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## Article

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## **Building Brand Loyalty: An Application of Expectation Confirmation Model in Mobile Social Commerce**

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### **Abstract**

The study seeks to examine the role of perceived usefulness (PU) and confirmation (CN) on continuance usage intention of mobile social commerce (CI) and on user satisfaction (S). Furthermore, it examines the role of continuance intention and user satisfaction on brand loyalty (BL). Also, this study seeks to examine the role of gender and online shopping experience. This study also validates the model that combines brand loyalty and expectation confirmation model (ECM) in the mobile social commerce context. For this, the data was collected from a sample of 344 respondents from Pakistan and structural equation modeling (SEM) was applied using Amos 22. Results of the study reveal that PU is influenced by CN whereas CN does not have an impact on S. Furthermore, PU established a significant impact on S and CI, but S does not assure CI. Likewise, S and CI both have an impact on BL. The study also found differences in consumer behavior based on gender and online shopping experience. This study is helpful to the social commerce companies as it identifies the key elements that boost brand loyalty. Hence, this study recommends numerous managerial implications.

**Keywords:** mobile social commerce, brand loyalty, user satisfaction, continuance intention, online shopping experience, expectation confirmation model.

### **1. Introduction**

Increasing use of social media offered novel means for businesses to perform commercial activities on platforms like Facebook, Twitter, WeChat, etc. (Chen et al., 2016; Lin et al., 2018). According to Ngai et al. (2015), social media redefined the lifestyle and the business activities of organizations. This increasing use of social media provides a foundation for social commerce (Gamboa and Gonçalves, 2014) and it is defined as business activities performed on social media platforms in order to encourage online purchases (Smith et al., 2013). It has transformed the traditional way of shopping (Turban et al., 2010) and it differs from traditional e-commerce as it includes both social media

and e-commerce (Huang and Benyoucef, 2013). Specifically, social commerce has an interactive quality (Busalim and Hussin, 2016) as it enables the interaction between a consumer and a seller in a social environment (Sturiale and Scuderi, 2013). Nowadays, certain social media have also turned into mobile applications; examples would include Facebook and Twitter (Lin and Lu, 2015). This has provided a way of engaging in social commerce in the mobile environment, which has attracted mobile network users (Hew et al., 2016). Social commerce allows flexibility in the communication medium, where individuals interact in a more convenient way with fewer limitations (Balasubramanian et al., 2002; Kim et al., 2009) whereas, mobile social commerce has some exclusive features, one of which is mobility (Lee and Jun 2007; Ooi et al., 2018). Mobility denotes access to networks regardless of location and time (Yang et al. 2012). It has been observed that numerous social commerce sites have introduced their own mobile applications for the convenience of the users, as consumers can use their mobile devices anywhere and at any time in order to read product reviews and make purchase decisions (Ooi et al., 2018; Kim et al., 2009).

According to research on wireless technology, mobile commerce has a significant impact on business as well as on the consumer (Bhatti, 2007; Du et al., 2019). According to Bhatti (2007), the adoption of mobile payment systems will also expand in the future due to the adoption of mobile social commerce. Therefore, mobile social commerce has multiple functions, from marketing and sales to offering different modes of payment, all of which evokes a new era of business when taken together.

Even though social commerce is a current topic, it has so far been poorly researched (Zhang et al., 2014), and even less research has been conducted on social commerce in the mobile environment (Sun and Xu, 2019). There are few studies that focus particularly on mobile social commerce (Hew et al., 2016; Ooi et al., 2018). However, growing interest in the business practice and lack of theoretical insights on consumer behavior in mobile social commerce is calling for more research in the area. The systematic review presented by Sun and Xu (2019) highlighted that the majority of the studies related to mobile social commerce were conducted in China, Taiwan and South Korea during 2014-2019. Also, only four papers have addressed customer satisfaction in the context of mobile social commerce and only Hew et al., (2016) addressed brand loyalty. Also, the literature in the field of mobile social commerce is scant (Sun and Xu, 2019). Moreover, previous studies did not focus on gender and on the online shopping experience. Specifically, it is noteworthy to identify the role of mobile social commerce in an Asian context (Lee and Phang, 2015). Therefore; the present research examines the impact of perceived usefulness (PU) and confirmation (CN) on continuance usage intention of mobile social commerce (CI) and satisfaction (S). The study also examines the impact of the continuance usage intention of mobile social commerce and satisfaction on brand loyalty (BL). Likewise, this study presents findings related to gender and online shopping experience. This study used the expectation confirmation model (ECM) in developing the model related to continuance usage intention of mobile social commerce. For testing the relationships, structural equation modeling (SEM) is used by using Amos 22. The findings of the study will help the brands in understanding key determinants that help in building brand loyalty in the mobile social commerce context and will expand the

literature of mobile social commerce in the context of developing economies. The study provides numerous implications for brand managers in boosting brand loyalty.

