

تطبيق النظرية الموحدة لقبول واستخدام التكنولوجيا ٢ لتقييم النوايا السلوكية عند استخدام تطبيقات التراسل الفوري

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الملخص:

هدف هذا البحث إلى دراسة استخدام النظرية الموحدة لقبول واستخدام التكنولوجيا ٢ (UTAUT2) اعتمدت وكان لها الفضل لشرح جزء كبير من نوايا المستخدمين المتعلقة بالتبني والسلوك عند استخدام التكنولوجيا أكثر من النظريات و النماذج الأخرى، إلا أنه لم يتم اختبار هذه النظرية في الثقافات غير الغربية مثل دول الخليج وتحديدًا الكويت. وبالتالي، فإن هذه الدراسة تستخدم UTAUT2 لدراسة النوايا السلوكية للمستخدم عند استخدام تطبيقات المراسلة الفورية (IMA) وتأثيرها على النشاط التجاري. تطبيقات المراسلة الفورية هي واحدة من أهم وسائل الاتصال من قبل المستخدمين واعتمدت وتستمر في النمو من حيث الأهمية، وبالتالي يقود دافع هذه الدراسة لاستكشاف هذه الظاهرة خاصة في المنطقة حيث البحث عن تطبيقات المراسلة الفورية قليلة الاهتمام. تعتمد الدراسة المنهج الكمي لجمع البيانات والمعتمد على أساس توزيع الاستبيانات والتحليلها باستخدام برنامج SPSS. تشير النتائج إلى أن أعلى نسبة من المشاركين يستخدمون WhatsApp، وثاني أعلى نسبة يستخدمون Snap Chat، وثالث أعلى نسبة يستخدمون Viber. وفيما يتعلق بنظرية UTAUT2 تظهر النتائج عند استخدام تطبيقات المراسلة الفورية الأولوية القصوى للمستخدمين تعتمد على التواصل بشكل أسرع؛ ثم سهولة

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الاستعمال؛ ثم الاهتمام بآراء المقريين؛ ثم متعة للاستخدام؛ ثم كونها مجانية وبشكل أفضل من الخدمات المكلفة الأخرى؛ وأخيرا انها أصبحت عادة لهم في الاستخدام. من حيث الجنس بينت الدراسة أن الإناث لديهم إدراك لأهمية تطبيقات المراسلة الفورية أكثر من الذكور.

الكلمات المفتاحية: النظرية الموحدة لقبول واستخدام التكنولوجيا ٢؛ تطبيقات التراسل الفوري؛ زيادة الأعمال؛ النوايا السلوكية.

Utilizing the Unified Theory of Acceptance and Use of Technology 2 to Evaluate Behavioral Intentions to Use Instant Messaging Applications

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Abstract:

The unified theory of acceptance and use of technology 2 (UTAUT2) has been credited with explaining a large portion of users' intention to adopt a technology and users' behavior in adoption than other models, however it has not been tested in non-western cultures like Gulf countries and specifically Kuwait. Therefore, this study utilizes UTAUT2 to examine user's behavioral intentions to use instant messaging applications (IMA) and its effect on entrepreneurial activity. IMA is one of the major means of communication adopted by users and continues to grow in importance, thus driving a motivation to explore such phenomenon especially in a region where research about IMA is lagging attention. The study adopts a quantitative approach for data collection based on questionnaire distribution and analysis using SPSS software. Findings indicate that the highest number of participants use WhatsApp, second highest use Snap Chat and third highest use Viber. In relation to the UTAUT2 results show when using IMA users' highest priority is based on faster communication; ease of use; caring about opinions of close people; fun to use; free of charge and better than other costly services; and has become a habit for them. In terms of gender females perceive greater importance for IMA than males.

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Keywords: Unified theory of acceptance and use of technology 2 (UTAUT2); instant messaging applications (IMA); entrepreneurship; behavioral intentions (BI).

Introduction

Smartphones enabled by mobile communication services known as instant messaging applications (IMA) transformed the way people communicate and, thus contributed to the decrease in use of the traditional short message services (SMS).

