

## **Swipe at first sight: The Continuous Intention to use Dating Apps in Malaysia**

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### **Abstract**

Dating apps aim to help you meet someone. Many found success in finding love online encouraging dating apps developers to further ingrained themselves into the modern-day matchmaking culture. This study recommends a research model examining the antecedents of users' intention to continuously use dating apps. It focuses on the influence of gratifications from the use of dating apps towards perceived usefulness and continuance intention as well as the role of perceived usefulness as a mediator. The result shows a positive relationship between gratifications and continuance intention. Although not strong, the perceived usefulness does acts as a mediator in this relationship.

### **Keywords:**

Online dating apps, Gratification, Perceived usefulness, Continuance intention, Malaysia

### **Introduction**

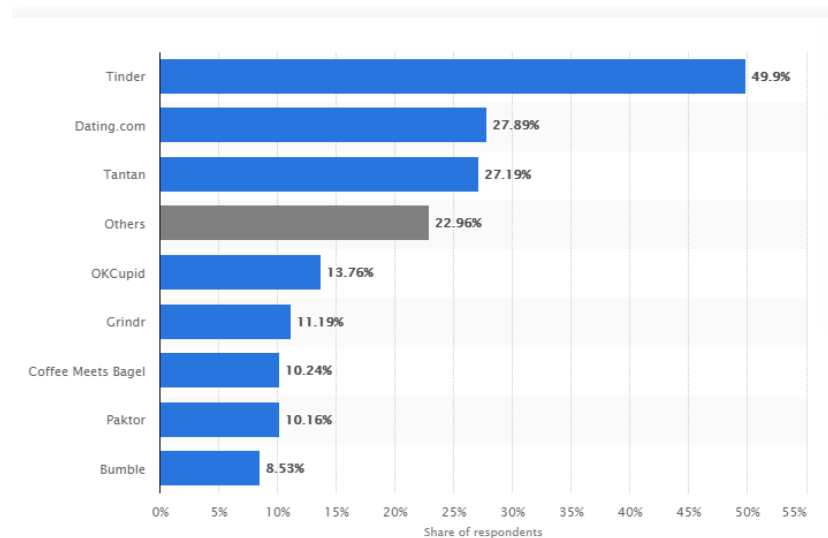
Dating, though seemed simple to some, it is common for most to have an impression that the urge to form romantic relationship and finding an appropriate partner a simulating experience (Finkel et al., 2012). Hence, it has been apparent for people to get on this matter. Traditionally since the 1960s, as it is now, most couples have said they met through their friends or family. Although such method is still relatively popular, with the rise of technology, along came online dating where people have resorted to matchmaking websites or dating apps (Cardona, 2019). Chances are, more and more people are meeting online rather than through friends as a declining trend is seen. With the internet providing various choices and options with more reach of people, individuals turn to help through dating apps displacing personal intermediaries (Rosenfeld et al., 2019). The intelligence of the technology made it easier to obtain information about potential partners which reduces uncertainty of dating (Gibbs et al., 2011).

Dating services have evolved over the years, beginning with personal ads system from the 1700s leading to pen pals and videocassette methods to what is popularised as dating apps now (Anderson et al., 2020; Lee, 2017). The online dating

began in 1965 with a computer-based matching services created by IBM and triggered the birth of Match.com in 1995 and continued on through the existences of social media in the 2000s (Kuefler, 2019). This advancement has continued with the upsurge of online dating sites and mobile apps users, with a third of Americans reported to have been users of online dating site or apps with younger adults showing more interests in such platforms (Anderson et al., 2020).

The rise of this trend, has given the abundance of choices for users to treasure through dating apps like Tinder, Bumble, Plenty of Fish, Grindr, OK Cupid and many others to get to know each other without meeting face to face (Curry, 2021).

Likewise, users in Malaysia are being offered with numerous apps similar to those in the global market namely, Tinder, Dating.com, Tantan, OkCupid, Paktor, Bumble and many more with Tinder being the number one app in the country as of September 2020 (Nurhayati-Wolff, 2020a; Statista, 2020) as shown in Figure 1 below.