The paper is organized as follows; section 2 represents the theoretical background and literature. Section 3 emphasizes the development of hypotheses. Details related to the methodology are presented in section 4. Section 5 presents the results. Lastly, section 6 presents conclusion, recommendation and future area to research.

## **2. Review of the Literature**

### *2.1. Mobile Social Media*

Social media is a group of online services that involve interactions between internet users and offer a platform to communicate, share and explore information (Chua and Banerjee, 2013). Furthermore, social media is considered to be a source of communication where people exchange their thoughts and opinions with their social circle, including friends and family (Gamboa and Goncalves, 2014). Rauniar et al. (2014) categorized social media in the following way: blogs (e.g. LiveJournal), communities (e.g. YouTube), collaborative projects (e.g. Wikipedia), social networking sites (e.g. Facebook, Twitter, etc.), virtual game worlds (e.g. World of Warcraft) and virtual social worlds (e.g. Second Life). Kaplan and Haenlein (2010) stated that social media allows user-generated content (UGC) to be created and shared. According to He (2013), having access to social media through mobile devices increases the use of social media. This was also confirmed by Lee and Jun (2007) and Ooi et al. (2018), who stated that mobile devices provide the feature of mobility, which allows consumers to connect to social media anywhere.

### *2.2. Mobile Social Commerce*

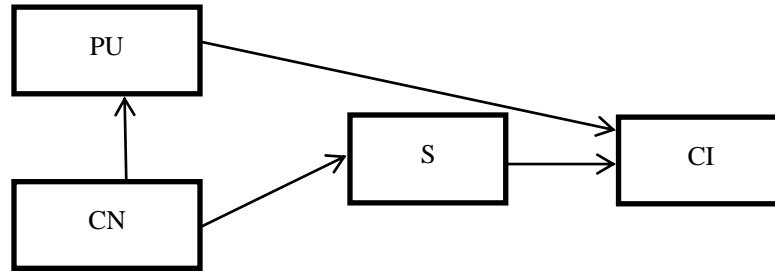
Mobile social commerce can be described as the usage of social media via mobile devices for commercial activities Hew et al., 2015; Zhang et al., 2014; Sun and Xu, 2019). Kucukcay and Benyoucef (2014) defined mobile social commerce as “a range of electronic commerce activities driven by mobile technology and boosted by user content”. Zhang et al. (2014) stated that social commerce is the utilization of social media platforms for business exchanges and business purposes through social interaction. However, prior studies considered social commerce as a sub-division of e-commerce (Turban et al., 2010). Social media platforms such as Facebook, Instagram, Google+ considered a varied set of tools in the development of social commerce. These tools include ratings, reviews, recommendations and forums, which provide multiple mediums of communication. Researchers have found that various e-commerce websites are moving towards social commerce by incorporating social media (Hew et al., 2015; Zwass, 2003). Adoption of new technology leads to the acceptance of mobile social commerce (Bruner and Kumar, 2005). Kaplan and Haenlein (2010) stated that benefits could be gained by mobile social media. Businesses should therefore embrace mobile social media in their operations.

### *2.3. Expectation-Confirmation Model (ECM)*

Expectation-Confirmatory Theory (ECT) proposed by Oliver (1980) was the foundation of the Expectation-Confirmation Model (ECM) developed by Bhattacharjee (2001) and specified as an information system continuance model, which is presented in Figure 1. ECM was also known later as the ICT continuance model (Thong et al., 2006). ECM has

received considerable attention in the researches related to post-acceptance behavior of information system (Shang and Wu, 2017). According to Bhattacharjee (2001), in prior studies technology continuance considered as a result of technology acceptance behavior. Therefore, researchers explained technology continuance by constructing a technology acceptance models. However, technology acceptance models neglected to address users' post-acceptance psychological motivation which also influences technology continuance decision. Due to this deficiency regarding users' post-acceptance psychological motivation, ECM was proposed and named information systems continuance model. ECM was modified and developed through exploring continuance behavior related to various mobile applications involving mobile commerce, mobile data service and mobile payment (Boakye, 2015; Chong, 2013; Kim, 2010; Zhou, 2013).

The theory of ECM suggests that satisfaction (S) and perceived usefulness (PU) influence continuance usage intention (CI). Furthermore, confirmation (CN) and perceived usefulness (PU) influence user satisfaction (S) (Hu and Yu, 2015). Also, confirmation shape perceived usefulness. With a view to complete the definitions of constructs within ECM, it should be stated that, according to Bhattacharjee (2001), confirmation refers to the assessment of a service's performance as perceived by consumers vis-à-vis their original expectations and determining the extent to which their expectations were fulfilled. Finally, continuance intention refers to the intention of consumers to continue using a service after the initial experience. In previous studies, it is also noteworthy to say that previous research has established that brand loyalty and satisfaction have a positive role in determining information services (Deng et al., 2010; Hu and Yu, 2015; Zhou and Li, 2014). In consideration of this, this study has extended the ECM by adding brand loyalty.



