UNIVERSITI PUTRA MALAYSIA

UTAUT FACTORS INFLUENCING INTENTION TO USE SOCIAL TV AMONG UNIVERSITY STUDENTS

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By

JAFAR KHOSHROUZADEH

Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, In Fulfilment of the Requirements for the Degree of Doctor of Philosphy

June 2020

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DEDICATION

Dedicated to
My beloved family
My parents, my brothers and sisters, my daughters Romina and Ronika who have been patient, special thanks to my loving wife, Azar who have supported me throughout this long journey with her endless love and sacrific

Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Doctor of Philosphy

UTAUT FACTORS INFLUENCING INTENTION TO USE SOCIAL TV AMONG UNIVERSITY STUDENTS

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June 2020

Chair : Associate Professor Moniza Waheed, PhD
Faculty : Modern Languages and Communication

Recent research shows that in line with the advent of broadband Internet and more connectivity through online channels and platforms such as social media, social networking sites, and smartphone messengers, TV viewers are involved in several activities including sharing, commenting, recommending, rating, and liking posts while watching TV. Such activities have led to a new concept in TV viewership known as 'Social TV'. As social TV is in its infancy, research on its multifaceted aspects is scant. In the context of Malaysia, the frequency of use, as well as the factors that determine individuals' intention to use social TV have not been investigated. Thus, the main objective of this study is to determine factors that influence the intention to use and the frequency of social TV usage among Malaysian students. To achieve this, a quantitative research method based on the UTAUT and UTAUT2 model, utilizing a cross-sectional survey was designed. The respondents of the study were 774 students from both the public and private institutions of higher education in Malaysia that were selected through a multi-stage cluster sampling method. A slightly modified Likert scale questionnaire designed and validated by Venkatesh et al. (2012) was adopted to collect data and finally, Pearson's Correlation and Multiple regression, as well as Structural Equation Modelling (SEM) as an appropriate statistical analysis method run by SmartPLS 3.0, applied to analyze the data.The findings of the study revealed that Malaysian students are involved in several activities including sharing, recommending, rating, and commenting on TV programs from a daily to weekly basis. The findings also showed that student's expectance toward the usefulness of social TV is among the main factors that positively affect their intention to use it. Students' perceptions of the resources and support available to use social TV also have a positive influence on the usage of social TV among them. Similarly, the price of social TV-related services and applications as well as habits play a key role in student's intention to use social TV. Additionally, the findings of the study revealed that the influence of hedonic motivation and habit, as well as friends and family encouragement on the intention to use social TV, was more significant among the male students. Besides, the moderation effect of gender on the path relationship between performance expectancy on behavioral intention was supported for the female group. It was also found that older students were more influenced by the provision of amenities

such as educational services, etc. In addition, the influence of habit on behavioral intention to use social TV was moderated by age in favor of older students. Also, younger students were found to be more influenced by friends and family when it comes to social TV usage. Furthermore, it was also found that social TV users in the early stages of their experience require more educational materials and tutorials and they are almost influenced by friends and family when it comes to social TV usage. Theoretically, the findings of the current study provide significant contributions to research in the field of computer-mediated communication, social media, and social TV studies. Results from current study can have implications for broadcasters, marketers, mobile app developers, and IPTV service providers practically.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

FAKTOR UTAUT YANG MEMPENGARUHI HASRAT UNTUK MENGGUNAKAN TV SOSIAL DALAM KALANGAN PELAJAR UNIVERSITI

Oleh

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Penyelidikan terkini menunjukkan bahawa selaras dengan kemunculan internet jalur lebar dan lebih banyak hubungan melalui saluran dan platform dalam talian seperti media sosial, laman web sosial dan pesanan telefon pintar, penonton televisyen terlibat dalam beberapa aktiviti termasuk berkongsi, memberi komen, mengesyorkan, membuat penilaian dan menyukai catatan semasa menonton televisyen. Tingkah laku tersebut telah membawa suatu konsep baharu dalam tontonan televisyen yang dikenali sebagai 'TV Sosial'. Oleh kerana TV Sosial masih dalam peringkat awal, penyelidikan mengenai kepelbagaian aspeknya adalah amat kurang. Dalam konteks Malaysia, kekerapan penggunaannya serta faktor-faktor yang menentukan niat individu untuk menggunakan TV sosial belum dibuat penyelidikan. Oleh itu, objektif utama kajian ini adalah untuk menentukan faktor-faktor yang mempengaruhi hasrat penonton untuk menggunakan dan kekerapan penggunaan TV Sosial dalam kalangan pelajar Malaysia. Bagi mencapai objektif berkenaan, kaedah penyelidikan kuantitatif berdasarkan model UTAUT dan UTAUT2, menggunakan tinjauan telah direka bentuk. Responden kajian ini terdiri daripada 774 pelajar institusi pengajian tinggi awam dan swasta di Malaysia yang telah dipilih melalui kaedah persampelan kluster pelbagai peringkat. Soal selidik skala Likert yang diubai suai dan direka bentuk serta disahkan oleh Venkatesh et al. (2012) telah diterima pakai bagi mengumpul data dan juga, Korelasi Pearson dan Regresi, serta Pemodelan Persamaan Struktural (SEM) sebagai kaedah analisis statistik yang sesuai yang dijalankan oleh SmartPls 3.0, diterapkan untuk menganalisis data.Dapatan kajian menunjukkan bahawa pelajar Malaysia terlibat dalam beberapa aktiviti termasuk berkongsi, memberi komen, mengesyorkan, membuat penilaian dan mengulas program TV dari setiap hari hingga setiap minggu. Dapatan juga menunjukkan jangkaan pelajar terhadap kebergunaan TV Sosial merupakan salah satu faktor yang secara positif memberikan kesan pada niat mereka untuk menggunakan TV Sosial. Persepsi pelajar mengenai sumber dan sokongan yang terdapat untuk menggunakan TV Sosial juga mempunyai pengaruh yang positif ke atas penggunaan TV Sosial dalam kalangan mereka. Di samping itu, harga perkhidmatan dan aplikasi berkaitan TV Sosial serta tabiat atau kebiasaan memainkan peranan utama dalam menentukan niat seseorang pelajar untuk menggunakan TV Sosial.Tambahan pula, dapatan kajian memperlihatkan bahawa