**Figure 1. Leading Mobile Dating Apps in Malaysia as of September 2020**

Source: Statista, 2020

With this, comes the business opportunity of creating platforms for people to meet online. Along with the growth of users, the billion dollars revenue generated from the industry has shown tremendous growth thought the last decade (Curry, 2021). Due to this paradigm shifting, numerous magnates are seeing online dating as a promising business field especially in Indonesia (Yuniar, 2016). A report by The Nikkei Asian Review shown that Malaysians spent roughly US\$5.8mil (RM25mil) on dating apps in 2019 (Loh, 2020). Hence, as a result of high usage and number of available apps, the fierce competition of online dating apps left us with a critical issue, which is how to uphold user loyalty to continue using their online dating Apps.

Accordingly, this paper aims to study the intention of users to stay loyal with dating apps. Six antecedents under gratifications are investigated, namely, entertainment, sexual activity seeking, friendship seeking, relationship seeking, social inclusion and location-based search. Furthermore, the effect of perceived usefulness which acts as a mediator to the relationship is also examined.

## Literature Review

Defined as a computerised service in helping individuals find love, casual encounters or satisfy sexual needs (Orchard, 2019), online dating platforms have definitely changed the game. The environment of dating apps made love a playing field. Similar as to using slots machine in casino or playing games, the fun and excitement can be addictive (Keaton, 2020). Keaton (2020) further mentioned that in France, upon matching on Tinder, one talks to the person or as it translates, "continue playing". The dating game as some would call it, comes with positive hormonal effects realising dopamine especially when random notifications are received (Karahassan, 2015). The dopamine hormone is released through the brain when reward is expected and has been useful in providing positive moods and feelings of pleasure to an individual (Healthline, 2019).

On a comprehensive level, online dating users are more likely to label their general involvement using these platforms in positive rather than negative terms (Anderson et al., 2020). It is believed by some that marriages resulting from online meet are more likely to stay compared to those through traditional mediums (Wiederhold, 2015).

Lack of study in Malaysia provides more opportunities to research on this matter. Only few studies have focused on online dating services in Malaysia (Adam et al., 2020; Alam et al., 2018). This may be a correspondence to low acceptance of some Malaysians as reported by Adam et al (2020). However, usage of online platforms such as social media is eminent in Malaysia with 81% active social media users with commonly used apps such as Facebook, Instagram and LinkedIn (Nurhayati-Wolff, 2020b). Moreover, by percentage, Malaysia reported the highest numbers of Facebook users in South East Asia with about 75% of the population amounting to 24 million users (Moore, 2020).

With such constant use of smartphones in our daily lives (Andone et al., 2016), the media plays a huge role in today's world especially through the existence of social media. In line with the usage of such technology, the Uses and Gratifications Theory (UGT) assumes that people indulge in media to boost their gratifications and has proven useful in understanding motivations to the use of online media and technology (Camilleri & Falzon, 2021; Lin & Chen, 2017). The theory is useful to help understand why and how people hunt for specific online platforms in satisfying their desires. Thus, gratifications indicated relationship towards the use of online media. Gratification is commonly seen as any self-professed pleasure obtained by users after any experience with or usage of online media (Lin & Chen, 2017).

Other than for the purpose of searching for romantic or sexual partners (Couch & Liamputtong, 2008), some individuals turn to online dating for other forms of gratifications such as for attention seeking, to boost their self-confidence as well as simply to pass time (Bryden, 2017). Others found that social validation, entertainment and relationship and sexual hook-ups as key gratifications from dating apps (Claxton & Van Dulmen, 2013, Welch & Morgan, 2018). Further gratifications studies include convenience, for relaxation, social interactions as well as catching up to the latest trend (Bryden, 2017; Davis, 2015; Lang, 2016).

