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**EWOM COMMUNICATION IN SOCIAL MEDIA: A STUDY OF ITS ANTECEDENTS IN
HIGHER EDUCATION CONTEXT**

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ABSTRACT

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The aim of this master's thesis was to examine antecedents of eWOM communication in social media in the higher education context. In order to achieve this goal, eWOM communications of the students' of international master's programmes at Lappeenranta University of Technology were studied. The main research question was formulated as follows: What kind of effect do service-, brand-related antecedents, contextual antecedents and moderating factors have on LUT's international master's degree students' eWOM communication in social media regarding their studies?

The theory part of the master's thesis was focused on the discussion of service- and brand related eWOM antecedents, contextual antecedents, as well as moderating relationships between them. The empirical part of the master's thesis was based on quantitative research method. A web-based survey was carried out among current students of international master's degree programmes at LUT. Out of 712 e-mail invitations sent, 159 responses were received in total. Thus, response rate was 22%.

The results of the study showed that satisfaction, commitment, virtual brand community commitment, need for an advice, positive altruistic concerns, negative altruistic concerns, and attitude towards eWOM communications have an effect on eWOM in higher education context. Several moderating effects on eWOM were determined in the present study as well. On the other hand, it was found that dissatisfaction, loyalty, brand identification, desire to help the organization, need for positive self-enhancement, and social risk perception do not have an effect on eWOM in higher education context.

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1. INTRODUCTION

1.1. Background overview

Lappeenranta University of Technology (hereafter referred to as LUT), the case organization of this master's thesis, has made remarkable steps forward in recent years. Firstly, in 2010 LUT came in the first place in the International Student Barometer survey that monitored international students' satisfaction with their studies and was conducted among 125 000 international students of 188 universities in 11 countries (Finland, Sweden, Germany, the Netherlands, Ireland, Italy, Great Britain, Canada, the U.S.A, Hong Kong, and Luxembourg) (Testimonials 2015). Ever since then the results of the Student Barometer survey have been showing a consistently high level of international students' satisfaction with their studies at LUT (LUT does excellently... 2015). Secondly, according to the Times Higher Education World University Rankings (THE), one of the world's most prestigious university performance tables, LUT was placed among the world's 300 best universities in 2014 (LUT among 300 best universities 2015). Moreover, recently LUT has been placed in 31st place among top young universities by the Times Higher Education 100 to 50 Rankings (LUT is the world's 31st best young university 2015).

Due to these events the university has received a remarkable world-wide recognition and therefore considerably increased its attractiveness and competitiveness on an international level. Without a doubt, it is now highly important for the university to maintain and enhance the position it has achieved and favorable image it has created. In addition to on-going marketing efforts, another useful marketing 'tool' that can be applied but has not been exploited so far is the word-of-mouth that current international master's degree students (hereafter referred to as international students) spread about the university online.

Considering the fact that interpersonal recommendations given by international students as consumers of educational services are many times more effective than any formal marketing message, and that electronic word-of-mouth spread by each of these students reaches hundreds of people around the globe (Cheng & Zhou 2010), it is highly important to be aware of what encourages students of international degree programmes to engage in electronic word-of-mouth, as well as the way they express it. Being knowledgeable of that would allow better managing and enhancing of the image the university has created and therefore attract a larger number of talented students from around the world. As

Quandile & Oganesyants (2014, 61) noted, promotion of the university through existing students is crucial for any university nowadays, as “universities all over the world compete to recruit international students and faculty in response to globalization and quality standards”.

Referring back to the previous studies that focused on international students of LUT, Scharschmidt (2014) studied the topic of image and identity of LUT among international master’s degree students. However, the idea of international master’s degree students of LUT contributing to promotion and creation of favorable image for the university through electronic word-of-mouth has not been paid much attention to yet. For that reason, LUT lacks knowledge on the factors that motivate students of international programmes to engage in electronic word-of-mouth, as well as their general behavior when it comes to discussing their studies at LUT online.

Despite the importance of electronic word-of-mouth communication being widely acknowledged, especially due to the fact that the number of Internet users increases daily and, secondly, with the emergence of Web 2.0. the number of different interactive channels has also grown significantly (Barreto 2014, 635), a more in-depth research on this special form of an overall communication behavior still has to be conducted (Berger 2014, 603). Therefore, this master’s thesis has a potential to offer several contributions to the research on this still relatively under-researched phenomenon.

1.2. Literature review

To begin with, Dichter (1966, 157) was among the first researchers of traditional WOM who assumed that consumers will not talk about brands, products or services, unless they get “something out of it”. He determined such four broad categories of WOM motivations as product-involvement, self-involvement (or self-enhancement), other-involvement (concern for others), and message involvement. Later on, the classification proposed by Dichter (1966) has been modified and developed by other researchers. Some of the early studies conducted on the antecedents of WOM as well as the most recent ones are summarized in Table 1.