pengaruh motivasi hedonik dan tabiat, serta dorongan rakan dan keluarga terhadap niat untuk menggunakan TV sosial, adalah lebih ketara dalam kalangan pelajar lelaki. Selain itu, pengaruh moderasi gender ke atas hubungan antara jangkaan prestasi terhadap niat tingkah laku disokong bagi pelajar wanita. Dapatan kajian juga mendapati bahawa pelajar yang lebih tua lebih banyak dipengaruhi oleh penyediaan kemudahan seperti perkhidmatan pengajian, dan lain-lain. Di samping itu, pengaruh tabiat ke atas niat tingkah laku untuk menggunakan TV Sosial berkurang berbanding pelajar yang lebih tua. Di samping itu, pelajar yang lebih muda lebih dipengaruhi oleh rakan dan keluarga dari segi kebergunaan TV Sosial.Seterusnya, dapatan kajian juga mendapati bahawa pengguna TV Sosial pada peringkat awal pengalaman mereka memerlukan lebih banyak bahan dan tutorial pendidikan dan mereka hampir dipengaruhi oleh rakan dan keluarga untuk menggunakan TV Sosial.Secara teorinya, dapatan kajian ini memberikan sumbangan yang signifikan kepada penyelidikan dalam bidang komunikasi media elektronik, media sosial serta kajian TV Sosial dan secara praktikalnya ia memberi implikasi dalam bidang penyiaran, pemasaran, pembangunan aplikasi mudah alih serta penyedia perkhidmatan IPTV.

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TABLE OF CONTENTS

			Page
ABSTRACT			i
ABSTRAK			iii
ACKNOWLEDGEMENTS			v
APPROVAL			vi
DECLARATION			ix
LIST OF TABLES			xiii
LIST OF FIGURES			xiv
LIST OF ABREVIATIONS			xv
CHAPTER			
1	**INTRODUCTION**		1
	1.1	Background of the Study	1
	1.2	Problem Statement	3
	1.3	Research Questions	6
	1.4	Research Objectives	6
	1.5	Significance of the Study	6
	1.6	Limitation of Study	8
	1.7	Organization of the Thesis	9
	1.8	Definition of the Key Terms	10
2	**LITERATURE REVIEW**		12
	2.1	Introduction	12
	2.2	Historical Background: From Interactive Television to Social TV	12
	2.3	Social TV as a Concept, Prototype and Technology	14
	2.4	Social TV and Television Viewership Characteristics	17
	2.5	Social TV Usage Purposes and Platforms	19
	2.6	Social TV in Malaysia	21
	2.7	Technology Usage and Acceptance Theories	29
	2.8	Background of Technology Usage and Acceptance Theories	30
	2.9	Unified Theory of Acceptance and Use of Technology UTAUT	31
	2.10	Unified Theory of Acceptance and Use of Technology UTAUT2	33
	2.11	Age, Gender and Experience as moderators in UTAUT2 Model	36
	2.12	Appling UTAUT& UTAUT2 Models in Previous Studies	37
	2.13	Conceptual Framework	40
	2.14	Research Hypotheses	41
3	**METHODOLOGY**		44
	3.1	Introduction	44
	3.2	Research Design	44
	3.3	The Study Population and Sample	44
		3.3.1 The Study Population	44
		3.3.2 Sample Size	46
		3.3.3 Sampling Procedure	47
	3.4	Research Instrument	49
	3.5	Operationalization of Research variables	52

3.5.1 Operationalization of independent variables 52
3.5.2 Operationalization of dependent Variables 54
3.6 Pilot Study 57
3.7 Construct Reliability for Pilot Test 57
3.8 Validity of the Instruments 58
3.9 Ethical Considerations 59
3.10 Data Collection Procedure 59
3.11 Data Analysis Using SEM 60
3.12 Fitness of model 62
3.13 Criteria for Moderating Effect 62
3.14 Significant Level 63
3.15 Multivariate Assumptions Assessment 63
3.16 Factor Analysis 66
3.17 Overall Measurement Model 66
3.18 Construct Reliability 68
3.19 Construct Validity 69
3.19.1 Convergent Validity 69
3.19.2 Discriminant Validity 70