The role of entertainment has been found substantial in the media found though leisure activity (Holbrook & Hirschman, 1982). Experiences of entertainment can be associated with social matter (Shedlosky-Shoemaker et al., 2011), hence, for the purpose of entertainment, interactions from dating apps provide a sense of excitement to users (Davis, 2015). Likewise, the hedonic usage of media consists of enjoyment of consumer browsing and searching activities (Rezaei et al., 2016). Through media entertainment and dating apps users obtained gratifications of fun (Bartsch & Viehoff, 2010). Joining in the hype of online dating provides

users with a sense of escapism bring a sense of pleasure and enjoyment (Whiting & Williams, 2013).

Another gratification obtained through the use of online dating platforms is the in relation to sexual attraction and relationship (Ligtenberg, 2015). More commonly referred to as casual sex in relation this study, dating apps have been used widely for those seeking sexual partners and those of whom have similar sexual interest (Couch & Liamputtong, 2008). Human sexuality denotes methods of how individuals express themselves inclusive of behavioural, social, relational, physical, erotic, biological, psychological, moral, and gendered dimensions of experience (Kneale et al., 2019). For some, the anonymity of meeting through online platforms inspires users to online platforms in seeking for sexual partners (Tong & Van de Wiele, 2014).

Besides sexual activities, users seek other forms of connection such as friendship and romantic relationship. Relationships, seen as a basic necessity have always been vital in maintaining positive physical and mental health (Boulerice, 2015). Separated from family ties and marital as well as sexual relations, friendship exists amongst those that creates a bond free from any commitments or obligatory ties (Palisi & Ransford, 1987). Through friendship, one obtains an unwritten contract for providing support and reciprocal kindness which creates a sense of connectedness and constructive social experiences (Schuh et al., 2014).

Individuals seek people of similar interests, intellectual and emotional levels, mindset and opinion when forming relationships, which for some is easily found through online platforms rather than through existing physical social circles (Ellison, 2007; Underwood & Findlay, 2004). Romantic relationship signifies the mutually recognised continuous voluntary interactions between two people (Collins et al., 2009). It forms an emotional bond which contributes to well-being (Gala & Kapadia, 2013; Gómez-López et al., 2019) manifested by expressions of affection (Furman & Collins, 2009).

The initial intention of dating apps was for the purpose of expanding social circle and networks of the users (Welch & Morgan, 2018). Essentially, they are forms of social media with the function to communicate and interact with other individuals (Searle, 2014). Social implications and inclusions provided users with some self-validation as well as enhancing social circle by providing platforms for communication and conversation with strangers online (Davis, 2015). Davis further discussed the inferences one obtained through dating app that boosted their confidence.

Through online platforms, users are able to utilise the location-based search function, as a method to retrieve information with the assistances of a fixed database (Fränti et al., 2010). Dating apps accelerates the pursuit of partners of similar interest within similar physical space (Miles, 2017). Dating apps are created to apply the concept of real-time location-based services as well as the "people nearby application" (Tong & Van de Wiele, 2014).

The abovementioned gratifications have shown significant contribution to users' perceived usefulness of online platforms (Azzahro et al., 2018; Bartsch & Viehoff, 2010; Mouakket, 2015). Perceived usefulness and perceived enjoyment which relates to expectations of benefits from the apps, are significant in understanding reasons why one continues using an app (Thong et al., 2011). Individuals tend to make decision whether to use an app or otherwise based on their beliefs on how it helps them achieve their need (Davis, 1989). Such acceptance leads to a continuous usage (Alam et al., 2018; Camilleri & Falzon, 2021; Yin et al., 2011).

The gratifications that users may get from the apps, namely entertainment, sexual and romantic relationship, friendship, social recognition and location-based search have shown significant relationship with perceived usefulness (Azzahro et al., 2018; Bataineh et al., 2015; Davis, 2015; Welch & Morgan, 2018). Consequently, this study proposes the following hypotheses:

**H1:** (a) Entertainment, (b) Sexual, (c) Friendship, (d) Romantic relationship seeking, (e) Social inclusion, and (f) Location-based search as gratifications influence perceived usefulness of dating apps

**H2:** The gratifications of using dating app influence users' perceived usefulness

Continuance intention has been reported to be significantly influenced by expectations, satisfactions as well as perceived usefulness as a reliable and noteworthy variable (Bataneh et al., 2015; Bhattacharjee, 2001 ; Mouakket, 2015).

