2015) Eating habits and subjective well-being. A typology of students in Chilean state universities. *Appetite*. 89 pp. 203–214.
- Schwarzer, R., Richert, J., Kreausukon, P., Remme, L., Wiedemann, A.U. and Reuter, T. (2010) Translating intentions into nutrition behaviors via planning requires self-efficacy: Evidence from Thailand and Germany. *International Journal of Psychology*. 45 (4), pp. 260–268. doi:10.1080/00207591003674479.
- Shane, S.A. (1996) Hybrid Organizational Arrangements and Their Implications for Firm Growth and Survival: A Study of New Franchisors. *The Academy of Management Journal*. 39 (1), pp. 216–234. doi:10.2307/256637.
- Shcherbak, V. (2016) Open innovations as a tool of restaurant business effective activity. *Менеджмент*. 24 pp. 115–127.
- Shead, S. (2015) [online]. *Techworld* 9 March. . Available from: <http://www.techworld.com/news/startups/hungry-just-eat-customers-shun-desktops-for-mobile-apps-3600922/> [Accessed 2 August 2015].
- Sheel, A. and Lefever, M.M. (1996) The implications of digital cash for hotels and restaurants. *The Cornell Hotel and Restaurant Administration Quarterly*. 37 (6), pp. 7–96. doi:10.1016/S0010-8804(97)89968-5.
- Sheskin, D.J. (2003) *Handbook of Parametric and Nonparametric Statistical Procedures: Third Edition*. (no place) CRC Press.
- Shim, S., Xiao, J.J., Barber, B.L. and Lyons, A.C. (2009) Pathways to life success: A conceptual model of financial well-being for young adults. *Journal of Applied Developmental Psychology*. 30 (6), pp. 708–723. doi:10.1016/j.appdev.2009.02.003.
- Shin, D.-H. (2010) Modeling the Interaction of Users and Mobile Payment System: Conceptual Framework. *International Journal of Human-Computer Interaction*. 26 (10), pp. 917–940.
- Shin, D.-H. (2009) Towards an understanding of the consumer acceptance of mobile wallet. *Computers in Human Behavior*. 25 (6), pp. 1343–1354. doi:10.1016/j.chb.2009.06.001.
- Shin, S. and Lee, W. (2014) The Effects Of Technology Readiness And Technology Acceptance On Nfc Mobile Payment Services In Korea. *Journal of Applied Business Research (JABR)*. 30 (6), pp. 1615–1626.
- Shin, S., Lee, W.-J. and Odom, D. (2014) A comparative study of smartphone user's perception and preference towards mobile payment methods in the U.S. and Korea. *Journal of Applied Business Research*. 30 (5), pp. 1365–1376.

- Siggelkow, N. and Levinthal, D.A. (2003) Temporarily Divide to Conquer: Centralized, Decentralized, and Reintegrated Organizational Approaches to Exploration and Adaptation. *Organization Science* [online]. Available from: <https://pubsonline.informs.org/doi/abs/10.1287/orsc.14.6.650.24840> [Accessed 26 January 2018].
- Simpson, D.B. and Burnett, D. (2017) Commuters Versus Residents: The Effects of Living Arrangement and Student Engagement on Academic Performance. *Journal of College Student Retention: Research, Theory & Practice*. pp. 1521025117707516. doi:10.1177/1521025117707516.
- Slade, E., Williams, M. and Dwivedi, Y. (2013) Mobile payment adoption: Classification and review of the extant literature. *The Marketing Review*. 13 (2), pp. 167–190.
- Slade, E.L., Dwivedi, Y.K., Piercy, N.C. and Williams, M.D. (2015) Modeling Consumers' Adoption Intentions of Remote Mobile Payments in the United Kingdom: Extending UTAUT with Innovativeness, Risk, and Trust. *Psychology & Marketing*. 32 (8), pp. 860–873. doi:10.1002/mar.20823.
- Sløk-Madsen, S.K., Ritter, T. and Sornn-Friese, H. (2017) *Commercialization in Innovation Management: Defining the Concept and a Research Agenda*. In: [online]. 2017 Available from: <https://research.cbs.dk/en/publications/commercialization-in-innovation-management-defining-the-concept-a> [Accessed 18 November 2018].
- Small, M., Bailey-Davis, L., Morgan, N. and Maggs, J. (2013) Changes in Eating and Physical Activity Behaviors Across Seven Semesters of College: Living On or Off Campus Matters. *Health Education & Behavior*. 40 (4), pp. 435–441. doi:10.1177/1090198112467801.
- Song, Y.-S. and Lee, J.-M. (2012) Mobile device ownership among international business students: a road to the ubiquitous library. *Reference Services Review*. 40 (4), pp. 574–588. doi:10.1108/00907321211277378.
- SPSS (2016) *IBM - Statistical analysis software package - SPSS Statistics*. Available from: <http://www-03.ibm.com/software/products/en/spss-statistics> [Accessed 5 April 2016].
- Sreeharsha, V. (2014) British Food Delivery Giant Forms Joint Venture in Brazil [online]. *The New York Times* 19 September. Available from: <http://dealbook.nytimes.com/2014/09/19/british-food-delivery-giant-forms-joint-venture-in-brazil/> [Accessed 19 August 2016].
- Stensson, A. (2016) *Mapping the Restaurant Technology Landscape*.
- Stevenson, C., Doherty, G., Barnett, J., Muldoon, O.T. and Trew, K. (2007) Adolescents' views of food and eating: Identifying barriers to healthy eating. *Journal of Adolescence*. 30 (3), pp. 417–434. doi:10.1016/j.adolescence.2006.04.005.

- Streukens, S. and Leroi-Werelds, S. (2016) Bootstrapping and PLS-SEM: A step-by-step guide to get more out of your bootstrap results. *European Management Journal*. 34 (6), pp. 618–632. doi:10.1016/j.emj.2016.06.003.
- Stuart, I., McCutcheon, D., Handfield, R., McLachlin, R. and Samson, D. (2002) Effective case research in operations management: a process perspective. *Journal of Operations Management*. 20 (5), pp. 419–433. doi:10.1016/S0272-6963(02)00022-0.
- Sun, J., Yi, H., Liu, Z., Wu, Y., Bian, J., Wu, Y., Eshita, Y., Li, G., Zhang, Q. and Yang, Y. (2013) Factors associated with skipping breakfast among Inner Mongolia Medical students in China. *BMC Public Health*. 13 (1), pp. 42. doi:10.1186/1471-2458-13-42.
- Sundström, M. and Radon, A. (2015) Utilizing the concept of convenience as a business opportunity in emerging markets. *Organizations and Markets in Emerging Economies*. 6 (2), pp. 12.
- Szabo, M. (2013) Foodwork or Foodplay? Men's Domestic Cooking, Privilege and Leisure. *Sociology*. 47 (4), pp. 623–638. doi:10.1177/0038038512448562.
- Szmigin, I. and Foxall, G. (1998) Three forms of innovation resistance: the case of retail payment methods. *Technovation*. 18 (6–7), pp. 459–468. doi:10.1016/S0166-4972(98)00030-3.
- Takyi, A. and Gyaase, P.O. (2012) Enhancing Security of Online Payments: A Conceptual Model for a Robust E-Payment Protocol for E-Commerce. In: Vasil Khachidze, Tim Wang, Sohail Siddiqui, Vincent Liu, Sergio Cappuccio, and Alicia Lim (eds.). *Contemporary Research on E-business Technology and Strategy* Communications in Computer and Information Science [online]. 2012 (no place) Springer Berlin Heidelberg. pp. 232–239. Available from: http://link.springer.com/chapter/10.1007/978-3-642-34447-3_21 [Accessed 3 June 2015].
- Tam, R., Yassa, B., Parker, H., O'Connor, H. and Allman-Farinelli, M. (2017) University students' on-campus food purchasing behaviors, preferences, and opinions on food availability. *Nutrition*. 37 (Supplement C), pp. 7–13. doi:10.1016/j.nut.2016.07.007.
- Tan, G.W.-H., Ooi, K.-B., Chong, S.-C. and Hew, T.-S. (2014) NFC mobile credit card: The next frontier of mobile payment? *Telematics and Informatics*. 31 (2), pp. 292–307. doi:10.1016/j.tele.2013.06.002.
- Tanton, J., Dodd, L.J., Woodfield, L. and Mabhala, M. (2015) *Eating Behaviours of British University Students: A Cluster Analysis on a Neglected Issue*. Available from: <https://www.hindawi.com/journals/apm/2015/639239/doi:10.1155/2015/639239> [Accessed 30 April 2018].

- Tarute, A., Nikou, S. and Gatautis, R. (2017) Mobile application driven consumer engagement. *Telematics and Informatics*. 34 (4), pp. 145–156. doi:10.1016/j.tele.2017.01.006.
- Teagarden, M.B., Von Glinow, M.A., Bowen, D.E., Frayne, C.A., Nason, S., Huo, Y.P., Milliman, J., Arias, M.E., Butler, M.C., Geringer, J.M., Kim, N.-H., Scullion, H., Lowe, K.B. and Drost, E.A. (1995) Toward a Theory of Comparative Management Research: An Idiographic Case Study of the Best International Human Resources Management Project. *The Academy of Management Journal*. 38 (5), pp. 1261–1287. doi:10.2307/256857.
- Teece, D.J. (2010) Business Models, Business Strategy and Innovation. *Long Range Planning*. 43 (2–3), pp. 172–194. doi:10.1016/j.lrp.2009.07.003.
- Teo, A.-C., Tan, G.W.-H., Ooi, K.-B., Hew, T.-S. and Yew, K.-T. (2015) The effects of convenience and speed in m-payment. *Industrial Management & Data Systems*. 115 (2), pp. 311–331. doi:10.1108/IMDS-08-2014-0231.
- Teo, T.S.H. and Pok, S.H. (2003) Adoption of WAP-enabled mobile phones among Internet users. *Omega*. 31 (6), pp. 483–498. doi:10.1016/j.omega.2003.08.005.
- Tether, B.S. (1998) Small and large firms: sources of unequal innovations? *Research Policy*. 27 (7), pp. 725–745. doi:10.1016/S0048-7333(98)00079-1.
- Thakran, K. and Verma, R. (2013) The Emergence of Hybrid Online Distribution Channels in Travel, Tourism and Hospitality. *Cornell Hospitality Quarterly*. 54 (3), pp. 240–247. doi:10.1177/1938965513492107.
- Thakur, R. and Srivastava, M. (2014) Adoption readiness, personal innovativeness, perceived risk and usage intention across customer groups for mobile payment services in India. *Internet Research*. 24 (3), pp. 369–392. doi:10.1108/IntR-12-2012-0244.
- The Caterer (2014) *EY Restaurant and casual dining insight report*.
- The National Student (2015) *Student Eating Habits 2015* [online]. Available from: <http://www.bigchoicegroup.com/student-advertising/student-survey-results/student-eating-habits/>.
- The National Student (2016) *Youth Trends Survey 2016* [online]. Available from: <http://www.bigchoicegroup.com/student-advertising/student-survey-results/Youth-Marketing-Trends-2016/>.
- The Sodexo (2017) *International University Lifestyle Survey*.
- The Sodexo (2016) *Lifestyle survey*.
- The UK Cards Association (2015) *Card expenditure statistics February 2015* [online]. Available from: http://www.theukcardsassociation.org.uk/wm_functions/fnc_get_docume

nt.asp?DocumentID=342&Filename=February%202015%20Full%20Report(1).pdf.