4 RESULTS AND DISCUSSION 72
4.1 Introduction 72
4.2 Background of the Respondents 72
4.3 TV and Media Consumption Pattern 73
4.4 Research Objective One: Frequencies of Social TV Usage 74
4.4.1 Social TV as second-screening 74
4.4.2 Social TV as Synchronous Online Interaction 76
4.4.3 Social TV as Online Activity 77
4.4.4 Social TV as Social Media and Television Convergence 78
4.5 Results for Research Objective Two and Three 79
4.5.1 R-Square for Base Structural Model 82
4.5.2 F-Square for Base Structural Model 82
4.6 Research Objective Four: Moderating Effects 83
4.6.1 Moderating Effect of Gender 84
4.6.2 Moderation Effect of Age 89
4.6.3 Moderation Effect of Experience 94
4.7 F-Square and R-Square discussion 98
4.8 Discussion of Research Objective One 99
4.9 Discussion of Findings for Research Objective Two and Three 101
4. 9.1 Performance Expectancy and Behavioral Intention 102
4. 9.2 Effort Expectancy and Behavioral Intention 103
4. 9.3 Social Influence and Behavioral Intention 105
4. 9.4 Facilitating Conditions and Behavioral Intention 107
4. 9.5 Habit and Behavioral Intention and Actual Usage 108
4. 9.6 Price Value and Behavioral Intention to Use social TV 109
4. 9.7 Hedonic Motivation and Behavioral Intention 110
4. 9.7 Behavioral Intention and Actual Use of Social TV 111
4.10 Discussion of Finding for Research Objective Four 111
4.10.1 Gender and Behavioral Intention to use Social TV 112
4.10.2 Age and Behavioral Intention to use Social 113
4.10.3 Experience and Behavioral Intention to use Social 116
4.11 Summary of the Chapter 117

5 SUMMARY, CONCLUSION AND RECOMMENDATIONS FOR FUTURE RESEARCH 118

5.1 Introduction 118
5.2 Problem Statement 118
5.3 Research Objectives 119
5.4 Methodology 120
5.5 Summary of the Findings 120
5.6 Implications of the Study 122
5.7 Theoretical Implications 122
5.8 Practical Implications 124
5.9 Limitations of Study and Areas for Further Research 128
5.10 Conclusion and new Research Model 131
5.11 Summary of the Chapter 132

REFERENCES 133
APPENDICES 158
BIODATA OF STUDENT 180
LIST OF PUBLICATIONS 181

LIST OF TABLES

Table		Page
3.1	G*Power outputs for Compute the required sample size	47
3.2	Cronbach's Alpha for Pilot Test	58
3.3	Model Fit Summary	62
3.4	Missing Values at the Data	64
3.5	Multicollinearity Problem & Inner VIF Results	66
3.6	Cross Loadings on Measures of Main Constructs	67
3.7	Cronbach's Alpha and Composite Reliability Results	69
3.8	AVE of the Constructs	70
3.9	Fornell –Larcker Criterion	71
4-1	Summary of Demographic Profiles	72
4.2	Summary of TV and Media Consumption Patterns	73
4.3	Frequency of Social TV Usage as Second-Screening	75
4.4	Frequency of Social TV Usage as Synchronous Online Interaction	76
4.5	Frequency of Social TV Usage as Online activity	77
4.6	Frequency of Social TV Usage as Social Media and Television convergance	79
4.7	The Result of Structural Model (Hypotheses)	81
4.8	R-Square of the Model Base Results	82
4.9	F-Square of the Model Base Results	83
4.10	Moderating Effect Constructs	84
4.11	The Output of the Moderation Effect of Gender	85
4.12	R-Square Gender Groups	88
4.13	F-Square Result for Gender Group	88
4.14	Outputs of Low-Age High- Age Groups	88
4.15	R-Square of Age Groups	90
4.16	F-Square of Age Groups	93
4.17	Outputs-Moderation Effect of Experience Groups	95
4.18	R-Square –Experiment Groups	97
4.19	F-Square – Experience Groups	98

LIST OF FIGURES

FIGURE		Page
2.1	UTAUT Model (Venkatesh et. Al., 2003)	32
2.2	UTAUT 2 Model (Venkatesh et. Al., 2012)	34
2.3	Theoretical Model of the Relationships	41
3.1	Multi Stage Cluster Sampling	49
3.2	Path Diagram and the Measurement Mode	67
4.1	T-values in Structural Model	80
4.2	Path Coefficients for Male Group	84
4.3	Path Coefficients for Female Group	85
4.4	Path Coefficients for Low-Age Group	89
4.5	Path Coefficients for High-Age Group	67
4.6	Path Coefficients for Low-Experienced Group	90
4.7	Path Coefficients for High-Experienced Group	94
5.1	Model Fit Based on the Findings	132