Table 1.1. Research on WOM antecedents.

Author(s)	WOM antecedents	Context
Engel, Blackwell & Miniard (1993)	Involvement Self-enhancement Concern for others Message intrigue Dissonance reduction	Products and services
Sundaram, Mitra & Webster (1998)	Altruism (positive and negative WOM) Product involvement Self-enhancement Helping the company Anxiety reduction Vengeance Advice seeking	Products
Harrison-Walker (2001)	Affective commitment High sacrifice commitment Service quality	Beauty salon and veterinary services
Brown, Barry, Dacin & Gunst (2005)	Satisfaction Consumer identification Consumer commitment	Retailing sector
de Matos & Rossi (2008)	Satisfaction Loyalty Quality Commitment Trust Perceived value	Meta-analysis of WOM literature
Hong & Yang (2009)	Reputation Relational satisfaction Customer-company identification	Companies, brands
Das (2013)	Pleasure Arousal Satisfaction	Banking sector, services
Wien & Olsen (2013)	Satisfaction Perceived quality	Food industry
Alexandrov, Lilly & Babakus (2013)	Self-enhancement Self-affirmation	Products and brands
Barasch & Berger (2014)	Audience size (broadcasting and narrowcasting)	Brands, product, and services

Along with the arrival and development of the Internet in the mid-1990s, both consumers and businesses received unprecedented opportunities to communicate and share information with a large audience without the cost of traditional media (Fogel 2010, 55). In addition to that, the main distinctive features of eWOM as a special form of a broader phenomenon of WOM are associated with the speed at which information travels online, an access to a large volume of information, and the lack of geographical limitations (Wolny & Mueller 2013, 565). Overall, eWOM occurs on a wide range of online channels, for example, blogs, emails, instant messages, chat rooms, consumer review websites, forums, virtual consumer communities, and social networking sites (Phelps et al. 2004).

Hennig-Thurau and colleagues (2004) are among the first researchers who have conducted one of the most outstanding studies on eWOM. In this study, Hennig-Thurau, Gwinner, Walsh & Gremler (2004, 44) identified 11 motivations that might encourage consumers to engage in expressing WOM in web-based opinion platforms. The results showed that such four motivations as social benefits, economic incentives, concern for others (altruism), and need for self-enhancement are the primary reasons why consumers publish their experiences on opinion platforms (Hennig-Thurau, Gwinner, Walsh & Gremler 2004, 50). A summary of a number of studies conducted on eWOM antecedents is presented in Table 2.

Table 1.2. Research on eWOM antecedents.

Author(s)	Antecedents	Context
Wasko & Faraj (2005)	Reputation Enjoy helping Centrality Self-rated expertise Tenure in the field Commitment Reciprocity	Electronic network of practice (forum)
Sun, Youn, Wu & Kuntaraporn (2006)	Innovativeness Music Internet usage Music involvement Internet social connection	Music industry, Internet, chatting and forwarding
Huang, Lin & Lin (2009)	Relational commitment Social interaction tie Image outcome expectation Message passing self-efficacy Affection outcome expectation	Passing along emails
Cheung & Lee (2012)	Reputation Reciprocity Sense of belonging Enjoyment of helping Moral obligations Knowledge self-efficacy	Consumer opinion platform
Yap, Soetarto & Sweeney (2013)	Positive self-enhancement Social benefits Advice seeking Concern for other consumers Helping the company Venting negative feelings	Financial services
Wolny & Mueller (2013)	Fashion involvement Brand involvement Product involvement Self-involvement Other involvement Advice seeking Need for social interactions	Fashion industry, Facebook, Twitter
Kim, Sung & Kang (2014)	Brand identification Brand trust Community commitment Community membership intention	Re-tweeting behavior on Twitter

The importance of both traditional WOM and eWOM communication has been studied by a number of authors. Based on the WOM literature, the impact of WOM can be discussed from the perspective of either a customer or a company. For example, Dichter (1966) found that WOM helps to reduce perceived risk associated with purchasing of a product or consumption of a service; Martin & Lueg (2013, 801), in turn, came to a conclusion that WOM recommendations shape the attitudes toward recommended products.

Moreover, in their study on effects of consumer reviews on relative sales of books at Amazon.com and Barnesandnoble.com, Chevalier & Mayzlin (2006, 345) confirmed that customer WOM affects consumer purchasing behavior and that an improvement in a book's reviews resulted in increased relative sales at Amazon.com. In addition, Wolny & Mueller (2013) determined in their study on eWOM in fashion industry context that eWOM contributes to creation of a favorable company and brand image. Sun & Chen (2014, 63) stressed "that the idea behind the concept of eWOM is very important to the visibility of individuals and businesses seeking exposure on the Internet". Overall, Godes & Mayzlin (2004), noted that WOM is very often determined as a key driver in business success. Moreover, Zeithaml, Berry & Parasuraman (1996, 44) claimed that WOM communications have a significant impact in service sector, because it is difficult to evaluate services before experiencing them.