**Figure 1:** Expectation Confirmation Model

#### 2.4. Brand Loyalty

Liong (1998) stated that it is difficult to earn and retain consumer loyalty to a company's product as there are countless forces motivating consumers to be disloyal (e.g. competition, consumers' desire for variety, etc.). Brand loyalty refers to commitment towards a particular brand, which leads to unchanged buying behavior towards a brand regardless of the marketing efforts put in by other brands intended to influence switching behavior (Oliver, 1999). Although brand loyalty is a very complex subject, Tucker (1964) simplifies it by explaining that loyalty to a brand is simple: if a person who has multiple brands to choose from, with an equal price and equal quantity, chooses one brand several times – that is the brand to which said person is loyal.

Customers are less price-sensitive and therefore exhibit willingness to pay more for a brand when they are strongly brand-loyal (Lee, 2011). Furthermore, the reason for the readiness to pay higher prices was also explained by Jacoby and Chestnut (1978), Pessemier (1959) and Reichheld (1996). They agree that customers are ready to pay more for a product of a brand they are loyal to, sometimes only because they perceive that product as something unique, and because of that perception they do not see any alternative on market that is good enough.

Griffin (2002) states that a loyal customer is one who repeats purchases regularly, buys other products from the same producer, reports to others about his purchase and shows immunity towards competition appeals. According to Shaw (2001), customer loyalty is demonstrated through purchase repetition, forgiving mistakes, recruiting new customers through word of mouth advertising and expressing preferences. However, it can also be the result of customer inertia, as well as of very weak competition in a specific market (Shaw, 2001). That is the reason why behavior-based definitions are not sufficient. It is important to keep in mind that there is true loyalty and there is loyalty due to habit, convenience or limitation of choice. According to Chaudhuri and Hoibrook (2001), there are two perspectives related to brand loyalty; these are behavioral loyalty and attitudinal loyalty. Behavioral loyalty refers to frequent purchase of a brand whereas attitudinal loyalty means that customers have a tendency to develop a commitment towards purchasing a brand. Both of these dimensions are important and need to be incorporated when measuring brand loyalty and assessing future purchase intentions of customers (Hew et al., 2015).

### 3. Development of Hypotheses

In accordance with the theory of ECM, Bhattacharjee (2001) stated that satisfaction (S) influences continuance usage intention of an information system (CI), whereas perceived usefulness (PU) and user confirmation (CN) influence satisfaction. Likewise, PU has the aptitude to stimulate information system CI and is influenced by CN. Bhatti (2007) explained PU as an extent to which an individual considers that using the new technology will improve their task performance. Kim et al. (2009) identified PU as a significant factor in mobile social adoption. According to information systems research, PU has a significant impact on the intention to use applications related to social media and mobile social commerce (Bhatti, 2007; Davis et al., 1989; Venkatesh and Morris, 2000). Users may have a social incentive to use mobile social commerce and perceive it as a useful application which requires less time and effort. As indicated by Thong et al. (2006), if users get anticipated advantages from the utilization of IT, their desires are affirmed and this influences their satisfaction. Also, user CN might affect post-acceptance PU (Hew et al., 2016).

Previous studies concluded that S is the main factor that makes a consumer purchase a product again and helps in making a purchase decision, which is similar to CI in use of IT. Furthermore, PU is basically a post-adoption expectation within the framework of ECM. It was observed that S varies based on users' expectations (Hew et al., 2016). According to Yuan et al. (2014), PU is a significant predictor of behavioral intentions in various studies on IT, internet and mobile commerce. Hence, it can be said that PU has an influence on CI in ECM.

Also, numerous studies related to mobile commerce support the relationships between the constructs of ECM. According to the study of Yuan et al. (2014) of the mobile banking sector confirmed all the relationships between the constructs of ECM. A study of mobile social networking services conducted by Gao and Bai (2014) established that PU predicts S and that both of them positively affect CI. Similarly, Hsu and Lin (2015) confirmed that users are satisfied if their expectations are met through use.

Furthermore, satisfied customers will buy the product in the future. Kim (2010) stated that CN positively influences PU and S. perceived usefulness (PU) and confirmation (CN) on continuance usage intention of mobile social commerce (CI) and satisfaction (S).