Research in IMA has spanned many countries such as the Unites States (Nardi, Whittaker, and Bradner, 2000); India (Singh, 2014); Spain (Church and Oliveira, 2013); Korea (Ha, Kim, Libaque-Saenz, Chang, and Park, 2015). However, studies examining IMA adoption specifically in other non-western regions is scarce. The popularity and increase in use of IMA coupled by the insufficient research focus on it was the main motivator for undergoing this research.

Therefore, the objectives of this study are to first, validate the UTAUT2 by testing it to other non-western populations. Second, contribute to the entrepreneurial research by highlighting how IMA can benefit entrepreneurs in developing countries, especially in an age that is highly driven by IMA use. Third, to explore the intentions to adopt and behavioral intention to use IMA in a region where research has been lagging attention. The reason for choosing the UTAUT2 model is that it also employs the construct of user habituation which in the case of IMA is also interesting to test to understand users' degree of attachment to IMA. Fourth, one of the main objectives of this research is inspired by the need to explore users' perceptions and use of IMA that have stimulated adoption and led to user habituation and its value to entrepreneurs.

Review of Literature

Theory

This research utilizes the unified theory of acceptance and use of technology 2 (UTAUT2) (Venkatesh, Thong, & Xu, 2012) to examine user's acceptance and use of instant messaging applications. The UTAUT2 is a further developed of the original unified theory of acceptance and use of technology UTAUT. The UTAUT was originally developed to understand employee acceptance and use of different technologies in their work place. With further application of the model, it was later applied to examine consumer's acceptance and use of technologies in non-organizational contexts.

The UTAUT2 extended the UTAUT by further incorporating into it three main constructs that would tailor it more towards the consumer use context (Venkatesh et al. 2012). Therefore, the purpose of this study is to test the use of IMA applications among users by utilizing the seven main variables of UTAUT2 with user's age, gender, and education. Previous literature suggests testing age, and gender are important predictors of differences in smartphone users, as in the case of Facebook it was found that females visit the it more frequently than males (Joinson, 2008). Another study of smartphone usage indicated that age negatively affects the adoption of IMA among users (Wei, 2008).

Instant Messaging Applications

Instant messaging applications (IMA), or what is also referred to as mobile instant messaging applications are the new wave of communication services that have recently emerged and revolutionized people's communication behaviors worldwide. The instant messaging communication technology allow users across borders to communicate with each other as in single individuals or with groups in live real-time and instant text messages for no cost. Ever since research on IMA is spanning high importance as users around the world are adopting it as their

main means of communication and replacing the traditional short message service SMS. This has led to the rapid increase in adoption and popularity especially within the teen populations throughout the world that gradually grew to the remainder of smartphone users (Church and Oliveira, 2013; Grinter and Eldridge, 2003; Grinter and Palen, 2002; Ito, 2005; Kasesniemi and Rautiainen, 2002; Taylor, A. S., and Harper, 2002).

Therefore, the purpose of this study is to first, contribute to the instant messaging research and fill the gap in literature by testing the UTAUT2 in the region. Second contribute to the entrepreneurial literature by highlighting how IMA impacts entrepreneurial activity in developing nations. Third, to investigate how popular and how much are IMA used. Fourth, to identify the highest-ranking IMA and the reason behind preferred use. Fifth, investigating the relationship of performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value, and habit with respondent's gender, age, and education when using IMA. Sixth, to encourage research in the field of mobile communication and give future direction to stimulate further research. Therefore, the following hypothesis are examined:

H¹: PE- **Age, gender, and education** will moderate the effect of **performance expectancy** on user's behavioral intention to use instant messaging applications.

H²: EE- **Age, gender, and education** will moderate the effect of **effort expectancy** on user's behavioral intention to use instant messaging applications.

H³: SI- **Age, gender, and education** will moderate the effect of **social influence** on user's behavioral intention to use instant messaging applications.

H⁴: FC- **Age, gender, and education** will moderate the effect of **facilitating conditions** on user's behavioral intention to use instant messaging applications.

