

## THE INFLUENCE OF ONLINE SOCIAL NETWORKS IN THE DECISION-MAKING PROCESS OF ONLINE SHOPPING

**Raluca Silvia CIOCHINĂ**

National University of Political Studies and Public Administration  
30A Expoziției Blvd, Sector 1, 012104, Bucharest, Romania  
raluca.ciochina@comunicare.ro

**Diana Maria CISMARU**

National University of Political Studies and Public Administration  
30A Expoziției Blvd, Sector 1, 012104, Bucharest, Romania  
diana.cismaru@comunicare.ro

**Alexandra VÎLCU**

National University of Political Studies and Public Administration  
30A Expoziției Blvd, Sector 1, 012104, Bucharest, Romania  
alexa\_ave@yahoo.com

**Abstract.** *The paper presents some characteristics of the ways online social networks influence the selection of online shopping websites. This research aims to identify the factors that lead to the behavior of searching for information on online social networks when considering to buy a product or a service online, specifically to identify the roles of trust, community commitment, and perception of member affiliation (we-ness) in the decision-making process. As most research papers in the e-commerce field analyzing the factors that influence purchase behavior, this paper uses a quantitative research method, the questionnaire, which was applied in May 2017. The research sample consisted of 166 Facebook users. Facebook is representative considering the large number of users and the amount of time spent on this social network. All of the participants are students at the College of Communication and Public Relations, at the National University of Political Studies and Public Administration, from Bucharest, aged between 18 and 24 years old. The research results revealed that there is a relationship between propensity to trust community members and seeking information on online social networks, even though users are not highly trusting online social networks. According to the results, the Facebook community represents an important source of information where the users have the possibility to consult details, opinions, reviews related to online shopping experiences, but the attachment to the community is to a low degree. The participants from our study mostly use Facebook as a space for obtaining the relevant information for their intention to buy specific products or services, passively consuming the content from this channel. These findings suggest the importance of online shopping websites to communicate on online social networks, where individuals gather information in their intention and selection process of online buying.*

**Keywords:** *online shopping; information seeking; online social networks.*

### Introduction

The growing number of online users and the development of applications that are designed to develop habits (Eyal, 2014) represent just some of the factors that

encourage businesses to engage in e-commerce or e-sales in general. According to Eurostat's study (2017), one out of five EU-28 enterprises conduct electronic sales, with rising figures annually. The wide-spreading e-shopping is common among all age groups, as the numbers in 2016 demonstrate: the highest share of EU e-shoppers is represented by users aged between 25 to 34 (75%), followed by 35 to 44 (69%) and 16 to 24 (68%) (Eurostat, 2016). According to GPEC (2017), 44% internet users shopped online at least once a month, and 62% of these users are aged between 18 to 34. Romanian online shoppers visit 9 online stores per year with a frequency of 3 or 4 times per week, suggesting that the interest and information seeking behaviors are present on an ongoing basis.

While social media applications offer businesses the possibility to connect and deliver their message to a large pool of users (Kietzmann et al., 2012), or to promote products and build reputation (Broekemier, Chau & Seshadri, 2015), the effort of gaining user attention to various products and services represents a consistent endeavor. Only some studies have been focusing on investigating user behavior on online social networks and the factors enhancing or relating to purchase decisions or intentions (Mahrous, 2015, Mahrous & Abdelmaaboud, 2017). Elsharnoby and Mahrous (2015) identified users' tendency to use social media as a primary source of information before making a purchase, which is evident considering the interactive platforms that allow asking questions, posting answers and evaluating users in the same time. By considering the comments posted by other users, the potential consumer's behavior can be influenced (Kannan & Hongshuang, 2017). The affiliation of members inside a virtual community has been found to represent an important factor when engaging in this space of interaction (Fayard & Metiu, 2013), while the trust was identified as a factor increasing purchasing decisions when social commerce is concerned (Farivar, Turel & Yuan, 2017). But further research is needed in order to develop a more thorough approach to the antecedents of information seeking behavior. Therefore, the following research questions were established for the purposes of this research:

RQ1. Which are the *factors* that influence users in the online buying process?