- Brand Film: JUST EAT* (2015) [online]. Directed by Thinkbox. Available from: <https://www.thinkbox.tv/Case-studies/Brand-films/Just-Eat> [Accessed 9 May 2016].
- Thomsen, J. and Eikemo, T.A. (2010) Aspects of student housing satisfaction: a quantitative study. *Journal of Housing and the Built Environment*. 25 (3), pp. 273–293. doi:10.1007/s10901-010-9188-3.
- Thurber, C.A. and Walton, E.A. (2012) Homesickness and Adjustment in University Students. *Journal of American College Health*. 60 (5), pp. 415–419. doi:10.1080/07448481.2012.673520.
- Tidd, J. (2001) Innovation management in context: environment, organization and performance. *International Journal of Management Reviews*. 3 (3), pp. 169–183. doi:10.1111/1468-2370.00062.
- Timperio, A.F., Ball, K., Roberts, R., Andrianopoulos, N. and Crawford, D.A. (2009) Children’s takeaway and fast-food intakes: associations with the neighbourhood food environment. *Public Health Nutrition*. 12 (10), pp. 1960–1964. doi:10.1017/S1368980009004959.
- Torabi, S.A., Giahi, R. and Sahebjamnia, N. (2016) An enhanced risk assessment framework for business continuity management systems. *Safety Science*. 89 pp. 201–218. doi:10.1016/j.ssci.2016.06.015.
- Tran, D. and Marozzi, M. (2018) Online food delivery company facing legal action over ‘sham contracting’ [online]. *ABC News* 12 June. . Available from: <https://www.abc.net.au/news/2018-06-12/foodora-online-delivery-company-faces-legal-action-over-pay/9861178> [Accessed 27 May 2019].
- Tsai, K.-H. and Wang, J.-C. (2008) External technology acquisition and firm performance: A longitudinal study. *Journal of Business Venturing*. 23 (1), pp. 91–112. doi:10.1016/j.jbusvent.2005.07.002.
- Turban, E., King, D., Lee, J.K., Liang, T.-P. and Turban, D.C. (2015) Electronic Commerce Payment Systems. In: *Electronic Commerce Springer Texts in Business and Economics* [online]. (no place) Springer International Publishing. pp. 521–559. Available from: http://link.springer.com/chapter/10.1007/978-3-319-10091-3_11 [Accessed 12 May 2015].
- Turban, E., Outland, J., King, D., Lee, J.K., Liang, T.-P. and Turban, D.C. (2018) Mobile Commerce and the Internet of Things. In: *Electronic Commerce 2018 Springer Texts in Business and Economics* [online]. (no place) Springer, Cham. pp. 205–248. Available from: https://link.springer.com/chapter/10.1007/978-3-319-58715-8_6 doi:10.1007/978-3-319-58715-8_6 [Accessed 12 January 2018].

- Turner, G. (2018) Just Eat Shares Fall Most in 20 Months Over Delivery Investment [online]. *Bloomberg.com* 6 March. . Available from: <https://www.bloomberg.com/news/articles/2018-03-06/just-eat-shares-fall-most-in-20-months-over-delivery-investment> [Accessed 18 December 2018].
- UberEats (2016) *UberEATS homepage*. Available from: <https://ubereats.com/> [Accessed 16 August 2016].
- University of Exeter (2017) *Exeter*. Available from: <https://www.exeter.ac.uk/thesouthwest/exeter/> [Accessed 20 November 2017].
- Unnamed (1656) *Business Cycles: A Theoretical, Historical, and Statistical Analysis of the Capitalist Process. Vol 1-Vol 2*. Mansfield Centre, CT: Martino Publishing.
- Utterback, J.M. (1971) The Process of Technological Innovation Within the Firm. *Academy of Management Journal*. 14 (1), pp. 75–88. doi:10.2307/254712.
- Utterback, J.M. and Abernathy, W.J. (1975) A dynamic model of process and product innovation. *Omega*. 3 (6), pp. 639–656. doi:10.1016/0305-0483(75)90068-7.
- Vaismoradi, M., Turunen, H. and Bondas, T. (2013) Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing & Health Sciences*. 15 (3), pp. 398–405. doi:10.1111/nhs.12048.
- Van de Ven, A.H. (1991) The process of adopting innovations in organizations: Three cases of hospital innovations. *People and Technology in the Workplace*.
- Van der Heijden, H. (2003) Factors influencing the usage of websites: the case of a generic portal in The Netherlands. *Information & Management*. 40 (6), pp. 541–549. doi:10.1016/S0378-7206(02)00079-4.
- Vanhaverbeke, W., Roijackers, N., Lorenz, A. and Chesbrough, H. (2017) The Importance of Connecting Open Innovation to Strategy. In: *Strategy and Communication for Innovation* [online]. (no place) Springer, Cham. pp. 3–15. Available from: https://link.springer.com/chapter/10.1007/978-3-319-49542-2_1 doi:10.1007/978-3-319-49542-2_1 [Accessed 18 January 2018].
- Vaswani, R.W., Karishma (2019) Does your dinner come from a ‘dark kitchen’? [online]. *BBC News* 23 April. . Available from: <https://www.bbc.com/news/business-47978759> [Accessed 30 September 2019].
- Venkatesh, V. (2000) Determinants of Perceived Ease of Use: Integrating Control, Intrinsic Motivation, and Emotion into the Technology Acceptance

- Model. *Information Systems Research*. 11 (4), pp. 342–365. doi:10.1287/isre.11.4.342.11872.
- Venkatesh, V. and Bala, H. (2008) Technology Acceptance Model 3 and a Research Agenda on Interventions. *Decision Sciences*. 39 (2), pp. 273–315. doi:10.1111/j.1540-5915.2008.00192.x.
- Venkatesh, V. and Davis, F.D. (1996) A Model of the Antecedents of Perceived Ease of Use: Development and Test*. *Decision Sciences*. 27 (3), pp. 451–481. doi:10.1111/j.1540-5915.1996.tb00860.x.
- Venkatesh, V. and Davis, F.D. (2000) A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies. *Management Science*. 46 (2), pp. 186–204. doi:10.1287/mnsc.46.2.186.11926.
- Venkatesh, V., Morris, M.G., Davis, G.B. and Davis, F.D. (2003) User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly*. 27 (3), pp. 425–478.
- Verkasalo, H., López-Nicolás, C., Molina-Castillo, F.J. and Bouwman, H. (2010) Analysis of users and non-users of smartphone applications. *Telematics and Informatics*. 27 (3), pp. 242–255. doi:10.1016/j.tele.2009.11.001.
- Vila, N. and Kuster, I. (2011) Consumer feelings and behaviours towards well designed websites. *Information & Management*. 48 (4–5), pp. 166–177. doi:10.1016/j.im.2011.04.003.
- Volberda, H.W., Bosch, F.A.J.V.D. and Heij, C.V. (2013) Management Innovation: Management as Fertile Ground for Innovation. *European Management Review*. 10 (1), pp. 1–15. doi:10.1111/emre.12007.
- Vos, A., Marinagi, C., Trivellas, P., Eberhagen, N., Skourlas, C. and Giannakopoulos, G. (2014) Risk Reduction Strategies in Online Shopping: E-trust Perspective. *Procedia - Social and Behavioral Sciences*. 147 pp. 418–423. doi:10.1016/j.sbspro.2014.07.122.
- Walker, A. (2014) The world economy in 2014 [online]. *BBC News* 23 December. Available from: <http://www.bbc.co.uk/news/business-30400861> [Accessed 18 May 2017].
- Walker, R.H., Craig-Lees, M., Hecker, R. and Francis, H. (2002) Technology-enabled service delivery. *International Journal of Service Industry Management*. 13 (1), pp. 91–106. doi:10.1108/09564230210421173.
- Walker, R.M., Damanpour, F. and Devece, C.A. (2011) Management Innovation and Organizational Performance: The Mediating Effect of Performance Management. *Journal of Public Administration Research and Theory*. 21 (2), pp. 367–386. doi:10.1093/jopart/muq043.
- Walton, J.K. (1994) *Fish and Chips, and the British Working Class, 1870-1940*. (no place) A&C Black.

- Wang, D., Xiang, Z. and Fesenmaier, D.R. (2014) Smartphone Use in Everyday Life and Travel. *Journal of Travel Research*. pp. 0047287514535847. doi:10.1177/0047287514535847.
- Wang, L. and Yi, Y. (2012) The Impact of Use Context on Mobile Payment Acceptance: An Empirical Study in China. In: Anne Xie and Xiong Huang (eds.). *Advances in Computer Science and Education Advances in Intelligent and Soft Computing* [online]. (no place) Springer Berlin Heidelberg. pp. 293–299. Available from: http://link.springer.com/chapter/10.1007/978-3-642-27945-4_47 [Accessed 18 May 2015].
- Wang, M. and Li, X. (2017) Effects of the aesthetic design of icons on app downloads: evidence from an android market. *Electronic Commerce Research*. 17 (1), pp. 83–102. doi:10.1007/s10660-016-9245-4.
- Wang, X., Yu, C. and Wei, Y. (2012) Social Media Peer Communication and Impacts on Purchase Intentions: A Consumer Socialization Framework. *Journal of Interactive Marketing*. 26 (4), pp. 198–208. doi:10.1016/j.intmar.2011.11.004.
- Wansink, B., Cheney, M.M. and Chan, N. (2003) Exploring comfort food preferences across age and gender. *Physiology & Behavior*. 79 (4), pp. 739–747. doi:10.1016/S0031-9384(03)00203-8.
- Warde, A. and Martens, L. (1998) Eating out and the commercialisation of mental life. *British Food Journal*. 100 (3), pp. 147–153. doi:10.1108/00070709810207513.
- Watson, J.L. (2006) Transnational, Localization and Fast Foods in East Asia [in] Golden arches east: McDonald's in East Asia. In: James L. Watson (ed.). *Golden arches east: McDonald's in East Asia* [online]. Stanford, Calif: Stanford University Press. pp. 1–38. Available from: http://readinglists.exeter.ac.uk/ssis/Anthropology/ANT1006/ANT1006_11.pdf [Accessed 13 December 2016].
- Wauters, R. (2014) The online food ordering category in Europe is heating up fast [online]. *Tech.eu* 2 May. Available from: <http://tech.eu/features/1130/online-food-ordering-boom-europe/> [Accessed 16 September 2015].
- Weisberg, J., Te'eni, D. and Arman, L. (2011) Past purchase and intention to purchase in e-commerce: The mediation of social presence and trust. *Internet Research*. 21 (1), pp. 82–96. doi:10.1108/10662241111104893.
- Welch, N., McNaughton, S.A., Hunter, W., Hume, C. and Crawford, D. (2009) Is the perception of time pressure a barrier to healthy eating and physical activity among women? *Public Health Nutrition*. 12 (7), pp. 888–895. doi:10.1017/S1368980008003066.
- Wikipedia (2015) Category:Online food ordering *Wikipedia, the free encyclopedia* [online]. Available from:

https://en.wikipedia.org/w/index.php?title=Category:Online_food_ordering&oldid=648445204 [Accessed 28 July 2015].