H⁵: HM- **Age, gender, and education** will moderate the effect of **hedonic motivation** on user's behavioral intention to use instant messaging applications.

H⁶: PV- **Age, gender and education** will moderate the effect of **price value** on user's behavioral intention to use instant messaging applications.

H⁷: H- **Age, gender, and education** will moderate the effect of **habit** on user's behavioral intention to use instant messaging applications.

Therefore, this research aims at testing the UTAUT2 by exploring the previously mentioned hypothesis to understand the relationship of respondent's demographic factors gender, age, and educational level in the UTAUT2 that drives use, the facilitating conditions of IMA that enable use, hedonic motivation of IMA that inspire use, price value that is an important predictor of adoption, and habit that is a predictor of maintaining or discontinuing use of IMA.

Methodology

This study examines the use of instant messaging application by utilizing the UTAUT2. Instant messaging apps are free of charge mobile communication services that people use through accessing the Internet. Instant messaging apps are applications used for different kinds of communication functions such as text/voice/group chat; voice/video call; photo/video/location sending.

Sample

A questionnaire was designed and validated. The reliability of the questionnaire was measured and then circulated to 420

respondents who are studying in large public and private universities in autumn 2016 by the author and a research assistant. A final sample totaled 400 questionnaires were returned and viable for analysis, the remainder 20 questionnaires had missing fields and for that reason were eliminated from the sample. Various dependent variables were measured using the five level 'Likert Scales', where 1 represents 'strongly disagree', 2 represents 'disagree', 3 represents 'undecided' 4 represents 'agree' and 5 represents 'strongly agree'. Analysis was performed by the author with the help of a statistical expert. Reliability of the questionnaire was measured using Cronbach's Alpha of SPSS-20 software program. Reliability of all the twenty-five dependent variables related to the UTAUT2 were measured, and it was 0.942, which shows a very strong reliability.

Results and Discussion

The study generated interesting findings. Results indicate all 400 participants of the study already use some sort of IMA. Male participants were 164 (41%) and female participants were 236 (59%). 265 (66.3%) participants were in the age group of 'up to 29 years' and 135 (33.8%) participants were in the age group of '30 years and above'. The level of education of 161 (40.3%) participants was 'up to Diploma' and 239 (59.8%) were 'bachelor and above'.

The following table (1) shows the kind of 'Instant Messaging Applications' participants' use.

Table (1) shows that the highest number of participants 386 (96.5%) use WhatsApp. The second highest number of participants 255 (63.8%).

This finding also supports previous studies that indicate WhatsApp ranking first, Facebook messenger ranked second, Viber and Line were equal in use in India (Singh, 2014).

Table (1)

The kind of 'Instant Messaging Applications' the participants use.

The Table is sorted in the Descending Order as per their use

Variables	The number of participants and their percentage of using these Instant Messaging Applications
WhatsApp	386 (96.5%)
Snap Chat	255 (63.8%)
Viber	103 (25.8%)
Skype	72 (18.0%)
Facebook Messenger	68 (17.0%)
Tango	50 (12.5%)
Kik	48 (12.0%)
Line	28 (7.0%)

The following table (2) shows participants' feelings about UTAUT2.

Table (2)

Participants' feelings about UTAUT2

The first five column values show the count and their percentages

The sixth column values show the 'Mean Values' in the descending order

Participants' feelings about the UTAUT2	Strongly Disagree (1)	Disagree (2)	Undecided (3)	Agree (4)	Strongly Agree (5)	Mean
Performance Expectancy						
I communicate faster with instant messaging apps	9 2.3%	10 2.5%	39 9.8%	169 42.3%	173 43.3%	4.22
I find instant messaging apps useful in my daily life	14 3.5%	18 4.5%	40 10.0%	150 37.5%	178 44.5%	4.15
Instant messaging apps help me accomplish things more quickly	10 2.5%	30 7.5%	46 11.5%	177 44.3%	137 34.3%	4.00
Instant messaging apps increase my productivity	17 4.3%	32 8.0%	109 27.3%	144 36.0%	98 24.5%	3.69