Hence, according to previous research, it can be argued that expectations are confirmed depending on usage of mobile social commerce. This CN enhances the PU of mobile social commerce. Likewise, PU and CN affect S. Finally, CI to use mobile social commerce is influenced by S and PU. Thus, the resulting hypotheses may be formulated:

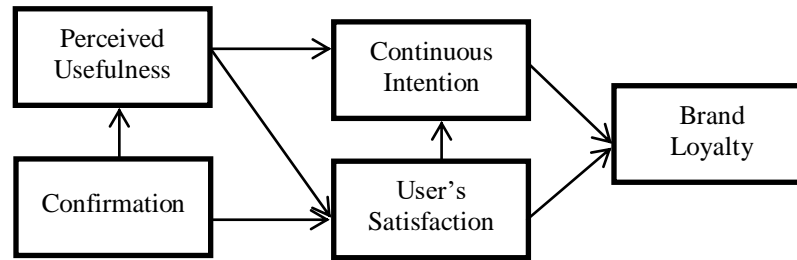
- **H<sub>1</sub>:** Confirmation has a positive and significant impact on perceived usefulness
- **H<sub>2</sub>:** Confirmation has a positive and significant impact on satisfaction
- **H<sub>3</sub>:** Perceived usefulness has a positive and significant impact on satisfaction
- **H<sub>4</sub>:** Perceived usefulness has a positive and significant impact on continuance usage intention of mobile social commerce
- **H<sub>5</sub>:** Satisfaction has a positive and significant impact on continuance usage intention of mobile social commerce

As indicated by Eid (2011), if a client is satisfied with the e-commerce website, loyalty towards the website develops, which prompts repeat purchase and recommendation to others. The organizations should utilize Facebook in order to satisfy the consumers and build brand loyalty (Gamboa and Gonçalves, 2014). They likewise expressed that Facebook is a correspondence channel that improves consumer satisfaction through frequent interaction with costumers. As per the abovementioned, it very well may be expressed that S caused by mobile social commerce impacts brand loyalty (BL). Luarn and Lin (2003) provide empirical evidence that a consumer's online experience affects S, which eventually influences BL. According to this, it can be stated that:

- **H<sub>6</sub>:** Satisfaction has a positive and significant impact on brand loyalty

Casalo et al. (2009) noticed that customer engagement on social networks helps develop customer loyalty. This was also empirically proved by Laroche et al. (2013), who found that virtual social communities have a significant and positive impact on BL. They also stated that social media are a worthwhile medium and that businesses can acquire loyal customers through their use. Hudson et al. (2015) also stated that customers that engage in social media activities done by their favourite brand have a stronger relationship with the brand in comparison with those who do not. Georgescu and Popescul (2015) found that customers recommend the company that uses social media as a communication medium. According to the above, it can be stated that:

- **H<sub>7</sub>:** Continuance usage intention of mobile social commerce has a significant and positive impact on brand loyalty



**Figure 2: Proposed Model of the Study**

#### 4. Methodology

A questionnaire comprised of two parts was used as the research instrument; the first part dealt with the demographic profile, in which information related to gender, education, age, experience in online shopping and social commerce use were collected. The second part concerned the constructs adapted on the basis of previous research (see Appendix A). All of the constructs were presented on a 5-point Likert scale ranging from 1 to 5 (5 represents strongly agree and 1 represents strongly disagree).

For the collection of data, questionnaires were distributed among the users of mobile social commerce, as they have experience and are capable to give appropriate response. Non-probability judgmental sampling technique was used. At the start of the questionnaire, a simple description and an example of mobile social commerce were given, followed by a question regarding previous experience related to mobile social commerce. The respondent was asked to continue filling out the questionnaire only if the answer regarding previous experience was affirmative.

In total, 344 usable responses were received.

Different statistical techniques were applied by using SPSS 22 and AMOS 22, including exploratory factor analysis (EFA), reliability testing, confirmatory factor analysis (CFA) and structural equation modeling (SEM). SEM was chosen because it reveals indirect influences. For analyzing the structural equation model, two types of approaches are available i.e. covariance-based SEM (CB-SEM) and variance-based partial least squares (PLS-SEM) (Hair Jr et al., 2017). However, for testing the established theory it is recommended to use CB-SEM (Hair Jr et al., 2017). The purpose of this study is to validate ECM in the context of mobile social commerce, therefore, this study used CB-SEM for analysis.