RQ2. What is the relationship between the *propensity to trust*, the *perception of member affiliation (we-ness)*, *community commitment*, *trust in online shopping*, and *online social network consulting*?

RQ3. What is the relationship between the *propensity to trust* and *information seeking* on online social networks?

## **Theoretical background**

### ***Advantages and challenges of online shopping websites***

Online users have access to many online sources that assist them in becoming informed consumers. They have access to information related to costs, characteristics, quality, replacement options, ease of delivery and shopping experiences of other users. As Kotler (2009) stated, the consumer is the one controlling the interaction, and not the seller (p.325). Specifically, online marketing allows (1) potential buyers to advise with the shopping website in taking the best decision possible, (2) to access information fast, especially information that favors the business in comparison with other businesses, and (3) to make the purchase in a timely manner, as even automatic sales agents can assist the buying process smoothly. Utilitarian value including saving time, the cost of

searching for products and services, purchasing efficiency represent the primary advantages of choosing online shopping (Chang et al., 2015).

Besides advantages, consumers can also encounter challenges in the buying process. Studies have shown that challenges specifically include safety of electronic transactions and payment security systems (Liao & Cheung, 2001; Chang et al., 2015). Additionally, lack of trust can also be an issue, as online users can distrust online sales agents because they do not have the possibility to directly interact with these people, nor with the products that they are interested in. Some users experience a fear-based feeling when buying a product without directly touching it (Zaman, Anadarajan & Dai, 2010, p.295), looking for cues that allow them to get a proper understanding of the physical characteristics of the products.

### ***Online buying behaviors and online social networks***

Thanuskodi (2015) states that the need to be informed determines individuals to develop a process through which they identify the necessary information, which includes seeking, evaluating, selecting and using the information they need, and it can be referred as *information seeking behavior*. This process includes other behaviors which can be either intentional or passive, such as the occasional search or accidental encounter with a piece of information (Case, 2002). Ikoja-Odongo and Ochalla (2004) describe information seeking as the process that requires the cognitive capacity of the individual, but also their knowledge and abilities. By posting product or service related questions on online social networks, for instance, it can be suggested that the user is actively seeking for information (advice, opinions, details etc.), while combining this information with what was previously stored cognitively, from other sources and types of interaction with the online shop or other shops or online experiences.

The way in which users decide to get informed on online social networks related to the products or services they intend to acquire from online shops can be influenced by various factors, like what other users posted about products they bought (Kannan & Li, 2017). eWOM or electronic word-of-mouth “encompasses customers’ knowledge about the products, their usage, experience, recommendations, and complaints, and is generally perceived as trustworthy and reliable” (p. 27) and more effective compared to traditional marketing tools (Rauniar et al., 2014).

Jedrzej and López Locés (2017) found that most people tend to discredit sellers that have negative reviews even if these reviews are fewer than the positive ones, suggesting that a bad opinion has more weight than a positive one (p. 126). Considering the fact that users who buy online generally tend to perceive the behavior as being riskier, trustworthiness becomes the factor that can influence their decision making positively. Pappas (2016) identified three main risks that can influence decision making in the buying process: (1) the inability to examine whether the product will satisfy their needs before receiving it, (2) the post-selling services, (3) the inability to fully understand the system and the language that is being used in electronic sales. These sort of perceptions can lead potential e-shoppers to ask for advice on online social networks, so they can evaluate how other existing buyers or other users perceive the desired product or online service.

