The Impact of Social Media on User's Travel Purchase Intention

Stavros D. Kaperonis
Communication, Media and Culture
Panteion University
Athens, Greece
email: skap@panteion.gr

***Abstract*—Social media influences the tourist industry. This conceptual model research investigates the impact of Social Media (SM) on user's travel purchase intention and attitude. Data were collected from SM users in order to measure if there is a relationship between specific factors of SM and user attitude on travel purchase intention through Structural Equation Modeling (SEM). The main purpose of the research is to find out if there is a positive relationship among the following SM factors and travel purchase intention. That is, source credibility and user attitude, information reliability and user attitude, user enjoyment while searching for travel information, perceived value in travel services information and user attitude. This study presents a theoretical conceptual model based on the theory of credibility, information, enjoyment, and perceived value in SM and the potential connection of those factors to the customer attitude and purchase intention in travel services.**

Keywords-Social media; costumer attidude; purchase intention; credibility; enjoyment; information; perceived value; SEM.

I. INTRODUCTION

SM users outran 2 billion in 2016, globally. Facebook was the most popular social network with 1.86 billion/month active users for 2016. Daily Internet users spend 135 minutes on SM. In the fourth quarter of 2016, 1.149 million users of Facebook accessed SM via mobile devices every month [1].

Today Information Technology (IT) has enhanced SM and the words "connecting" and "exchanging" have been replaced by the words "searching" and "selling" through the web [2]–[4]. Tourist industry and hospitality had also become an essential tool for accessing different sources of tourism [5][6]. The Internet has conquered the travel industry. Younger generations, especially Gen Y, are much more active in planning trips; they send and receive information via a variety of sources, including mobile devices (e.g., videos, SM). They make online reservations and think about potential destinations to visit. Users seek to be part of a wide range of traveling experiences and they are more responsive to online advertising. SM and mobile devices support these new ways of expression.

The paper is structured as follows: Section II presents the research background. Section III presents the research methodology and hypotheses. Section IV contains the conclusion of our empirical study and the next steps to be followed.

II. RESEARCH BACKGROUND

Today SM networks, like Facebook and Instagram, allow people from different locations to interact and develop relationships or share travel experiences (e.g., posting photos and videos, sharing context) [7]. This information can be very useful to potential travelers and can be personalized [8]. There are installed SM apps in every smart device and they are used as a tool for finding more travel information, with search engines providing direct access [9]. Researchers, [10] found that purchase intention is one dimension of customer behavior. Behavior is assessed through purchase intention and consumers' behavioral patterns are examined [11]. Behavior is correlated to purchase intention [11][12] and this relationship has been empirically tested on tourist industry [13][14] and it has been found that customers' information reliability and satisfaction becomes an important factor of e-behavioral intentions. Website design and information quality is essential for user satisfaction. There are many theories about value, such as consumption value, service value, consumer value, and perceived value [15]–[18]. When we talk about perceived value [15][19], we refer to consumer's perception, price and quality of a product, evaluating cost and benefit factors. In order to proceed with SEM, we assume our conceptual research model, presented in Figure 1, which is measured by the following four variables: source credibility, enjoyment, information reliability and perceived value, in connection with customers' attitude and purchase intention in travelling. In order to confirm our Conceptual Research Model, we will use SEM, which incorporates the confirmatory approach, needed to justify our hypotheses. SEM uses confirmatory analysis rather than exploratory analysis for data. We can assess the measurement model validity with Confirmatory Factor Analysis (CFA), which compares the theoretical measurement with actual model. SEM provides clear estimates of the errors in our parameters. Indeed, alternative methods (such as those using the regression or the general linear model) assume that errors all through the independent variables are eliminated. However, ignoring mistakes, could possibly lead us to serious inaccuracies, especially if mistakes are significant. Such methods are avoided by using the SEM. SEM can incorporate both measurable and obscure variables. SEM method is preferred because it estimates the multiple and interrelated dependence in a single analysis.