LIST OF ABBREVIATIONS

UTAUT	Unified Theory of Acceptance and Use of Thechnology
SNS	Social Network Sites
BI	Behavioral Intention
AUST	Social TV Actual Usage
PE	Performance Expectancy
EE	Effort Expectancy
SI	Social Influence
FC	Facilitating Conditions
HM	Hedonic Motivations
PV	Price Value
HT	Habit
IPTV	Internet Protocol TV
VOD	Video on Demand
OTT	Over-The-Tap
RTM	Radio Television Malaysia
SEM	Structural Question Modeling
PLS	Partial Least Square

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

Recently and by the advent of broadband wireless technologies which provide suitable platforms for the delivery of content-enriched communication services such as active TV-related content sharing (Lochrie & Coulton, 2012; Vinoba & Kramskoy 2013; Tu, Chen, Yang, & Wang, 2016; Ohmata, Ikeo, Ogawa, Takiguchi, & Fujisawa, 2018), synchronous co-viewing of TV shows (Tullio et al., 2008; Feltwell et al., 2019), asynchronous notifications over a distance, or discussion and comments on shared TV contents (Chorianopoulos, 2010; Shin & Roh, 2016), using smart technologies such as smart TVs, smartphones, tablets and laptops (Cricri et.al, 2009; Seo et al., 2016a; Shin & Roh, 2016; Jang & Yi, 2019) and using mobile TV application (Cesar & Geerts, 2011; Wong, Tan, Hew, & Ooi, 2016), watching TV has turned into a different experience. As a result of this technology advancement, social experiences around television content have been increased dramatically over the past few years and have resulted in a flood of reports, research and innovative systems (Harboe, 2010; Danias, Kyrimi, & Marmarokopos, 2016b).

TV viewers have also experienced a change in behavior with regard to watching TV. TV viewers are engaged with another screen or screens (Karppinen, 2013; Choi, 2017b) and social media (Lochrie, Coulton, 2012; Vinoba & Kramskoy 2013; Min, Zang, & Liu, 2015) in the midst of watching TV to the extent that Nielsen (2018) remarks that, on the average, adult tablet and smartphone users spend 6 hours a day on their devices to view and share video contents. This figure collected from the first quarter of the year 2018 shows 11 minutes increase compared to the year 2017. According to Ericsson Consumer Lab (2018), between the years 2014 and 2018, there has been a 60% increase in social media usage and during the year 2018 over 60% of the consumers use social media to talk about their TV viewing experiences.

Talking about TV watching experiences can affect people's decision about watching TV. Wieland (2013) also notes that being involved in social interactions through social media results in continuing to watch TV programs. Furthermore, these statistics have had a rise in 2018 when it was observed that U.S. smartphone owners spend at least 43 minutes while watching TV, and tablet owners spend 45 minutes while watching TV on a daily basis (Nielsen, 2018). According to Nielsen (2018), live TV is the most time-consuming activity conducted by American adults in both 2017 and 2018, followed by the fact that users spend time with their smartphone applications.

More recent statistics with regards to the context of Malaysia show that more than 90% of Malaysians use the Internet and are users of Social Networking Services (SNS) (Iamk, 2018). Such SNS include but are not limited to, Instagram and Facebook. Moreover, around the majority of Internet users who use the Internet (56%), do so to have access to

SNS (Converse, 2017). Such statistics imply that people have become more connected than before which is aided by various platforms and channels. As a result, television viewership has become gradually social, consequently making way to the notion of social TV (Wieland, 2013; Bunch, 2017).

Social TV has been defined by some scholars (Bjur, 2012; Ellis, Karaman, Li, Shim, & Chang, 2016b) as a set of technological solutions that accurately merge together television and social media on a single platform. As Lee, Cho, & Ryu 2011; Leung & Chen, 2017 state, the TV viewing habit is changing drastically. According to the MIT technology review (2010), social TV supports two types of interactions, i.e., in the context of watching TV and related to the TV content.

The evolution trend of social TV shows that the penetration of the Internet is the main driver behind this concept (Lee et al. 2011; Ferraz, Silva, & da Silva, 2015). In the context of Malaysia, Leong, Azhar, Hazri, Mulakala (2018) claim that 73% of youths in this country access the Internet every hour and the total Internet penetration in Malaysia raised from 15 million users in 2008 to 19 million users in 2012. Furthermore, in 2018 about 87.4% of Malaysians have had access to the Internet and there were around 24.6 million social media users in this country (MCMC 2018). Besides, a new survey conducted by Statista suggests that in January 2019, about 78 percent of the Malaysian population were active social media users ("Statista," n.d., para. 2).

The desire to use the Internet and to engage with social media by Malaysians led the Malaysian government to develop infrastructures for easy access to the Internet increasingly widening access to TV content through broadband Internet and subscribed IPTV services such as Astro and Hype TV (Ooi, Sim, Yew, & Lin, 2011).