Trust represents an important factor associated with the development of the interest in using online stores in the buying process. The tendency to trust is seen as a personality characteristic leading to generalized expectations referring to the trust of others. Mayer, Davis and Schoorman (1995) suggested that trust is “the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party” (p.712). On the other hand, propensity to trust or the generalized tendency to trust others represents a stable factor within the group, affecting the probability that the group is trustworthy. For determining whether something is trustworthy or not, consumers look for indicators for trust and the effect of propensity to trust is to raise or reduce the signals of these indicators. Arora and Rahul (2017) demonstrated that consumer attitudes toward online shopping are significantly impacted by trust, which is a product of perceived web quality, website reputation and electronic word-of-mouth (p.373).

As far as information searching is concerned, studies demonstrated that there are positive relationships between the perceived benefits of social media information searching and the initial usage of this space for obtaining information (Mahrous, 2016). But on social media, users get involved in communities, and community belonging becomes essential as people get more and more engaged in distributed and inter-organizational groups (Fayard & Metiu, 2013), allowing individuals to identify with other community members and start thinking about “we” instead of “I” or “them” (Fayard & DeSanctis, 2010). This can be another factor that could influence the way users choose to advise their community when considering buying a product or service.

## **Methodology**

The objectives of this research paper were to identify the users` attitudes towards using Facebook as a means for information in the online buying process and to identify the factors influencing the use of Facebook for this purpose. The online social network Facebook was selected as this is one of the most frequently used social media platform in Romania. For the purposes of this research, a quantitative method was used, the survey. For data collection, an online questionnaire was used, which was applied in 2017. The questionnaire was distributed via Google forms platform and shared through Facebook.

The sample consisted of 166 students from the College of Communication and Public Relations, NUSPA, from Bucharest, Romania. The respondents, aged between 18 to 24, answered the invitation to respond to the online questionnaire after the invitation was posted on an online group on Facebook. The students are undergraduate (67%), master’s graduates (22%) and Ph.D. graduates (1%). 69% are females, while 31% are males; the majority of the participants live in the urban area (90%), while 9% live in the rural area. The questionnaires were completed online and the anonymity to this completion was guaranteed.

## ***Scales of measurement***

For measuring *we-ness*, referring to the affiliation of members to the community, we used a 3 items scale asking students whether they think of Facebook friends as “we” instead of “them”, how much friends on Facebook mean to them and whether they

identify with the community. In order to measure *propensity to trust*, a 3 items scale which included questions regarding the easiness to trust another person, the level of the tendency to trust and the disposition to trust without having information about the other party. *Online social network consulting* was For measuring *trust in internet shopping*, we used a 5 items scale which included questions regarding the attitude towards trusting online acquisitions, uncertainty perception, attitude towards online sellers and promise keeping, perception regarding others who shop online and on trusting the online stores they use. Community commitment was measured through a 3 items scale requesting participants to rate the degree to which they agree to the statements referring to their attachment to the Facebook community, to their emotional involvement and to their predisposition to enquire information from the community. For measuring these scales, students were asked to state their agreement level or value on 5 point Likert scales.

For measuring the internal validity of the proposed scales, Cronbach Alpha was applied; the results revealed high values in this sense: *consulting online social networks (Facebook)*  $\alpha=0.952$ , *trust in online shopping*  $\alpha=0.802$ , *community commitment*  $\alpha=0.933$ , *perception towards member affiliation (we-ness)*  $\alpha=0.914$ , *propensity to trust*  $\alpha=0.900$ .

**Table 1. Descriptive statistics (means, SD, Cronbach Alpha) of factors that influence the decision-making process**

No.	Item	Mean	SD	Cronbach's $\alpha$
1.	Trust in online shopping	2.60	0.84	0.798
2.	Propensity to trust	2.34	1.04	0.900
3.	We-ness	2.71	1.29	0.914
4.	Community commitment	2.77	1.33	0.933
5.	Online social network consulting	2.01	1.26	0.952

## Results

Firstly, the survey results showed that the students from our sample shop online a few times per year (42%) and once in every 2 or 3 months (23%), while only a less than a quarter are heavy shoppers, buying a few times per month (20%). Regarding their *information seeking behaviors*, our respondents use Facebook most of the times (22% very frequently, 20% on a frequent basis), while 15% confirmed that they do not use Facebook at all when they are researching for information for a new acquisition. Furthermore, most of the students agreed that online stores need a Facebook presence (more than 80%). As far as the page content they expect to see, the respondents mostly mentioned they agree that it should be less oriented towards sales (more than 70%).