 ISBN: 978-1-61208-681-1

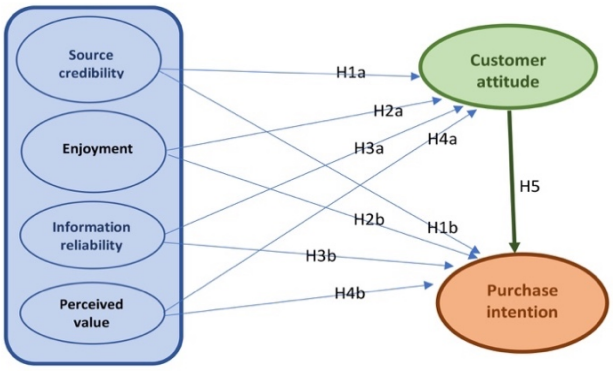

Figure 1. The Conceptual research model

III. RESEARCH METHODOLOGY AND HYPOTHESES

Our study examines which factors and in which way travel information searches in SM networks, affect travelers' purchase intention [20]–[22] and decision making. In mental accounting theory, travel information is examined, more in the context of SM use, rather from a user's tech perspective [15][16]. Based on the perceived value and the usage of SM in the tourism sector, we developed our research model, Figure 1. In this context, perceptual value is defined in terms of quality and price performance or cost-benefit. Variables are categorized as source credibility, information reliability, enjoyment and perceived value. In addition, perceived value leads to the usage of SM in order to search for travel information as a consequence of value perception.

Based on previous section theory, we design the presented research model in Figure1. We select travelers' purchase intention as the main theory of the SM usage developed in our research model. Framing this, travelers' purchase intention is defined in terms of credibility, enjoyment, information reliability and perceived value as a trade-off between costs and benefits [15][16][23]. The confirmation of this model, Figure1, will give us a clear view of how the user decide to book a travel. In this way we are expanding previous researches on the use of SM by travelers in order to enhance our understanding of how travelers choose travel destinations in SM and in which way these four important variables affect traveler purchase intention and interact with customer attitude.

A. *Source credibility*

Source credibility is defined as the factor upon which information is perceived as believable and trustworthy by users [24]. Source credibility works as a main factor in decision-making procedures and become aware by high levels of risk [25]. Thus, source credibility is relevant within the context and the information through computer and user interaction [24]. Researches have shown that source credibility influence user attitude as a peripheral factor because it affects human judgment [26]. Source credibility influences persuasion when evidence is fuzzy. In this case, hands-on processing can partially become cognitive processing [27]. For example, celebrities are one type of exogenous factor, which may enhance source credibility by influencing users' judgement [26].

H1a. Source credibility has a positive influence on customer attitude

H1b. Source credibility has a positive influence on purchase intention

B. *Enjoyment*

Enjoyment has a significant effect on technology admittance that enforces the meaning of usefulness [28] and internal motivation that transforms user feeling to use a computer because it is enjoyable. In this case, authors referred to enjoyment as the "extent to which the activity of using the computer is perceived to be enjoyable in its own right". When people use technology and feel pleased or joyful, they perceive technology as a contributory value and they are willing to use it again and again [29][23] said that the meaning of perceived value incorporates two different values (utilitarian and hedonic). Hedonic value explained the entertainment and emotional worth of shopping. Researchers have shown that enjoyment positively affects perceived value [15][17] and the intention of using hedonic information [30]. Enjoyable feelings created by using SM apps encourage travelers not only to search information for travel destinations but also to interact with others. Travelers interact with each other by sharing photos or videos [6]. We therefore assume the following:

H2a. Enjoyment has a positive influence on customer attitude

H2b. Enjoyment has a positive influence on purchase intention

C. *Information reliability*

Studies in marketing have shown that consumer preferences are driven by value. Consumers are essence persons who seek to maximize usage [23]. The Internet provides travelers with many choices to choose, from many destinations to visit. This is the reason why they aim information reliability through a strenuous information search [31]. Direct access to alternative sources of information through SM builds a trust between words-of-mouth (eWOM) users and expertise travel agents. The combination of easy search and information reliability help travelers to search, and evaluate a destination, and read new experiences related to a trip. Reliability of information is considered as a major factor for the traveler in order to perceive value when using SM [6].