- Williams, H. (2017) Just Eat has been given the green light to buy its food delivery rival [online]. *The Independent* 16 November. . Available from: <http://www.independent.co.uk/news/business/news/just-eat-hungryhouse-takeover-deal-buy-food-delivery-takeaways-cma-competition-markets-authority-a8057901.html> [Accessed 18 December 2018].
- Wilson, C.K., Matthews, J.I., Seabrook, J.A. and Dworatzek, P.D.N. (2017) Self-reported food skills of university students. *Appetite*. 108 pp. 270–276. doi:10.1016/j.appet.2016.10.011.
- Wisdom, J.P., Chor, K.H.B., Hoagwood, K.E. and Horwitz, S.M. (2014) Innovation Adoption: A Review of Theories and Constructs. *Administration and Policy in Mental Health and Mental Health Services Research*. 41 (4), pp. 480–502. doi:10.1007/s10488-013-0486-4.
- Wolfson, J.A., Bleich, S.N., Smith, K.C. and Frattaroli, S. (2016) What does cooking mean to you?: Perceptions of cooking and factors related to cooking behavior. *Appetite*. 97 pp. 146–154. doi:10.1016/j.appet.2015.11.030.
- Wong, K.K.-K. (2013) Partial least squares structural equation modeling (PLS-SEM) techniques using SmartPLS. *Marketing Bulletin*. 24 (1), pp. 1–32.
- Worldpay (2018) *Global Payments Report 2018*.
- Wrigley, C., Price, R.A. and Straker, K. (2015) Not just what they want, but why they want it: Traditional market research to deep customer insights. *Qualitative Market Research: An International Journal*. 18 (2), pp. 230–248. doi:10.1108/QMR-03-2014-0024.
- Wu, J.-H. and Wang, S.-C. (2005) What drives mobile commerce?: An empirical evaluation of the revised technology acceptance model. *Information & Management*. 42 (5), pp. 719–729. doi:10.1016/j.im.2004.07.001.
- Wu, J.-H., Wang, S.-C. and Lin, L.-M. (2007) Mobile computing acceptance factors in the healthcare industry: A structural equation model. *International Journal of Medical Informatics*. 76 (1), pp. 66–77. doi:10.1016/j.ijmedinf.2006.06.006.
- Yamanaka, K., Almanza, B.A., Nelson, D.C. and DeVaney, S.A. (2003) Older Americans' dining out preferences. *Journal of Foodservice Business Research*. 6 (1), pp. 87–103.
- Yan, A.W., Md-Nor, K., Abu-Shanab, E. and Sutanonpaiboon, J. (2009) Factors that affect mobile telephone users to use mobile payment solution. *International Journal of Economics and Management*. 3 (1), pp. 37–49.

- Yang, K.C.C. (2005) Exploring factors affecting the adoption of mobile commerce in Singapore. *Telematics and Informatics*. 22 (3), pp. 257–277. doi:10.1016/j.tele.2004.11.003.
- Yang, S., Lu, Y., Gupta, S., Cao, Y. and Zhang, R. (2012) Mobile payment services adoption across time: An empirical study of the effects of behavioral beliefs, social influences, and personal traits. *Computers in Human Behavior*. 28 (1), pp. 129–142. doi:10.1016/j.chb.2011.08.019.
- Yang, Y., Liu, Y., Li, H. and Yu, B. (2015) Understanding perceived risks in mobile payment acceptance. *Industrial Management & Data Systems*. 115 (2), pp. 253–269. doi:10.1108/IMDS-08-2014-0243.
- Yelp (2015) *About Us*. Available from: <http://www.yelp.co.uk/about> [Accessed 7 December 2015].
- Yeo, V.C.S., Goh, S.-K. and Rezaei, S. (2017) Consumer experiences, attitude and behavioral intention toward online food delivery (OFD) services. *Journal of Retailing and Consumer Services*. 35 pp. 150–162. doi:10.1016/j.jretconser.2016.12.013.
- Yin, R.K. (2003) *Case Study Research: Design and Methods*. (no place) SAGE.
- Young, J.A., Clark, P.W. and McIntyre, F.S. (2006) The Web as an E-Commerce Medium: An Exploratory Study of Consumer Perceptions in a Restaurant Setting. *Journal of Marketing Channels*. 14 (1–2), pp. 5–22. doi:10.1300/J049v14n01_02.
- Zellner, D.A., Loaiza, S., Gonzalez, Z., Pita, J., Morales, J., Pecora, D. and Wolf, A. (2006) Food selection changes under stress. *Physiology & Behavior*. 87 (4), pp. 789–793. doi:10.1016/j.physbeh.2006.01.014.
- Zendehdel, M., Paim, L. and Osman, S. (2015) Students' online purchasing behavior in Malaysia: Understanding online shopping attitude. *Cogent Business & Management* [online]. Available from: <http://dx.doi.org/10.1080/23311975.2015.1078428>.
- Zhang, Z., Ye, Q., Law, R. and Li, Y. (2010) The impact of e-word-of-mouth on the online popularity of restaurants: A comparison of consumer reviews and editor reviews. *International Journal of Hospitality Management*. 29 (4), pp. 694–700. doi:10.1016/j.ijhm.2010.02.002.
- Zhou, T. (2014a) An Empirical Examination of Initial Trust in Mobile Payment. *Wireless Personal Communications*. 77 (2), pp. 1519–1531.
- Zhou, T. (2011a) An empirical examination of the determinants of mobile purchase. *Personal and Ubiquitous Computing*. 17 (1), pp. 187–195. doi:10.1007/s00779-011-0485-y.
- Zhou, T. (2011b) The effect of initial trust on user adoption of mobile payment. *Information Development*. 27 (4), pp. 290–300.

- Zhou, T. (2013) Understanding continuance usage of mobile services. *International Journal of Mobile Communications*. 11 (1), pp. 56–70. doi:10.1504/IJMC.2013.050995.
- Zhou, T. (2014b) Understanding the determinants of mobile payment continuance usage. *Industrial Management & Data Systems*. 114 (6), pp. 936–948. doi:10.1108/IMDS-02-2014-0068.
- Zimmerman, F.J. and Shimoga, S.V. (2014) The effects of food advertising and cognitive load on food choices. *BMC Public Health*. 14 pp. 342. doi:10.1186/1471-2458-14-342.
- Zydney, J.M. and Warner, Z. (2016) Mobile apps for science learning: Review of research. *Computers & Education*. 94 pp. 1–17. doi:10.1016/j.compedu.2015.11.001.

APPENDICES

Appendix 1 VIDEO INTERVIEW'S TRANSCRIPT

	Timespan	Content
1	0:49.3 - 1:40.8	<p>Rik Moore: Just Eat launch in Denmark in 2001 and then they moved over here around 2006. As a country we just love takeaway, 25 million people every week. That a huge part of the culture, part of the British culture. The things are though, think about it there's always they little of tricky because we have to shout over the kitchen noise, we got to spell the first name out, we have to try give them direction to get across what you wanted. Never sure they heard you correctly. Menu is at your drawer are outdated and the offer are outdated. All sort of trouble. So, it's a bit stressful. So, the gaps in the market we saw is why not we do it all online and everything else is place online. Why don't order online. So, you go in and you see exactly what's open, the latest offer, exactly what the menu is, you take it and you make sure you know what you getting, you pay by credit card. You don't have the horrible things oh the delivery guys coming down the back of the sofa looking for your wallet you avoid all of that and so it seems a really simple solution. So, that where the business model first started.</p>
2	1:39.8 - 2:26.0	<p>Mat Braddy: So, Just Eat marketplace, we added aggregated 10 thousand of restaurants across Europe in the world into our app and our website. There's a lot of great choice. Hopefully the restaurant you like but also other restaurant you may not have heard of. We also unlike America, we don't tend to have many chains that deliver food. So, there's are real opportunities there to help those business out in building consumer brand in reaching more customer.</p> <p>We actually found the original business plan for Just Eat in a cupboard table Dave, it was written in 1999 in Denmark and it said on page one, we going to build coverage and then we going to build a brand. So, it's kind of been there since the founder of the company wrote that original document that we would use branding to drive auditions to the supplier restaurant that we got.</p>
3	2:24.4 - 3:11.5	<p>Rik Moore: So, we have three strong strategy: first things we thought about they are having a leadership though. We give something people a reason to come to us and let they jump to us and just at least listen to what we have to say. That was really important.</p> <p>Next one, invest more money. The idea being the restaurant see us big, consumer see us big. We will become big. So, it is bit to invest in the brand and all sort of speculate to immaculate approach if you will.</p> <p>And then for the third one point, is to be everywhere and people talk about seeing the scooter on the road and then we moved that out into doing taxis and doing buses. This is idea just surrounding you with our message but in the heart of that is the tv. The tv links all that together really drives fame and really drives the brand idea. And that's why we saw that as a great opportunity to go from being a little brand to much bigger brand. We can harness the power that tv has making it famous.</p>
4	3:13.8 - 3:38.0	<p>Mat Braddy: Hmm... First thing how we came up with the brand isn't in marketing. We came up with the brand across culture team, across the business. So, we'll get people from sales office, even finance people and we spend four or five days together to work out who we are as company these days. And that's become the brief for our campaign.</p>