Regarding *trust in online shopping*, the means ( $M=2.6$ ,  $SD=0.84$ ) showed that students are most trusting of online stores, specifically, more than 50% agree that a virtual store inspires them trust, while 22% agree that they are not trustworthy as they present plenty uncertainties. Also, more than 50% of the participants did not agree that online sellers are not able to keep their promise, while 23% is undecided, and over 23% considers this to be true to a high and very high degree. Regarding the trustworthiness

of the online stores where they buy products or, 64% agree with this statement to a high and very high extent.

As far as *community commitment* is concerned, 29% of the participants are emotionally attached to a very low degree and 23% to a low degree to their Facebook community, while 20% have a neutral standing point. Around 28% feel attached to their community members. On the other hand, members seem to represent an important source in obtaining the needed information when considering to buy something online, as 23%, respectively 21% go to Facebook for information, while 35% do this to a little extent or very rarely. This suggests that the Facebook community could be perceived as a valuable source of getting information by more than a third of the research sample, but there is also a consistent percentage not committing to this idea. The mean of this scale was  $M=2.77$   $SD=1.33$ , indicating a somewhat balance perception of community commitment within the sample that was studied.

By measuring *we-ness*, or member`s affiliation to the community, the results showed approximatively similar values with the previous scale ( $M=2.71$ ,  $SD=1.29$ ). Almost a half of the respondents confirmed that the Facebook friendship does not mean a lot to them, 25 % being undecided, and around 30% confessing to this attachment. However, most of the respondents do not agree with the statement that they think of their Facebook friends as “we” instead of “they” (61%), while 16 % consider this to be true for them. 42% of our sample agreed that they do not identify themselves in the Facebook community which helps them trust in buying a specific product or service online, while 38% confirm this attitude.

The *propensity to trust* scale was developed for measuring the general tendency towards trust of the respondents. The values were rather inclined to a low degree ( $M=2.34$ ,  $SD=1.04$ ). Only 19% agreed that they can easily trust another person, 22% remaining undecided, and almost 60% did not agree with this statement. The second item asked the participants to rate the extent to which they agree that their tendency to trust another person is high, most of the participants (51%) shared that they did not agree to this to a low and very low extent. 26%, however, believe this to be true for them. As far as trusting other individuals that they do not know, the majority (76%) admitted not having this attitude. Thus, the results showed a low level of general trust for our sample.

*Online social network consulting* was measured by asking the study participants whether they post questions or advice about the products or services they buy online. In this sense, the mean value indicates that students barely participate in this type of behavior ( $M=2.01$ ,  $SD=1.26$ ). 46% of the respondents mentioned they never post questions on Facebook in order to obtain information about a product or service they intend to buy, while 30% rarely do this, and only 9,1% proceed with this for getting advice. Moreover, less than 17% post advice after buying a product or service from an online store, with 52% of the respondents never engaging in this sort of behavior, and 23% rarely doing so. These results prove a low contribution with valuable information for the community.

Regarding the factors influencing the acquisition process, 50% of the students reported that they are influenced by comments on the Facebook pages of online stores, while 28% are influenced by this to a low degree. Negative comments posted on Facebook photos of the products influence 46% of our sample, while 23% report not being influenced by this, and 18% are undecided whether this is important to them or not. Over 62% of the

respondents, however, are more inclined to buy a product if they find photos and information on Facebook about it, and 19% are influenced by this to a low degree. Responsiveness seems to be important according to our results: over 60% believe that their level of trustworthiness increases when the Facebook admin page answers all the questions that are asked on the page.

