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What Factors Influence Customers' Purchase Intentions in Travel-Related Social Commerce?

(Full Paper)

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ABSTRACT

Social commerce significantly impacts the tourism and hospitality industry. Nonetheless, further empirical research investigating the factors that impact the purchase intentions of those who engage with travel-related social commerce. Combining the Uses and Gratification Theory (UGT) and TAM, the present study will investigate the relationships between purchases intentions and the following factors: perceived usefulness, perceived ease-of-use, entertainment, interaction and information seeking. During the research, four different models will be compared. The Ridge Model will be used to explain the effects of the aforementioned factors. The findings indicate that customers' social commerce purchase intentions are positively impacted by all five factors.

Keywords: Social media, uses and gratifications theory, social commerce, TAM, purchase intention.

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INTRODUCTION

E-commerce has developed rapidly in recent times thanks to advancements in information and communication technologies, as well as the creation of Web2.0 technologies. The rapidly-increasing popularity of social technologies and social media platforms has been a key factor in pushing these advancements (Liang & Turban, 2011)). People are choosing to spend more time on the internet and interacting with others on social platforms (online communities).

The hospitality and tourism sectors have been significantly affected by consumer-generated media, social media outlets (including social networking sites, virtual communities, weblogs, Apps and photo/video sharing platforms) and websites dedicated to travel-related reviews. Social commerce users can rate and review their travel-related experiences online. Moreover, they can obtain and share information about their travel experience, leave comments, express opinions and make recommendations about airlines, restaurants and hotels (Nusair *et al.*, 2013). Such users find travel-related online reviews to be highly trustworthy. Park and Yoon (2009) explain that users place significant trust in travel-related online reviews.

Social media regulates social commerce (Hajli, 2015). As the popularity of social media continues to grow, people are turning to social commerce for more and more reasons, including to book tickets, seek travel information and to interact with other users. Social commerce marketing is largely reliant upon social media and its capacity to facilitate the exchange of information and opinions about different services and products (Cha, 2009; Hajli, 2013)). Through social commerce, individuals can seek specific product and service-related information (Liang *et al.*, 2011)). Moreover, they can learn about new, interesting products or services (Phang, Zhang, & Sutanto, 2013)), recommend rate products, share information and opinions about products or companies, and make transactions (Hu *et al.*, 2016; Olbrich & Holsing, 2011). This ultimately increases their usage intentions (Kim, 2013; Liang *et al.*, 2011).

Therefore, more and more researchers have been investigating the factors that influence consumers' purchase intentions in social commerce over the last few years (e.g., Hajli, 2015; Hu, Chen, & Davison, 2019; Um, 2019; Yahia, Al-Neama, & Kerbache, 2018). Previous studies concentrated predominantly on the factors that impact the purchase decisions and intentions of online consumers (Kwahk & Kim, 2017), as well as their urges to impulsively purchasing restaurant products and services (Chung, Song, & Lee, 2017), and their loyalty to travel-related online social networks (Nusair *et al.*, 2013). Some researchers, such as Tang *et al.* (2012) have explored the travel intentions of online consumers, whilst others have investigated their intentions to visit tourist destinations (Chen, Shang, & Li, 2014), and their intentions to remain loyal (Harrigan *et al.*, 2017). Recent research carried out by Ponte, Carvajal-Trujillo, and Escobar-Rodríguez (2015) has shown that travellers' online purchase intentions include perceived flow (Ali, 2016), consumer online reviews (Chen & Chang, 2018), and the quality of the website and available information (Tarkang *et al.*, 2020). Social commerce purchase intentions have evidently increased. Nonetheless, further research is still required in order to identify ways to effectively increase consumer participation in social commerce and to further understand the factors that drive consumers' social commerce purchase intentions.

At present, there are at least two significant research gaps that must be addressed. First of all, no studies have attempted to

investigate the relationship between social motives (such as entertainment, information seeking and social interactions) and purchase intentions in social commerce. By exploring these factors in more depth, managers will be able to make better decisions regarding the allocation of limited resources. Secondly, although several studies have found that consumer experience factors such as trust, perceived, website quality and perceived flow serve as the key factors driving consumers' purchase intentions on social commerce sites (Ponte *et al.*, 2015), the extent to which technology system experience factors (such as perceived ease-of-use and usefulness) influence purchase intentions in social commerce is unknown.

In the present research, the aforementioned research gaps will be addressed. The research thus focuses on exploring the factors influencing social media usage in travel-related social commerce (information seeking, entertainment, and social interaction). The extent to which technology-system experience factors (perceived ease-of-use and usefulness) influences users' purchase intentions in travel-related social commerce will also be investigated. To technology-related factors and three travel-related social-commerce usage motivations will be tested in the present study, as well as one behavioural intention. To test these relationships, a parsimonious conceptual model will be developed based on Technology Acceptance Model (Davis, 1989) and Uses and Gratification Theory (UGT) (Katz, Blumler, & Gurevitch, 1973).

Diddi and LaRose (2006) explain that UGT can help researchers to understand the reasons for which people use social media, such as to seek information or for social interaction and entertainment purposes. UGT is based on the assumption that consumers actively engage with social media to fulfil specific needs and not to passively acquire information (Gao & Feng, 2016). Moreover, consumers actively engage with media to find any information that they require, to entertain themselves, and to uphold relationships with family members, friends, acquaintances and even strangers (Kim *et al.*, 2016; Lin & Liu, 2012). Users who can find accurate and reliable information from social media are more likely to use it for purposes of seeking information. Additionally, travellers who can successfully obtain information from knowledgeable social media providers are more likely to use it to seek information, to entertain themselves and to communicate with others. Collaboratively, these factors can enhance consumers' social commerce purchase behaviours and intentions.

