

**THE DETERMINANT FACTORS
THAT AFFECT THE CUSTOMER EXPERIENCE
ON O2O E-COMMERCE MODEL**

KAM HWEE WEN

UNIVERSITY TEKNIKAL MALAYSIA MELAKA

APPROVAL

I hereby confirm that I have examined this project paper entitled:
The Determinant Factors That Affect the Customer Experience on O2O E-Commerce
Model

By

Kam Hwee Wen

I hereby acknowledge that the scope and quality of the submission has been accepted for
Bachelor of Technopreneurship with (Honours)

Signature :

Name of Supervisor : IR. BUDIONO HARDJONO

Date :

Signature :

Name of Panel : DR. MURZIDAH BINTI AHMAD MURAD

Date :

**THE DETERMINANT FACTORS THAT AFFECT THE CUSTOMER
EXPERIENCE ON O2O E-COMMERCE MODEL**

KAM HWEE WEN

**Submitted in partial fulfilment of the requirements for the Bachelor of
Technopreneurship (Honours)**

**Faculty of Technology Management and Technopreneurship
University Teknikal Malaysia Melaka**

JUN 2018

DECLARATION

I hereby admit that this thesis entitled “The Determinant Factors that Affect the Customer Experience on O2O E-Commerce Model.” is the result of my own work other than the citation in the references. The papers has not been accepted for any degree and is not concurrently submitted in the candidature of any other degree

Signature :.....

Name : KAM HWEE WEN

Date :.....

DDICATION

This thesis would be dedicated to my beloved parent, Kam Fot Pyng and Teo Geok Lian who sacrificed and provide me the opportunity to received education until Bachelor of Degree level that they did not have. Moreover, I would like to dedicate the appreciation my supervisor, lecturer, panel, and friends for their guidance, physically as well as mentally support upon completion of this research.

ACKNOWLEDGEMENT

It is my radiant sentiment to put my extremely regards and express my deepest sense of gratitude to my supervisor, Ir. Budiono Hardjono for his motivation and immense knowledge. His patience guidance give me a hand in all the time of research and writing of this thesis. He is generous and not stingy to teach me everything. Although he was being extremely busy with his duties as a lecturer, willing to take time out to hear, guide and keep me on the correct path until I completed my final year report. Therefore, I consider myself as a very lucky person because I was having such nice advisor and mentor for my bachelor degree study. Besides my supervisor, I would like to thank my thesis panel, Dr. Murzidah binti Ahmad Murad for her insightful suggestion and advice during the VIVA session. I choose this moment to acknowledge rather contribution gratefully. Moreover, special thanks and appreciation to Assoc. Prof Dr. Juhaini binti Jabar for sharing her professional knowledge and experience during the lecture of the subject, Research Methodology and Marketing Research in the 7th semester that really helped through the preparing of this research paper. During the research period, my coursemate provide with moral support and sharing the knowledge to make the whole study more effective and accurate. Therefore, I would like to thank them for their kindness and willingness to help each other. Last but not the least, I would like to thank my family especially my parent who was always supporting me spiritually and monetary as well as concerning my healthy conditions throughout completing this thesis and my life in general. I appreciated to the positive power that always inspires me to runs the right steps towards the journey of success. Without them, it would impossible to conduct this research.

ABSTRACT

The researches has shown that Malaysia has less competitiveness in e-commerce if comparing with other countries like China and United State. There is low concern and limited research about the new emerging e-commerce model, Online to Offline (O2O) which is widely used by China and US. The purpose of this research is to show the benefits of O2O by studying the determinant factors that affect the customer experience on O2O e-commerce model. The conceptual framework will be developed for understanding the factors that influence the customer experience on O2O e-commerce with the variables of perceived ease of use, perceived usefulness, subjective norms, and sensory experience. The survey data was collected from 387 internet user in Johor, Selangor, and Kuala Lumpur via the spreading questionnaires and the data collected were analysed by applying Statistical Package for Social Science (SPSS) with descriptive analysis, correlation analysis, and regression analysis. The findings of the analysis show that among all the variables, the perceived ease of use, perceived usefulness, subjective norms and sensory experience have a significant positively impact on the customer experience towards O2O e-commerce model in the Malaysia. Future research should make improvement by applied the current framework to different states (other than Malacca, Johor, and Kuala Lumpur), comparing the findings with other nations, utilising mixed method, face-to-face data collection, putting the extension variables from Unified Theory of Acceptance and Use of Technology (UTAUT), as well as do validity test and factor analysis. The research is aim to increase the understanding of the importance of O2O, provide a guidance and conceptual framework for future similar research field (Academics). Additional, it also aids to establish awareness of local firms towards the advantages of O2O which may increase the e-business performance (Industry).