Considering the normal distribution of the tested variables, a Spearman correlation test was applied in order to identify whether there are statistically relevant relationships between the variables that were presented. The analysis showed a positive relationship between *we-ness* and *online social network consulting* ( $r_s = .693, p < .01$ ), showing that the extent to which students perceive themselves as part of the Facebook community increases, the behavior of posting advice or questions regarding online stores also increases. The same positive relationship was identified when considering *community attachment* ( $r_s = .646, p < .01$ ), indicating that once the attachment to the community increases, users tend to engage in informative behaviors on the community.

As far as *information seeking* on Facebook is concerned, the analysis reported a positive relationship with *trust in online shopping* ( $r_s = .274, p < .01$ ), with *we-ness* ( $r_s = .541, p < .01$ ) and *community commitment* ( $r_s = .581, p < .01$ ), suggesting the possibility that users who are trusting the online environment for buying products or services are also using Facebook as a channel for obtaining information about what they intend to buy, and that this behavior increases with the feeling of belonging and attachment to the community. There is no significant relationship, however, between *information seeking* and the *propensity to trust*. But the *propensity to trust* and *trust in online shopping* both have a positive association with *online social network consulting* ( $r_s = .163, p < .05$ , and  $r_s = .381, p < .01$ ).

The *frequency of online shopping* increases with *trust in online shopping* ( $r_s = -.447, p < .01$ ), with *community attachment* ( $r_s = .335, p < .01$ ), and with *we-ness* ( $r_s = .424, p < .01$ ), putting forward for consideration that the frequency of buying online is related to the favorable perception of the Facebook community and with the increase of trustworthiness of the online stores.

**Table 2. Relationship testing between variables**

Correlations	P value	R square
<i>We-ness -&gt; online social network consulting</i>	**	0.693
<i>Community attachment -&gt; online social network consulting</i>	**	0.646
<i>Trust in online shopping -&gt; information seeking on Facebook</i>	**	0.274
<i>We-ness -&gt; information seeking on Facebook</i>	**	0.541
<i>Community commitment -&gt; information seeking on Facebook</i>	**	0.581
<i>Propensity to trust -&gt; online social network consulting</i>	*	0.163
<i>Trust in online shopping -&gt; online social network consulting</i>	**	0.381
<i>Trust in online shopping -&gt; frequency of online shopping</i>	**	0.447
<i>Community attachment -&gt; frequency of online shopping</i>	**	0.335
<i>We-ness -&gt; frequency of online shopping</i>	**	0.424

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

\* . Correlation is significant at the 0.05 level (2-tailed).

## Discussion

Firstly, the research results proved that a business presence on online social networks is relevant for a number of reasons, as young segments (between 18 to 24) mostly search on Facebook when considering to buy a product or service online, and also believe that online stores should have a business page to be consulted on this online channel. Users appreciate the involvement of the page admin in the comments that are posted on the page also take into account the comments and the impressions, especially the negative ones when they form an opinion about what they intend to buy. Previous research (Jedrzej & López Loces, 2017) showed that negative opinions or comments can impact a large number of people, even if the number of the negative reviews represents a minority, so it is important for online shops to respond to inquiries, with suggestions, recommendations, even to the negative mentions that are posted by clients, because it offers the business' perspective.

The role of trust and its importance in the buying decision process was emphasized before by other researchers (Tuteja et al., 2016; Martin et al., 2011). In our study, it is important to note that the attitude of trusting online shopping is connected to the information-seeking behavior on social networks and to the activity of posting questions and advice related to the acquisitions on the social networks. Online stores should monitor the way their targets get informed and identify the specific questions they ask referring to products or e-shops services. Moreover, the level of community attachment and affiliation are both linked to advising and asking for feedback on online social networks, so this could potentially mean that the users will attribute more value to what their members will be suggesting and to the information or opinion they are offering.