The present research contributes to the understanding of purchase intentions in travel-related social media in three significant ways. Firstly, it will enhance understanding of the socio-psychological factors that drive consumer purchase intentions in social commerce by combining technology-system experience factors and social-media usage motivations in a research model. Secondly, it shows that technology-system experience factors have a stronger influence than social media usage motivation factors. Thirdly, the findings of the present study can help companies to develop their social commerce strategies by giving them a more profound understanding of consumer purchase behaviours.

THEORETICAL FRAMEWORK, HYPOTHESES, AND CONCEPTUAL MODEL

Social Commerce

No standard definition of social commerce exists in previous literature on the topic. However, most researchers highlight two key elements of it, namely: social activities and commercial activities. (Liang & Turban, 2011; Zhang & Benyoucef, 2016). Social commerce has been defined by Sturiale and Scuderi (2013) as the use of internet-based media to purchase and sell items, as well as to share and compare information about items sold in online marketplaces. However, a different definition is provided by Sharma and Crossler (2014), who state that social commerce is a type of online commerce developed from Web 2.0 which enables users to be interactive and communicate via blogs, wiki pages and self-created content. Furthermore, social commerce is also deemed to be a type of traditional e-commerce in which Social Networking Sites (SNSs) are used to encourage social interactions when buying and selling products/services online (Marsden & Chaney, 2012; Zhang & Benyoucef, 2016). On the other hand, Ngai, Tao, and Moon (2015) describe social commerce as the action of selling products via social media platforms (including Facebook and WeChat). Although many different definitions of social commerce have been put forward by researchers, the present research will employ Curty and Zhang (2011) definition that it is a type of e-commerce in which social media is used to facilitate social interactions and to enable users to make contributions to the online purchase experience by participating in a collaborative online environment.

In recent times, researchers have divided social commerce into two categories, namely social network sites designed with commercial features that enable users to advertise and make transactions, and conventional e-commerce websites like Amazon and eBay, which incorporate social networking tools which allow users to engage in social interactions (Pöyry, Parvinen, & Malmivaara, 2013; Zhang & Benyoucef, 2016). Most previous studies have referred to the former type of social commerce (Amblee & Bui, 2011; Ng, 2013). Amazon allows for social interactions by enabling users to leave online reviews and thus Amblee and Bui (2011) describe Amazon as being a practical form of social commerce. Another practical social commerce site is Groupon, a group buying website where users create groups to purchase products at discounted prices (Kim, 2013; Kim & Park, 2013; Wagner & Majchrzak, 2006). The Uses and Gratifications Theory will be employed in the present research since social interaction characteristics are prevalent in social commerce.

Uses and Gratifications Theory

UGT theory can be used to explore the factors that motivate individuals to use social media and the gratifications that people get from using social media. Moreover, the UGT assumes that people actively choose their media consumption in an attempt to satisfy their needs (Katz, 1974). It is regarded as an axiomatic theoretical approach since its principles can be applied to pretty

much all types of media-based communication, including both traditional media (such as newspapers) and interactive media (i.e., the Internet).

UGT has been employed in empirical studies by many different researchers (Ku, Chu, & Tseng, 2013; Lee & Ma, 2012; Park, Kee, & Valenzuela, 2009). It is a theoretical framework that can be used to develop hypotheses relating how factors such as information seeking and sharing, entertainment, and relationship maintenance influence social commerce and information-seeking behaviour. To be more precise, UGT has been described by Katz *et al.* (1973, p. 510) as a model upon which the social and psychological origins of needs are identified. This generates expectations of the mass media and other sources and can ultimately cause different media exposure patterns to emerge. This enables one's needs to be fulfilled but may also result in other (often unplanned) consequences. Moreover, Katz *et al.* (1973) also point out that, under the UGT, it is believed that media can fulfil individuals' needs and that gratifications can re-design individuals' needs. The UGT is highly applicable for use in research which explores interactive media or social media issues since it concentrates predominantly on the motives of media acceptance.

Different motivations for using social media have been identified in empirical studies that have used. Kaye (1998) found that entertainment, escape, social interactions, information-seeking, website preferences and passing time were the key factors motivating individuals to use the internet. On the other hand, Smock *et al.* (2011) found that entertainment, companionship, expressive information sharing, professional enhancement and social interactions were the key factors driving Facebook use. Sheldon (2008) also investigated Facebook usage motivations and found that age, gender and education played a significant role in motivating individuals to use the platform for entertainment, upholding relationships, interactions with virtual communities and for passing time. Five key factors motivating internet usage were identified by Papacharissi and Rubin (2000), namely interpersonal utility, information seeking, passing the time, entertainment and convenience. Moreover, Luo, Chea, and Chen (2011) research revealed that information-seeking, entertainment and interpersonal utility were positively related to behavioural usage. Lee and Ma (2012) found that social interactions, information seeking, status enhancement and previous social-media sharing experiences largely influenced users' intentions to share news items. Ten motivations for social media usage were also identified by Whiting and Williams (2013), namely: information seeking, social interaction, entertainment, relaxation, passing the time, communication, convenience, expressing opinions, sharing information and finding out information about other users.

Luo *et al.* (2011) explain that information seeking serves as a key motivating factor for internet usage. People turn to the internet to find out information about people, places and events (Luo *et al.*, 2011). Social media can be very helpful for those seeking information for making plans to travel since it allows users to access the most up-to-date information travel. Furthermore, people can simply enjoy themselves and have fun on social media, which enhances their purchase intentions. Social interaction has been defined by Hsu, Chang, and Chen (2012) as communication with family members, friends or even new individuals via social media (Sheldon, 2008). A number of individual needs (including the need to socialise and to entertain oneself) were found by Park *et al.* (2009) to be the key reasons for which college student engage in Facebook groups. Recent research has also found that social interactions encouraged individuals to seek travel-related information on social media (Chung, Han, & Koo, 2015). Thus, in brief, entertainment and information seeking are considered to be the key factors influencing social commerce behaviour and intentions to share information. The following hypotheses have been developed in accordance with the UGT (Katz *et al.*, 1973) and existing empirical evidence in the field of travel and tourism:

- H1: Social commerce purchase intentions are positively impacted by information seeking.
- H2: Social commerce purchase intentions are positively impacted by entertainment.
- H3: Social commerce purchase intentions are positively impacted by travel-related social media interactions.