**H3:** Perceived usefulness as a mediator to the gratification influence users' intention to continuously dating apps

The theoretical framework applied in this study is adapted from Azzahro et al (2018) to understand the relationship of gratifications, perceived usefulness and continuance intention of dating apps users.

## Research Methods

This study uses acquired 300 self-administered questionnaire survey distributed online through convenient sampling to gather empirical data. Targeted respondents were users of dating app as the study aims to understand their intention to continuously use the app.

The questionnaire consists of demographic questions mainly to obtain gender, age and information on usage of dating app. Other sections of the questionnaire cover the respective dimension for the gratifications attained from usage of the app containing 25 items in relation to entertainment, sexual activity, friendship, romantic relationship, social inclusion and location-based indulgence. Moreover, the questionnaire also enquires on perceived usefulness of the dating app from the respondents' perspective and their continuance intention towards the app. The questionnaire comprises a number of measures addressing the research questions. The gratification variables are measured using instruments developed by Tong & Van de Wiele, 2014. Next, Mouakket (2015) instrument is adapted to measure perceived usefulness. Finally, continuance intention is measured by a 4-item scale adapted from Thong et al (2006). Five-point Likert scale is used to show the respondent's intensities of agreement or disagreement with each statement.

## Results and Discussion

From the responses collected, data cleaning and editing were conducted resulting the absolute countdown of questionnaires with no missing values for all variables at 138. The responses were quite equally distributed between male and female respondents. The majority of the respondents were from the age group between 20 to 29 years old (74%).

The most commonly used app among the respondents were Tinder (50%) followed by Facebook Dating (12.6%) and Bumble (9.3%). Other apps used were Coffee Meets Bagel (6.6%), Tantan (6%), Omi (4.4%), OkCupid (2.7%), and Soul (2.2%). Furthermore, Omegle and Sweetring had 1.1% of respondents respectively while other apps had about 0.5% respondents each which includes apps namely WeChat, BaitulJannah, BaitulMuslim, Instagram, Badoo, Heymandi.

Respondents showed a fairly distributed frequency in usage of the app with majority (57%) only having one dating app in their smartphone. Table 1 below reports the demographic information of the respondents.

The distribution between gender showed that among the 78 male respondents, 52.5% have one app in their smartphone, 30.8% with two apps, 6.4% and 10.2% with three and more apps respectively with majority male respondents using the app at least once a week (36%).

On the other hand, female respondents showed a majority of 38% using dating apps more than twice a week and having one app in their smartphone (63.3%) followed by 25%, 10% and 1.7% for two, three and more than three app respectively. This is consistent with previous studies indicating female users generally spending more time on smartphones as compared to male users (Andone et al., 2016; Taywade & Khulbalkar, 2019).

**Table 1. Dating app users' demographic profile**

Variables	Descriptions	Percentage
Gender	Male	56
	Female	44
Age	20 – 29 years old	74
	30 – 39 years old	24
	40 – 49 years old	2
Frequency of usage	Less than once a week	21
	Once a week	33
	Twice a week	13
	More than twice a week	33
Number of dating app(s) in smartphone	One	57
	Two	28
	Three	8
	More than three	7

**Table 2. Mean distribution for variables**

Variables	Mean	No of items	Cronbach alpha
Entertainment (E)	3.761	4	.704
Sexual activity seeking (SA)	2.674	5	.964
Friendship seeking (F)	3.884	3	.923
Relationship seeking (R)	3.885	3	.801
Social inclusion (SI)	3.006	7	.868
Location-based search (LBS)	3.616	3	.900
Perceived usefulness (PU)	3.628	3	.914
Continuous intention to use (CI)	3.162	4	.854

Based on the six elements of gratification obtained through the use of dating app, the mean distribution of the respective variables is as shown in Table 2 with all showing a mean higher than 3 indicating agreement and positive responses except for sexual activity seeking showing slightly lesser than 3.