Keywords: online to offline e-commerce, O2O, customer experience, internet user, Malaysia

ABSTRAK

Tujuan kajian tersebut adalah untuk mengkaji factor-faktor mempengaruhi pengalaman pelanggan dalam online ke offline (O2O) e-dagang model. Kajian ini menyumbang kepada pemahaman factor-faktor mempengaruhi pengalaman pelanggan dari pengguna internet ke arah O2O di Malaysia. Kajian ini membangunkan satu rangka kerja kursus konteks bagi memahami hubungan antara factor-faktor seperti pembolehubah sikap, kegunaan, norma subjektif, dan pengalaman deria dengan pengalaman pelanggan dalam O2O e-dagang model. Data kajian telah terkumpul daripada 387 pengguna internet di Malaysia melalui penngedaran soal-selidik dan data telah dianalisis dengan mengaplikasikan Statistical Package for Social Science (SPSS) bagi menjalankan analisis deskriptif, analisis korelasi, serta, analisis regresi. Keputusan analisis menunjukkan bahawa dalam kalangan semua pembolehubah sikap, kegunaan, norma subjektif, dan pengalaman deria mempunyai impak yang mendalam ke atas pengalaman pelanggan terhadap O2O. Penyelidik kajian masa depan harus menerapkan rangka kerja semasa ke negeri-negeri lain (selain daripada Melaka, Johor, dan Kuala Lumpur), membandingkan hasil kajian dengan negara lain, menggunakan kaedah campuran, pengumpulan data secara tatap muka, meletakkan pemboleh ubah lanjutan dari Bersatu Teori Penerimaan dan Penggunaan Teknologi (UTAUT), serta melakukan ujian kesahihan dan analisis faktor.. Kajian ini bertujuan bagi meningkatkan kefahaman tentang faedah O2O, menyediakan panduan dan rangka kerja konseptual untuk bidang penyelidikan serupa (Akademik). Selain itu, kajian ini juga membantu untuk membina kesedaran terhadap kepentingan O2O yang boleh meningkatkan keseluruhan prestasi e-perniagaan (Industri).

Kata Kunci: online ke offline e-dagang, O2O pengalaman pelanggan, pengguna internet, Malaysia

CONTENT

CHAPTER	TITLE	PAGE
	DECLARATION	ii
	DEDICATION	iii
	ACKNOWLEDGEMENT	iv
	ABSTRACT	v
	<i>ABSTRAK</i>	vi
	CONTENT	vii
	LIST OF TABLES	xi
	LIST OF FIGURES	xiii
	LIST OF ABBREVIATION & SYMBOL	xv
	LIST OF APPENDICES	xvii
CHAPTER 1	INTRODUCTION	1
	1.1 Introduction	1
	1.2 Background	1
	1.3 Problem Statement	3
	1.4 Research Questions	5
	1.5 Research Objectives	5
	1.6 Scope, Limitation, and Key Assumption of Study	6
	1.7 Significance of the Research	7
	1.8 Summary	7
CHAPTER 2	LITERATURE REVIEW	8
	2.1 Introduction	8
	2.2 E-commerce	8

2.3 Online to Offline (O2O)	9
2.4 Theory and Framework Model Applied	12
2.4.1 Technology Acceptance Model (TAM)	12
2.4.2 Theory of Planned Behaviour (TPB)	13
2.4.3 Customer Experience Conceptual Framework	14
2.5 Conceptual Framework	15
2.5.1 Perceived Ease of Use	17
2.5.2 Perceived Usefulness	18
2.5.3 Subjective Norms	19
2.5.4 Sensory Experience	21
2.6 Customer Experience	23
2.6.1 Customer Journey	25
2.7 Hypothesis	26
CHAPTER 3 RESEARCH METHODOLOGY	27
3.1 Introduction	27
3.2 Research Design	27
3.3 Methodology Choice	29
3.4 Data Collection	31
3.4.1 Primary Data Sources	31
3.4.2 Secondary Data Sources	32
3.5 Research Strategy	33
3.6 Time Horizon	34
3.7 Research Instrument	35
3.7.1 Questionnaire Design	35
3.7.2 Measurement Instrument	38
3.8 Sampling Design	41
3.8.1 Sampling Technique	41
3.8.2 Target Population	43
3.8.3 Sampling Location	43
3.8.4 Sample Size	46

