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Factors affecting social commerce acceptance in Lithuania

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Abstract

The growing use of online social networks becomes more attractive for many companies as it presents opportunity to reach consumers. The possibility to access users' data basing on their preferences and interest allow companies target their marketing actions to particular segments. Companies pay high attention to social commerce, which can be defines as "a subset of electronic commerce that involves using social media, online media that supports social interaction, and user contributions to assist in the online buying and selling of products and services" (Yahoo, 2005). Within this context paper seeks to address social commerce acceptance between users in Lithuania identifying various factors affecting attitudes towards this phenomena.

The proposed theoretical model for social commerce acceptance is based on technology acceptance and technology resistance theories, SoLoMo theory, theory of technology acceptance identifying key factors affecting consumers' attitude towards social commerce acceptance. The proposed model is validated empirically between Facebook users in Lithuania.

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Keywords: social commerce; technology acceptance; users' attitudes; consumer behaviour; SoLoMo.

1. Introduction

Various statistics data show number of consumers using the Internet for information related to goods and services search, as well as using Internet for buying goods and services increases. The same situation is with online social networks use – more and more Lithuania consumers' are active in online social networks. The most popular online social network Facebook accounts about 1.138 users in Lithuania (2013) reaching of 55.14 percent of online population in Lithuania (Viparkas, 2013). This clearly indicates market and reaches potential for enterprises

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deploying Facebook in their activities. However consumers' rather treat Facebook as entertainment or content environment, but the key challenge for companies is deploying this environment as sales or commerce.

Online social networks deployment for sale activities usually is referred as social commerce. Most researchers and practitioners agree social commerce is just at the early stage as not so many companies demonstrate success and profitable activities at online social networks. This mainly is caused by consumers' perception and attitudes towards environment as well as behavioral habits.

Considering this paper address social commerce development precondition in Lithuania aiming answer the questions – what factors social commerce acceptance in Lithuania? So in this paper we will analyze various factors from several behavioral theories perspectives and validate these factors through empirical assessment.

2. Social commerce conception

One of the causes facilitating social commerce arises and development was the second generation of the World Wide Web (Web 2.0) development. The term became popular since 2004, when the first O'Reilly Media conference was held and the term was mentioned referring to the second generation of World Wide Web, Web 2.0 was described as some form of cooperation between the web user (e.g. the exchange of information), which is characterized by rapidly changing communication on the Internet and World Wide Web technology.

According to consulting company Booz & Co (2011) report social commerce market in the world by the year 2015 will grow up to 56 percent, and the estimated revenue from social commerce will reach about 30 billion U.S. dollars. About 50 percent of these revenues will be obtained by USA companies. Meanwhile, the European Commission (2012) prepared report states that Europe is still in early stages of social commerce development-goods or services through online social media networks has been acquired only by 2 percent of users. However at the same time the document outline positive perspectives towards social commerce growth prospects basing on social media network penetration – at the end of 2010, the social media networks were used by 84% of the existing Internet users. The current date of New Media Trend Watch (2013) demonstrates social networks penetration in various countries (Table 1).

Table 1. Social networks users penetration in various European countries (New Media Trend Watch, 2013)

Country	Social networks users (% of population)
Netherlands	69.6%
C.Wang (2009)	69.2%
Sweden	64.5%
Finland	56.3%
Denmark	56.0%
UK	50.2%
Spain	41.2%
Germany	39.9%
France	35.9%
Italy	32.6%

Such situation demonstrate the potential of online markets in social networks, so companies are intensively seeking how to deploy online social technologies and tools for sale process implementation and enchantment.

Owyang (2009) indicates five phases of social web expansion. These phases are not sequential, but overlapping, so it is important from companies to understand users might require different value propositions and experience:

- Era of social relations – people connect to others and share
- Era of Social Functionality – Social networks become like operating system
- Era of Social Colonization – Every experience can be social
- Era of Social Context – Personalized and accurate content
- Era of social commerce – Communities define future products and services

Social commerce concept was introduced by Yahoo (2005) referring to the process which can be defines as “a subset of electronic commerce that involves using social media, online media that supports social interaction, and user contributions to assist in the online buying and selling of products and services” (Yahoo, 2005). From this perspective social commerce is treated as electronic commerce extension deploying social networks tools. The similar position expressed Jascanum, Jascanu & Nicolau (2007) referring to social commerce as combination of online social networks and electronic commerce. Afrasiabi Rad and Benyoucef (2011) in their researches refers to social commerce as a form of electronic commerce, but based on more personal, interactive and social relations.