This study uses gratification as the extrinsic motivation on continuance intention to use online dating apps. The searching through dating apps includes the dimension of gratifications comprising of entertainment, sexual activity, friendship, romantic relationship, social inclusion and location-based search. Gratification emerges as an important dimension to be investigated due to its nature whereby as a simple definition it means as a source of pleasure as being highlighted earlier.

The analysis begins with understanding the effects and relationship of the six elements of gratifications towards the perceived usefulness as shown in Table 3. Despite all elements of gratification showing a positive relationship only entertainment (H1a), friendship (H1c), romantic relationship seeking (H1d), social inclusion (H1e) and location-based search (H1f) is supported, consistent with research done by previous studies looking at how such relationship exist and is significant (Azzahro et al., 2018; Davis, 2015; Welch & Morgan, 2018).

However, the table indicated insignificant correlation sexual activity and perceived usefulness, hence H1b is not supported. This could be due to the effect of eastern culture having the perception that is taboo to be talking matters of sexual activity as it is seen as immoral an inappropriate. (Azzahro et al., 2018).

**Table 3. Correlations of E, SA, F, R, SI, LBS towards PU**

	E	SA	F	R	SI	LBS
Pearson correlation	.415**	.079	.507**	.261**	.410**	.428**

\*\*Correlation is significant at the 0.01 level (2-tailed)

**Table 4. Model Summary of Multiple Linear Regression**

Model	R	R squared	Adjusted R Square	Std. Error of the Estimate
1	.605 <sup>a</sup>	.366	.337	.8716548

a. Predictors: (Constant), E, SA, F, R, SI, LBS

Multiple linear regression of the individual gratifications towards perceived usefulness as shown in Table 4, has an adjusted R square indicating 33.7% of the elements of gratifications explains the variations in the dependent variable PU. Based on Table 5, the model is significant as per the ANOVA test ( $F(6,131)=12.586$ ,  $p = .000$ ). Table 6 on the other hand indicates that only Friendship and Social inclusion have a statistically significant impact on perceived usefulness.

**Table 5. ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	57.374	6	9.562	12.586	.000 <sup>b</sup>
	Residual	99.531	131	.760		
	Total	156.905	137			

a. Dependent variables: Perceived usefulness

b. Predictors: (Constant), E, SA, F,R,SI, LBS

**Table 6. Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardised Coefficients Beta	t	Sig.
		B	Std. Error			
1	(Constant)	.536	.423		1.267	.207
	E	.141	.129	.103	1.091	.277
	SA	-.060	.060	-.080	-.993	.323
	F	.349	.086	.332	4.047	.000
	R	-.002	.093	-.002	-.020	.984
	SI	.247	.093	.220	2.667	.009
	LBS	.175	.103	.165	1.696	.092

a. Dependent variables: Perceived usefulness

The study continues with analysis on the relationship between gratifications all together towards the perceived usefulness. Despite the variations in the individual correlation and regression of the six elements of gratification discussed above, the gratifications all together showed a statistically significant positive relationship ( $F(1,136)=44.300$ ,  $p = .000$ ) explaining 24% of the model as shown in Table 7, 8, 9 and 10 respectively.

**Table 7. Correlations of Gratification towards PU**

	PU
Pearson correlation	.496**

\*\*Correlation is significant at the 0.01 level (2-tailed)