Technology Acceptance Model

Since social commerce has many technological characteristics, the present research employed the Technology Acceptance Model (TAM) in an attempt to explain the factors that influence travel consumers' purchasing behaviours. Several studies have used the TAM to explore aspects related to online shopping (Koufaris, 2002; Pavlou, 2003), the use of websites (Jiang, 2009; Moon & Kim, 2001; Porter & Donthu, 2006), acceptance of online banking platforms (Wang *et al.*, 2003) and SMS advertising (Dix *et al.*, 2017). Previous studies show that TAM can effectively explain several different technology-related behaviours (Luna-Nevarez & Torres, 2015). Moreover, Luna-Nevarez and Torres (2015) also used the TAM to explain the factors that influence consumers attitudes about advertisements on social networks. Therefore, the TAM is highly suited to explaining consumers' social commerce behaviours. By considering social commerce websites as technological tools, it can also be used to predict the antecedents of consumers' attitudes toward social commerce. There are two key constructs within the TAM, namely perceived usefulness and perceived ease-of-use.

Perceived Usefulness

Perceived usefulness has been defined by Davis (1989) as the extent to which an individual thinks that a website/tool/application will improve their work performance. Prior researchers have found, in several contexts, that perceived usefulness plays a significant role in developing positive attitudes toward technology. For example, Luna-Nevarez and Torres (2015) found that perceived usefulness positively impacts consumer attitudes towards advertisements on social

networks. Moreover, in relation to mobile-based advertising, Bauer *et al.* (2005) found that perceived usefulness tends to generate more favourable attitudes towards mobile advertising. There is significant evidence to suggest that individuals will more likely be accepting of a mobile advertising system if they perceive it to be useful (Bauer *et al.*, 2005; Merisavo *et al.*, 2007). What's more, some researchers have discovered that perceived usefulness positively impacts consumer attitudes towards e-commerce sites, and this positively impacts purchase intentions (Ahn, Ryu, & Han, 2004; Pavlou, 2003). Based on the information presented above, the hypothesis below has been developed:

H4: Social commerce purchase intentions are positively impacted by consumers' perceived usefulness.

Perceived ease-of-use

As previously stated, Davis (1989) defines perceived-ease-of-use as the extent to which an individual considers a technology to be effortless. If a new system is considered by consumers to be easy-to-use, it is more probable that they will accept it. In a social networking advertising context, Luna-Nevarez and Torres (2015) found that consumers' attitudes towards social network advertising were positively impacted by perceived ease-of-use. What's more, research has found that consumers' attitudes towards e-commerce websites, as well as their purchase intentions and loyalty intentions, were significantly influenced by the consumers' perceived ease-of-use (Ahn *et al.*, 2004; Koufaris, 2002; Pavlou, 2003). Thus, the following hypothesis is proposed in the present study:

H5: Consumers' perceived ease to use positively influence purchase intention in social commerce.

METHODOLOGY

Construct measurement and data collection

In the present research, a field study was carried out to investigate the factors influencing consumers social commence purchase intentions. A questionnaire was used which contained 21 items categorised under six constructs. The items were taken from several existing sources and adapted to suit the specific purpose of the present research. The items are presented in Table 1. To begin with, the researchers conducted a pilot survey with 32 participants who had experience in using travel-related social media. The feedback from the pilot study was then used to modify the questionnaire and create a final questionnaire that would be used in the research. All items were measured using a 7-point Likert-scale, with number 1 indicating "strongly disagree and number 2 indicating "strongly agree". To identify any inconsistencies in the answers, two screening questions were also employed.

To gather data, we sent an internet-based questionnaire to participants and invited them to partake (https://www.wjx.cn). A screening question was used to ensure that only people with previous experience using travel-related apps could take part. Participants were told that they would be given a summary of results produced automatically by the hosting website once they submit their completed survey. A total of 33 returned questionnaires were discarded because some contained incomplete responses and others contained the same response option for most of the question items. Thus, altogether, 359 valid responses were collected. Table 1 shows the demographic profile of the sample, of which 73.3% were female and 26.7% were male. Most respondents (68%) were aged between 21 and 30 years, and most (56.5%) had achieved tertiary Masters degrees. The sample was relatively homogeneous in terms of demographics and the constructs used in the research were similar to those used in previous studies. There are three additional items in the questionnaire, namely employment, gender and education. This is merely for descriptive purposes since ordinary data helps us to predict the determinates on social commence. However, these variables were not subject to any further analysis.