Kang and Park (2009) also are tend to agree that social commerce is new kind of electronic commerce, but emphasize consumers’ possibility to discuss and rate products or services. Shen and Eder (2009) also note consumers’ cooperation possibilities in taking decision to purchase product or service.

The various aspects of social commerce and authors views are presented in Table 2.

Table 2. Social commerce characteristics

Researchers	Social Commerce characteristics
Leitner, Grechenig (2007)	Possibility to get advices from other consumers/customers
Wang (2009)	Social media supports buying process
Shen, Eder (2009)	Social commerce is based on communication and information sharing
Kang, Park (2009)	Users comments and discussions is one of key elements
Stephen, Toubia (2010)	Enterprises might be represented by individual persons
Afrasiabi Rad, Benyoucef (2011)	Interactivity and social relations elements importance

Although various authors agree on social commerce identification as special electronic commerce case they also emphasize importance of consumers as well as socialness aspects. The consumer aspect relates to involvement of others consumers, which mainly supports purchasing process; and socialness aspect relates to various activities between consumers supporting them in decision making (Curty & Hall, 2007; Curty & Zhang, 2013).

The other important aspect of social commerce is mentioned by various researchers – social commerce is process which is facilitated through the result of users’ interaction (Zhong, 2012). Social media tools and means facilitate the exchange and transfer of information between users in various formats. So, this new stage of e-commerce can be interpreted as the use of social media sites and tools – “space” where people are given the opportunity actively participate in product and service marketing and sales processes or brands communities’ activities. One of the most challenging issues from this perspective to the companies is need to deploy intermediaries or social platforms (Facebook, Google+ or others) for facilitating or enabling interaction between users. However it might not require direct intervention in the process from company side. Users can find all required information and perform required actions with the help of intermediaries (Gatautis & Medziausiene, 2012).

It is important to keep in mind that company's ability to integrate social media into their operations, or to adapt in the way company can provide a direct communication through intermediaries (platforms) with your existing and potential customers leads to more open, personal and social communication (Zhou, Zhang & Zimmermann, 2013). Such decision also help for better understanding of customers’ needs, as well as opens possibility to develop long lasting relation based on socialness values.

3. Social commerce and SoLoMo conception

With the raising and getting popular conception of social commerce, researchers also observe SoLoMo conception appearance. This conception emphasizes three characteristics of modern consumer – social, local and mobile. Some researchers even interpret SoLoMo conception as “extension of social commerce – selling or

marketing that utilizes social platforms with the added context, courtesy of the mobile phone, of location” (Marketing, 2012). SoLoMo conception emphasizes three key aspects of consumer:

- Social – stands for consumer desire to interact and exchange information with other consumers, friends or people interested in the same topic, brand or service;
- Local – emphasizes consumer interest in local deal. Despite technologies abilities to track and to obtain goods and services from all around the world, consumers are interested in buying products they can get immediately or at in relative short time, which lead to local offers.
- Mobile – stands for mobile and smart technologies deployment during the purchasing process, as it allows purchasing at any time in any place. It requires from companies adaptation to mobile environment considering mobile environment features.

Marsden (2013) in his research provided examples how large social platforms supports this conception implementation (see Table 3).

Table 3. Social platform support towards SoLoMo conception

	Facebook	Groupon	Foursquare
Social	More then 2,5 mln web site are integrated with Facebook plugins such as “Like it” and ability to log in using Facebook account	Deals are activated only when a minimal number of consumers sign in, so consumers are encouraged to tell information to their friends	Users can share their locations with friends as well as recommendations what to do
Local	Users can get local deals by checking in” to a business via the Place feature	Groupon buying platform provides an alternative to traditional local advertising platforms	Business can use the platform to provide specials offers and build loyalty
Mobile	Company have more the 250 mln active mobile users	The new Groupon application delivers deals to consumers based on their location	Consumers “checks in” to business on their mobiles

SoLoMo conception features are close related to social commerce – with ongoing technological development and growing socializations activities social commerce users are described by SoLoMo characteristics. Having this in mind, we can expect that social commerce users will association social commerce process with above mentioned aspect.