 ISBN: 978-1-61208-681-1

Travelers searching for reliable and credible information provided by the interaction between users of social media rather than by obtaining the information through travel websites [6]. Travelers use SM networks like Facebook or Instagram, which are connected to User Creative Contents (UCC) travel destinations, to share their experiences (e.g., photos, videos). By that, some travelers evaluate this reliable and credible information for a trip, reflecting their desire to engage online. The structure of information reliability is akin to the source information concept of information quality [32], which is the output characteristics of the accuracy, timeliness, and completeness offered by the source information. Quality of information of a traveler destination has become a driving force on user decision making [33] assuming that reliability of information influences purchase intention, hypothesizing the following:

H3a. Information reliability has a positive influence on customer attitude

H3b. Information reliability has a positive influence on purchase intention

D. Perceived value

Perceived value theory has also been adopted in travel destinations and shows high levels of influence in the future intention of travelers to discover the new or the same destinations [34][35] shows that in cruise travel services emotional factors are important in the perceived value. In cruise vacationer's behavioral intention is influenced by hedonics or pleasure of the perceived value. Travelers evaluate the travel information in SM based on their perceptions of what they are willing to achieve and what to sacrifice. Perceived value involves a balance between costs and benefits and an interaction between customer and service [36][28] analyze in the cost-benefit theory that the discrimination of perceived ease of use and perceived usefulness is similar between product performance and the effort of using the product. In high levels of perceived value in SM, travelers are likely to use a travel information search and in the low levels of the perceived value, travelers show greater resistance toward travel information searches in SM [33]. When travelers search for information its more likely to select or reject it based on the perceived benefits and the associated sacrifices of use, according to [28].

H4a. Perceived value in travel services information from SM has a positive influence on customer attitude

H4b. Perceived value in travel services information from SM has a positive influence on purchase intention

E. Data collection

The data for this study has been collected through a convenient sample e-survey from SM users. The e-survey was sent with a Facebook link in over of 500 users' profile. The number of responders was over of 400 users. The age range of the responders was between 18 and over 54.

The e-survey is separated in three sections. The first section outline users' habits on social networks and derive which are the most important criteria for purchasing products or services for them. The second section outline the factors that influences user purchase travel decision. In order to complete the survey, the third section is collecting data for classification and statistical processing.

F. Data analysis

This research study adopted Structural Equation Modeling (SEM) to test the hypotheses. By using SEM we want to evaluate our proposed model, analyze and explain the collected data [37]. All variables can be directly observed and thus qualify as manifest variables, called path analysis. In SEM terms, y enclose the endogenous variables and χ enclose the exogenous variables [38]. Variables that are influenced by other variables in a model are called endogenous variables. Variables that are not influenced by another other variables in a model are called exogenous variables. Covariances, such as the one between χ_1, χ_2, χ_3 and χ_4 are represented by two-way arrows, Figure 2. Paths acting as a cause are represented by one-way arrows. Each individual effect of source credibility, enjoyment, information reliability and the perceived value can be separated and is said to be related to customer attitude and purchase intention. The structural equations for this model are:

$$y_1=\gamma_{11}\chi_1+\gamma_{12}\chi_2+\gamma_{13}\chi_3+\gamma_{14}\chi_4+e_1 \quad (1)$$

$$y_2=\gamma_{21}\chi_1+\gamma_{22}\chi_2+\gamma_{23}\chi_3+\gamma_{24}\chi_4+e_2 \quad (2)$$

$$y_2=\psi_{21}y_1+e_3 \quad (3)$$

In our proposed research we can see a model with two y variables and four χ variables. For the reason of the multiple dependent variables, the covariances and the variances of the exogenous factors x's are given and are estimated by the values of the sample. As a result of this, is very difficult to contribute to the falsification of the model. Freedom degrees of our model counts the elements in the Φ matrix containing four values of γ, and one of ψ.