5	3:38.0 - 4:05.1	Rik Moore: For us, the key benchmark was always Dominos. If you look at the creators of being a challenge brand. One thing is being overcommitted and i think in our first bout creative we really did that. Hmm... Working with Hooper golden a creative agency we came up with a really lovely ads that call 'Belly and Brain'. We have things like arms getting off and eyeballs falling out. Things being incinerated, things being chopped. So, It was pretty violent
6	4:05.1 - 4:19.6	Mat Braddy: They kind of more itchy and scratchy than they are Tom and Jerry. But that was deliberated so we were really appealing to kind of peep show days viewers really. Rather than trying to appeal to children.
7	4:20.6 - 4:40.0	Rik Moore: Most takeaway restaurant would open 4.00, 4.30 in the afternoon. So, there's no point really advertising before then. So, that the start points from the evening all away through to midnight. It obviously when the restaurants are close, so that there's a window being open, lets push it during then. That's what our theory and also looking at all the volume at the side, it became very clear that's Thursday through Sunday we were really important days.
8	4:40.9 - 5:10.1	Mat Braddy: So yeah, we started on TV in 2009. Our first campaign, we did a test to prove to our board that TV could be a driver for our business. The first test we did, was we just bought the North the Granados region of the country and though we didn't buy TV in another region. We split test then, what we sort of in terms of order we saw the growth in North versus the growth in other places. We were able to extract place what would happen if we did TV nationwide.
9	5:10.1 - 5:44.9	Rik Moore: So, then we moved through to right... If that works how can we roll out nationally. Now, the budget distressed nationally would be a bit strong. So, we did, we invest in multi channels. Its works really really well. Everything seen we learn in the regional test was translating nationally, with that growth that give us a lot of confident that TV was the right way to go. Take us to 2011, we could then start making a case of additional budget, start cherry picking a few key terrestrial spots over the top of that multi-channel works and that paved the way through to that 2012 when we start. Right, it might be time to move away from Belly and brain, they done very well for us.
10	5:44.9 - 6:09.1	Mat Braddy: Its very very fantastic for us. Really great advert, but there was a problem. Social media took off, Facebook arrived... all this Twitter arrived, all this channel where we need to talk as a brand to public more and more which we didn't have in the first couple of years. And the problem with Belly and Brain was they were mute! They didn't speak and there were very expensive because we have to render them expensive animation studio every time, we want to do anything.
11	6:09.1 - 6:20.2	Rik Moore: So, the next challenge was how can we step this on and how can moved this on, and how can we create so is really about us that could only be ever us that we own. That's the next step of the journey as we try to define that.
12	6:20.7 - 6:59.5	Mat Braddy: So, we really got serious about developing a challenger of brand strategy at this point. So, kept the spirit and we mischief and that let us think, we a bit rebellious as a brand. Well, if you gonna rebel and you for food being delivered. And then you must be against cooking, so that a bit naughty this a period when Jamie Oliver was all over the Tv, Gordon Ramsay all over the TV. All the supermarket is full of cookbook for establish chef at Christmas. Hmm... wow this is quite interesting. What if you really move on towards that, overcommitted towards that idea and we try to ban cooking. That what led us to don't cook just eat.

13	7:02.4 - 8:09.1	<p>Rik Moore: So, things about having a big idea a big flexible idea of don't cook just eat where could we go with it. So, the first things were the TV ads, which we cast to do this idea of chefs, these ideas of renegade chefs unhappy that people were still cooking, so they go out and stop them cooking. Led by Mr. Mozzarella with the big moustache, big cooking hat.</p> <p>Very reservoir dodge, to breaking people house to stop them from cooking. And then there were a short one, where they in a forest having a rave with giant Fargo style woodchipper, chopping up celebrity cookbook and other things they were using trolley to make barricade, to stop people cooking. So, those are really fun ads.</p>
14	8:10.2 - 9:56.9	<p>Mat Braddy: Then, that lets you to all sort of brilliant creative idea. SO, we have our great adverts with our chef in it who trying to stop people cooking. How we going to play with this great character, really burst through into the conscious of British public. So, we took a nighty second spot on Ant & Dec's Saturday Night Takeaway and we had one of those brand moments where we kidnap Antony Worrall Thompson as he was walking down on the street live on TV. And then we amplified that by holding him hostage in a warehouse in East London. And then everyday British public could teach him the era of his ways, by slapping him with fish, throwing food at him whatever. You seeing all in our online microsite. And then the following weekend, we took another big spot on the Ant & Dec show and he been miraculously converted to the course of ban of cooking as well, and that was kind of the end of story.</p>
15	9:55.8 - 10:07.4	<p>Rik Moore: For us, being a challenger brand and have the powerful story allowed us to do things that go ways beyond TV. The others things we became famous for in that periods are because we actually ran for a government.</p>
16	10:07.5 - 10:14.3	<p>Mat Braddy: We actually funded the political party, don't cook party and then we stood in the core and we buy election which in November 2012.</p>
17	10:14.3 - 10:52.0	<p>Rik Moore: So, the actor guy from our advert manfully change his name by deploy, so his first name is Mr and his surname is Mozzarella, which is the character in the advert. And he even had a jetpack, flew around Corby on it to over committing to running an election, how we gonna stand out in Corby.... That flying around Corby on a jetpack obviously. Tv was a really big part of it, by giving us so much more in term of talking to the public socialising with the public than social media. Our advert being kidnap connected with social media, we started to really become two screen brands.</p>
18	10:52.0 - 12:38.6	<p>Mat Braddy: The best things, the best slash worst things 73 people use they actual vote to vote for us. That is terrifying that they would go out there and I can vote for somebody, I'm gonna vote for them. So, another idea we have flexible would been was how good is that producing is on the key time and kept people engaging with us, and thinking about what the brand stood for us to reverend and its almost cheekiness, we trying to think about media of properties that match that, media properties that fit that, and one that maybe was Dave. Dave remind us of home to witty hunter. Absolutely perfect fit and type of program they have was the kind of things that we think people would be sort veg out and watch while having takeaway and it was perfect. So, hangover content in some way plus there some really good banker show is in there, you got things like man vs food where again being takeaway brand around and that sort of content are nominal. So, the whole feel of that challenge is absolutely right. We took the weekend strength which meant we had bumpy ride and its running from afternoon, midday from Saturday to midnight, 1.00pm on Sunday to 11pm. Which is a phenomenal, if you get a 10 second bumper, that's a phenomenal amount of time every weekend. And we got that every weekend it lives around for 22 months by the end of this year. Which is a phenomenal amount of getting to people house, and getting them to talk about it. It's a great way bringing the chef character to life. The things we see it phenomenal, so that works out really well. So, it's a great way of underpinning the biggest thumping stuff food on Tv and all the stuff we were doing on the</p>

		restaurant. So, it's another way of doing we always on present, to make sure we are always relevant and there in front of people. At this point is that it coming on the take me out on ITV it coming out as a sponsorship.
19	12:38.6 - 12:56.0	Rik Moore: So, the opportunities to get involve in the perfect hour it was irresistible and then the show itself, the tone of the show, the reference of the show, the cheekiness to the show perfect brand fit again.
20	12:56.8 - 14:13.5	Mat Braddy: It allow us to talk to women far more than we had before. BUt Belly and brain, chefs quite boisterous that gave us a chance to chat not woman excluding man, but certainly more balance. Because trust me, if you watch 'Take me Out' amount of bloke watching were incredible. So, it's definitely a way to speak to both gender in a nice and balance way without excusing anything that was really interesting. So, the phrase we came out with hashtag once I fancy it, which is all about people talk about what they fancy of food, and what I fancy in terms of romance and love. You can see that what we license to be cheeky, it's we hired real customer and we sat them on a sofa put a lot of takeaway in front of them, and just got them prompt them with questions, get them talking about things around relationship and things around foods. We gave them the opportunities to own Saturday's night. So, we found those 22500 people were using the hashtag were amazing. Most staggering things was it actually grew on social media by over 26% just by being on the show, be able to talk about all the stuff. Not only was it giving the territory of being on Saturday's night, it was getting into international discourse on Saturday's night on social media platform and by doing that it was making people warmer to us, and growing us on social media and it was really really important.
21	14:13.6 - 14:58.1	Rik Moore: The area was fantastic, the key result, the key kpi for me is spontaneous brand awareness. Our is the first things that came out when we say takeaway delivery. and at the start of the campaign I believe Dominos were 100% ahead of us, they were miles ahead, we were like 20% and they were like 40%. By the end of the campaign that it almost reverse, we were the first thing that 45% the public were saying would come out from their mouth, and Dominos were back coming out at 30%. There are a chriscross between the old guard, let alone Just Eat and that was fantastic because in that same period we spend less than half what they spend on their money marketing budget.
22	14:57.3 - 15:12.6	Mat Braddy: Great things about Just Eat, each day is been a test and learn and move on and evolve and start working with Brad Broddy and Reverend Rodd what we doing with them is we establish this idea that we really care about those little moment in life, those little rewards.
23	15:11.7 - 15:39.7	Rik Moore: We realised was that the decision, all the decision to have a takeaway tonight is really a small decision in your life. It's made you feel, stupidly happy. have you ever had takeaway tonight, like yes! We realised yeah, it's like a small victory daily grind, that is really interesting playground and if you expand from there really there's a lot of victory that we have in our day to day life, some given to us, some would be prayer for our self.
24	15:39.9 - 16:22.4	Mat Braddy: So, we came up with the with mini fist pump is about the three inch move of our hand, it's a mini fist pump. Our strategy now is trying to make the mini fist pump famous as possible, we will take it out there, so that campaign alone. The last five year of being utterly transformational, TV allow us to set out what the brand what it wants us to do. and it allow us to give us a tonne of voice, opinion, allow us to educate about what the offering was and it also gave customer a brand they can believe in, and it gave restaurant a brand that they can believe in so there a lot of buying into it. As that a ball with don't cook just eat is a big playful brand territory, really engage, really excited.