There is Descriptive statistics of variables	Percentage (%)	Frequency
Gender		
Female	73.3	264
Male	26.7	96
Age		
20 or under	3.6	13
21-30	56.5	203
31-40	27.6	99
41-50	8.9	32
51-60	2.8	10
61or over	0.6	2
Educational level achieved		
High school or less	10	36
Undergraduate	36.5	131
Masters or over	53.5	192
Occupational status		
Full-time employee	57.1	205
Student	20.3	73

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Self-employed	5.8	21
Freelancer	5.8	21
Others	10.9	21
Ould's	10.9	39
Income		57
	5	10
Well below average	5	18
Below average	15	54
Just below average	18.4	66
Just above average	41.2	148
Above average	16.7	60
Well above average	3.6	13
Internet use frequency (per day)		
Under 1h	4.5	16
1h-3h (include 3h)	39.3	141
3h-6h (include 6h)	34.5	124
Over 6h	21.7	78
How many social media app in your mobile		
0	2.5	9
1-2	37	133
3-4	37.9	136
5-6	10.3	37
Over 7	12.3	44

Regression Modelling

The present research aims to investigate the factors motivating consumers to engage with travel-related social commerce. To explore and compare the relationship between variables, researchers will use ridge regression modelling, Linear least square regression modelling and Lasso regression modelling to compare the findings. The mathematical model can be shown in the form of the Multiple Linear Regression (MLR) expression presented below:

 $y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \ldots + \beta_k x_k + \varepsilon$ (1)

The equation is presented as follows:

 $sc = \beta_0 + \beta_1 peou_+ \beta_2 is_+ \beta_3 ent + \beta_4 pu + \beta_5 si + \beta_6 age + \beta_7 fin_+ \varepsilon$ (2),

When *sc* represents the explained variable (i.e. social commerce), $x_1, x_2...x_k$ are the explanatory variables. In equation 2, the explanatory variables are *peou* (perceived ease of use), *fin* (financial status), *si* (social interaction), *is* (information seeking), *ent* (entertainment), *pu* (perceived usefulness) and *age*. $\beta_0, \beta_1, \ldots, \beta_k$ serve as the parameters of the model and \mathcal{E} represents the specification error (in other words, the difference between the actual model and the specified model).

To start, the researcher assessed the multicollinearity of all the variables using the Variance Inflation Factor (VIF). A VIF value of 3.1 was found, which is higher than 2. A value that is over two indicates slight multicollinearity. The purpose of using such models for regression issues is to pinpoint the Best Linear Unbiased Estimator (BLUE). Therefore, the researcher in the present study employed Ordinary Least Squares (OLS) (Hayes & Cai, 2007) as a benchmark for the BLUE. Moreover, the search functions of the supervised machine learning algorithms worked well for the sample in the present research. The value *y* of social commerce is predicted in the present study based on observed characteristics *x* in the sample of *n* participants. In the regression algorithm of the present study, a loss function is inserted as an input (which is Mean Standard Error (MSE) in this case). Subsequently, the algorithm seeks to identify a function with low expected prediction loss on a *new* data point using the same distribution.

Moreover, to identify and address the regression problem outlined above, four methods are employed, namely OLS, Ridge regression (Hoerl & Kennard, 1970), Lasso regression (Tibshirani, 1996) and K-nearest neighbours (KNN) (Maltamo & Kangas, 1998). Cross-validation should also be performed. The key purpose is to highlight any variables that have a more significant effect on the social commerce measurement. Therefore, to ensure that the desired outcomes are obtained, the present research will attempt to regress the target variable (social commerce) and the OLS, ridge, Lasso and KNN regressions are used to analyse the relationships between the data and the target variable in order to assess the efficiency of different models.

Control Variables

The researchers selected age and financial status to be the control variables in the present work. With regard to online purchasing behaviours, age has been found to be a significantly influential factor. Different characteristics and online behaviours are demonstrated by consumers in different age groups. For instance, it is more probable that younger users (aged 18-29) will use online platforms than older individuals (Fox, 2004; Hargittai & Hinnant, 2008; Law, Kwok, & Ng, 2016; Madden, 2006). Spero and Stone (2004) point out that, since middle-aged individuals have higher incomes and access to credit, they may possess more purchasing power. Thus, it is evident that age can largely impact social commerce purchasing

behaviours and intentions.

Additionally, financial status can also influence social commerce purchase intentions. It is more probable that those better personal financial statuses will have higher online purchase intentions and a tendency to favour certain products and services. For instance, Tsakiridou *et al.* (2008) and Vapa-Tankosic *et al.* (2018) found that people in better financial situations are more likely to pay extra for organic products.

However, when adding age and financial situation into the estimation model, problems with multicollinearity could occur, since there is likely to be a positive relationship between age and financial status. The researchers thus performed a preliminary test to determine the extent of the correlation between financial status and age.

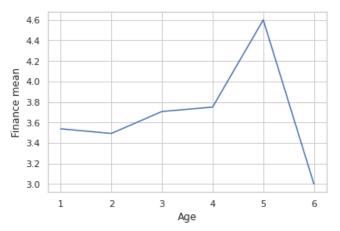


Figure 1: Preliminary correlation test between financial status and age

No relationship was found between these two variables and thus there is no evidence to suggest the personal financial situations of participants increased with age. For this reason, it is acceptable to include the two variables in the estimation model.

RESULTS

Ordinary Least Square (OLS) results

In the present research, the OLS linear model is used to model the determinates of Social Commerce. The statistical summary shows a determination coefficient (R-Squared) of 0.522, suggesting that the model is only representative of 52% of the sample data. The MSE value is thus 0.883. Additionally, we pinpointed the features that have a more significant effect on social commerce, which are presented in Figure 4, alongside their respective weightings. As can be seen in the figure, information seeking had the greatest impact (0.4163) followed by social interaction (0.2632). The factor with the third greatest significance was entertainment (0.228), followed by age (0.1772), perceived usefulness (0.1577), financial status (-0.1619) and perceived ease of use (0.1456)

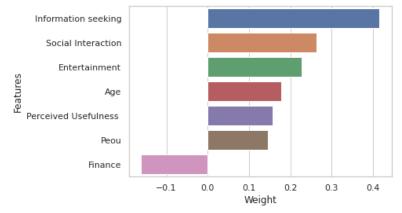


Figure 4: Significant influential factors and weightings (obtained by OLS)

Ridge regression results

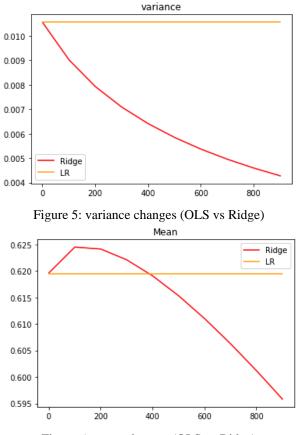


Figure 6: mean changes (OLS vs Ridge)

Ridge regression was also performed, after which the findings were compared with those of the OLS. It can be seen in Figure 6 that the mean value reached its peak when the cross-validation reached 150, after which a slight reduction was seen. Nonetheless, the range is below 0.005 (0.625-0.620). In other words, the level of multicollinearity between variables is minuscule. Additionally, there was a significant decrease in variance (see Figure 5). This indicates that, when cross-validation increases, the generalization error decreases. The ridge model has an R-squared value of 0.5682 and an MSE of 0.7978.