4. Factors affecting social commerce acceptance

As social commerce is considered subset of electronic commerce, which consumers usually associate with technology use, theories explaining technology acceptance might be adapted to social commerce acceptance explanation.

Considering this approach several theories needs to be mentioned:

- Theory of Reasoned Action (Fishbein, 1975)
- Theory of Planned Behavior (Ajzen, 1985)
- Technology Acceptance Model (Davis, 1989)
- Unified Theory of Acceptance and Use of Technology (Venkatesh, Morris, Davis & Davis, 2003).

Considering the historical development of this theories and various researchers observation the most elaborated theory is Unified Theory of Acceptance and Use of Technology which outlines 4 key constructs (Venkatesh, Morris, Davis & Davis, 2003):

- Performance expectancy – the degree to which an individual believes that using the system will help him or her to attain gains in job performance

- Effort expectancy – the degree of ease associated with the use of the system
- Social influence – the degree to which an individual perceives that important others believe he or she should use the new system
- Facilitating conditions – the degree to which an individual believes that an organizational and technical infrastructure exists to support use of the system

It is important to observe the three first construct impact behavioral intentions, and the last construct – facilitating conditions impacts use behavior. Venkatesh, Morris, Davis & Davis (2003) also names four moderating factors – gender, age, experience, and voluntariness of use. Unified Theory of Acceptance and Use of Technology theory was intensively discussed between researchers and various extension proposition were introduced, such as online social support (Lin & Anol, 2008), peer support (Syskes, 2009) or perceived playfulness and self-management of learning (Wang, Wu & Wang, 2008). In our study we will concentrate on 4 key constructs identified by Venkatech (2003) and their impact on key social commerce dimensions – social, mobile and local.

It is important to note social commerce acceptance as well as consumer behavior related to social commerce were not so widely addressed by researchers. In this context Cha (2009) research aiming to understand how consumers accept social shopping websites, Li, Liang, Ho & Turban (2012) in research related to social support and relations quality impact on social commerce, Cheung and others (2010) research related to social networks role in online shopping, Hajli (2012) research related trust role should be mentioned. Shen (2012) was one of the first researchers proposing extension of unified theory of acceptance and use of technology and suggesting six factors:

- Perceived ease of use
- Perceived usefulness
- Perceived enjoyment
- Behavioral intention
- Social presence
- Tendency to social comparison online

Within our research we provide the following description of the 4 key construct:

- Performance expectancy – the degree to which an individual believes that using the social commerce will help him or her to attain gains
- Effort expectancy – the degree of ease associated with the use of the social commerce systems
- Social influence – the degree to which an individual perceives that important others believe he or she should buy through social commerce systems
- Facilitating conditions – the degree to which an individual believes that social commerce environment support the process

Having this in mind the every construct was described through social, mobile and local dimensions analyzing these construct impact on intentions to use social commerce.

The pilot empirical study was carried out in order to assess proposed conceptual model. The convenience sampling method was used in selecting respondents. 231 respondents participated in the pilot study.

The link to developed questionnaire was shared in several Facebook groups of Lithuania users asking visitors to participate in the survey. The data collection was done in 2013 April in 4 weeks period.

There are three parts in questionnaire to gather information related to demographic information of the respondents, internet and social commerce experience and selected variables. A total of 15 statements with five-point ordinal scale to measure behavioral intention of social commerce use (3 statements) and the selected variables namely performance expectancy (3 statements), effort expectancy (3 statements), social influence (3 statements), facilitating conditions (3 statements) that were adapted from Venkatesh, Morris, Davis & Davis (2003), Marsden (2013), Shen (2012) and Pavlou & Fygenson (2006), Wang (2009, 2012), Harris & Dennis (2011), YenYuen & Yeow (2009). The possible responses to statements varied from strongly agree in one end to strongly disagree to

another end with the scoring of one to five points. Prior to run analysis, the score for each variable were sum up. Hence, the possible score for behavioral intention, performance expectancy, effort expectancy, social influence and facilitating conditions sum score were ranging from 3 to 15 points respectively. The higher score demonstrated the higher level of agreement in the specific factor.

The data collected was analyzed using Statistical Package for Social Science for Windows (SPSS for Windows). Descriptive analysis used frequency and percentage to examine the profile of the respondents. Test of Pearson correlation and linear regression was used in this study. The level of significance at probability level of 5% was used.