**Table 8. Model Summary of Multiple Linear Regression**

Model	R	R squared	Adjusted R Square	Std. Error of the Estimate
1	.496 <sup>a</sup>	.246	.240	.9328680

a. Predictors: (Constant), Gratifications

**Table 9. ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	38.552	1	38.552	44.300	.000 <sup>b</sup>
	Residual	118.353	136	.870		
	Total	156.905	137			

a. Dependent variables: Perceived usefulness



b. Predictors: (Constant), Gratifications

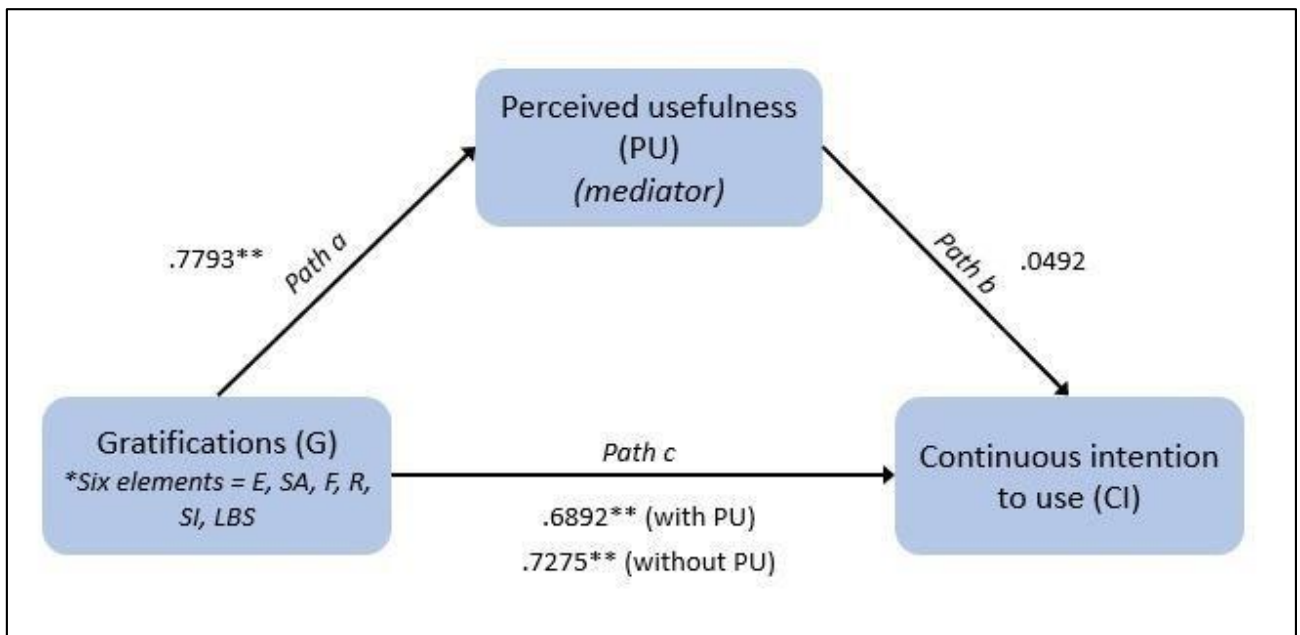
**Table 10. Coefficients<sup>a</sup>**

Model		Unstandardized		Standardised Coefficients Beta	t	Sig.
		B	Std. Error			
1	(Constant)	.927	.413		2.242	.027
	Gratifications	.779	.117	.496	.6556	.000

a. Dependent variables: Perceived usefulness

With the gratification showing significant relationship indicating that H2 is supported, similarly to those of H1. Subsequently, the study, the study continues with the mediation analysis to study the relationship between gratifications and continuous intention to use dating app as well as perceived usefulness role as a mediator to influence users' intention to continuously dating apps (H3).

H3 can be further explained through Figure 2 below. Path a represents the relationship between gratification (G) and perceived usefulness (PU), while Path b represents the relationship between the perceived usefulness as a mediator and the continuous intention (CI) to use dating app and Path c as the direct relationship between gratifications and the continuous intention to use dating app.



**Figure 2. Framework summary of the direct and indirect relationship between gratifications and perceived usefulness as well as continuous intention to use dating app.**

Source: Developed for this research

The results for Path a as seen from Table 11 below shows a significant positive relationship ( $b = .4957$ ) indicating that the gratifications all together influenced the perception of usefulness of dating apps.