In addition, nowadays IT, ITC and telecommunication companies, as well as state-run and semi-private broadcasters in Malaysia try to combine television and the web in their products and activities, and gradually web-based interactive television is being developed to include a huge number of existing users in Malaysia. For example, Telekom Malaysia Berhad (TM) IPTV service is accessible countrywide to Streamyx clients and multiple PC, Android & iOS devices. Also, Hypp TV everywhere gives services to customers through UniFi & Streamyx (Ferraz, Silva, & da Silva, 2015; Mohamed Fati & Sumari, 2018a).

On the other hand, due to relatively high penetration of social media and social networking sites in Malaysia (MCMC, 2019) Malaysia Radio and Television (MRT) has been convinced to utilize these platforms to deliver television and radio contents to their audience, and to make TV watching experience more participatory and interactive than ever. In order to utilize the platforms, they have designed specific websites and smartphone applications that are particularly used for watching TV and listening to the radio.

In addition, popular TV and radio programs have an account on Facebook, Twitter, Instagram, and YouTube. This leads to a social and interactive environment for those who listen to radio programs and watch TV shows. Umar et al. (2013) explain that the proliferation of laptops, smartphones, and tablets, along with new innovations in social media including Instagram, Twitter Facebook, and others, have drawn Malaysian people back to real-time and interactive watching of television programs. Such advancements have helped grow the concept of social TV.

As mentioned before, social TV is a set of "technological solutions" that accurately merge together television and social media on the single platform of the idiot box (Bjur, 2012; Min, Zang, & Liu, 2015a). Social TV can be categorized as a set of new technologies which utilizes these specific services to enable TV viewers to use different services such as voice and text chat in the form of either synchronous or asynchronous communication (Geerts 2009; Shin & Roh, 2016; Feltwell et al., 2019). Scholars such as Brown and Venkatesh (2005), Cesar and Chorianopoulos (2009), Doughty, Rowland, and Lawson (2009), Kusumaningtyas & Suwarto (2015a),Yu, Hong, & Hwang (2016b) and Ayyash (2017b) have endeavored to realize which factors affect users' behavior in acceptance, adopting and the usage of IT, ICTs and SNSs in general and social TV-related technologies and services in particular. From this point of view and in the context of social TV, the main problem is to identify what actually makes social TV successful in terms of user acceptance, adoption, and usage. Consequently, on a general level it is necessary to understand how people use the service, and what the determinants of their intention to use social TV technologies, services, and features are.

1.2 Problem Statement

Although television has been an integral part of many homes over the past decades, the arrival of the Internet and social media has threatened its usage among the people. Nowadays that people are used to social networks and web-enabled smartphones, TVs are becoming more and more obsolete (Marketing Charts, 2018). Due to the availability of digital platforms and the widespread options to watch television content on smart devices other than TV, predictions with regards to gradual redundancy towards TV have been sparked.

Current reports indicate that televisions are less welcomed by users, especially youngsters. In line with this, Nielsen (2018) reports a 17.2% decrease in watching TV among young adults in the winter of 2018. Part of such a decrease in attention to television is the result of the emergence of apps and devices used for watching shows on YouTube, Facebook, and other online platforms such as Netflix and Hulu (Giglietto & Selva, 2014; Sánchez-Holgado, Blanco-Herrero, Arcila-Calderón, & Frutos, 2019a). Thus, Ala-Fossi (2016) states that the life duration of a free television platform may not exceed 15 years. Lamy (2014) also predicted that by the year 2030, the era of some broadcasting platforms will come to an end.

There are a number of reasons why this phenomenon, sometimes entitled as the "death of TV", is about to occur. Research shows that as social media usage increases among people, the use of TVs is experiencing a decrease (Rauniar, Rawski, Yang, & Johnson,

2014; Choi, 2017b). Indeed, besides using social media as mentioned earlier, many online streaming services have a lower cost compared to TV, have more options, and have increased user's engagement with TV-related content through commenting, rating, and liking (Day, 2018). This issue urges the need for public broadcasters and the radio and television companies to consider a change in their communication with the audience or they may lose them. As one possible way to maintain their audience is to move from a current one-way hieratical content-flow broadcasting model to an interactive and networked communication platform through social media and social networking sites.

Bearing in mind the fact that Malaysia involves some of the highly engaged users of social networking sites in the region with more than 24 million Facebook users out of about 30 million, and also considering that this engagement is expected to grow to 25 million by the year 2022 (MCMC, 2018), the need for this study is better understood. Even though in Malaysia, the adoption of social media generally and social TV particularly has exhibited significant growth in the last few years, there are no remarkable studies about social TV in this country. Noh et al. (2018) state that most research in Malaysia focuses on SNS and not social TV. In other words, although the variables considered in this study have been previously studied in other contexts and are among the highly accepted variables affecting the intention to use technology, these factors have not been satisfactorily investigated in the context of Malaysia.