25	16:22.6 - 16:45.6	Rik Moore: It's been a 10 years overnight success, to become multibillion.com that talks about all around the world. I think its nature of tv that everyone thinks it's just arrived cause the tv budget was getting to a point where everyone noticing, but it's taking a long of time and its very interesting tell along the ways.
26	16:45.7 - 17:20.5	Mat Braddy: For every level, there has been a lovely test and learn, test and learn and take the best bit involve and move it on. That alliance to climb to up with our interest in doing work compare to not taking risk but looking to every option and do diligence, so I'll actually know this is interesting, let's take this through, it is a true collaboration and I think that get miss too many times in this industry. I think if people all working together for the same goal, the result should get absolutely phenomenal, it this campaign a

Appendix 2 JUST EAT'S INCOME STATEMENT

Income statement									
	2017	2016	2015	2014	2013	2012	2011	2010	2009
Revenue	£546,300,000	£375,700,000	£247,600,000	£157,000,000	£96,800,000	£59,770,000	£33,765,000	£18,825,690	£9,616,068
COGS	-£96,000,000	-£35,200,000	-£24,200,000	-£16,100,000	-£10,000,000	-£5,062,000	-£3,156,000	-£2,257,302	-£1,164,274
Gross profit	£450,300,000	£340,500,000	£223,400,000	£140,900,000	£86,800,000	£54,708,000	£30,609,000	£16,568,388	£8,451,794
Long-term employee incentive costs	-£6,600,000	-£3,100,000	-£2,900,000	-£4,900,000	-£1,700,000	-£1,624,000	-£231,000	-£722,592	
Exceptional items	-£191,100,000	-£14,600,000	-£6,600,000	-£2,700,000	-£1,000,000	-£7,547,000	-£450,000		
Other administrative expenses	-£324,500,000	-£250,200,000	-£176,200,000	-£113,500,000	-£77,300,000	-£54,679,000	-£31,428,000	-£17,396,367	-£9,517,278
Total administrative expense	-£522,200,000	-£267,900,000	-£185,700,000	-£121,100,000	-£80,000,000	-£63,850,000	-£32,109,000	-£18,118,959	-£9,517,278
Share of results of associates and JV	-£600,000	-£100,000	-£2,200,000	-£800,000		-£521,000	-£257,000		
Operating loss/profit	£72,500,000	£72,500,000	£35,500,000	£19,000,000	£6,800,000	-£9,663,000	-£1,757,000	-£1,550,571	-£1,065,484
Gain on disposal of Benelux	-	£18,700,000	-	-	-	-	-	-	-
Other net (losses)/gains	-£2,000,000	£100,000	-£700,000	£38,200,000	£3,400,000	£6,946,000		£42,077	-£226,124
Finance income	£700,000	£600,000	£400,000	£400,000	£200,000	£206,000	£99,000	£9,824	£7,346
Finance costs	-£2,200,000	-£600,000	-£600,000	-£200,000	-£200,000	-£117,000	-£74,000	-£82,176	-£145,807
Loss/profit before taxes	-£76,000,000	£91,300,000	£34,600,000	£57,400,000	£10,200,000	-£2,628,000	-£1,732,000	-£1,580,846	-£1,430,069
Income taxes	-£27,500,000	-£19,900,000	-£11,600,000	-£5,600,000	-£3,400,000	-£1,877,000	£497,000	-£52,403	-£642,310
Profit/ Loss for the year	-£103,500,000	£71,400,000	£23,000,000	£51,800,000	£6,800,000	-£4,505,000	-£1,235,000	-£1,633,249	-£2,072,379

Appendix 3 VERTICAL ANALYSIS - JUST EAT'S INCOME STATEMENT

	2017	2016	2015	2014	2013	2012	2011	2010	2009
Revenue	100.0%	100.0%	100%	100%	100%	100%	100%	100%	100%
COGS	-17.6%	-9.4%	-9.8%	-10.3%	-10.3%	-8.5%	-9.3%	-12.0%	-12.1%
Gross profit	82.4%	90.6%	90.2%	89.7%	89.7%	91.5%	90.7%	88.0%	87.9%
Long-term employee incentive costs	-1.2%	-0.8%	-1.2%	-3.1%	-1.8%	-2.7%	-0.7%	-3.8%	0.0%
Exceptional items	-35.0%	-3.9%	-2.7%	-1.7%	-1.0%	-12.6%	-1.3%	0.0%	0.0%
Other administrative expenses	-59.4%	-66.6%	-71.2%	-72.3%	-79.9%	-91.5%	-93.1%	-92.4%	-99.0%
Total administrative expense	-95.6%	-71.3%	-75.0%	-77.1%	-82.6%	-106.8%	-95.1%	-96.2%	-99.0%
Share of results of associates and JV	-0.1%	0.0%	-0.9%	-0.5%	0.0%	-0.9%	-0.8%	0.0%	0.0%
Operating loss/profit	13.3%	19.3%	14.3%	12.1%	7.0%	-16.2%	-5.2%	-8.2%	-11.1%
Gain on disposal of Benelux	-	4.98%	-	-	-	-	-	-	-
Other net (losses)/gains	-0.37%	0.03%	-0.28%	24.33%	3.51%	11.62%	0.00%	0.22%	-2.35%
Finance income	0.13%	0.16%	0.16%	0.25%	0.21%	0.34%	0.29%	0.05%	0.08%
Finance costs	-0.40%	-0.16%	-0.24%	-0.13%	-0.21%	-0.20%	-0.22%	-0.44%	-1.52%
Loss/profit before taxes	-13.9%	24.3%	14.0%	36.6%	10.5%	-4.4%	-5.1%	-8.4%	-14.9%
Income taxes	-5.0%	-5.3%	-4.7%	-3.6%	-3.5%	-3.1%	1.5%	-0.3%	-6.7%
Profit/ Loss for the year	-18.9%	19.0%	9.3%	33.0%	7.0%	-7.5%	-3.7%	-8.7%	-21.6%

Appendix 4 HORIZONTAL ANALYSIS - JUST EAT'S INCOME STATEMENT

	2017-16	2016-15	2015-14	2014-13	2013-12	2012-11	2011-10	2010-09
Revenue	45%	52%	58%	62%	62%	77%	79%	196%
COGS	173%	45%	50%	61%	98%	60%	40%	194%
Gross profit	32%	52%	59%	62%	59%	79%	85%	196%
Long-term employee incentive costs	113%	7%	-41%	188%	5%	603%	-68%	
Exceptional items	1209%	121%	144%	170%	-87%	1577%		
Other administrative expenses	30%	42%	55%	47%	41%	74%	81%	183%
Total administrative expense	95%	44%	53%	51%	25%	99%	77%	190%
Share of results of associates and JV	500%	-95%	175%		-100%	103%		
Operating loss/profit	0%	104%	87%	179%	-170%	450%	13%	146%
Gain on disposal of Benelux								
Other net (losses)/gains	-2100%	-114%	-102%	1024%	-51%		-100%	-19%
Finance income	17%	50%	0%	100%	-3%	108%	908%	134%
Finance costs	267%	0%	200%	0%	71%	58%	-10%	56%
Loss/profit before taxes	-183%	164%	-40%	463%	-488%	52%	10%	111%
Income taxes	38%	72%	107%	65%	81%	-478%	-1048%	8%
Profit/ Loss for the year	-245%	210%	-56%	662%	-251%	265%	-24%	79%

Appendix 5 JUST EAT'S BALANCE SHEET

Balance sheet									
	2016	2016	2015	2014	2013	2012	2011	2010	2009
Non-current asset	£722,100,000	£889,200,000	£561,500,000	£86,800,000	£27,830,000	£23,251,000	£23,973,000	£4,655,238	£3,534,927
Current assets	£292,500,000	£159,200,000	£204,700,000	£176,800,000	£66,500,000	£54,953,000	£10,332,000	£7,551,947	£5,751,295
Total assets	£1,014,600,000	£1,048,400,000	£766,200,000	£263,600,000	£94,300,000	£78,204,000	£34,305,000	£12,207,185	£9,286,222
Current liabilities	-£248,500,000	-£151,900,000	-£109,400,000	-£65,600,000	-£38,500,000	-£29,744,000	-£13,378,000	£9,838,620	£5,851,977
Net current asset	£4,400,000	£7,300,000	£95,300,000	£111,200,000	£2,800,000	£25,209,000	-£3,046,000	-£2,286,673	-£100,682
Non-current liabilities	-£39,500,000	-£70,800,000	£30,900,000	£14,200,000	-£2,200,000	-£1,990,000	-£2,756,000	£778,023	£652,255
Total liabilities	-£288,000,000	-£222,700,000	-£140,300,000	-£79,800,000	-£40,700,000	-£31,734,000	-£16,134,000	£10,616,643	£6,504,232
Net assets	£726,600,000	£825,700,000	£625,900,000	£183,800,000	£53,600,000	£46,470,000	£18,171,000	£1,590,542	£2,781,990
Share capital and share premium	£56,950,000	£56,900,000	£562,300,000	£126,200,000	£55,800,000	£55,822,000	£19,499,000	£4,680,869	£4,680,827
Other reserves	£83,100,000	£88,300,000	-£17,400,000	-£6,300,000	£1,300,000	£1,477,000	£5,414,000	£2,103,611	£1,855,416
Retained earning	£65,900,000	£160,700,000	£80,600,000	£63,100,000	-£3,900,000	-£10,476,000	-£6,899,000	-£5,038,648	-£3,686,182
Equity attributable to owners of the company	£71,850,000	£81,800,000	£625,500,000	£183,000,000	£53,200,000	£46,823,000	£18,014,000	£1,745,832	£2,850,061
Non-controlling interest	£8,200,000	£7,700,000	£400,000	£800,000	£400,000	-£353,000	£157,000	-£155,290	-£68,071
Total equity	£726,700,000	£825,700,000	£625,900,000	£183,800,000	£53,600,000	£46,470,000	£18,171,000	£1,590,542	£2,781,990

Appendix 6 VERTICAL ANALYSIS - JUST EAT'S BALANCE SHEET

Balance sheet									
	2017	2016	2015	2014	2013	2012	2011	2010	2009
Total non-current liabilities	-3.9%	-6.8%	-4.0%	-5.4%	-2.3%	-2.5%	-8.0%	-6.4%	-7.0%
Total current liabilities	-24.5%	-14.5%	-14.3%	-24.9%	-40.8%	-38.0%	-39.0%	-80.6%	-63.0%
Total liabilities	-28.4%	-21.2%	-18.3%	-30.3%	-43.2%	-40.6%	-47.0%	-87.0%	-70.0%
Total equity	71.6%	78.8%	81.7%	69.7%	56.8%	59.4%	53.0%	13.0%	30.0%
Total equity and liabilities	100%	100%	100%	100%	100%	100%	100%	100%	100%
Total non-current assets	71.2%	84.8%	73.3%	32.9%	29.5%	29.7%	69.9%	38.1%	38.1%
Total current assets	28.8%	15.2%	26.7%	67.1%	70.5%	70.3%	30.1%	61.9%	61.9%
Total assets	100%	100%	100%	100%	100%	100%	100%	100%	100%

Appendix 7 HORIZONTAL ANALYSIS - JUST EAT'S BALANCE SHEET

	2017-16	2016-15	2015-14	2014-13	2013-2012	2012-11	2011-10	2010-09
Non-current asset	-19%	58%	547%	212%	20%	-3%	415%	32%
Current assets	84%	-22%	16%	166%	21%	432%	37%	31%
Total assets	-3%	37%	191%	179%	21%	128%	181%	31%
Current liabilities	64%	39%	67%	70%	29%	122%	-236%	68%
Net current asset	503%	-92%	-14%	297%	-89%	-928%	33%	2171%
Non-current liabilities	-44%	-329%	118%	545%	11%	-28%	-454%	19%
Total liabilities	29%	59%	76%	96%	28%	97%	-252%	63%
Net assets	-12%	32%	241%	243%	15%	156%	1042%	-43%
Share capital and share premium	1%	-90%	346%	116%	0%	186%	317%	0%
Other reserves	-19%	-607%	176%	-585%	-12%	-73%	157%	13%
Retained earning	-59%	99%	28%	-1718%	-63%	52%	37%	37%
Equity attributable to owners of the company	-12%	-87%	242%	244%	14%	160%	932%	-39%
Non-controlling interest	6%	1825%	-50%	100%	-213%	-325%	-201%	128%
Total equity	-12%	32%	241%	243%	15%	156%	1042%	-43%