Effort Expectancy						
I find Instant messaging apps easy to use	3 0.8%	11 2.8%	31 7.8%	192 48.0%	163 40.8%	4.25
Instant messaging apps are clear and understandable	5 1.3%	16 4.0%	68 17.0%	192 48.0%	119 29.8%	4.01
It's easy to become skillful at using Instant messaging apps	14 3.5%	12 3.0%	60 15.0%	187 46.8%	127 31.8%	4.00
Learning how to use instant messaging apps doesn't require a lot of effort	13 3.3%	21 5.3%	57 14.3%	223 55.8%	86 21.5%	3.87

Social Influence						
People whose opinions I value prefer that I use instant messaging apps	11 2.8%	22 5.5%	81 20.3%	164 41.0%	122 30.5%	3.91
People who are important to me think that I should use instant messaging apps	8 2.0%	36 9.0%	70 17.5%	178 44.5%	108 27.0%	3.86
People who influence my behavior think that I should use instant messaging apps	7 1.8%	34 8.5%	92 23.0%	172 43.0%	95 23.8%	3.79

Facilitating Conditions						
I have the necessary knowledge to use instant messaging apps	7 1.8%	12 3.0%	48 12.0%	160 40.0%	173 43.3%	4.20
Instant messaging apps are compatible with the technologies I use	7 1.8%	15 3.8%	53 13.3%	165 41.3%	160 40.0%	4.14
I have the necessary mobile to use instant messaging apps	9 2.3%	29 7.3%	43 10.8%	160 40.0%	159 39.8%	4.08
I can get help from others when I have difficulties using instant messaging apps	12 3.0%	27 6.8%	83 20.8%	144 36.0%	134 33.5%	3.90

Hedonic Motivation						
Instant messaging apps are fun to use for communication	18 4.5%	13 3.3%	50 12.5%	162 40.5%	157 39.3%	4.07
Instant messaging apps are an enjoyable way to spend time	14 3.5%	25 6.3%	43 10.8%	158 39.5%	160 40.0%	4.06
Instant messaging app features are very entertaining	17 4.3%	11 2.8%	64 16.0%	166 41.5%	142 35.5%	4.01
Price Value						
Instant messaging apps are better than other costly services	14 3.5%	35 8.8%	43 10.8%	156 39.0%	152 38.0%	3.99
I like using instant messaging apps because they are free communication	11 2.8%	42 10.5%	57 14.3%	161 40.3%	129 32.3%	3.89

services						
Instant messaging apps allow me to save money	11 2.8%	47 11.8%	72 18.0%	145 36.3%	125 31.3%	3.82
Habit						
The use of instant messaging apps has become a habit for me	14 3.5%	20 5.0%	66 16.5%	151 37.8%	149 37.3%	4.00
I must check my instant messaging apps when I wake up in the morning and before I go to sleep at night	16 4.0%	42 10.5%	74 18.5%	107 26.8%	161 40.3%	3.89
I must use instant messaging apps everyday	14 3.5%	49 12.3%	85 21.3%	122 30.5%	130 32.5%	3.76
I feel addicted to using instant messaging apps	10 2.5%	46 11.5%	96 24.0%	138 34.5%	110 27.5%	3.73

T-test with respect to Gender UTAUT2:

T-test is applied with respect to gender on UTAUT2 (performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value, habit and total UTAUT2) as shown in the following table (3). The important results from the table (3) show that significant difference exists between male participants and female participants for five (effort expectancy; social influence; hedonic motivation; price value; total UTAUT) out of eight dependent variables related to the UTAUT2 at 95% confidence interval.

When comparing, a previous study performed in among Indian users no significant difference was evident in gender among males and females in usage context. Meaning males and females used IMA almost for the same purposes (Singh, 2014).

1: Table (3) shows that there is a statistical significant difference at (.05) with respect to “gender (male, female) on ‘Overall Effort Expectancy of UTAUT2’, $t(274.03) = - 3.60, p < .05, (p=0.000)$. This finding adds importance to the entrepreneurial activity by highlighting when communicating product information to customer’s females are more prone to react to such product related information more than males. This adds to the importance to entrepreneurs that are exploiting female products to rely on IMA as an important mode of communication.