What's more, the variables that have the most significant impact on social commerce purchase intentions will also be identified. These features are shown in Figure 7, alongside their corresponding weights according to the Ridge regression. As can be seen in the figure, perceived usefulness had the greatest significance (0.2434), followed by information seeking (0.2153). This was followed by social interaction (0.1855) and entertainment (0.1604), perceived ease of use (0.1455), age (0.085) and financial status (-0.0839).

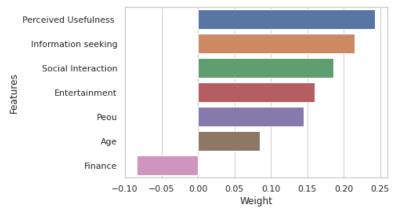


Figure 7: Significant influential factors and weightings (obtained via Ridge Regression)

Lasso Regression Results

Estimates made using Lasso regression indicate that coefficients are sparse. In other words, the number of variables for the given solution is dependently reduced. The statistics summary shows that the R-Squared value found using the Lasso regression is 0.5563. This suggests that of 55.63% of the data is represented through the model. Moreover, the model has an MSE is 0.8199. The variables that have the most significant impact on social commerce purchase intentions will also be

identified. These features are shown in Figure 8, alongside their corresponding weights according to the Lasso regression results. It can be seen that information seeking has the greatest significance (0.2737), followed by *perceived usefulness* (0.1885). The next most influential factors are *social interaction* (0.1629) *entertainment* (0.1397), *perceived ease of use* (0.069), *financial status* (-0.0547) and *age* (0.048).

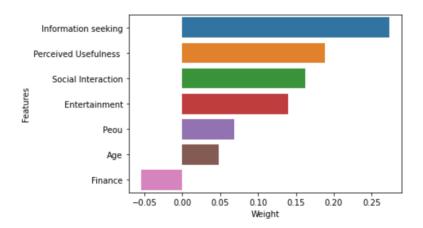


Figure 8: Significant influential factors and weightings (obtained via Lasso Regression)

KNN Regression Results

K-nearest neighbours (KNN) is a simple yet commonly-used algorithm that can predict the value of the target variable using a similarity measure (Arora, Bansal, Kandpal, Aswani, & Dwivedi, 2019). Identifying a value for the hyper-parameter k is vital for ensuring that the outcomes are accurate. Different k values are inputted into the model, after which the accuracy is assessed. This is evident in Figure 9, the latter of which shows that accuracy is highest for 24 neighbours. Regression analysis is conducted in order to obtain the results. The statistics summary shows that there is an R-Squared value of 0.5740. This means that only 57.4% of the data is represented by the model. Moreover, the MSE value is 0.7872 (when a neighbour is 24).

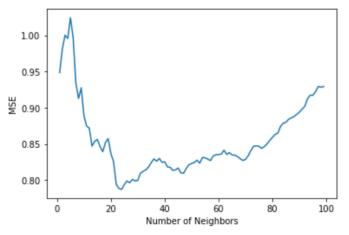


Figure 9: Accuracy for different 'K' neighbours

DISCUSSION AND CONCLUSION

The key objective of the present research was to investigate how consumers' social commerce purchase intentions are influenced by *social media usage motives* and *technologies acceptance factors*. We developed our hypotheses based on the UGT and TAM. These hypotheses focused on the relationships between purchase intentions and the following five factors: *information seeking; social interactions, perceived usefulness, perceived ease-of-use* and *entertainment*. Although the KNN model appears to perform better than the Ridge model, we selected the latter as our explanatory model as it is easier to interpret.

The findings demonstrate that there is a positive relationship between information seeking and social commerce purchase intentions and thus we accept hypothesis *H1*. This means that information seeking may generate favourable purchasing behaviour in the field of social commerce. Travellers purposefully choose specific sources to fulfil their need to seek information about their travels. Thus, individuals who engage with travel-related e-commerce will use social media sources (such as comments and recommendations made by other travellers) to find information and simply to entertain themselves. Lee and Ma (2012) asserted that social media can help individuals to find important information when planning trips, as well as

helping them to pass the time and to entertain themselves. Moreover, such individuals may use social media to create and uphold relationships with other people, from existing friends and family members to complete strangers.

The coefficient for entertainment using the Ridge regression model is 0.1604, which indicates that entertainment and social commerce purchase intentions have a positive relationship. Thus, we can accept hypothesis H2 that social media use is positively influenced by entertainment motives since users engage with social media content for purposes of self-amusement and fun. The findings are similar to those of Siibak (2009), who identified the following factors as being key motivations for Facebook use: entertainment, companionship, professional advancement, social interaction and expressive information sharing.

The coefficient for entertainment using the Ridge regression model is 0.1855 which indicates that social interactions and social commerce purchase intentions have a positive relationship (*H3*). With regard to social commerce, those with internal motivation endorse the ideology of interactions with other users (for example, they believe that shopping experiences should be shared publicly). Therefore, they believe that information sharing about products is important. Such individuals will make significant efforts to engage with other users and to share information relating to products and services. This is in line with information provided in the literature review, that social media users engage in social interactions to seek information about travel (Chung *et al.*, 2015).