#### 5. Research results

##### 5.1 Demographic Profile of Respondents

Table 1 presents the demographic profile of respondents. There are an approximately equal number of male and female respondents. In total, 49.1% of respondents were male and 50.3% were female. As far as their age is concerned, the respondents are relatively young, which was to be expected due to the subject of the research and the fact that only respondents with previous experience with mobile social commerce were chosen to participate based on the filter question. The majority of the respondents (30.3%) belong to the age group of 21-25. Likewise, there are a high percentage of graduate students in



the sample (42.3%), which was also to be expected. The majority (52.7%) of the respondents have more than 5 years of online shopping experience and more than a third (35.4%) started using online shopping sites 3-5 years ago. Only 11.3% have less than 3 years of experience. When it comes to monthly exposure to mobile social commerce, we can say that the frequency of use is not very high. Almost half (49%) of the respondents had not used mobile social commerce in the last month, while a little over a third (35.7%) of respondents use mobile social commerce 1-3 times a month. High-frequency users that make purchases through mobile social commerce 4-5 times a month represent 12.8% of the sample. Only 2.3% of respondents are very high frequency users of mobile social commerce and they use said platforms 6-7 times during one month.

**Table 1: Demographic Profile of the Respondent**

	Frequency	%
<b><i>Gender</i></b>		
Male	170	49.10%
Female	174	50.30%
<b><i>Age</i></b>		
≤20	44	10.60%
21-25	122	30.30%
26-30	102	25.30%
31-40	50	12.40%
41-50	26	6.50%
<b><i>Qualification</i></b>		
Intermediate	60	17.40%
Under graduate	74	21.50%
Graduate	145	42.30%
Post graduate	63	18.30%
Less than 3	39	11.30%
3-5 years	122	35.40%
More than 5 years	182	52.70%
<b><i>Monthly exposure of Mobile Social Commerce</i></b>		
1-3 times	123	35.70%
4-5 times	44	12.80%
6-7 times	8	2.30%
Nil	169	49%

### 5.2. Exploratory Factor Analysis and Confirmatory Factor Analysis

Exploratory factor analysis (EFA) was performed using SPSS 22. The value of KMO and Bartlett's was found to be 0.943, which meets the threshold value, as Tabachnick and Fidell (2007) suggested it should be above 0.6. All factor loadings should be higher than 0.5 (Hair et al., 2010; Tabachnick and Fidell, 2007), which was found to be the case in the present research. Reliability of the constructs was also checked and found to be above the threshold value. Nunnally (1978) suggested that Cronbach's alpha as a measure for reliability that should be above 0.7.

After EFA, confirmatory factor analysis (CFA) was performed. Model fitness and reliability were also assessed. Model fitness was assessed by different indices. Firstly absolute measures were checked. The value of CMIN/df was found 2.941 which satisfy the criteria as it is recommended by Bagozzi and Yi (1988) that the value of CMIN/df should be less than 3. The value of CMIN was found 394.035 and  $df = 134$ . The value of root mean square error of approximation (RMSEA) was found 0.075, hence it is also found within the limits i.e.  $< 8$  (Browne and Cudeck, 1993). The threshold value for incremental fit measures is  $\geq 0.9$  (Bagozzi and Yi, 1988). The results of the incremental fit measures (NFI, CFI, IFI, RFI) were found 0.964, 0.976, 0.976, and 0.954 respectively. Hence, all the values of incremental fit measures are meeting the suggested criteria. Lastly, Parsimony fit measures were checked.

It is recommended that the value of PCFI and PNFI should be  $> 0.5$  (Bagozzi and Yi, 1988). The result of the model fitness reveals that both PCFI and PNFI are above 0.5 i.e. 0.765 and 0.756 respectively. The results showed good fitness as all the indices are meeting the threshold values.

Convergent validity is also examined via three different criteria's i.e. factor loadings that should be greater than 0.50, average variance extracted (AVE) should be above 0.5 and composite reliability (CR) should be greater than 0.7 as suggested by Hair et al., (2010). All the values meet the suggested criteria, hence convergent validity is achieved. See Appendix A for EFA loadings, CFA loadings, Cronbach's alpha, CR and AVE. The values of AVE also confirm that there is no issue in the discriminant validity of the constructs. Table 2 represents the results of discriminant validity; the diagonal values are the square root of AVE and the off-diagonal values are the correlation estimates of the constructs. According to Hair et al., (2010), AVE of the construct should be greater than the corresponding correlation values. All constructs have achieved the cut-off value; hence discriminant validity is achieved.