2: Table (3) shows that there is a statistical significant difference at (.05) with respect to “gender (male, female) on ‘Overall Social Influence of UTAUT2’, $t(297.08) = - 3.53, p < .05, (p=0.000)$. Females are socially influenced more than males when adopting IMA. They tend to care more about family and friends’ opinions more than males.

3: Table (3) shows that there is a statistical significant difference at (.05) with respect to “gender (male, female) on

‘Overall Hedonic Motivation of UTAUT2’, $t(290.02) = -3.11$, $p < .05$, ($p=0.002$). This means that females feel happier and pleasant when using IMA for communication purposes more than males. Females tend to enjoy it more as a method of entertainment more than males.

4: Table (3) shows that there is a statistical significant difference at (.05) with respect to “gender (male, female) on ‘Overall Price Value of UTAUT2’, $t(398.00) = -4.26$, $p < .05$, ($p=0.000$). This means that females are more sensitive about price value of IMA and appreciate its free service more than males. It is an indicator that females are more financially sensitive than males when choosing to communicate with IMA.

5: Table (3) shows that there is a statistical significant difference at (.05) with respect to “gender (male, female) on ‘Overall UTAUT2’, $t(267.90) = -2.78$, $p < .05$, ($p=0.006$). This means on an overall scale females feel more importance, require less effort for use, are socially influenced more by family and friends, perceive greater enjoyment; and care more about price value than males do when using IMA.

Table: (3)

T-Test with respect to "Gender" on UTAUT2:

Variables	Gender	N	Mean	Std. Deviation	t	df	Sig. (2-tailed)
Overall Performance Expectancy of UTAUT2	Male	164	3.97	0.93	-0.89	303.35	0.375
	Female	236	4.05	0.75			
Overall Effort Expectancy of UTAUT2	Male	164	3.88	0.81	-3.60	274.03	0.000
	Female	236	4.14	0.58			
Overall Social Influence of UTAUT2	Male	164	3.68	0.89	-3.53	297.08	0.000
	Female	236	3.97	0.70			
Overall Facilitating Conditions of UTAUT2	Male	164	4.06	0.85	-0.38	398.00	0.704
	Female	236	4.09	0.71			
	Male	164	3.87	1.05	-	290.02	0.002

Overall Hedonic Motivation of UTAUT2	Female	236	4.17	0.80	3.11		
Overall Price Value of UTAUT2	Male	164	3.68	0.93	4.26	398.00	0.000
	Female	236	4.05	0.82			
Overall Habit of UTAUT2	Male	164	3.78	0.92	1.14	398.00	0.254
	Female	236	3.89	0.90			
Overall UTAUT2	Male	164	3.86	0.77	2.78	267.90	0.006
	Female	236	4.05	0.53			

T-test with respect to Age on UTAUT2:

T-test is applied with respect to age ((up to 29), (30 and more)) on UTAUT2 (performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value, and habit) as shown in the following table (4).

1: The table (4) shows that there is a statistical significant difference at (.05) with respect to age (up to 29, 30 and more) on 'Overall Price Value of UTAUT2', $t(398.00) = 2.23$, $p < .05$, ($p=0.026$). This can be explained as the students and young adults' category that are at the beginning of their career and with a limited budget and can't afford pricy services.

2: The table (4) shows that there is a statistical significant difference at (.05) with respect to "age (up to 29, 30 and more) on 'Overall Habit of UTAUT2', $t(398.00) = 2.13$, $p < .05$, ($p=0.034$). This finding can be explained also in relation to the

students and young adults' categories are more prone to use communication technology more than their elder counterparts.