Moreover, there is a positive relationship between perceived usefulness and social commerce purchase intentions. Moreover, this variable also has the greatest significance value at 0.2434. This can be seen in the Ridge regression results. Luna-Nevarez and Torres (2015) explained that consumers' attitudes towards advertisements on social media can be positively impacted by perceive usefulness (H4). This is in line with the findings of Ahn *et al.* (2004) study, which revealed that perceived usefulness is positively related to consumer attitudes towards e-commerce websites and their subsequent purchase intentions.

The Ridge regression coefficient for perceived ease-of-use was found to be 0.1455. This shows that there is a positive relationship between perceived ease-of-use and social commerce purchase intention (H5). TAM appears to provide results that are consistent when it comes to social commerce attitudes and purchasing behaviours. The results are in line with those of previous studies and indicate that perceived usefulness and ease-of-use are the top priorities when using social commerce sites (Pavlou, 2003).

This study also revealed that age positively influences social commerce purchasing behaviours. To be more precise, as age increases, users are more likely to take part in travel-related social commerce. However, financial status was found to have a negative correlation with social commerce. This was found in all three regressions. This means that consumers in better financial positions are less likely to partake in travel-related social commerce.

Theoretical Contribution

The findings from the questionnaire on travel-related social commerce allowed the researchers to obtain a more profound theoretical understanding of the socio-psychological factors and technology system experience factors that impact users' social commerce purchase intentions. In our research model, we combined both personal motivation factors and technology-related factors, since this helped us to understand the socio-psychological constructs that underpin consumer social commerce purchase intentions. Moreover, technology-related factors were found to be more significant than personal usage motivation factors when the TAM and UGT were combined. This highlights the importance of technology in influencing social commerce participation.

Managerial Implications

The findings of the present study can help companies to develop their social commerce strategies by giving them a more profound understanding of consumer purchase behaviours. The integrated model presents different factors that can be manipulated by company managers and social commerce providers to influence consumers' purchase behaviours. Our study is very similar to previous ones that have used TAM to address usability issues. Additionally, it also contains UGT factors. If customers enjoy participating in social media, then entertainment is an important motivator for social commerce. Managerial teams may wish to employ customer contact employees to ask consumers about their previous TSM experiences. They can then compare the responses to online reviews and make note of the feedback.

Limitations and Recommendations for Future Research

It is important to note that the present research had several limitations. These limitations should be considered in future research. Firstly, the participants of the study were all Chinese and thus it is impossible to generalize the findings and conclusions. In future, researchers should use participants from different countries, as this will enable them to compare the results and determine whether culture has any influence on social commerce. Secondly, the different features of different sectors were not taken into account. These unique factors can have different influences on the hotel and restaurant purchase intentions. In future, researchers may wish to explore different travel-related sectors so that they can identify any differences in the impacts exerted by the five influential factors.