Appendix 8 JUST EAT'S REVENUE BY MARKETS

	2017 ('000)	2016 ('000)	2015 ('000)	2014 ('000)	2013 ('000)	2012 ('000)	2011 ('000)
Net revenues							
United Kingdom	£ 304,100	£ 238,300	£ 171,200	£ 115,100	£ 69,920	£ 42,140	£ 21,797
Inter-segment sales	-£ 300	-£ 1,200	-£ 1,600	-£ 1,000	-£ 1,105	-£ 1,034	-£ 404
	£ 303,800	£ 237,100	£ 169,600	£ 114,100	£ 68,815	£ 41,106	£ 21,393
Denmark				£ 12,800	£ 11,541	£ 9,969	£ 8,832
Other				£ 29,800	£ 16,257	£ 8,695	£ 3,540
Australia & New Zealand (from 15 June 2015)	£ 49,800	£ 36,800	£ 12,400				
Established Markets	£ 148,300	£ 75,500	£ 55,800				
Developing Markets	£ 44,400	£ 26,200	£ 9,500				
Total segment revenues	£ 546,300	£ 375,600	£ 247,300	£ 156,700	£ 96,613	£ 59,770	£ 33,765
Head Office	£ 3,300	£ 2,800	£ 300	£ 300	£ 140		
less head office inter-segment sales	-£ 3,300	-£ 2,700					
Total revenues	£546,300	£ 375,700	£ 247,600	£ 157,000	£ 96,753	£ 59,770	£ 33,765

Appendix 9 HORIZONTAL ANALYSIS - JUST EAT'S REVENUE BY MARKETS

	2017-16	2016-15	2015-14	2014-13	2013-12	2012-11
Net revenues						
United Kingdom	28%	39%	49%	65%	66%	93%
Inter-segment sales	-75%	-25%	60%	-10%	7%	156%
	28%	40%	49%	66%	67%	92%
Denmark				11%	16%	13%
Other				83%	87%	146%
Australia & New Zealand (from 15 June 2015)	35%	197%				
Established Markets	96%	35%				
Developing Markets	69%	176%				
Total segment revenues	45%	52%	58%	62%	62%	77%
Head Office	18%	833%	0%	114%		
less head office inter-segment sales	22%					
Total revenues	45%	52%	58%	62%	62%	77%

Appendix 10 JUST EAT'S CASH FLOW STATEMENT

	Year ended 31 December 2017	Year ended 31 December 2016	Year ended 31 December 2015	Year ended 31 December 2014	Year ended 31 December 2013	Year ended 31 December 2012	Year ended 31 December 2011	Year ended 31 December 2010	Year ended 31 December 2009
	£m	£m	£m	£m	£m	£m	£m	£m	£m
Net cash inflow from operating activities	166.7	97	74.2	38.1	19.2	10.1	4.9	1	0.02
Investing activities									
Interest received	0.7	0.6	0.4	0.4	0.2	0.2	0.01	0.009	0.007
Cash outflow on acquisition of businesses	-0.4	-154.7	-448.4	-8.8	-3.7	-5	-3.1	—	—
Hungryhouse acquisition deposit	-	-6	—	—	—	—	—	—	—
Cash inflow on disposal of Benelux businesses		14.6	—	—	—	—	—	—	—
Cash inflow on disposal of Hellofood Brazil		2.1	—	—	—	—	—	—	—
Cash inflow on sale of minority stake in Mexican business	1.2	9.3	—	—	—	—	—	—	—
Cash inflow on sale of OnlinePizza Norden AB		—	—	—	—	6.4	—	—	—
Cash inflow on disposal of investment in associates		—	3.1	—	—	—	—	0.02	—
Cash outflow on investment of OnlinePizza Norden AB		—	—	—	—	—	-1.6	—	—
Cash outflow on acquisition of interests in associates and joint venture	-2.6	-7.2	-3.4	-4.4	—	-0.3	-7.1	—	—
Disposal on subsidiaries	3.6	—	—	—	—	—	—	—	-0.2
Increase investment on OnlinePizza Norden AB		—	—	—	—	—	—	-0.05	—
Funding provided by minority interests	1.4	0.5	—	—	—	—	—	—	—
Funding provided to associates	-0.8	-2.1	-2.5	-0.1	-0.2	-0.5	-0.6	—	—
Purchases of investments		-3.5	—	—	—	—	—	—	—
Purchases of property, plant and equipment	-14.6	-9.5	-5.8	-5.4	-3.3	-3.8	-2.1	-1.6	-1
Purchases of intangible assets	-24	-11.7	-4.8	-1	-0.7	—	—	—	-0.07
Cash outflow on financial instruments		—	-3.9	—	—	—	—	—	—
Other cash outflows	0.2	0.1	-0.2	—	—	—	—	—	—
Net cash used in investing activities	-37.5	-167.5	-465.5	-19.3	-7.7	-3.1	-14.6	-1.6	-1.4
Financing activities									
Net IPO proceeds		—	—	95.7	—	—	—	—	—
Net proceeds from placing and open offer		—	435.6	—	—	—	—	—	—
JSOP subscription proceeds		—	—	5.3	—	—	—	—	—
Proceeds arising on exercise of options an award	3.1	2.4	0.5	—	—	—	—	—	—
Proceeds from sale of shares by the employee benefit trust		—	0.6	1.1	—	—	—	—	—
Cash outflow of the acquisition of minority interest		-0.1	-11.3	—	—	—	—	—	—

Dividend paid (net of dividends received by the employee benefit trust)	—	—	-18.1	—	—	—	—	—	—
Net proceeds on issue shares	-0.4	—	—	—	—	35.2	14.8	—	4.6
Movement on borrowings	—	-0.3	0.2	—	—	-0.5	-1	1	—
Movement on overdraft	—	—	—	—	—	-0.09	-1	0.5	-1.1
Net cash from financing activities	2.3	425.1	84.2	—	—	35.2	12.6	1.6	3.4
Net (decrease)/increase in cash and cash equivalents	2.7	-68.2	33.8	103	11.5	42.1	3	1	2
Net cash and cash equivalents at beginning of year	133.7	192.7	164.1	61.6	50	7.9	4.9	4.2	2.2
Effect of changes in foreign exchange rates	130.6	6.1	-5.2	-0.5	0.1	0.04	0.05	0.2	0.1
Net cash and cash equivalents at end of year	0.8	130.6	192.7	164.6	61.6	50	7.9	5	4.3

Appendix 11 SUPPLIER'S INTERVIEW QUESTIONS

INTERVIEW SCHEDULE – ONLINE TAKEAWAY FOOD ORDERING: THE GROWTH AND ACCEPTANCE OF MOBILE APPS

Script and interview schedule for interviews:

Thank you for agreeing to take part in this project. I'm Nurul S. Hishamuddin, a doctoral student from University of Exeter, Department of Management. The aim of this interview is to explore the growth and operating characteristics of Just Eat as an organisation that operates a mobile app for the online takeaway food ordering sector in UK. The purpose of the interview is to gain some knowledge and information regarding Just Eat in relation to the business operation, technology innovation in Just Eat and the consumer technology acceptance.

Your response is voluntary and all responses will be treated in strict confidence for research purposes only. It will not be used in a manner which would allow identification of your individual responses. You are free to withdraw your consent and to discontinue your participation in the project at any time without the need for explanation.

If you have any questions about this research, you can ask me at any time during our interview.

Introduction

1. Could you please explain your role within this business?
2. What was your career background before your current role?

Information about Just Eat.

3. To start off with, please give us some background on Just Eat and what the company has been up to recently.
4. How has the growth in popularity of Just Eat impacted traditional retail models?
5. How have you been able to penetrate the market in the UK?
6. Do you think this business is distinctive from other types of business
7. Do you think this business is distinctive from other types of food and beverage businesses?
8. Let's talk about your competitors, among them are Hungryhouse and Takeaway. Deliveroo is also the newcomer in the online takeaway food ordering. How Just Eat different from them?
9. I understand that Just Eat is very active in the acquisition of small/micro online takeaway food ordering companies. Is that one of Just Eat objectives?
10. How has the consumer demand for online takeaway food ordering changed in recent times?
11. How about the demand from the participating restaurants? Are they responding well?
12. **Do you have any specific target markets? Consumer? Participating restaurant?**
13. Let's talk about the mobile app. Why did Just Eat decide to develop a mobile app?
14. In your opinion, how have consumers reacted/ responded to this new innovation?
15. Could you please describe your main consumer demographic market segments?
16. Are there any differences in the characteristics of consumers who order using the desktop/laptop and the apps? Why do you think is happen? (e.g types of users – male/female, age groups, etc.)
17. Could you say when the busiest operation time for the Just Eat app is? E.g during special occasion, daily times of the day, particular days – any mapping to particular events (sport on TV) or weather?
18. We've been talking about user of the Just Eat app. How about the non-users? How much do you know about them? How do you try to influence them to use Just Eat app?
19. Is TV advertising a big part of that? Other forms of traditional advertising?
20. Have online reviews impacted consumer use in any way? What are the main challenges for Just Eat to retain customers?
21. Generally speaking, are consumer/ participating restaurants satisfied with the services provided by Just Eat?
22. Lastly, how do you see the future business growth of Just Eat? And...Mobile food ordering apps?

Information about Just Eat's Innovation.

23. First, let's talk about the business operation/ model of Just Eat. How has the growth in popularity of Just Eat impacted traditional retail models?
24. Do you think this business is distinctive from other types of business?
25. Do you think this business is distinctive from other types of food and beverage businesses

26. Now let's talk about innovation. How do you define innovation and why is it important to Just Eat?

27. Does your business follow a particular model of innovation?
28. Could you tell me some examples of innovation that have been introduced and utilised in your business, whether it is in the past or will be used in the future.
29. What was the outcome of each of these innovations?
30. **Has mobile technology become a key part of driving greater productivity for Just Eat?**
31. Let's talk about the mobile app. Why did Just Eat decide to develop a mobile app?
32. In your opinion, how have consumers reacted/ responded to this new innovation?
33. Could you provide the percentage of users that used internet browser and app for Just Eat.
34. As far as you know, are there any differences in the characteristics of consumers who order using desktop/laptop and the mobile apps? Why do you think is the case? (E.g types of users – male/female, age groups, etc.)
35. What are the processes Just Eat has been going through to ensure the innovation is being followed successfully?
36. Do you think the innovations used in your business are different from your competitors or are they easily imitated?
37. We've been talking about Just Eat Innovation. How about the non-user? How do you try to influence them to use Just Eat technology?
38. Could you say when the busiest operation time for the Just Eat app is?
39. What are the steps have been done to ensure the Just Eat app works effectively during the busy time?
40. Have you got any thoughts about the future direction of technology in the Just Eat? And...mobile apps?