**Table 2: Discriminant Validity Analysis**

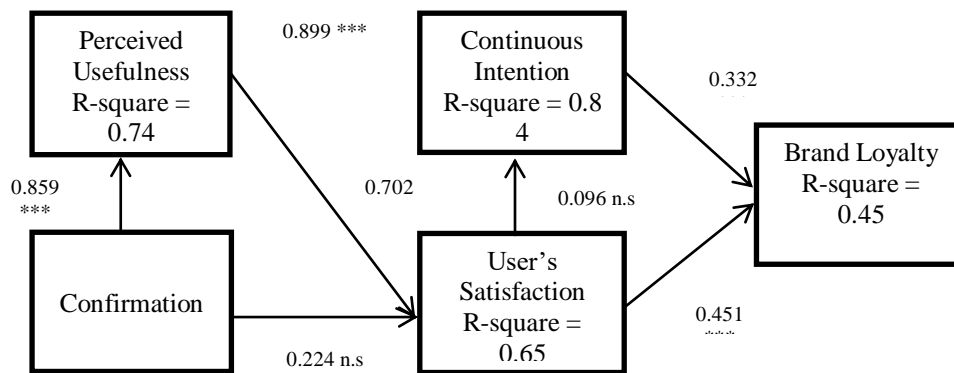
	BL	CN	CI	PU	S
BL	<b>0.836</b>				
CN	.576**	<b>0.82</b>			
CI	.552**	.727**	<b>0.825</b>		
PU	.502**	.725**	.749**	<b>0.809</b>	
S	.595**	.724**	.777**	.808**	<b>0.885</b>

*Note: Diagonal values are the square-root of AVE*

### 5.3. Path Analysis

Results of path analysis are presented in Figure 3. Results reveal that confirmation has a significant and positive impact on perceived usefulness ( $p < 0.05$ ,  $\beta = 0.859$ ), whereas confirmation does not have a significant impact on satisfaction ( $p > 0.05$ ,  $\beta = 0.224$ ). Perceived usefulness has an impact on satisfaction ( $p < 0.05$ ,  $\beta = 0.702$ ) and on continuance intention ( $p < 0.05$ ,  $\beta = 0.899$ ). Results have also showed that perceived usefulness is a strong predictor of continuance intention in comparison with satisfaction. However, satisfaction ( $p > 0.05$ ,  $\beta = 0.096$ ) does not have a significant impact on continuance intention. The outcomes also revealed that satisfaction ( $p < 0.01$ ,  $\beta = 0.451$ ) and continuance intention ( $p < 0.01$ ,  $\beta = 0.332$ ) have a significant relationship with brand loyalty. However, satisfaction found a strong determinant of loyalty.

The value of R-square of perceived usefulness is 0.74, of continuance intention 0.84, of satisfaction 0.65 and of brand loyalty 0.45.



**Figure 3: Research Model Output**

### 5.4. Results Based on Gender

One of the research objectives were to discover possible different influences based on gender. Results according to gender reveal that confirmation has a significant impact on perceived usefulness only with male respondents, while confirmation was found not to have a significant impact on satisfaction for both male and female respondents. The result reveals that for male expectation matters and once they receive the confirmation, they found mobile social useful. However, for female the results are opposite as for them confirmation does not work in making them mobile social commerce useful. The results also explain that confirmation does not make both male and female satisfied. Moreover, perceived usefulness was found to have a significant impact on satisfaction only with female respondents. This result explains that if the female consumer found mobile social commerce useful, she will be satisfied. However, in the case of male, usefulness does not make satisfied. However, perceived usefulness has an influence on continuance intention for both male and female respondents. This confirms that usefulness intends the user to continuously use mobile social

commerce. Furthermore, satisfaction was found to have a significant impact on continuance intention only with female respondents. This result showed that satisfied female consumer will intend to use mobile social commerce frequently but for males, satisfaction does not lead them to continuous usage of mobile social commerce. Satisfaction and continuance intention both have a significant impact on brand loyalty for both male and female respondents. This result declares that both satisfaction and continuance intention leads to brand loyalty. The results of the gender analysis are reported in Table 3.

**Table 3: (Gender)**

Path	Male			Female		
	B	$\rho$	Results	B	P	Result
CN ---> PU	0.34	0.121	Supported	0.342	0.106	Not Supported
CN ---> S	0.239	0.221	Not Supported	0.269	0.186	Not Supported
PU ---> S	0.27	0.079	Not Supported	0.34	0.039	Supported
PU ---> CI	0.332	0.019	Supported	0.36	0.035	Supported
S ---> CI	0.237	0.058	Not Supported	0.319	0.033	Supported
S ---> BL	0.319	0.026	Supported	0.325	0.019	Supported
CI ---> BL	0.324	0.001	Supported	0.362	0.002	Supported

#### 5.5. Results Based On Online Shopping Experience

As far as online shopping experience is concerned, all relationships between constructs were found insignificant for consumers with less than 3 years of online shopping experience. Customer satisfaction and continuance intention were found to have a significant impact on brand loyalty for consumers who have 3-5 years of online shopping experience. The impact of all relationships between constructs was found to be significant for consumers with more than 5 years of online shopping experience. The results highlighted the fact that the consumer becomes confident only by the experience. The more they have a usage experience, the more they found mobile social commerce to be useful and the more they become loyal. It is quite surprising to see that for the people who had an experience of using mobile social commerce of <3 years are quite confused in terms of finding mobile social commerce useful and also for the usefulness doesn't help in making them satisfied nor even making them the frequent user of mobile social commerce. For the people, who had an experience of 3-5 years, satisfaction and continuance intention of the usage of mobile social commerce leads to brand loyalty, however, all the other relationships were found insignificant for them. The results provide strong significant evidence for the people who had an experience of >5 years. All the relationships are found highly significant in the case of them. The results based on experience related to online shopping are presented in Table 4.