On the other hand, although there are a number of benefits that positive WOM and eWOM create for both customers and companies, negative WOM and eWOM can undermine the credibility of commercials, damage brand attitudes (Smith & Vogt 1995, 133), and company image (Mardhiyah, Dhammesta & Purwanto 2013, 113). As a result, Smith & Vogt (1995, 133) and Sundaram, Mitra & Webster (1999, 669) stated that negative WOM might reduce customer's purchasing and re-purchasing intentions.

Another bottleneck associated with WOM that has been firstly acknowledged by Dichter (1966) is that marketers have very limited control over person-to-person communications and Lang & Hyde (2013, 8) explained this limitations by the fact that WOM is a voluntary behavior. Thus, the same can be applied to eWOM communications as well.

However, Harrison-Walker (2001, 72) stressed that WOM should and can be managed by marketers. In particular, the scholars pointed out that marketers have to be aware of the various antecedents of WOM, because it enables them to exploit the power of WOM in forming consumers' attitudes and behaviors. Similarly, in the context of eWOM, Liang,

Ekinci & Occhiocupo (2013, 585) suggested that it is essential for managers to understand eWOM antecedents and motivations to be able to promote their products and services better and avoid negative publicity.

According to Bampo et al. (2008, 274), eWOM marketing belongs to viral marketing category, which broadly speaking describes any strategy that encourages individuals to propagate a message, thus, creating the potential for exponential growth in the message's exposure and influence". However, Ho & Dempsey (2013, 1004-1005) argues that due to the "amount of clutter on the Internet, a successful viral marketing message must not only attract attention, it must also give the viewer a reason to want to share this information with others".

Therefore, it is more likely that a marketing campaign will be successful, if marketing messages are developed in a way that matches with the target audience — "in other words, appeals to the key motivations for sharing information" (Ho & Dempsey 2013, 1004-1005). More specifically, Wolny & Mueller (2013, 562) outlined that because consumers very often use social media to connect with other consumers, companies, and brands, it is necessary to add knowledge on what motivates them to take part in online communications. And it could be done by analyzing the motives for writing comments and posts online. (Wolny & Mueller 2013, 562)

With regards to higher education context, Li (2013, 382) noted that WOM is particularly important for higher education institutions. According to Greenacre, Freeman, Cong & Chapman (2014, 40), the reason for that is that very often potential students learn about different options through peer communication, in particular, through WOM received from their social networks.

Moreover, Li 2013 (as cited in Li 2005) highlighted that the interest toward WOM in higher education sector is largely driven by the understanding that students' satisfaction with their educational experience and loyalty result in reduction of complaints, improvement of student retention rates; and it also motivates students to recommend the university to others. Therefore, if the university wants to conduct marketing successfully, the university reputation based on WOM is the button line (Li 2013 cited in Li 2005). For that reason, university management team should make an effort to make sure that students spread positive message about the university (Li 2013, 382).

Overall, a variety of research methods have been applied to study WOM and eWOM, for example, experiments (Barasch & Berger 2014), critical incident method (Bechwati & Nasr 2011; Sundaram, Mitra & Webster 2008), content analysis (Bechwati & Nasr 2011), and face-to-face interviews (Das 2013; Dichter 1966). Based on the academic literature as well as according to Godes & Mayzlin (2004), such quantitative research method as web-based survey appears to be the most widely used research method for traditional WOM and eWOM.

To sum up, Lang & Hyde (2013, 12) outlined that “although research into WOM over the past six decades has resulted in great advances in our knowledge, much remains to be explored”. The majority of other scholars who have conducted research on both traditional WOM and eWOM in the past five years have come to the same conclusion (Berger 2014; Wolny & Mueller 2013; Cheung & Lee 2012; Cheng & Zhou 2010). In particular, according to Berger (2014), the reasons behind WOM and eWOM communications is one of the areas that still contains a lot of research gaps. Moreover, the number of studies on this subject in higher education settings is very small (Teo & Soutar 2012). Therefore, the results of this study have a potential to bridge a number of gaps in empirical research on eWOM.

1.3. Research aim and research questions

The aim of this master’s thesis is to examine antecedents of eWOM communication in social media in higher education context. In order to achieve this goal, eWOM communications of the students’ of international master’s degree programmes at LUT are going to be studied. Based on the aim of this study, the main research question is formulated as follows:

What kind of effect do service- and brand-related antecedents, contextual antecedents, and moderator factors have on LUT’ international master’s degree students’ eWOM communications in social media regarding the university?