Generally, the participants mostly trust online stores and, particularly, the e-shops they do some research on. However, there is a significant percentage of the study participants who are either undecided or distrusting of online sellers, which could be a potential indicator of bad reputation or some negative claims they interacted with, which were proven to weight more compared to positive word-of-mouth.

In terms of content generation, our study results are similar to others (Romero et al., 2011; Ertiö et al., 2018) that confirm that social media users are rather passive consumers of content, and not engaging in contributing to the network. Very few students of our sample post questions or advice referring to the products or services they bought or intend to buy online, demonstrating their lack of actual involvement in the community.

As far as the third research question is concerned, the data analysis showed that there was no significant relationship between seeking information on online social networks and the general tendency of users to trust, which could suggest that the behavior of resorting to the online community for advice or pre-purchase information could be happening irrespective of the disposition to trust other individuals.

## Limitations of the research

The study had a couple of limitations. Firstly, the data was collected online, which could interfere with the quality of the information that was obtained. Furthermore, the quantitative method of research allowed us to evaluate only one perspective of the

online shopping experience and some of the perceptions of the factors that influence the decision-making process and the information seeking experience in the pre-purchase stage of the buying process. More in-depth research is required for advancing the relevance of social media influence, the antecedents and the consequences of the consumer purchase intention in e-commerce. Additionally, the research investigated only the attitudes and opinions about aspects referring to the Facebook community and the functionalities it allows business owners to use for promotion, but the complexities behind the social media marketing efforts are much wider and they also need to be taken into account when evaluating decision making of users who intend to shop online.

## Conclusions

Considering the wide variety of digital marketing and social media technologies that allow e-commerce businesses to promote their products or services and build and maintain relationships with publics, there is more need and interest in understanding the most effective ways in using these technologies for business benefits. Social media, in particular, represents a relevant source of information for users in the online purchase experience. Considering social media's interactive nature and the large volumes of user-generated content that it generates, it is especially important for e-shops to monitor and be actively present in this space, facilitating dialogue with interested publics and contributing with attractive content for potential prospects. As the online community can influence the perceptions of publics based on the information it provides, online businesses should invest time in understanding the digital micro-universes the users experience throughout their online journeys, getting more involved in implementing social networking functionalities on their buying platforms.

## References

- Arora, N., & Rahul, M. (2017). The impact of trust on online shopping attitude among women shoppers in India. *International Journal of Technology Transfer and Commercialisation*, 15(3), 360-381.
- Broekemier, G., Chau, N.N., & Seshadri, S. (2015). Social Media Practices Among Small Business-to-Business Enterprises. *Small Business Institute Journal*, 11(1), 37-48.
- Case, D.O. (2002). *Looking for Information: A Survey Research on Information Seeking, Needs, and Behaviour* Amsterdam. San Diego, CA: Academic Press.
- Chang, S., Chih, W., Liou, D., & Yang, Y. (2015). The mediation of cognitive attitude for online shopping. *Information Technology & People*, 29(3), 618-646.
- Eurostat (2017). *E-commerce statistics*. Retrieved from [http://ec.europa.eu/eurostat/statistics-explained/index.php/E-commerce\\_statistics](http://ec.europa.eu/eurostat/statistics-explained/index.php/E-commerce_statistics), accessed on 19.04.2018.
- Elsharnoby, T., & Mahrous, A.A. (2015). Customer participation in online co-creation experience: the role of e-service quality. *Journal of Research in Interactive Marketing*, 9(4), 313-336.
- Eyal, N. (2014). *Hooked: How to build habit-forming products*. New York, NY: Penguin Group.
- Farivar, S., Turel, O. & Yuan, Y. (2017). A trust-risk perspective on social commerce use: an examination of biasing role of habit. *Internet Research*, 27(3), 586-607.
- Fayard, A.L., & Metiu, A. (2012). *The power of writing in organizations: From letters to online interactions*. New York, NY: Routledge.