**Table 4: (Online Shopping Experience)**

Path	Less than 3 years			3-5 years			More than 5 years		
	B	p	Results	B	P	Result	$\beta$	p	Result
CN ----> PU	0.137	0.904	N.S.	0.247	0.36	N.S.	0.544	0	S
CN ----> S	0.109	0.908	N.S.	0.216	0.403	N.S.	0.373	0.004	S
PU ----> S	0.116	0.846	N.S.	0.26	0.165	N.S.	0.418	0	S
PU --> CI	0.132	0.837	N.S.	0.267	0.156	N.S.	0.472	0	S
S ----> CI	0.113	0.854	N.S.	0.285	0.103	N.S.	0.362	0	S
S ----> BL	0.116	0.851	N.S.	0.34	0.048	S	0.279	0.006	S
CI ---->BL	0.131	0.823	N.S.	0.319	0.02	S	0.328	0	S

Note: N.S. = Not significant, S = Significant

## 6. Conclusion and Implications

Mobile social commerce is a growing trend. It is a large business that grows each day. We can say that this phenomenon is becoming a great influence on the modern way of living, as well as on global economy. This provides unique and never-before-seen opportunities to reposition businesses on the market and even national economies on a global scale. However, in order to realize the full potential of this new platform, it is necessary to understand all the factors and determinants of a positive outcome of online shopping for both customers and businesses. Within this area of research, mobile social commerce is a specific and rather new concept and there is a growing interest in academia to discover determinants specific for it.

The results of the study showed that if users' initial expectations of mobile social commerce are confirmed, they will perceive social commerce as a useful platform. However, this confirmation does not play any role in the consumer's satisfaction. The results related to confirmation and perceived usefulness is consistent with the findings of Hew et al., (2016) as they also identified the significant impact of confirmation on perceived usefulness in context of mobile social commerce in Malaysia. But, they also identified significant relation of confirmation with satisfaction. In consideration of the findings of this study, confirmation does not lead to satisfaction for the people of Pakistan. This finding reveals that one-time meeting the expectations does not work in making them satisfied. The results of the study also revealed that usefulness motivates the consumers' continued use of mobile social commerce. Likewise, usefulness of mobile social commerce provides satisfaction to the consumer. These findings are consistent with the findings of Hew et al., (2016), Bhattacharjee (2001), Chong (2013), and Thong et al. (2006). However, in the study of Ooi et al., (2018), usefulness was found insignificant impact on continuance intention to use mobile social commerce. However, according to the results, satisfaction does not have an impact on continuance intention. This means that the user's satisfaction does not ensure continuance intention to use mobile social commerce for the people of Pakistan.

The study also explains the impact of satisfaction and continuance intention on brand loyalty. According to the results, satisfaction and continuance intention have a significant and positive impact on brand loyalty in the context of mobile social commerce. Apart from that, the results declared that the higher satisfaction receive from mobile social commerce the higher will be brand loyalty. However, satisfaction plays a more significant role with a higher ratio in comparison with continuance intention. Hew et al., (2016) also identified the similar results of satisfaction and continuance intention on brand loyalty in Malaysia. Also, Casalo et al. (2009) explains that the higher involvement in mobile social commerce supports in developing brand loyalty.

Results according to gender reveal that there are differences based on gender when it comes to confirmation and perceived usefulness. Since confirmation has a significant impact on perceived usefulness only with male respondents, it seems that male respondents have more strongly expressed expectations; this could be due to the fact that they are better informed and more interested in the subject. Also, the fact that perceived usefulness was found to have a significant impact on satisfaction only with female respondents could be interpreted in the way that usefulness is more important to female respondents. In other words, male respondents could express satisfaction based only on experience, even though they do not perceive it as particularly useful. On the other hand, mobile social commerce has to be perceived as useful in order for both male and female respondents to continue using it. Apart from perceived usefulness, satisfaction is also a predictor of continuance intention when it comes to female respondents. Both male and female respondents will be more loyal to the brand if they are satisfied with the mobile social commerce experience and use it on a continuous basis. The study of Marinković et al., (2019) also identified significant differences among male and female and identified men are more willing to use mobile social commerce.

If we consider the results based on online shopping experience, we can reach the conclusion that in order to be able to measure the influence of specific factors and to discover the determinants of brand loyalty in mobile social commerce, respondents need to have more experience. With new users, situational factors probably have the biggest influence.