Table: (4)

T-Test with respect to Age on UTAUT2:

Variables	Age	N	Mean	Std. Deviation	t	df	Sig. (2-tailed)
Overall Performance Expectancy of UTAUT2	Up to 29	265	3.97	0.85	-1.33	398.00	0.185
	30 and More	135	4.09	0.79			
Overall Effort Expectancy of UTAUT2	Up to 29	265	4.07	0.74	1.40	329.57	0.162
	30 and More	135	3.97	0.59			
Overall Social Influence of UTAUT2	Up to 29	265	3.90	0.83	1.83	398.00	0.068
	30 and More	135	3.75	0.72			
Overall Facilitating Conditions of UTAUT2	Up to 29	265	4.03	0.81	-1.93	398.00	0.054
	30 and More	135	4.18	0.66			

Overall Hedonic Motivation of UTAUT2	Up to 29	265	4.06	0.94	0.39	398.00	0.696
	30 and More	135	4.02	0.89			
Overall Price Value of UTAUT2	Up to 29	265	3.97	0.89	2.23	398.00	0.026
	30 and More	135	3.76	0.85			
Overall Habit of UTAUT2	Up to 29	265	3.91	0.94	2.13	398.00	0.034
	30 and More	135	3.71	0.83			
Overall UTAUT2	Up to 29	265	3.99	0.68	0.76	398.00	0.446
	30 and More	135	3.94	0.59			

T-test with respect to Education on UTAUT2:

T-test is applied with respect to education (up to diploma, bachelor and more) on UTAUT2 as shown in the following table (5).

1: Table (5) shows that there is a statistical significant difference at (.05) with respect to education (up to diploma,

bachelor and more) on 'Overall Performance Expectancy of UTAUT2', $t(389.76) = 3.64, p < .05, (p=0.000)$.

2: Table (5) shows that there is a statistical significant difference at (.05) with respect to education (up to diploma, bachelor and more) on 'Overall Effort Expectancy of UTAUT2', $t(397.88) = 3.04, p < .05, (p=0.003)$. Again, the less educated category of users perceive ease of using IMA more than educated participants.

3: Table (5) shows that there is a statistical significant difference at (.05) with respect to education (up to diploma, bachelor and more) on 'Overall Social Influence of UTAUT2', $t(389.65) = 4.40, p < .05, (p=0.000)$. This means that less educated participants are influenced more socially from family and friends than higher educated participants.

4: Table (5) shows that there is a statistical significant difference at (.05) with respect to education (up to diploma, bachelor and more) on 'Overall Facilitating Conditions of UTAUT2', $t(398.00) = 3.17, p < .05, (p=0.002)$. This means that less educated participants care more about having other compatible devices and can get help easily when using IMA more than higher educated participants. This is probably since higher educated participants have more functionality knowledge than less educated participants for that reason they do not care about getting help from others when using IMA.

5: Table (5) shows that there is a statistical significant difference at (.05) with respect to education (up to diploma, bachelor and more) on 'Overall Hedonic Motivation of UTAUT2', $t(393.05) = 3.23, p < .05, (p=0.001)$. This means that less educated participants feel more entertainment and enjoyment when using IMA than higher educated participants.

6: Table (5) shows that there is a statistical significant difference at (.05) with respect to education (up to diploma,

bachelor and more) on 'Overall Habit of UTAUT2', $t(369.76) = 4.00$, $p < .05$, ($p=0.000$). This can also be explained as less educated participated are easily habituated.

7: Table (5) shows that there is a statistical significant difference at (.05) with respect to education (up to diploma, bachelor and more) on 'Overall UTAUT2', $t(397.87) = 4.20$, $p < .05$, ($p=0.000$).

Table: (5)

T-Test with respect to Education on UTAUT2 :

Variables	Education	N	Mean	Std. Deviation	t	df	Sig. (2-tailed)
Overall Performance Expectancy of UTAUT2	Up to Diploma	161	4.19	0.69	3.64	389.76	0.000
	Bachelor and More	239	3.90	0.89			
Overall Effort Expectancy of UTAUT2	Up to Diploma	161	4.15	0.52	3.04	397.88	0.003
	Bachelor and More	239	3.95	0.79			
Overall Social Influence of UTAUT2	Up to Diploma	161	4.05	0.66	4.40	389.65	0.000
	Bachelor and More	239	3.72	0.85			
Overall	Up to Diploma	161	4.23	0.65	3.17	398.00	0.002