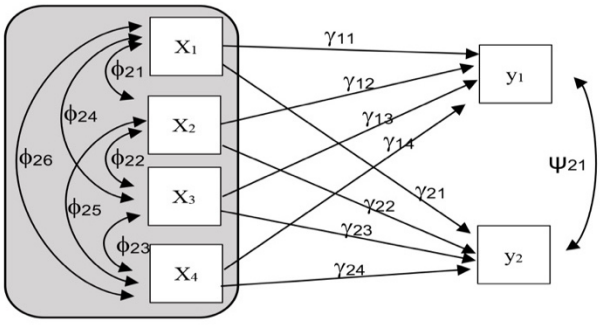

Figure 2. Proposed research model

Thus, the are exactly as many free parameters as there are the data points. Transformations of the data are created by the parameters. Σ matrix does not impose any restrictions to our model, meaning that it has 0 freedom degrees. In our SEM analysis we are going to include all individual items that load onto the observation variables, their relationships, variances, disturbance or errors.

In this study, the measurements were taken from other studies focused in the four manifest variables known as source credibility, information reliability, enjoyment, and perceived value. To measure the manifest variable of credibility, we adapted four items studied by [39], for the manifest variable of enjoyment four items from a study performed by [40] were adapted, for the manifest variable of information reliability four items from a study performed by [33] were adapted and for the manifest variable of perceived value items four items from [15][16] were adapted. For every single item we use multi-measurement items to overcome the limitations. For the reason that every single item has a high rate of measurement error we usually aim to capture all the attributes of a structure. All of these 16 items were measured on 5-point Likert scales ranging from strongly disagree (1) to strongly agree (5).

In this research, the Amos 24.0 SEM analysis package will be used to test and estimate our conceptual model. Two different approaches are going to be used for testing our research hypotheses. The first approach is with confirmatory factor analysis (CFA) and the second with analysis of variance regression (ANOVA). After the validation of our measures, SEM will be used to test the validity of the proposed model and hypotheses. For the validity of our model is needed to test the goodness-of-fit, [41], assisted by the, goodness of-fit index (GFI) [42], adjusted goodness-of-fit index (AGFI) [41], comparative fit index (CFI) [43], and root mean square error of approximation RMSEA [44]. GFI, AGFI and CFI must have values between 0.9 and 1.0 to indicate a good fitting model. RMSEA with a value below 0.80 is recommended [45][46].

In order to evaluate our structural model in a predictive manner, we need to calculate the R^2s for the manifest variables, source credibility, enjoyment, information reliability and perceived value and discover the relationship with travel purchase intention. According to multiple regression results, R^2 indicates the amount of variance explained by the exogenous variables [47].

IV. CONCLUSION

The aim of this article is to create a model by which we will be able to interpret the effect of specific SM factors on user purchase intention as far as a travel service is concerned. The theoretical background and the research gap that led us to the study of the specific case, are elaborated in the article. The results will show us whether there is a correlation or relationship among the following factors and the travel service purchase intention and user attitude. The factors are: source credibility, information reliability, enjoyment, and perceived value. As a next step to this research, we will analyze the data collected from the e-survey and test the validity of our research model by detecting the factors that influence the user purchase intention when traveling, through SM browsing. With SEM we going to check our assumptions and confirming our model. The data analysis by use of the SEM will determine the critical factors concerning the customer attitude towards travel purchase services. Furthermore, by use of the SEM method we will be able to look into other variables which can influence purchase intention, such as age and income, and also the how way they interact with reliability, enjoyment and perceptual value.

REFERENCES

[1] "Global time spent on social media daily 2017 | Statista." [Online]. https://www.statista.com/statistics/433871/daily-social-media-usage-worldwide/. [Accessed: 03-Oct-2018].

[2] S. Choi, "An empirical study of social network service (SNS) continuance: incorporating the customer value-satisfaction-loyalty model into the IS continuance model," *Asia Pacific J. Inf. Syst.*, vol. 23, no. 4, pp. 1–28, 2013.

[3] N. Chung, H. J. Han, and C. Koo, "Mediating roles of attachment for information sharing in social media: social capital theory perspective," *Asia Pacific J. Inf. Syst.*, vol. 22, no. 4, pp. 101–123, 2012.

[4] C. Koo, Y. Wati, and J. J. Jung, "Examination of how social aspects moderate the relationship between task characteristics and usage of social communication technologies (SCTs) in organizations," *Int. J. Inf. Manage.*, vol. 31, no. 5, pp. 445–459, 2011.