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REFERENCE

- [1] Ahn, T., Ryu, S., & Han, I. (2004). The impact of the online and offline features on the user acceptance of Internet shopping malls. *Electronic Commerce Research and Applications*, *3*(4), 405-420.
- [2] Ali, F. (2016). Hotel website quality, perceived flow, customer satisfaction and purchase intention. *Journal of Hospitality and Tourism Technology*, 7(2), 213-228.
- [3] Amblee, N., & Bui, T. (2011). Harnessing the influence of social proof in online shopping: The effect of electronic word of mouth on sales of digital microproducts. *International Journal of electronic commerce*, *16*(2), 91-114.
- [4] Arora, A., Bansal, S., Kandpal, C., Aswani, R., & Dwivedi, Y. (2019). Measuring social media influencer index-insights from Facebook, Twitter and Instagram. *Journal of Retailing and Consumer Services, 49*, 86-101.
- [5] Bauer, H. H., Reichardt, T., Barnes, S. J., & Neumann, M. M. (2005). Driving consumer acceptance of mobile marketing: A theoretical framework and empirical study. *Journal of electronic commerce research*, 6(3), 181.
- [6] Cha, J. (2009). Shopping on social networking Web sites: Attitudes toward real versus virtual items. *Journal of interactive advertising*, *10*(1), 77-93.
- [7] Chen, C.-C., & Chang, Y.-C. (2018). What drives purchase intention on Airbnb? Perspectives of consumer reviews, information quality, and media richness. *Telematics and Informatics*, 35(5), 1512-1523.
- [8] Chen, Y.-C., Shang, R.-A., & Li, M.-J. (2014). The effects of perceived relevance of travel blogs' content on the behavioral intention to visit a tourist destination. *Computers in Human Behavior*, 30, 787-799. doi: 10.1016/j.chb.2013.05.019
- [9] Chung, N., Han, H., & Koo, C. (2015). Adoption of travel information in user-generated content on social media: the moderating effect of social presence. *Behaviour & Information Technology*, *34*(9), 902-919.
- [10] Chung, N., Song, H. G., & Lee, H. (2017). Consumers' impulsive buying behavior of restaurant products in social commerce. *International Journal of Contemporary Hospitality Management*, 29(2), 709-731.
- [11] Curty, R. G., & Zhang, P. (2011). Social commerce: Looking back and forward. *Proceedings of the American Society for Information Science and Technology*, 48(1), 1-10.
- [12] Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS quarterly, 13(3), 319-340. doi:10.2307/249008
- [13] Diddi, A., & LaRose, R. (2006). Getting hooked on news: Uses and gratifications and the formation of news habits among college students in an Internet environment. *Journal of Broadcasting & Electronic Media*, 50(2), 193-210.
- [14] Dix, S., Phau, I., Jamieson, K., & Shimul, A. S. (2017). Investigating the drivers of consumer acceptance and response of SMS advertising. *Journal of Promotion Management*, 23(1), 62-79.
- [15] Fox, S. (2004). Older Americans and the Internet: Just 22% go online, but their enthusiasm for email and search may inspire their peers to take the leap: Pew Internet & American Life Project. https://www.pewresearch.org/internet/2004/03/28/older-americans-and-the-internet/
- [16] Gao, Q., & Feng, C. (2016). Branding with social media: User gratifications, usage patterns, and brand message content strategies. *Computers in Human Behavior, 63*, 868-890.
- [17] Hajli, M. (2013). A research framework for social commerce adoption. *Information Management & Computer Security*, 21(3), 144-154.
- [18] Hajli, N. (2015). Social commerce constructs and consumer's intention to buy. *International Journal of Information Management*, 35(2), 183-191. doi: 10.1016/j.ijinfomgt.2014.12.005
- [19] Hargittai, E., & Hinnant, A. (2008). Digital inequality: Differences in young adults' use of the Internet. *Communication research*, 35(5), 602-621.
- [20] Harrigan, P., Evers, U., Miles, M., & Daly, T. (2017). Customer engagement with tourism social media brands. *Tourism Management*, 59, 597-609.
- [21] Hayes, A. F., & Cai, L. (2007). Using heteroskedasticity-consistent standard error estimators in OLS regression: An introduction and software implementation. *Behavior research methods*, 39(4), 709-722.
- [22] Hoerl, A. E., & Kennard, R. W. (1970). Ridge regression: Biased estimation for nonorthogonal problems. *Technometrics*, 12(1), 55-67.
- [23] Hsu, C.-L., Chang, K.-C., & Chen, M.-C. (2012). The impact of website quality on customer satisfaction and purchase intention: perceived playfulness and perceived flow as mediators. *Information Systems and e-Business Management*, 10(4), 549-570.
- [24] Hu, X., Chen, X., & Davison, R. M. (2019). Social support, source credibility, social influence, and impulsive purchase behavior in social commerce. *International Journal of Electronic Commerce*, 23(3), 297-327.
- [25] Hu, X., Huang, Q., Zhong, X., Davison, R. M., & Zhao, D. (2016). The influence of peer characteristics and technical features of a social shopping website on a consumer's purchase intention. *International Journal of Information Management*, 36(6), 1218-1230.
- [26] Jiang, P. (2009). Consumer adoption of mobile internet services: An exploratory study. *Journal of Promotion Management*, 15(3), 418-454.
- [27] Katz, E. (1974). Utilization of mass communication by the individual. In J.G. Blumler & E. Katz (Eds.) *The Uses of Mass Communications: Current Perspectives on Gratifications Research*, 19-32.
- [28] Katz, E., Blumler, J. G., & Gurevitch, M. (1973). Uses and gratifications research. *The Public Opinion Quarterly*, 37(4), 509-523.
- [29] Kaye, B. K. (1998). Uses and gratifications of the world wide web: From couch potato to web potato. *Atlantic Journal of Communication*, *6*(1), 21-40.