3.9 Scientific Canons	47
3.9.1 Reliability	47
3.9.2 Validity	48
3.10 Data Analysis	49
3.10.1 Descriptive Analysis	49
3.10.2 Correlation Analysis	50
3.10.3 Regression Analysis	51
3.11 Pre-test or Pilot Test	53
3.11.1 Pre-test	53
3.11.2 Pilot Test	53
3.12 Summary	54
CHAPTER 4 DATA ANALYSIS AND DISCUSSION	55
4.1 Introduction	55
4.2 Pilot Test	55
4.3 Response Rate	57
4.4 Reliability Test	58
4.5 Descriptive Statistic Analysis	59
4.5.1 Descriptive Frequency Analysis on Demographic	59
4.5.1.1 Gender	60
4.5.1.2 Age	61
4.5.1.3 Education Level	62
4.5.1.4 Online Expenditure Level per Month	63
4.5.1.5 Regions of Places	64
4.5.1.6 O2O Experience	65
4.5.2 Descriptive Statistics of Variables	66
4.5.3 Cross Tabulation	68
4.5.3.1 Gender with Expenditure Level	68
4.5.3.2 Ages with Expenditure Level	71
4.5.3.3 Education Level with Expenditure Level	72

4.6 Pearson Correlation Analysis	74
4.7 Regression Analysis	77
4.7.1 Multiple Regression	79
4.8 Inferential Analysis - Discussion of Objectives	81
4.8.1 Hypothesis Testing	81
4.8.2 Perceived Ease of Use	82
4.8.3 Perceived Usefulness	83
4.8.4 Subjective Norms	84
4.8.5 Sensory Experience	85
4.8.6 Regression Equation	85
4.9 Discussion	86
4.10 Summary	87
CHAPTER 5 CONCLUSION	88
5.1 Introduction	88
5.2 Conclusion	88
5.3 Theoretical Contributions	91
5.4 Managerial Implications	91
5.5 Limitation	92
5.6 Recommendations	93
5.7 Summary	95
REFERENCES	96
APPENDICES	112

LIST OF TABLES

TABLE	TITLE	PAGE
3.1	Distinctions between quantitative and qualitative method. Adapted from Saunders et al. (2016)	30
3.2	Structure of Questionnaire	36
3.3	Likert Scale	37
3.4	Measurement Instrument	38
3.5	Estimated number of Internet users in Malaysia. Adapted from Malaysian Communications and Multimedia Commission, MCMC (2017)	44
3.6	Percentage of internet users by state of residence in 2015. Adapted from Malaysian Communications and Multimedia Commission, MCMC (2016)	45
3.7	Central tendency	49
3.8	Summary of Data Analysis Method Based on Research Objectives	52
4.1	Item-Total Statistics for Reliability Test (Source: SPSS Output)	56
4.2	Return and Response Rate	57
4.3	Cronbach's Alpha Value Measurement Scale Source: Davey, Gugiu, & Coryn (2010)	58
4.4	Reliability Statistics for Reliability Test (Source: SPSS Output)	59
4.5	Gender	60
4.6	Age	61

4.7	Education Level	62
4.8	Online Expenditure per Month	63
4.9	Region of Places	64
4.10	O2O Experience	65
4.11	Descriptive Statistics on Variables	66
4.12	Cross Tabulation of Gender with Monthly Online Expenditure (Source: SPSS Output)	68
4.13	Cross Tabulation of Ages with Monthly Online Expenditure (Source: SPSS Output)	71
4.14	Cross Tabulation of Education Level with Monthly Online Expenditure (Source: SPSS Output)	72
4.15	Pearson Correlation Analysis (Source: SPSS Output)	74
4.16	Strength of Relationship between Variables	76
4.17	The Regression Model Summary (Source: SPSS Output)	77
4.18	ANOVA ^a (Source: SPSS Output)	78
4.19	Coefficients ^a (Source: SPSS Output)	79
4.20	Hypothesis Test's Condition	81
4.21	Hypothesis Test	82

LIST OF FIGURES

FIGURE	TITLE	PAGE
2.1	O2O e-commerce model	9
2.2	Technology Acceptance Model. Adapted from Davis (1989)	12
2.3	Theory of Planned Behaviour (TPB). Adapted from Ajzen (1991)	13
2.4	Customer Experience Conceptual Framework from Yang (2017)	14
2.5	O2O customer experience conceptual framework	15
2.6	Customer Journey across O2O e-commerce Model. Adapted from Lemon & Verhoef (2016)	25
3.1	Sampling techniques. Adapted from Saunders et al. (2016)	42
3.2	Mean monthly consumption expenditure by state of Malaysia in 2016. Adapted from Department of Statistics Malaysia (2017)	45
3.3	Values of the correlation coefficient. Adapted from Hair et al. (2013)	51
4.1	Pie Chart of Gender	60
4.2	Pie Chart of Age	61
4.3	Pie Chart of Education Level	62
4.4	Pie Chart of Online Expenditure per Month	63
4.5	Pie Chart of Region	64
4.6	Pie Chart of O2O Experience	65