Discovered differences based on gender and online shopping experience prove that these are viable segmentation variables for developing marketing strategies and communication efforts to establish brand loyalty. It is also recommended that online shopping companies provide more convenient and accessible features to users in order to increase their monthly use. Furthermore, online shopping companies should partner with smartphone companies so as to provide more user-friendly functions to mobile social commerce users. It is also recommended to the marketer and the brand managers to work on making the mobile social commerce more useful as it is confirmed by the results that usefulness make the customer satisfied and intend them to continuously use mobile social commerce. It can be seen by the results that continuous intention of using mobile social commerce is determined by only perceived usefulness. Hence, it is beneficial to marketers to make mobile social commerce more useful by providing user convenience by providing the right information. Also, it is suggested to the marketers to meet the expectations of the consumers as it allows the user to perceive mobile social commerce useful.

### *6.1. Theoretical Contribution*

This study contributes in several aspects. Firstly, this study validates the paths of ECM model in the context of mobile social commerce. Secondly, this study expands the literature related to mobile social commerce in the context of developing economies. Thirdly, this study provides the significance of mobile social commerce for the businesses. Also, this study comprehends the ECM model by proposing brand loyalty and confirms the relationship of continuance intention and user's satisfaction on brand loyalty. Lastly, this study provides the evidence of differences on the basis of gender and online shopping experience. This study revealed that the more the consumer experiences the online shopping the more they become loyal.

### *6.2. Future Area of Research*

Since this research was conducted only in Karachi, future research could include other cities and other countries in order to possibly discover some culture-based differences. A comparison between developed and developing countries could be made in order to get more holistic results. And likewise, other constructs that would help fully explain brand loyalty could be included in the model, as could factors such as age income and education.

Future studies could also be aimed at explaining the reasons behind the gender-based differences. For example, the influence of knowledge (or feeling informed) and general interest in the subject could be studied. It would also be interesting to establish which dimensions of the experience are most important for each gender.

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<b>Appendix: A</b> <b>EFA and CFA</b>			
<b>Item</b>	<b>Adopted source</b>	<b>EFA Loadings</b>	<b>CFA Loadings</b>
<b><i>Brand Loyalty (BL) (Cronbach's Alpha = 0.899, CR = 0.932, AVE = 0.7)</i></b>			
If a business brand provides mobile social commerce service, I like it more than other brands.	Yi and Jeon (2003)	0.87	0.81
If a business brand provides mobile social commerce service, I have a strong preference for it.		0.83	0.82
If a business brand provides mobile social commerce service, I give prior consideration to it when I have a need for a product or service of this type.		0.75	0.73
If a business brand provides mobile social commerce service, I would recommend it to others.	Lee (2011)	0.84	0.81
If a business brand provides mobile social commerce service, I will stay with the brand.		0.83	0.82
<b><i>Confirmation (CN) (Cronbach's Alpha = 0.847, CR = 0.861, AVE = 0.674)</i></b>			

My experience with using mobile social commerce was better than what I expected.	Bhattacharjee (2001)	0.66	0.79
The service level of mobile social commerce provider was better than what I expected.		0.73	0.87
Overall, most of my expectations from using mobile social commerce were confirmed.		0.623	0.8
<b><i>Continuance Intention (CI) (Cronbach's Alpha = 0.901, CR = 0.877, AVE = 0.682)</i></b>			
I intend to continue using mobile social commerce rather than discontinue its use.	Bhattacharjee (2001)	0.586	0.82
If I could, I would like to continue my use of mobile social commerce.		0.633	0.87
I will strongly recommend others to use mobile social commerce.	Chong (2013)	0.667	0.8
I will keep using mobile social commerce as regularly as I do now.	Thong et al. (2006)	0.763	0.75
I will always try to use mobile social commerce in my daily life		0.786	0.57
<b><i>Perceived Usefulness (PU) (Cronbach's Alpha = 0.886, CR = 0.772, AVE = 0.655)</i></b>			
I find mobile social commerce useful in my life.	Sharma and Crossler (2014)	0.487	0.8
Using mobile social commerce for purchasing would enable me to discover the right product at the right price.		0.789	Deleted
Using mobile social commerce for purchasing would improve my performance in finding the right product at the right price.		0.681	0.71
Using mobile social commerce for purchasing would enhance my effectiveness in finding the right product at the right price.		0.777	0.67
<b><i>Satisfaction (S) (Cronbach's Alpha = 0.898, CR = 0.879, AVE = 0.784)</i></b>			
Using mobile social commerce makes me feel very satisfied.	Hsu and Lin (2015)	0.618	0.85
Using mobile social commerce makes me feel very delighted.		0.584	0.92