The study involved 231 respondents from which 66.6% were males and 33.4% females. In the study participated respondents age were different, but the majority of respondents were 18–25 years age. Lowest part of participants was the oldest respondents 46–55 years.

The study found that the most popular Internet connection device is a laptop computer. Using laptop to the Internet connect 47.6% of the respondents. The less popular device to connect to Internet is a desktop computer. Only 4.76% of respondents uses stationary computer to connect to the Internet.

The coherence of used instrument construct was assessed trough the calculation of Cronbach's alpha statistical values. Construct eligibility will be considered good if Cronbach's alpha coefficient value is higher than 0.7. In all construct cases Cronbach's alpha coefficients value were higher than 0.7.

Prior to multiple linear regressions, correlation analysis was performed. The analysis of correlation shows the significant relationship between performance expectancy ($r = 0.51$, $p < 0.01$), effort expectancy ($r = 0.55$, $p < 0.01$), social influence ($r = 0.64$, $p < 0.01$), facilitating conditions ($r = 0.63$, $p < 0.01$) and trust ($r = 0.55$, $p < 0.01$) with behavioral intention.

Results of multiple linear regressions showed that four significant predictors explained 56.6% variance of behavioral attention among the respondents. The final regression models produced by enter method for behavioral intention towards social commerce acceptance is following: behavioral intention = $-1.53 + 0.12$ Performance expectancy + 0.24 Effort expectancy + 0.46 Social influence + 0.18 Facilitating condition.

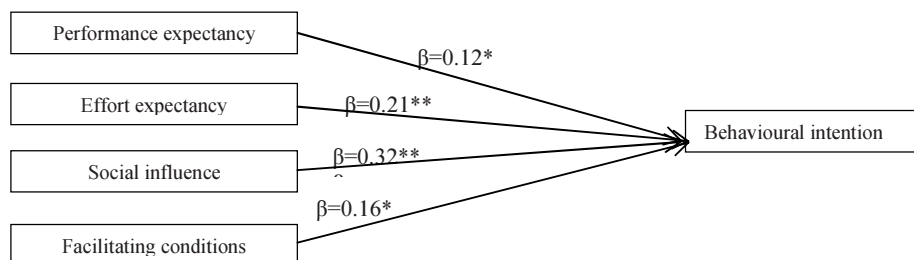


Fig. 1. Empirically validated model of social commerce acceptance (* Correlation is significant at the 0.05 level of significance, ** Correlation is significant at the 0.01 level of significance)

Fig. 1 demonstrates the obtained standardized beta coefficient value. This indicates that one standard deviation increase in performance expectancy score brings about 0.12 standard deviation increase in behavioral intention towards social commerce adoption. Further, social influence ($\beta = 0.32$) contribute most significantly towards one's behavioral intention towards social commerce acceptance followed by effort expectancy ($\beta = 0.21$), facilitating condition ($\beta = 0.16$) and performance expectancy ($\beta = 0.12$).

Limitations of the study. As it was stated early it was only the pilot study with relevant small participant numbers. The respondents were selected only from several groups from one social platform, which might affect study results. As the convenience sample model for selecting respondents were use the presented results tends to demonstrate general tendencies, but not specific segment behavior.

5. Conclusions

The recent progress towards more active social technologies and online social networks adoption led to the situation socialization became main activity on the Internet. The largest social platform Facebook has more than 1 bln users and still number of users' increases. Despite the popularity of Facebook new social platforms such as Groupon, Pinterest are appearing and gaining Internet users attention.

Within growing socialization we observe social commerce phenomena arising. More and more companies assess possibilities of online social networks deployment in commerce and sales activities. Although the socialization activities is usually widely accepted as entertaining activities so commerce elements is hardly moving forward. Despite such situation several consulting companies foresees social commerce market growth.

Social commerce is associated with social technologies use in commercial activities, so social commerce acceptance closely link to social technologies acceptance. Basing on this assumption Unified Theory of Acceptance and Use of Technology is modified through social commerce 2 key tendencies perspectives – social, local and mobile enriching performance expectancy, effort expectancy, social influence and facilitating conditions construct.

The empirical validation of the model carried out between Facebook users demonstrates most significant social influence contribution towards one's behavioral intention towards social commerce acceptance. Effort expectancy demonstrates medium significance towards one's behavioral intention towards social commerce acceptance. Facilitating condition and performance expectancy demonstrates lowest impact on one's behavioral intention towards social commerce acceptance.

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