From another point of view, technologies can improve productivity only if they are accepted, adopted and utilized by people in society (Venkatresh et al., 2012). Thus, investigating users' acceptance and adoption of new technologies are identified as one of the most advanced field of research in the contemporary information systems (IS) researches (e.g., Magsamen-Conrad, Upadhyaya, Joa, & Dowd, 2015a; Mohd Salleh, Rohde, & Green, 2016b; Sánchez-Holgado et al., 2019a). In the present-time IS, IT and ICT industry, consumers are faced with a rising number of failed novelties; due to attention to product-related features and ignoring the users (Gibbons, 2004; de Jong, Gillert, & Stock, 2018). This raises the query of how user's adoption and acceptance of new technologies in different areas including IT, ICT, SNSs and social TV can lead to these new technologies diffusion among the consumers in a successful way.

Acceptance and use of social TV are significant to many industries including TV-related application developers, TV website designers, Internet Protocol Television (IPTV) providers, television producers and video content generators. It urges the need to investigate the intention of social TV consumers to know the reasons why they select a particular technology or service over another. This is a context-bound issue and should be studied within the boundaries of a particular context. However, to the researcher's best knowledge, prior research in the context of Malaysia has not dealt with this issue yet. In other words, unless more research is conducted to understand the behavioral intentions of Malaysians towards social TV acceptance and usage, Malaysia will be the user of these sorts of technologies which are produced by other countries and cannot take a leading role in the market.

As mentioned before, social TV is a technology that revolutionized the habit of watching TV through actively engaging the viewers with social media. Indeed, social media is a

platform for TV viewers to interact with TV. They can share a given content, rate it and comment on it. However, research dealing with the determinants of using and accepting social TV among particular groups such as students is important. Considering that the youngsters, especially at the university level, are among the influential groups of society, more research is required to explore and measure the factors that encourage them to use and accept social TV as new technology.

From another standpoint, social TV is emerging in both academia and industry, yet none of these two areas has been subject to adequate research (Krämer, Winter, Benninghoff, & Gallus, 2015b; Lin, Sung, & Chen, 2016b; Bautista, Lin, & Theng, 2016; Holanda, Guilherme, da Silva, & Goussevskaia, 2015). However, many of the previous studies conducted have been in controlled (laboratory) research (Hu et al., 2014; Shin & Roh, 2016; Hammes, 2016). Thus, there is a need to conduct a survey study to analyze whether there could be relationships and or differences between the findings from previous methodologies.

In addition, and from theoretical stand point although there is a plethora of studies and articles about both conventional mass media and new social media adoption among users by extending technology acceptance models such as UTAUT and UTAUT 2, there is a big gap in applying these models to investigate social TV adoption among users. Besides, other studies that have delved into similar issues in the context of Malaysia have almost utilized the UTAUT1 model which does not include the independent variables of "Habit", "Hedonic Motivation", "Price Value" and moderating variables of "Age", "Gender", and "Experience". (e.g., Min, Ji, & Qu, 2008; Wu, Yu, & Weng, 2012; Lurudusamy & Thurasamy, 2016; Nawi et al., 2017). Hence, such comprehensive results gained in this study can be of much help to the researchers in the field, and conducting such a study in Malaysia could give exciting results and offer a solution to treat over-mentioned problems both in theoretical and practical dimensions.

Another theoretical gap also exists with regard to social TV which should be bridged. It seems that the factors affecting the intention to use social TV among Malaysian students have not been well studied. The researchers' review of the literature prior to conducting this study revealed that most studies focus on the use of social media sites such as Facebook, twitter, and WhatsApp by the Malaysian students (e.g., Irfan, Rasli, Sulaiman, Sami, & Qureshi, 2018). Thus, the current level of understanding of the effects of factors such as facilitating conditions, hedonic motivation, price, performance expectancy, effort expectancy, and habit on the intention to use social TV among Malaysian students is low.

Finally, a theoretical gap was observed by the researcher and was targeted in this study. As mentioned earlier, most studied dealing with technology acceptance and usage deal with SNS, social media, and similar forms of technology. The difference between the nature of these technologies and social TV indicates that the model representing the affective factors should be different. Such a model for social TV is yet absent and would be presented by conducting this study.

1.2 Research Questions

Based on the above-mentioned problems, the following research questions were raised and answered through this research:

1- What are the frequencies of social TV actual usage among Malaysian university students?

2- What are the relationships, if any, between "Performance Expectancy", "Effort Expectancy", "Social Influence", "Facilitating Conditions", "Habit", "Hedonic Motivation" and "Price Value" toward "Intention to Use Social TV"?

3- What is the relationship, if any, between "Intention to Use Social TV "and "Actual Usage of Social TV" among Malaysian university students?

4- Do gender, age, and experience moderate the relationships between perceived "Performance Expectancy", "Effort Expectancy", "Social Influence", "Facilitating Conditions", "Habit", "Hedonic Motivation", "Price Value" and the "Intention to Use Social TV" among the Malaysian university students?

1.3 Research Objectives

The research was to examine factors influencing social TV using intention among Malaysian students. To be specific, the objectives of the study were:

1. To measure the frequencies of social TV actual usage among Malaysian university students.

2. To determine the levels of perceived "Performance Expectancy", "Effort Expectancy", "Social Influence", "Facilitating Conditions", "Habit", "Hedonic Motivation", "Price Value" and "Intention to Use Social TV" among Malaysian university students.