[5] R. Law, R. Leung, and D. Buhalis, "Information technology applications in hospitality and tourism: a review of publications from 2005 to 2007," *J. Travel Tour. Mark.*, vol. 26, no. 5–6, pp. 599–623, 2009.

[6] M. Sigala, E. Christou, and U. Gretzel, "Social Media in Travel," *Tour. Hosp. Theory, Pract. Cases*, 2012.

[7] E. Parra-López, J. Bulchand-Gidumal, D. Gutiérrez-Taño, and R. Díaz-Armas, "Intentions to use social media in organizing and taking vacation trips," *Comput. Human Behav.*, vol. 27, no. 2, pp. 640–654, 2011.

[8] D. K. Kardaras, S. Kaperonis, S. Barbounaki, I. Petrounias, and K. Bithas, "An Approach to Modelling User Interests Using TF-IDF and Fuzzy Sets Qualitative Comparative Analysis," in *IFIP International Conference on Artificial Intelligence Applications and Innovations*, 2018, pp. 606–615.

[9] Z. Xiang and U. Gretzel, "Role of social media in online travel information search," *Tour. Manag.*, vol. 31, no. 2, pp. 179–188, 2010.

[10] V. A. Zeithaml, L. L. Berry, and A. Parasuraman, "The behavioral consequences of service quality," *J. Mark.*, pp. 31–46, 1996.

[11] I. Ajzen and M. Fishbein, "Understanding attitudes and predicting social behaviour," 1980.

[12] R. L. Oliver and W. O. Bearden, "Disconfirmation processes and consumer evaluations in product usage," *J. Bus. Res.*, vol. 13, no. 3, pp. 235–246, 1985.

[13] F. Buttle and B. Bok, "Hotel marketing strategy and the theory of reasoned action," *Int. J. Contemp. Hosp. Manag.*, vol. 8, no. 3, pp. 5–10, 1996.

[14] I. Ajzen and B. L. Driver, "Application of the theory of planned behavior to leisure choice," *J. Leis. Res.*, vol. 24, no. 3, pp. 207–224, 1992.

[15] H.-W. Kim, H. C. Chan, and S. Gupta, "Value-based adoption of mobile internet: an empirical investigation," *Decis. Support Syst.*, vol. 43, no. 1, pp. 111–126, 2007.

[16] H.-W. Kim, Y. Xu, and S. Gupta, "Which is more important in Internet shopping, perceived price or trust?," *Electron. Commer. Res. Appl.*,

 ISBN: 978-1-61208-681-1

vol. 11, no. 3, pp. 241–252, 2012.

[17] S. Gupta and H. Kim, "Value-driven Internet shopping: The mental accounting theory perspective," *Psychol. Mark.*, vol. 27, no. 1, pp. 13–35, 2010.

[18] S. Kim, S. Holland, and H. Han, "A structural model for examining how destination image, perceived value, and service quality affect destination loyalty: A case study of Orlando," *Int. J. Tour. Res.*, vol. 15, no. 4, pp. 313–328, 2013.

[19] V. A. Zeithaml, "Consumer perceptions of price, quality, and value: a means-end model and synthesis of evidence," *J. Mark.*, pp. 2–22, 1988.

[20] R. H. Thaler, "Mental accounting and consumer choice," *Mark. Sci.*, vol. 27, no. 1, pp. 15–25, 2008.

[21] R. Thaler, "Mental accounting and consumer choice," *Mark. Sci.*, vol. 4, no. 3, pp. 199–214, 1985.

[22] R. Thaler, "Toward a positive theory of consumer choice," *J. Econ. Behav. Organ.*, vol. 1, no. 1, pp. 39–60, 1980.

[23] R. Sánchez-Fernández and M. Á. Iniesta-Bonillo, "The concept of perceived value: a systematic review of the research," *Mark. theory*, vol. 7, no. 4, pp. 427–451, 2007.

[24] S. W. Sussman and W. S. Siegal, "Informational influence in organizations: An integrated approach to knowledge adoption," *Inf. Syst. Res.*, vol. 14, no. 1, pp. 47–65, 2003.

[25] B. Mak and K. Lyytinen, "A model to assess the behavioral impacts of consultative knowledge based systems," *Inf. Process. Manag.*, vol. 33, no. 4, pp. 539–550, 1997.