Information about development of mobile app.

41. The development of the Just Eat app, have played a huge part in this company. Where did the idea to create the Just Eat mobile app come from?
42. How do you developed the Just Eat app? It is developed within Just Eat or do you use external developer to develop it?
43. Why does this business choose to use that source to develop the mobile apps (internally/externally)?
44. What are the advantages/ disadvantages of that approach (internal or outsource)?
45. What are the characteristics/features needed for a good mobile app in general terms? ...and for the online food ordering sector?
46. Why do you think mobile apps are suitable in the takeaway food ordering sector? What are the advantages/ disadvantages for this business/ takeaway sector?
47. Were any difficulties experienced after the mobile app was introduced to consumers and the takeaway sector?

Information about acceptance of mobile app.

48. **How do you define technology acceptance and why it is important to Just Eat?**
49. **How do you think technology is changing the takeaway food sector?**
50. How is the Just Eat app different from other online takeaway apps available on the market?
51. How do you create an app that consumers will use?
52. **What standards are in place that help businesses and developers meet specific goals for mobile app quality?**
53. Do you study consumer criteria/ characteristics before you develop the app? Where do you get the information from? (e.g: language, skill, accessibility for disabled persons).
54. How do you define convenience and how is it related to Just Eat?
55. Does your website/ app demonstrate convenience (easiness to use or skillful) to your customers?
56. What steps have been taken to ensure the Just Eat app works effectively during busy times?
57. How does Just Eat deal with security threats? How do you ensure security to your consumer/ participant restaurant?
58. **How does Just Eat address privacy of information gathered by their devices?**
59. Trustworthy and reliability are also some important elements that consumers look for when using a product or service. How do you include those elements in your services/ products?
60. Other than these issues/ problems, what other issues have affected Just Eat's customers and the participating restaurants in relation to mobile technology use?
61. What are the main challenges for Just Eat in retaining customers?

Appendix 12 QUESTIONNAIRE

ONLINE TAKEAWAY FOOD ORDERING: THE GROWTH AND ACCEPTANCE OF MOBILE APPS WITHIN UK

Online survey link: <http://goo.gl/forms/5QlIbxTMIcW>

Dear respondent,

Thank you for agreeing to take part in this important questionnaire measuring consumer acceptance attitude to ordering takeaway food using mobile apps in the United Kingdom. I'm a doctoral student from University of Exeter, and I'm working on a thesis concerning the online takeaway food ordering: the growth and acceptance of mobile apps. The purpose of this questionnaire is to gain some thoughts and opinion in order to understand the consumer reaction and their pattern of usage toward the development of online takeaway food ordering mobile apps.

It will probably take you about 15 minutes to complete this questionnaire. Your response is voluntary and all responses will be treated in strict confidence for research purpose only. It will not be used in a manner which would allow identification of your individual responses.

If you have any questions about this research, you can contact me directly through my email (Nurul) nsbh201@exeter.ac.uk.

Thank you.
Nurul S. Hishamuddin
PhD Candidate
Management Studies
University of Exeter

What is an online takeaway site?

Online takeaway sites are companies that process orders for takeaway food from customers to local restaurants. In the UK, companies such as Just Eat, HungryHouse, Deliveroo and Takeaway are among the most well-known. In this study, online takeaway sites are not companies such as Domino's Pizza or Pizza Hut.

*Important for your reading.

The following questions are to find out about your usage of online takeaway sites and online takeaway apps.

1. Have you ever used an online takeaway site (e.g: Just Eat/ Hungry House/Deliveroo)? Please choose only one answer.

- Yes
- No

2. **Based on question 1,**

If no, have you ever considered using an online takeaway site? Please proceed to question 4.

- Yes. Can you tell me why?
.....
- No. Can you tell me why?

If yes, have you ever used any of the online takeaway site(s) below? You may tick as many as you like.

- HungryHouse
- Just Eat
- Deliveroo
- Takeaway
- Others. Please specify.....

3. How do you access these online takeaway sites? Please choose only one answer.

- Desktop pc
- Laptop
- Smartphone
- Tablet
- Other.....

Based on question 3, if answer only using desktop pc/laptop. Would you use other device to access the online takeaway sites in the future? Please choose only one answer and then continue to demographic question.

- Yes. Can you tell me why?
- No. Can you tell me why?

4. Have you downloaded/used online takeaway apps in your smartphone/tablet? Please choose only one answer.

- Yes
- No

Based on question 4, if yes proceed to question 5.

If no, are you likely to download the online takeaway apps in the future? Please proceed to question 8.

- Yes. Can you tell me why?
.....
- No. Can you tell me why?

5. How often do you use online takeaway apps? Please choose only one answer.

- Daily
- Several days a week
- Several days a month
- Once a month
- Less than once a month
- Rarely

6. When are you most likely to order using an online takeaway app? Please tick (/) only one answer for each question.

	Very likely	Likely	Neither likely nor unlikely	Unlikely	Very unlikely
For special occasion / event – Christmas, New year					
For daily meal – breakfast, lunch, dinner, supper					
Friends' gathering					
Family' gathering					
On holiday					
When busy - no time to cook					
Weekend night					

7. How likely are you to order these types of foods from online takeaway apps? Please tick (/) only one answer for each questions.

	Very likely	Likely	Neither likely nor unlikely	Unlikely	Very unlikely
Chinese					
Indian. E.g: Curry					
Italian. E.g: Pizza, pasta					
American/British. E.g:Fish and chips, burgers					
Mexican					
Thai					
Japanese/ Korean. E.g: Sushi					
Lebanese. E.g: Kebab, shawarma					

8. Which of the factors below influence you to order from online takeaway apps? You can choose up to five answers.

- Previous experience – you have used the online takeaway apps
- Location. E.g: far from restaurant/takeaway.
- Brand
- Availability of the takeaway/ dish
- Availability of the delivery – the restaurant offer takeaway service.
- Promotion
- Recommendations from friends/family
- Online reviews
- Online payment (Debit/credit card, digital payment: paypal).
- Others.....

9. Can you please indicate the likely below factors that influence you to order from online takeaway apps? Please tick (/) only one answer for each question.

	Very likely	Likely	Neither likely nor unlikely	Unlikely	Very unlikely
Previous experience – you have used the online takeaway apps					
Location. E.g: far from restaurant/takeaway.					
Brand					
Availability of the takeaway/ dish					
Availability of the delivery – the restaurant offer takeaway service.					
Promotion					
Recommendations from friends/family					
Online reviews					
Online payment (Debit/credit card, digital payment: paypal)					

10. From where are you most likely to order using an online takeaway app? Please choose only one answer.

- Home
- Work
- Friend's house
- Other. Please specify.....

11. How much would you spend on average per order using an online takeaway app? Please choose only one answer.

- Below £5
- £5 to £10
- £11 to £20
- £21 to £30
- Above £30
- Other. Please specify.....

12. Do you visit takeaways or do you just order using online takeaways apps? Please choose only one answer.

- I visit takeaways and order using online takeaway apps
- I don't visit takeaways and order just using online takeaway apps

13. When it comes to new technology, which **ONE** of the following statements best describes you? Please choose only one answer.

- I love new technologies and am among the first to experiment with and use them
- I like new technologies and use them before most people I know
- I usually use new technologies when most people I know do
- I am sceptical of new technologies and use them only when I have to
- I am usually one of the last people I know to use new technologies

The following statements are about your perception of using online takeaway apps. Please indicate your level of agreement by choosing one number for each statement.

Using online takeaway apps to order and pay for takeaways enables me to conduct transactions conveniently.

Strongly disagree (1) **Disagree (2)** **Neither disagree nor agree (3)** **Agree (4)** **Strongly agree (5)**

--	--	--	--	--

Using online takeaway apps to order and pay for takeaways saves my time.

Strongly disagree (1) **Disagree (2)** **Neither disagree nor agree (3)** **Agree (4)** **Strongly agree (5)**

--	--	--	--	--

I find using online takeaway apps to order and pay for takeaways enable me to pay more quickly.

Strongly disagree (1) **Disagree (2)** **Neither disagree nor agree (3)** **Agree (4)** **Strongly agree (5)**

--	--	--	--	--

I find using online takeaway apps to order and pay for takeaways is useful in my life.

Strongly disagree (1) **Disagree (2)** **Neither disagree nor agree (3)** **Agree (4)** **Strongly agree (5)**

--	--	--	--	--

I find it is easy to learn to use mobile apps.

Strongly disagree (1) **Disagree (2)** **Neither disagree nor agree (3)** **Agree (4)** **Strongly agree (5)**

--	--	--	--	--

I find it is easy to learn using online takeaway apps to order and pay for takeaways

Strongly disagree (1) **Disagree (2)** **Neither disagree nor agree (3)** **Agree (4)** **Strongly agree (5)**

--	--	--	--	--

I find the instructions to use online takeaway apps to order and pay for takeaways are generally easy to understand

Strongly disagree (1) **Disagree (2)** **Neither disagree nor agree (3)** **Agree (4)** **Strongly agree (5)**

--	--	--	--	--

I find it is easy to use online takeaway apps to order and pay for takeaways

Strongly disagree (1) **Disagree (2)** **Neither disagree nor agree (3)** **Agree (4)** **Strongly agree (5)**

--	--	--	--	--

The following statements are about the influence of trust and security of using online takeaway apps. Please indicate your level of agreement by choosing one number for each statement.

The online takeaway apps are reliable app to order and pay for takeaways.

Strongly disagree (1) **Disagree (2)** **Neither disagree nor agree (3)** **Agree (4)** **Strongly agree (5)**

--	--	--	--	--

I'm confident to order and pay using online takeaway apps.

Strongly disagree (1) **Disagree (2)** **Neither disagree nor agree (3)** **Agree (4)** **Strongly agree (5)**

--	--	--	--	--

I'm confident with the security measurements offered by online takeaway apps.

Strongly disagree (1) **Disagree (2)** **Neither disagree nor agree (3)** **Agree (4)** **Strongly agree (5)**

--	--	--	--	--

The information provided in online takeaway apps are trustworthy.