**Table 11. Model summary of the relationship of G to PU**

Model summary: Outcome: Perceived usefulness (PU)							
	R	R-sq	MSE	f	df1	df2	p
Model	.4957	.2457	.8702	44.30003	1.000	136.0000	.0000
	coefficient	se	t	p	LLCI	ULCI	
Gratifications (G)	.7793	.1171	6.6558	.0000	.5477	1.0108	

With the added mediator, the relationship between the gratifications and the continuous intention to use dating app shows a significant positive relationship ( $b = .6892$ ) as per Table 12. However, for the perceived usefulness, there is no indication of significant relationship with continuous intention to use dating app.

**Table 12. Model summary of the relationship of G and PU to CI**

Model summary: Outcome: Continuous intention to use app (CI)							
	R	R-sq	MSE	f	df1	df2	p
Model	.5191	.2695	.6806	24.8978	2.0000	135.0000	.0000
	coefficient	se	t	p	LLCI	ULCI	
Gratifications (G)	.6892	.1192	5.7812	.0000	.4534	.9250	
Perceived usefulness (PU)	.0492	.0758	.6487	.5176	-.1008	.0992	

Nevertheless, with reference to Table 13, the direct relationship between the six elements of gratifications has a significant positive relationship ( $b = .7275$ ) with the continuous intention of the respondents to use the dating app in the future.

**Table 13. Model summary of the relationship of G and CI**

Model summary: Outcome: Continuous intention to use app (CI)							
	R	R-sq	MSE	f	df1	df2	p
Model	.5169	.2672	.6777	49.5859	1.0000	136.0000	.0000
	coefficient	se	t	p	LLCI	ULCI	
Gratifications (G)	.7275	.1033	7.0417	.0000	.5232	.9318	

Based on Table 14 below, similar to above mentioned, there is a significant positive total and direct effect of the six elements of gratification on the continuous intention to use the dating app, however there is no indirect effects of gratifications on continuous intention to use

dating app with perceived usefulness as a mediator as the range between lower level of confidence interval (-.0761) and the upper level of confidence interval (.1592) contains zero, it model indicates that it cannot be surely determined that perceived usefulness as a mediator has a strong effect than the direct relationship (Path c).

**Table 14. Model summary of the relationship of G and CI**

Total effect of Gratifications on Continuous Intention to use dating app							
Effect	se	t	p	LLCI	ULCI	c_ps	c_cs
.7275	.1033	7.0417	.0000	.5232	.9318	.7593	.5169
Direct effect of Gratifications on Continuous intention to use dating app							
Effect	se	t	p	LLCI	ULCI	c_ps	c_cs
.6892	.1192	5.7812	.0000	.4534	.9250	.7193	.4897
Indirect effect of Gratifications on Continuous intention to use dating app							
	Effect	BootSE	BootLLCI	BootULCI			
Perceived usefulness	.0383	.0592	-.0761	.1592			

Perceive usefulness is also found to be the contributing factor of user continuance intention which is consistent with study from Mouakket (2015), Azzahro et. al (2018) and Bhattacharjee (2001). Combining the score of the variables in the gratification dimension reveals that perceive usefulness plays a mediator role towards continuous usage of the dating app and this validated the research model that have been proposed. This finding is consistent with Mouakket (2015) and Bhattacharjee (2001).

## Conclusions

Despite, this study still made some notable contributions. Firstly, this study reviewed existing literature in online research area and develop a theoretical framework and identify both and absolute and relative view of the gap. Second, it provided analysis of the state of the factors driving it that owes its foundation to existing research and extends, thus unifying and advancing the field of knowledge. Finally, this study examines the antecedents contributing to online dating apps continuance intention and is unique in the research to date and thus several limitations could be highlighted. The recommendations of the future research could eliminate the limitations of this research.

Future research needs to focus on a larger cross section of respondent which comprises of elderly adult due to their level of maturity and experiences. More diversified random samples of around 400 respondents may be able to better verify the findings. Moreover, to further clarify the antecedents, other models could also be explored and analysed. Future inquiries could also examine the causal relationships between antecedents and perceived usefulness on online dating apps continuance intention to use by employing a structural equation modelling technique.

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