Facilitating Conditions of UTAUT2	Bachelor and More	239	3.98	0.83			
Overall Hedonic Motivation of UTAUT2	Up to Diploma	161	4.22	0.75	3.23	393.05	0.001
	Bachelor and More	239	3.93	1.00			
Overall Price Value of UTAUT2	Up to Diploma	161	3.92	0.83	0.39	398.00	0.699
	Bachelor and More	239	3.88	0.92			
Overall Habit of UTAUT2	Up to Diploma	161	4.06	0.83	4.00	369.76	0.000
	Bachelor and More	239	3.70	0.93			
Overall UTAUT2	Up to Diploma	161	4.12	0.48	4.20	397.87	0.000
	Bachelor and More	239	3.87	0.72			

Conclusion

With the noticeable increase and popularity of the adoption of IMA as a main mean of communication, this research aims at exploring this phenomenon in detail by utilizing the unified theory of acceptance and use of technology 2 (UTAUT2) to examine the adoption and use of IMA. Interestingly results showed that all respondents use some sort of IMA where the

highest number of participants 386 (96.5%) use WhatsApp. The second highest number of participants 255 (63.8%) use Snap Chat and third highest number of participants 103 (25.8%) use Viber.

Theoretical and Practical Impacts

In terms of theoretical impacts, first, this study contributed to the theoretical application of the UTAUT2 by testing its credibility to respondents in other non-western countries. The UTAUT2 has highlighted interesting findings about behavioral intentions to use IMA in Kuwait. Second, this study contributes to the established entrepreneur research that has been evidently permeable over the past years, specifically addressing the use of IMA and its effect on entrepreneurial activity in Kuwait. More importantly the findings of this study are not just limited to the sample population, likewise findings can also be generalized to the remainder of the Gulf region countries as they all share the same cultural, historical, economic characteristics and norms.

In terms of theoretical impacts first, this study intersected two fields of studies, entrepreneurial activity and IMA, as advised by Busenitz et. al (2003), and highlights important implications for practice. Second, this study contributes to literature by noting the theoretical similarities between two fields of literature, the entrepreneurship (Shane & Venkataraman, 2000) and the ambidexterity innovation literature (Andriopoulos & Lewis, 2009). The entrepreneurial literature identifies entrepreneurship as the exploration or discovery of an opportunity followed by the exploitation of that opportunity (Shane & Venkataraman, 2000), this research relates such ideology with the ambidexterity theory that is based on the exploration of a new novel idea, and the exploitation of an existing one. In relation to the exploration of a new idea this

study relates it to the opportunity discovery phase of entrepreneurship identified by Shane & Venkataraman (2000). And in relation to the exploitation phase of an existing idea, this study relates it to the exploitation of the opportunity phase of the entrepreneurship process identified by Shane & Venkataraman (2000).

Concerning practice, this study highlighted important advice for managers and entrepreneurs in general. First, entrepreneurship is an important initiative for all countries because it develops the country's economic, financial, and innovative state, in addition to solving the problem of unemployment that most countries suffer from. For that reason, this study is especially important for developing countries such as Kuwait, and the Gulf region, which have not been addressed by scholars in the past, especially the intersection of IMA and entrepreneurship. It has been evident that fast communication is the number one reason for adoption among users. For that reason, IMA should be used as an important tool for managers and entrepreneurs to communicate and transfer product information as it is the most preferred method of communication in the region, and very highly enjoyed. This can also lead to rapid and high response rates by the customers and target markets faster and easier, which is beneficial for entrepreneurs in the opportunity exploitation phase of their product exploitation. For that reason, managers should give more attention on the use of IMA external to target customers and internally to communicate with employees, and less or equal attention to the traditional SMS and voice calls strategy for marketing communication.

Future Studies

Future studies should examine other technologies and identify their consequences to the entrepreneurship field. In addition, studies should test other models related to adoption of technology to test the degree of use such as the technology

adoption model and compare findings generated by this study. Future studies should also include a wider sample population as this study is limited to university populations. It would also be interesting to perform a comparative study between two or more countries in the region and compare use and perceptions of users' choice of IMA.

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