- [30] Kim, D. (2013). Under what conditions will social commerce business models survive? *Electronic Commerce Research* and Applications, 12(2), 69-77.
- [31] Kim, M. J., Chung, N., Lee, C.-K., & Preis, M. W. (2016). Dual-route of persuasive communications in mobile tourism shopping. *Telematics and Informatics*, *33*(2), 293-308.
- [32] Kim, S., & Park, H. (2013). Effects of various characteristics of social commerce (s-commerce) on consumers' trust and trust performance. *International Journal of Information Management*, 33(2), 318-332.
- [33] Koufaris, M. (2002). Applying the technology acceptance model and flow theory to online consumer behavior. *Information Systems Research*, *13*(2), 205-223.
- [34] Ku, Y.-C., Chu, T.-H., & Tseng, C.-H. (2013). Gratifications for using CMC technologies: A comparison among SNS, IM, and e-mail. *Computers in Human Behavior*, 29(1), 226-234.
- [35] Kwahk, K.-Y., & Kim, B. (2017). Effects of social media on consumers' purchase decisions: evidence from Taobao. *Service Business*, 11(4), 803-829.
- [36] Law, M., Kwok, R. C.-W., & Ng, M. (2016). An extended online purchase intention model for middle-aged online users. *Electronic Commerce Research and Applications*, 20, 132-146.
- [37] Lee, C. S., & Ma, L. (2012). News sharing in social media: The effect of gratifications and prior experience. *Computers in Human Behavior*, 28(2), 331-339.
- [38] Liang, T.-P., Ho, Y.-T., Li, Y.-W., & Turban, E. (2011). What drives social commerce: The role of social support and relationship quality. *International Journal of Electronic Commerce*, 16(2), 69-90.
- [39] Liang, T.-P., & Turban, E. (2011). Introduction to the special issue social commerce: a research framework for social commerce. *International Journal of Electronic Commerce*, *16*(2), 5-14.
- [40] Lin, S.-W., & Liu, Y.-C. (2012). The effects of motivations, trust, and privacy concern in social networking. *Service Business*, 6(4), 411-424.
- [41] Luna-Nevarez, C., & Torres, I. M. (2015). Consumer attitudes toward social network advertising. Journal of Current Issues & Research in Advertising, 36(1), 1-19.
- [42] Luo, M. M., Chea, S., & Chen, J. S. (2011). Web-based information service adoption: A comparison of the motivational model and the uses and gratifications theory. *Decision Support Systems*, 51(1), 21-30.
- [43] Madden, M. (2006). *Internet penetration and impact*: Pew Internet & American Life Project. https://www.pewresearch.org/internet/2006/04/26/internet-penetration-and-impact/
- [44] Maltamo, M., & Kangas, A. (1998). Methods based on K-Nearest Neighbor Regression in the prediction of basal area diameter distribution. *Canadian Journal of Forest Research*, 28(8), 1107-1115.
- [45] Marsden, P., & Chaney, P. (2012). The Social Commerce Handbook: 20 Secrets for Turning Social Media into Social Sales. McGraw Hill Professional.
- [46] Merisavo, M., Kajalo, S., Karjaluoto, H., Virtanen, V., Salmenkivi, S., Raulas, M., & Leppäniemi, M. (2007). An empirical study of the drivers of consumer acceptance of mobile advertising. *Journal of Interactive Advertising*, 7(2), 41-50.
- [47] Moon, J.-W., & Kim, Y.-G. (2001). Extending the TAM for a World-Wide-Web context. *Information & Management*, 38(4), 217-230.
- [48] Ng, C. S.-P. (2013). Intention to purchase on social commerce websites across cultures: A cross-regional study. *Information & Management*, 50(8), 609-620.
- [49] Ngai, E. W., Tao, S. S., & Moon, K. K. (2015). Social media research: Theories, constructs, and conceptual frameworks. *International Journal of Information Management*, *35*(1), 33-44.
- [50] Nusair, K. K., Bilgihan, A., Okumus, F., & Cobanoglu, C. (2013). Generation Y travelers' commitment to online social network websites. *Tourism Management*, 35(0), 13-22. doi: 10.1016/j.tourman.2012.05.005
- [51] Olbrich, R., & Holsing, C. (2011). Modeling consumer purchasing behavior in social shopping communities with clickstream data. *International Journal of Electronic Commerce*, *16*(2), 15-40.
- [52] Papacharissi, Z., & Rubin, A. M. (2000). Predictors of internet use. *Journal of Broadcasting & Electronic Media*, 44(2), 175-196.
- [53] Park, D.-B., & Yoon, Y.-S. (2009). Segmentation by motivation in rural tourism: A Korean case study. *Tourism Management*, 30(1), 99-108. doi: 10.1016/j.tourman.2008.03.011
- [54] Park, N., Kee, K. F., & Valenzuela, S. (2009). Being immersed in social networking environment: Facebook groups, uses and gratifications, and social outcomes. *Cyberpsychology & Behavior*, 12(6), 729-733.
- [55] Pavlou, P. A. (2003). Consumer acceptance of electronic commerce: Integrating trust and risk with the technology acceptance model. *International Journal of Electronic Commerce*, 7(3), 101-134.
- [56] Phang, C. W., Zhang, C., & Sutanto, J. (2013). The influence of user interaction and participation in social media on the consumption intention of niche products. *Information & Management*, *50*(8), 661-672.
- [57] Ponte, E. B., Carvajal-Trujillo, E., & Escobar-Rodríguez, T. (2015). Influence of trust and perceived value on the intention to purchase travel online: Integrating the effects of assurance on trust antecedents. *Tourism Management*, 47, 286-302.
- [58] Porter, C. E., & Donthu, N. (2006). Using the technology acceptance model to explain how attitudes determine Internet usage: The role of perceived access barriers and demographics. *Journal of Business Research*, *59*(9), 999-1007.
- [59] Pöyry, E., Parvinen, P., & Malmivaara, T. (2013). Can we get from liking to buying? Behavioral differences in hedonic and utilitarian Facebook usage. *Electronic Commerce Research and Applications*, *12*(4), 224-235.
- [60] Sharma, S., & Crossler, R. E. (2014). Disclosing too much? Situational factors affecting information disclosure in social

commerce environment. Electronic Commerce Research and Applications, 13(5), 305-319.

- [61] Sheldon, P. (2008). Student favorite: Facebook and motives for its use. *Southwestern Mass Communication Journal*, 23(2).
- [62] Smock, A. D., Ellison, N. B., Lampe, C., & Wohn, D. Y. (2011). Facebook as a toolkit: A uses and gratification approach to unbundling feature use. *Computers in Human Behavior*, 27(6), 2322-2329. doi: 10.1016/j.chb.2011.07.011
- [63] Sturiale, L., & Scuderi, A. (2013). Evaluation of social media actions for the agrifood system. *Procedia Technology*, 8, 200-208.
- [64] Tarkang, M. E., Alola, U. V., Nange, R. Y., & Öztüren, A. (2020). Investigating the factors that trigger airline industry purchase intention. *Current Psychology*. https://doi.org/10.1007/s12144-020-00815-z
- [65] Tibshirani, R. (1996). Regression shrinkage and selection via the lasso. *Journal of the Royal Statistical Society: Series B* (*Methodological*), 58(1), 267-288.
- [66] Um, N.-H. (2019). Antecedents and consequences of consumers' attitude toward social commerce sites. *Journal of Promotion Management*, 25(4), 500-519.
- [67] Wagner, C., & Majchrzak, A. (2006). Enabling customer-centricity using wikis and the wiki way. *Journal of Management Information Systems*, 23(3), 17-43.
- [68] Wang, Y. S., Wang, Y. M., Lin, H. H., & Tang, T. I. (2003). Determinants of user acceptance of Internet banking: an empirical study. *International Journal of Service Industry Management*, 14(5), 501-519.
- [69] Whiting, A., & Williams, D. (2013). Why people use social media: a uses and gratifications approach. *Qualitative Market Research: An International Journal*, *16*(4), 362-369.
- [70] Yahia, I. B., Al-Neama, N., & Kerbache, L. (2018). Investigating the drivers for social commerce in social media platforms: Importance of trust, social support and the platform perceived usage. *Journal of Retailing and Consumer Services*, 41, 11-19.
- [71] Zhang, K. Z., & Benyoucef, M. (2016). Consumer behavior in social commerce: A literature review. *Decision Support* Systems, 86, 95-108

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