4.7	Bar Chart of Crosstab between Genders with Monthly Online Expenditure Level	69
4.8	Bar Chart of Crosstab between Ages with Monthly Online Monthly Expenditure Level	71
4.9	Bar Chart of Crosstab between Expenditure Level with Online Monthly Expenditure level	73

LIST OF ABBREVIATION & SYMBOL

O2O	=	Online to Offline
E-commerce	=	Electronic Commerce
IT	=	Information Technology
MDEC	=	Malaysia Digital Economy Corporation
GDP	=	Gross Domestic Product
MITI	=	Ministry of International Trade and Industry
GSC	=	Golden Screen Cinema
USD	=	United States Dollar
RM	=	Ringgit Malaysia
RQ	=	Research Question
RO	=	Research Objectives
MIDA	=	Malaysian Investment Development Authority
MATRADE	=	Malaysian Investment Development Authority
B2C	=	Business-To-Customer
B2B	=	Business-To-Business
P2P	=	Peer-To-Peer
C2C	=	Customer-To-Customer
DV	=	Dependent Variable
IV	=	Independent Variable
TAM	=	Technology Acceptance Model
TPB	=	Theory of Planned Behaviour

UTAUT	=	Unified Theory of Acceptance and Use of Technology
PEU	=	Perceived Ease of Use
PU	=	Perceived Usefulness
SN	=	Subjective Norms
SE	=	Sensory Experience
CE	=	Customer Experience
X1	=	Perceived Ease of Use
X2	=	Perceived Usefulness
X3	=	Subjective Norms
X4	=	Sensory Experience
Y	=	Customer Experience

LIST OF APPENDICES

APPENDIX	TITLE	PAGE
A	Research Plan	112
B	Gantt Chart for PSM 1	112
C	Gantt Chart for PSM 2	113
D	Questionnaire	114
E	T Table	119

CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter is introducing the contents of the research. This introduction is essential to define the element for a success research including the background of the research, problem statement, research question, research objective, scope, limitation and importance of the research.

1.2 Background

As an entrepreneur, we must always alert the business trend, board on digital and technology bandwagon. The fact of future is digital and electronic, while e-commerce is considered as one of the engines growth for our country in the recent year (MDEC, 2016). With the accelerated advancement in development of digital and electronic, a brand new e-commerce model is emerged– O2O e-commerce. O2O is the acronym formed from the word of online to offline or vice versa, offline-to-online (Lee & Li, 2016). This new mode blends online business with offline business and improves the existing shopping mode. A simply say, O2O can be considered as anything digital as a link to bring consumer to the offline store. However, it is argued about nothing different from most of the traditional e-commerce. The latter covers standard goods, but do not cover social experience such as going to café, restaurant, gym, and cinema.

The “experience” consumption is the core of O2O trends as now the consumer in cities primary looks for leisure and entertainment beyond necessity and needs. The e-payment is the main core to make O2O model become powerful as increase convenience for making payment without bringing cash.

The modern information technology (IT) as well as Internet, website, social media, smart phones, mobile device, mobile application, have completely altered the method of people search and share information. Since the evolution and diffusion of e-commerce, market of online sale have been unstandardized. Amazon is the good example which initiated as online book store, then diversified into variety species of products such as electronics, grocery, furniture, clothing, shoes, jewellery, and toys. What cannot be sold online? Now the service which features intangible and heterogeneousness (Moeller, 2010; Pride & Ferrell, 2014) can be sold through O2O e-commerce model.

O2O e-commerce model refers to products and especially services will be promoted through online to raise offline sales by using information technologies (IT) which act as a promotional inter-media (Phang et al., 2014). O2O e-commerce have expanded in service sectors from tourism, restaurants until local living services. Tableapp, allows users making meal reservations at fine-dining establishment; ParkEasy, a service that offers users to book parking spot by using app; TGV, MBO, and GSC Cinemas which apply online ticketing system allowing user to purchase ticket; Fave (previously Groupun), attract user to redeem discount coupon in the physical store; Uber and Grab provide online booking a ride in real world; all these are the famous success example that emerged in Malaysia.