3. To assess the relationships between performance expectancy, effort expectancy, social influence, facilitating conditions, habit, hedonic motivation and price value toward intention to use Social TV?

4. To estimate the relationship, between "Intention to Use Social TV" and "Actual Usage of Social TV" among Malaysian university students.

5. To evaluate the moderating effect of "Gender", "Age", And "Experience" on the relationships of perceived "Performance Expectancy", "Effort Expectancy", "Social Influence", "Facilitating Conditions", "Habit", "Hedonic Motivation", and "Price Value" with "Intention to Use Social TV".

1.5 Significance of the Study

The findings of the current study can contribute to the field of communication studies in several ways. Going through a deductive approach to explain such contributions, the enhancement in communication should be highlighted first. This study is significant, as

its findings help researchers to better understand the nature of the new communication model between the television content generators and TV viewers through social media platforms. Despite the primary theoretical model of communication in general and broadcasting, in particular, that was a one-way message transmission from sender to receiver (Shim & Weaver, 1949), this research highlighted an interactive and Transactional Model of Communication (TMC) which was already formulated by Barnlund (2008). In the current model, communication is perceived as a two-way continuing, rounded, circulated socialized and interactive process (Wood, 2009) through the concept of social TV-related services and application. In the current model, communicators affect and are affected simultaneously by those they interact with.

Current research dealing with social TV is one of the pioneer studies which can help researchers and scholars in the field of communication to better understand the interactive nature of new communication model through social media apparatus among the TV content generators in one side, and consumers on the other side, in an interactive manner. In such a model, television audience becomes the receivers and the senders of simultaneous messages; by recommending and sharing received TV programs, showing the programs to friends and family as well as giving feedback to the sender by commenting on TV-related posts and voting and rating the TV programs on social media.

Also, this research is one of the first academic efforts to understand the nature of social TV and the factors influencing user intention to accept and use such technology among Malaysian university students. Such research is considered significant, as research findings may help the readership to not only understand the social TV as an emerging new phenomenon but also understand the factors which influence the intention of Malaysian users of social TV to use social TV. This research also deals with how these factors are moderated based on "Gender", "Age", And "Experience".

Furthermore, without information about the viewers' needs and preferences, TV companies lose a large portion of their audiences. That's why data with regard to the variables which can affect behavioral intention to acceptance and usage of Social TV amongst the Malaysian university students can be used by radio and television companies to realize what factors can influence their audience's intention; in terms of selecting their programs and shows through social media. Such information is significant to the policymakers who are in charge of making decisive decisions. Such policymakers include the directors of IPTV and broadcasting companies.

The findings of this study can also have practical usage for various cohorts in the social TV discipline. This research can help stakeholders including, broadcasters, Internet Protocol TV (IPTV) providers, and TV-related mobile application developers, to better design such services and technologies. This can result in more users accepting and using their new services and technologies. Considering that such projects involve large investments, the results of this study can reduce the chances of failure of such investments. Data with regard to gender, age, and experience can result in designing particular social TV applications that best cater to the needs of users in particular age, gender, and experience groups so that they can have a more pleasant experience using social television.

The next issue is that the current research takes the initiative to reveal the frequency and diversity of Social TV users' activities while watching TV. Such data can, in turn, be used to expand the influence of Social TV or to use it for purposes other than simple socialization, i.e., marketing, education, and even politics. This information is crucial for designing Social TV applications that can enhance communication among TV content consumers through the Internet and social media.

To the researcher's best knowledge, this study is among the first studies with regard to UTAUT 2 in Malaysia to examine factors influencing behavioral intention to use social TV, even though a lot of studies (Attuquayefio & Addo, 2014; Oye, Iahad, & Rahim, 2014; Raman, Sani, & Kaur, 2014) have been extended to use the UTAUT model in the different area including IS, IT and ICTs and SNSs, the UTAUT and UTAUT2 models have not been extended to examine the behavioral intention to use social TV. In this study, UTAUT 2 model was extended and explored according to its factors which can determine the acceptance and usage of social TV among Malaysian university students.

Finally, and from methodology standpoint, this study investigated the use and acceptance of social TV through a survey on the actual use of social TV. The benefit of this methodology over experimental studies lies in its credibility. In addition, through survey studies, lots of data both qualitative and quantitative can be gathered quickly from different groups and a large population. The research method used in this study is verified, as significant results were achieved. This method can be used to study more aspects of social TV among other social groups.

1.6 Limitation of Study

As all studies may suffer from factors which limit the study, this study had some issues which are explained under the heading of limitations in this study.

The design of the current study is to examine the UTAUT 2 model on the intention to use social TV. This is one of the few efforts to corroborate university students' acceptance of social TV in developing countries. Especially, the model hypothesized the influence of UTAUT 2, model's constructs on social TV intention to use. There are quite some limitations to this work.