[26] A. Bhattacherjee and C. Sanford, "Influence processes for information technology acceptance: An elaboration likelihood model," *MIS Q.*, pp. 805–825, 2006.

[27] S. Chaiken and D. Maheswaran, "Heuristic processing can bias systematic processing: effects of source credibility, argument ambiguity, and task importance on attitude judgment.," *J. Pers. Soc. Psychol.*, vol. 66, no. 3, p. 460, 1994.

[28] F. D. Davis, "Perceived usefulness, perceived ease of use, and user acceptance of information technology," *MIS Q.*, pp. 319–340, 1989.

[29] F. D. Davis, R. P. Bagozzi, and P. R. Warshaw, "Extrinsic and intrinsic motivation to use computers in the workplace 1," *J. Appl. Soc. Psychol.*, vol. 22, no. 14, pp. 1111–1132, 1992.

[30] H. Van der Heijden, "User acceptance of hedonic information systems," *MIS Q.*, pp. 695–704, 2004.

[31] Y.-H. Hwang and D. R. Fesenmaier, "Unplanned tourist attraction visits by travellers," *Tour. Geogr.*, vol. 13, no. 3, pp. 398–416, 2011.

[32] W. H. DeLone and E. R. McLean, "Information systems success: The quest for the dependent variable," *Inf. Syst. Res.*, vol. 3, no. 1, pp. 60–95, 1992.

[33] N. Chung and C. Koo, "The use of social media in travel information search," *Telemat. Informatics*, vol. 32, no. 2, pp. 215–229, 2015.

[34] A. S. Lo and C. Y. S. Lee, "Motivations and perceived value of volunteer tourists from Hong Kong," *Tour. Manag.*, vol. 32, no. 2, pp. 326–334, 2011.

[35] T. Duman and A. S. Mattila, "The role of affective factors on perceived cruise vacation value," *Tour. Manag.*, vol. 26, no. 3, pp. 311–323, 2005.

[36] A. Payne and S. Holt, "Diagnosing customer value: integrating the value process and relationship marketing," *Br. J. Manag.*, vol. 12, no. 2, pp. 159–182, 2001.

[37] J. F. Hair, W. C. Black, B. J. Babin, R. E. Anderson, and R. L. Tatham, "Multivariate data analysis (Vol. 6)." Upper Saddle River, NJ: Pearson Prentice Hall, 2006.

[38] R. B. Kline, "Promise and pitfalls of structural equation modeling in gifted research.," 2010.

[39] S. Ha and J. Ahn, "Why are you sharing others' tweets?: The impact of argument quality and source credibility on information sharing behavior," 2011.

[40] J.-J. Wu and Y.-S. Chang, "Towards understanding members' interactivity, trust, and flow in online travel community," *Ind. Manag. Data Syst.*, vol. 105, no. 7, pp. 937–954, 2005.

[41] K. G. Jöreskog and D. Sörbom, *LISREL 8: Structural equation modeling with the SIMPLIS command language*. Scientific Software International, 1993.

[42] L.-T. Hu, P. M. Bentler, and R. H. Hoyle, "Structural equation modeling: Concepts, issues, and applications," *Eval. Model fit*, pp. 76–99, 1995.

[43] P. M. Bentler and D. G. Bonett, "Significance tests and goodness of fit in the analysis of covariance structures.," *Psychol. Bull.*, vol. 88, no. 3, p. 588, 1980.

[44] J. H. Steiger, A. Shapiro, and M. W. Browne, "On the multivariate asymptotic distribution of sequential chi-square statistics," *Psychometrika*, vol. 50, no. 3, pp. 253–263, 1985.

[45] A. Diamantopoulos and J. A. Siguaw, "Introducing LISREL: A guide for the uninitiated," *London ua*, 2000.

[46] B. M. Byrne, "Structural equation modeling with LISREL," *Prelis, and Simplis*, pp. 196–199, 1998.

[47] D. Barclay, C. Higgins, and R. Thompson, *The Partial Least Squares (pls) Approach to Casual Modeling: Personal Computer Adoption Ans Use as an Illustration*. 1995.

 ISBN: 978-1-61208-681-1