As this is the new retail concept that advocated by Ma (2012). It became a new trend and future of the industry. Forrester Research highlighted that there are 53% of total retail sales will be influenced by the web in 2014 because of increasing of consumers use the Internet to research products before purchasing. Most of the customers while in the store will pull out mobile phone to research the products that seen at there. The web has become a part of daily shopping routine. TechCrunch (2014) predicts the potential of O2O by saying that the average American earns \$40,000 per annum, average e-commerce consumer is spending \$1,000 per annum, so that the other

\$39,000 is spent offline. Therefore, it is profitable if targeting the customers by using Internet and bring them to real-world store.

In addition to this background, this study is combined with the other three sections. The first section introduces the conceptual base on the O2O. The second part present the literature review of the study which involved previous research on O2O and factors that had been affect the customer experience in O2O e-commerce business. The research methods that applied in this research paper is explained in part three

1.3 Problem Statement

Now, the internet customers emphasize unique experience greater than low price products (Bilgihan et al., 2016). As an entrepreneur, experiences shall be provided on top of the services or products in order to satisfy the customers. However, successfully creating remarkable customer experience is a difficult task and influenced by many factors. Entrepreneur need to offer more stimuli experience to them to compete other firms (Lin & Liang, 2011). Hence, this research report aim to determine what the key factors in customer experience towards O2O e-commerce model platform. The study object in this research are chosen from customer who had have used this model before and experience of O2O. Experience arises in the interaction of customer make consumptions of goods and services. The customer experience is the entire event that be in touch with the customers in a business (Holbrook & Hirschman, 1982) and influences the emotion of customer to the used product or services.

E-commerce is considered as one of the engines growth for our country in the recent year (MDEC, 2016). However, Malaysia has no yet reached saturation point in e-commerce market and slightly lag behind three to five years from other countries like US and China (Kamaruzaman, Handrich, and Sullivan, 2010). Our country e-commerce sector only contributes 5.8% to the GDP, compared to China where the e-commerce contributes 21% of GDP as well as 35% of GDP in US (MITI, 2016). The success of e-commerce in China can be served as sample for us to enhance competency and promoting upgrade. The quality and quantity of e-commerce business are not

comparable with the advanced countries like Alibaba in China which has generated USD 17.8 billion in the year of 2016. Thus, there might have a big potential and improvement space for O2O in Malaysia to reduce the gaps and capture opportunities generated by these global forces. The future of group- purchasing O2O model seems in Malaysia to be very bright. It seems group-purchasing sector is suitable for O2O business as customers need localized and customized services. Due to these reasons, the researcher focus on O2O platform in services industry in this research.

By applying the general online businesses, the consumers only can observe the details of services or products in term of words and images. The consumers always disappoint when receiving exactly products bought online which difference from the description online. The available of offline stores in O2O model is believed to decrease the purchase risk that give opportunity consumers to touch and survey product physically which can solve the purchase risk and curious of consumers. Thus, it is essential to understand the operation of O2O e-commerce business in avoiding the above problems since O2O can help to gain the trust of customers with physical presence.

O2O is widely used by other countries especially China and the United States (Chua, 2017) but is still low concerned in Malaysia market. There are many e-commerce business conducted but only a few successful O2O business that emerged in Malaysia such as Uber, Fave, and GSC. Most of the online firm are only rely on one platform either in online or offline. According to SME Association of Malaysia, O2O is the combination of online and offline which makes consumers to consume the services or pick the products either online or offline, is one of the key trends in the future (Kang, 2016). Thus, it is essential to raise the intention of local SME firms and entrepreneurs in this effectively e-commerce model.

Furthermore, there are lacking of local research of O2O as lacking concern in Malaysia, but such emerging e-commerce model is popular topic in countries like Korea, China and Taiwan. The researcher faces difficult when searching for local journal in this area as reference. Most of the research focused either offline or online settings (Yang, 2017). Most of the people does not fully understanding the terms of

O2O. Aim to study O2O e-commerce is leveraging this model by attracting local researcher and consumer's attention and stimulating their action.

1.4 Research Questions

There are some determinants factors in O2O that influence the customer experience. These factors are perceived ease to use, perceived usefulness, subjective norms, and its sensory experience. Therefore, the research questions described as follow:

- RQ1:** What is the effect of the perceived ease of use of to the customer experience in O2O e-commerce?
- RQ2:** What is the influence of perceived usefulness to the customer experience in O2O e-commerce?
- RQ3:** What is the effect of subjective norms to the customer experience in O2O e-commerce?
- RQ4:** What is the effect of sensory experience to the customer experience in O2O e-commerce?

1.5 Research Objectives

There are some objectives that need to achieve in order to solve the questions that mentioned above. These research objectives (RO) are actually all activities that need to be done to answer the RQs. In this research, the ROs can be derived from the RQs as follows:

- RO1:** To determine whether the customer experience is positively affected by perceived ease of use of O2O e-commerce.