First, participants in this study are educated; thus, generalizing the findings to the entire population is debatable. Secondly, although the UTAUT model's founders pointed out that their proposed model should be considered as a base for more experiential studies (Venkatesh et al., 2003) whereas researches that have been conducted in the context of Malaysia and other parts of the world mostly dealt with other ICT-related technologies and services. Based on the researcher's knowledge, there is a lack of scientific and academic researches that specifically apply the UTAUT or UTAUT 2 model in order to examine the adoption of social TV. This issue could raise questions on whether the applied model allows us to provide accurate insights into the adoption of social TV or not.

As research on UTAUT 2 and social TV is very scant, the researcher had access to limited resources. This, in turn, caused difficulties in the research process, and eventually led to using similar studies which had benefited from the model in studies relevant to social networking sites, social media, the Internet, mobile TV, and some messenger applications, IPTV, etc.

Although the focus of the study was on Malaysian students, it was not possible for the researcher to visit all universities and gather data from the respondents. To tackle this limitation, the researcher used a cluster sampling approach. Through this approach, the universities were clustered into public and private and a sample from each cluster was selected.

In addition, the researcher could not review documents published in languages other than English and Persian; thus, documents published in other languages are not included in this study.

Relying on a self-report survey is another part of the current study's limitation. Whereas most experts recommend a multi-method assessment that contains "self-report" data as well as other data, such as "individual's behavior observation" to provide a more accurate image of the topic.

1.7 Organization of the Thesis

This thesis is organized in five chapters. In Chapter One, the focus is accorded on setting the ground for the study. To do so, the research problem, objectives, research questions, and significances and limitations of the study are presented.

Chapter two of the study aims at a critical review of the background of social TV and the UTAUT model. To do so, the researcher had to start with theories that underpin the use of social TV. Later, the studies conducted in Malaysia about determinant factors of acceptance and usage of technologies such as broadband Internet, smart devices, IPTV services, mobile applications as well as social media and social TV-related services were critically reviewed. Towards the end of the chapter, the researcher focused on the development of the UTAUT 2 model and why the model is suitable to be used in this study.

Chapter Three focuses on the methodology of the study. Issues related to the design of the study, selection and sampling techniques, and instruments used in the study, the procedure of data collection and data analysis and reliability and validity of the instruments are all explained in this chapter.

Chapter Four presents discussion on the findings. The researcher discussed the findings of the study in light of previous research.

Finally, Chapter Five presents the conclusion of the study. Along with the conclusion, the researcher elaborates on the implications of the study, and areas for further research.

1.8 Definition of the Key Terms

Some terms and variables were investigated in this study. These variables were operationalized in the current study by using the UTAUT 2 model designed by Venkatesh et al. (2003) and Venkatesh et al. (2012).

1.8.1 Performance Expectancy

"Performance expectancy" is defined as the extent to which consuming certain technology or service will provide benefits to consumers in performing certain activities (Brown & Venkatesh 2005).

1.8.2 Effort Expectancy

"Effort expectancy" as another factor that is considered by Venkatesh et al. (2003) in their UTAUT model and is defined as the degree of easiness related to the use of technology by the consumer.

1.8.3 Social Influence

"Social influence", is defined as the extent to which people perceive that important others (e.g., family and friends) believe that they should use a particular technology (Venkatesh et al., 2003).

1.8.4 Facilitating Conditions

"Facilitating conditions" refers to people's perceptions of the resources and support available to perform a behavior (Brown & Venkatesh 2005; Venkatesh et al. 2003).

1.8.5 Hedonic Motivation

According to Brown and Venkatesh (2005), hedonic motivation is defined as the fun or pleasure derived from using technology.

1.8.6 Price Value

The "price value" is the consumers' cognitive trade-off between the perceived benefits of the technology and the monetary cost for using them (Dodds et al., 1991). Price is a determining factor in the UTAUT 2 model. In addition, buying power is a significant issue for students who have a limited budget. Therefore, it was considered in this study.

1.8.7 Habit

Habit is defined as the extent to which people prioritize to perform a behavior automatically as a result of education (Limayem et al., 2007).

1.8.8 Behavioural Intention

Behavioral intention (BI) is defined as a person's perceived probability or subjective probability that he or she will become involved in a particular behavior (Sánchez Prieto, Migueláñez, and García-Peñalvo, 2015).

1.8.9 Social Media

Social Media is defined as Internet-based applications that rely upon the technological foundations of Web 2.0, which allow profile creation and relationships between users (Boyd & Ellison, 2008) and provide functionality for sharing and group conversation (Kietzmann et al., 2011) as well as allow the creation and exchange of User Generated Content. (Kaplan & Haenlein 2010).

1.8.10 Social TV

As a new threshold to communication between people around TV contents, Social TV refers to social interactions among viewers using a second screen (Atifi & Marcoccia, 2017) while watching TV. In other words, social TV is "real-time back-channel communication on social networking sites during a live television show (Lim, Hwang, Kim, Biocca 2015, p.17) which enables the users to check a content and invite others to share their comments and opinions.

1.8.11 University Students

Although university students are those who attend the educational system at the graduate and postgraduate level, the researcher in this study looked into specific demographics of these students. The university students were selected from the Malaysian public and private universities across the Selangor state.

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