- GPEC (2018). Raportul pieței de e-commerce 2017: Românii au cumpărat online de 2,8 miliarde de euro [E-commerce Market Report 2017: The Romanians bought online of 2.8 billion euros]. Retrieved from <https://www.gpec.ro/blog/raportul-pietei-de-e-commerce-2017-romanii-au-cumparat-online-de-28-miliarde-de-euro>, accessed on 1.07.2018.
- Ikoja-Odongo, R. & Ochalla, D.N. (2004). Information Seeking Behaviour of Formal Sector Entrepreneurs. The Uganda Experience. *Libri*, 54(1), 54-66.
- Kannan, P.K., & Hongshuang, A.L. (2017). Digital marketing: A framework, review and research agenda. *International Journal of Research in Marketing*, 34(1), 22-45.
- Kietzmann, J.H., Silvestre, B.S., McCarthy, I.P., & Pitt, L.F. (2012). Unpacking the social media phenomenon: Towards a research agenda. *Journal of Public Affairs*, 12(2), 109-119.
- Kotler, P. (2009). Managementul marketingului [Marketing Management]. Bucharest: Teora Publishing.
- Liao, Z. & Cheung, M.T. (2001). Internet-based e-shopping and consumer attitudes: An empirical study. *Information and Management*, 38(5), 299-306.
- Mahrous, A.A. (2016). Implications of the use of social media for pre-purchase information searches for automobiles. *International Journal of Technology Marketing*, 11(3), 1-11.
- Mahrous, A.A., & Abdelmaaboud, A.K. (2017). Antecedents of participation in online brand communities and their purchasing behaviour consequences. *Service Business*, 11(2), 229-251.
- Martín, S., Camarero, C., & José, R. (2011). Does involvement matter in online shopping satisfaction and trust?. *Psychology & Marketing*, 28(2), 145-167.
- Mayer, R.C., Davis, J.H. & Schoorman, F.D. (1995). An integrative model of organizational trust. *Academy of Management Review*, 20(3), 709-734.
- Musial, J., & Lopez-Loches, M. (2017). Trustworthy Online Shopping with Price Impact. *Foundations of Computing and Decision Sciences*, 42(2), 122-136.
- Rauniar, R., Rawski, G., Yang, J. & Johnson, B. (2014). Technology acceptance model (TAM) and social media usage: and empirical study on Facebook. *Journal of Enterprise Information Management*, 27(1), 6-30.
- Romero, D.M., Meeder, B., & Kleinberg, J. (2011). Differences in the mechanics of information diffusion across topics: idioms, political hashtags, and complex contagion on Twitter. In *WWW'11* (pp. 695-704). Retrieved from <https://hal.archives-ouvertes.fr/hal-00848050/document>, accessed on 13.06.2018.
- Ertiö, T., Kukkonen, I., & Räsänen, P. (2018). Social media activities in Finland: A population-level comparison. *Convergence. The International Journal of Research into New Media Technologies*, OnlineFirst (1). Retrieved from <http://journals.sagepub.com/doi/full/10.1177/1354856518780463>.
- Thanuskodi, S., & Revathi, C. (2015). Expectation of Research Scholars and Students on Library Resources and Services: A Case Study of Alagappa University, India. In Thanuskodi, S. (Ed.), *Handbook of Research on Inventive Digital Tools for Collection Management and Development in Modern Libraries* (pp.190-207). Harrisburg, PA: Idea Group.
- Tuteja, G., Gupta, S., & Garg, V. (2016). Consumer Trust in Internet Shopping. *Paradigm*, 20(2), 191-215.
- Zaman, M., Anadarajan, M., & Dai, Q. (2010). Experiencing flow with instant messaging and its facilitating role on creative behaviors. *Computers in Human Behavior*, 26(5), 1009-1018.