Strongly disagree (1) **Disagree (2)** **Neither disagree nor agree (3)** **Agree (4)** **Strongly agree (5)**

--	--	--	--	--

Payment made through online takeaway apps will be processed securely.

Strongly disagree (1) **Disagree (2)** **Neither disagree nor agree (3)** **Agree (4)** **Strongly agree (5)**

--	--	--	--	--

Transactions via online takeaways apps are secured

Strongly disagree (1) **Disagree (2)** **Neither disagree nor agree (3)** **Agree (4)** **Strongly agree (5)**

--	--	--	--	--

I find using online takeaway apps, my privacy is well protected.

Strongly disagree (1) **Disagree (2)** **Neither disagree nor agree (3)** **Agree (4)** **Strongly agree (5)**

--	--	--	--	--

I feel totally safe providing sensitive information about myself through the online takeaway apps.

Strongly disagree (1) **Disagree (2)** **Neither disagree nor agree (3)** **Agree (4)** **Strongly agree (5)**

--	--	--	--	--

The following statements are about the social influence of using online takeaway apps. Please indicate your level of agreement by choosing one number for each statement.

I only use online takeaway apps when I am on my own.

Strongly disagree (1)	Disagree (2)	Neither disagree nor agree (3)	Agree (4)	Strongly agree (5)

I only use online takeaway apps when I am with a group of friend.

Strongly disagree (1)	Disagree (2)	Neither disagree nor agree (3)	Agree (4)	Strongly agree (5)

I only use online takeaway apps when I am with my family.

Strongly disagree (1)	Disagree (2)	Neither disagree nor agree (3)	Agree (4)	Strongly agree (5)

Many of my friends/people I know use online takeaway apps.

Strongly disagree (1)	Disagree (2)	Neither disagree nor agree (3)	Agree (4)	Strongly agree (5)

Mass media (e.g. TV, Radio, newspapers) will influence my decision to online takeaway apps.

Strongly disagree (1)	Disagree (2)	Neither disagree nor agree (3)	Agree (4)	Strongly agree (5)

Ordering and pay using online takeaway apps is a fun social experience for me.

Strongly disagree (1)	Disagree (2)	Neither disagree nor agree (3)	Agree (4)	Strongly agree (5)

The following statements are about the adoption intention of using online takeaway apps. Please indicate your level of agreement by choosing one number for each statement.

I will continue to use online takeaway apps now and in the future.

Strongly disagree (1)	Disagree (2)	Neither disagree nor agree (3)	Agree (4)	Strongly agree (5)

If I have chances to use online takeaway apps, I will use it.

Strongly disagree (1)	Disagree (2)	Neither disagree nor agree (3)	Agree (4)	Strongly agree (5)

Demographic questions.

Finally, I'd like to ask some questions about you to help me analyse your responses. Please choose one answer for each questions.

14. What is your gender?
- Female
 - Male
15. What is your age?
- 18 – 24
 - 25 – 34
 - 35 – 44
 - 45 or older
16. Which part of the world are you from?
- Europe
 - Asia
 - Africa
 - Middle East
 - Oceania
 - America
 - Other. Please specify.....
17. What is your nationality?
-
18. Are you:
- Single
 - Married with children
 - Married without children
 - Divorced/widowed
 - Have a partner
19. What are you studying now?
- Foundation
 - Undergraduate
 - Post-graduate (Master and Doctoral)
 - Post- doctorate
20. Years of study
- Year 1
 - Year 2
 - Year 3
 - Other. Please specify.....
21. Where is your accommodation?
- University's residential hall
 - Private residential hall
 - Off-campus private housing
 - Other. Please specify.....

That is all the questions. Thank you very much for taking part in this questionnaire. I'd like to assure you that the information you given will be kept confidential. If you have any inquiry or questions you can email me (Nurul) nsbh201@exeter.ac.uk.

Appendix 13 INDIVIDUAL INTERVIEW'S QUESTIONS

Introduction

Aim: To introduce the research and set the context for the proceeding discussion.

- i. Introduce self
- ii. Introduce study – who is it for (PhD) and what is it about?
- iii. Consent and confidentiality and anonymity
- iv. Any questions before we begin?
- v. Gather background information from respondent
 - courses, year of study, country, status and current accommodation.

1. Understanding student's lifestyle

Aim: to understand whether student lifestyle relate and engage with the online takeaway food ordering mobile application an if it does, what influence them to accept the mobile apps.

Introduction

*** Each question will be prompt the respondent to provide some example and further explanation.**

- i. Tell me a little bit about yourself.
 - With whom do you currently stay?
 - Friends/family/alone/neighbour? Please explain their demographic background. For example: marital status/ countries/ region/ types of study/age group.
- ii. Could you explain about your internet usage what do you use it for?
 - What do you use internet for?
 - What devices do you prefer when browsing the internet?
 - Study/ work- please explain why? Could you give some example?
 - Social purpose-please explain why? Could you give some example?
 - If you always use a smartphone, which platform do you use: apple or android or other and why?
 - Why is it important?
 - Other than the purpose, what do you use smartphone for?
- iii. Now, I would like to know about your daily routine. How is your timetable for this term and when do you usually go to classes? (Objective: To understand student daily routine that includes their daily eating routine)
 - Do you have time to eat breakfast? Why is that? Could you give me some example?
 - Do you have time to eat your main meals?
 - How do you manage to get your main meals? Why is that? Could you provide some example?
- iv. During the weekend sort of activities do you do? Could you give some example?
 - Do you eat your breakfast? Why is that? Could you give some example?
 - How about your main meals? Do you have time to eat?
 - How do you manage to get your main meals? Why is that? Could you provide some example?
- v. How do you feel about cooking your own food?
 - Why do you regards it as a chores/ pleasure/ other...?
 - **If you do cook.**
 - When are you likely to cook?
 - Why is that?
 - What sort of meals do you like to cook? Why is that?

- Do you cook for yourself and your housemate or you cook alone?
Could you give me some example? Why is that?
 - Do you cook during for the day when you have classes? Why is that?
Could you give me some example?
 - Do you cook during the weekend? Why is that? Could you give me some example?
 - **If you don't cook.**
 - Do any of your current housemate cooked?
 - Do you any of your friends like to cook?
 - What sort of meals do they like to cook? Why is that?
 - Do they cook for you?
 - How do you manage to get your daily meals when you got classes?
Could you give me some example?
 - Is your eating routine will be the same during the weekend?
 - Why is that? Could you give me some example?
- vi. Do you think financial constraints influence your daily meals consumption? Could you give some example?
- Why is that?
- vii. Do you think level of stress influence your daily meals consumption? Why is that? Could you give some example?
- viii. What does eating out mean to you? Could you provide some example?
- Why is that?
 - When are you likely to eat out? Why is that?
 - What sort of food do you prefer when eating out?
 - Why is it important to you?
- ix. What does takeaway food mean to you? When are you likely to purchase takeaway? Why is that? Could you provide some example?
- What sort of food do you prefer when buying takeaway?
- x. How much consideration do you give to the food you eat in terms of its healthy nature? Why is that?
- Is it influence on the ways you eating out or purchase takeaway?
 - Why is that?
- xi. How much consideration do you give to the food you eat in terms of value for money? Why is that important? Could you give some example?
- Is it influence on the ways you eating out or purchase takeaway?
 - Why is that?
- xii. How much consideration do you give to the food you eat in terms of its convenience. For example, the easy to consume and you can get the food quickly? Why is that? Could you provide some example?
- Is it influence on the ways you eat away from home or purchase takeaway?
 - Why is that?
- xiii. How much does your demographic background influence on the sort of food you eating out and purchase takeaway? Why is that? Could you give some example?
- xiv. What do ready prepared meals mean for you?
- Are you likely to buy them? Why is that? Could you give some example?
 - What sort of food do you usually buy? Why is that? Could you give some example?
- xv. Have you ever used a home delivery takeaway services?
- Why is that?

- xvi. Do you have any mobile application related to food in your mobile phone?
 - Why is that?
 - How many apps related to foods do you have? Why is it important you? Could you provide some example? How does the mobile apps influence the ways you eating outside and purchasing takeaway?
 - **If don't have.** Would you download application related to food in the future? Why is that? Could you provide some example?

1. The following questions will be asked to depend on whether the respondent have used or not used the home delivery takeaway.

If respondent have purchase home delivery takeaway service previously.

- i. From where do you usually do your purchase? Could you give me a specific name?
 - Why do you use their service?
 - Have you tried another type of home delivery takeaway service?
 - i. Why is that?
- ii. What sort of food do you prefer when purchase through home delivery service? Why is that? Could you give some example?
 - Is it the same as when you eating outside? Why is that? Could you give some example?
 - What influence you to choose the sort of food for home delivery service?
- iii. When are you most likely to purchase from them?
 - How often do you purchase them?
 - Do you purchase by yourself or with your friends or family?
 - i. Why is that?
- iv. Is your spending different on eating out compared to home delivery food?
 - why is that?
- v. When choosing a home delivery services, what are the criteria/features/characteristic that you look for? Can you tell me what are the key things that influence your choice? Could you provide some example?

If the respondent use online home takeaway delivery services.

- vi. What are the features in the website/mobile apps that you like the most?
 - Can you tell me what are the key things that influence your choice? Could you provide some example?
 - Why is that? Why is it important to you?
- vii. Why do you prefer using online takeaway food ordering services instead of using restaurant direct website or ordering by phone?
 - Can you tell me what are the key things that influence your choice? Could you provide some example?
- viii. Have you ever used another platform to purchase home takeaway delivery service?
 - Which platform did you prefer: using ordering from internet browser or mobile application?

- **If you don't ever used other platform**, why is it you choose to use mobile application to purchase from online home takeaway services.
 - Can you tell me what are the key things that influence your choice? Could you provide some example?
- ix. Do you think the website/ mobile apps needs more improvement for you to use it more in the future?
- Why is that? Can you show me?

If NOT have purchase home delivery takeaway services.

- i. Is there any other reasons why you don't use online home delivery takeaway service (online takeaway food delivery service) beside what you mentioned previously?
- ii. In the future, would you prefer using restaurant direct website/ordering from phone/ go to the restaurant than using online food ordering website?
- Why is it important?
 - What will influence you to use online food ordering service?
 - i. Why is that important?
- iii. If you to use the online food ordering services in the future, which platform would you use: website or mobile application? Why is that? Could you give some example?
- What influences your answer?
 - Why is it important?
- iv. If you decided to use a home delivery services in the future, what are the criteria/ features/ characteristic you would look for?
- Why is it important?
- v. Do you think your spending will be different when eating out compared to using home delivery services?
- Why is that? Could you give some example?
 - Can you tell me what are the key things that influence your choice? Could you provide some example?

Conclude the interview.

Was there anything else you would like to add that I did not ask?