In order to answer the main research question comprehensively, 12 sub-questions have been proposed. Five of them are based on service- and brand-related antecedents, 6 sub-questions deal with contextual antecedents, and one sub-question is related to moderator

effects. Firstly, customer's (dis)satisfaction is chosen, because the previous studies on its effect on students' WOM have showed contradictory results (Li 2013; Teo & Soutar 2012). Therefore, the first sub-question is formulated as follows:

What kind of effect does international students' (dis)satisfaction with the studies have on eWOM spread about LUT in social media?

Further, two following sub-questions examine the effect of commitment and loyalty, as these antecedents have been previously found to influence students' engagement in WOM regarding their studies (Li 2013; Alves & Raposo 2007). The sub-question regarding students' commitment to the university is formulated as follows:

What kind of effect does international students' commitment have on eWOM spread about LUT in social media?

Further, the sub-question concerning the effect of students' loyalty on eWOM communication is proposed as follows:

What kind of effect does international students' loyalty to LUT have on eWOM spread about the university in social media?

Two following sub-questions examine the effect of international students' identification with LUT as a brand as well as sense of belonging to the LUT brand community. It has been determined in the eWOM literature that these antecedents have a direct effect on consumers' readiness to engage in eWOM in social media (Kim, Sung & Kang 2014). Moreover, Teo & Soutar (2012, 688) have determined that students' identification with the university has an effect on engagement in eWOM regarding the university. Therefore, the sub-question regarding international students' identification with the university is formulated as follows:

What kind of effect does international students' brand identification with LUT have on eWOM spread about the university in social media?

Next, the sub-question regarding students' commitment to the LUT brand community is proposed as follows:

What kind of effect does international students' commitment to the LUT brand community have on eWOM spread about the university in social media?

The following six sub-questions examine the effect that contextual antecedents have on eWOM. The sixth sub-questions focuses on the effect that students' need for an advice have on eWOM. It has been determined, that in the context of traditional products and services, unhappy customers are likely to ask for an advice from others and spread negative WOM (Sundaram, Mitra & Webster 1998, 531). Therefore, the sixth sub-question is formulated as follows:

What kind of effect does the need for seeking for an advice have on eWOM international students spread about LUT in social media?

The seventh sub-question examines the effect of students' altruistic concerns on eWOM. Previous research has determined that, depending on the situation, customers might spread either positive or negative eWOM to help other consumers (Sundaram, Mitra & Webster 1998, 529). Therefore, the seventh sub-question posits:

What kind of effect does the concern for others have on eWOM international students spread about LUT in social media?

The eighth sub-question is focused on international students' desire to help the university. Previous research has found that customers are willing to help the company, if they are satisfied with the product or service consumed (Yap, Soetarto & Sweeney 2013, 67). Therefore, the eighth sub-question is as follows:

What kind of effect does the desire to help the university have on eWOM international students spread about LUT in social media?

The next sub-question considers the effect of students' self-needs on eWOM. According to Alexandrov, Lilly & Babakus (2013, 535) customers' need to self-enhance, or feel good about themselves, motivates them to engage in positive eWOM. Thus, the ninth sub-question is proposed as follows:

What kind of effect does the need for positive self-enhancement have on eWOM international spread about LUT in social media?

Further, the next two sub-questions focus on such two eWOM antecedents as social risk and general attitude towards eWOM. According to Eisingerich et al. (2015, 120), social risk perception decreases person's willingness to engage in eWOM on such social networking site as Facebook. Therefore, the following sub-question is proposed:

What kind of effect does social risk have on eWOM international students spread about LUT in social media?

Moreover, according to Wolny & Mueller (2013, 573), who studied eWOM in the context of fashion brands, people's eWOM communications are influenced by their general attitude towards online communications. Therefore, the next sub-question posits the following:

What kind of effect does general attitude towards eWOM have on eWOM international students spread about LUT in social media?

Lastly, in order to find out whether there are any moderating relationships between chosen eWOM antecedents, the following sub-question was formulated:

What kind of moderator effects do service- and brand-related and contextual eWOM antecedents have?

1.4. Definitions of key concepts

The key concepts being discussed in this master's thesis are eWOM, social media, service- and brand related antecedents, contextual antecedents, and eWOM communication.

Electronic word-of-mouth (eWOM) is a narrower form of a broader phenomenon of WOM. It is explained as "any positive or negative statement made by potential, actual, or former customers about a product or company, which is made available to a multitude of people and institutions via the Internet" (Hennig-Thurau, Gwinner, Walsh & Gremler 2004, 39). It takes place on different online platforms, for example, virtual consumer communities, blogs, emails, consumer review websites, social networking sites and so forth (Phelps et al. 2004).

Social media are “a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0 that allow the creation and exchange of user generated content” (Kaplan & Haenlein 2010, 61). In particular, the present study concentrates on such social media platforms as Facebook, Instagram, Twitter, YouTube, Google+, LinkedIn, and VKontakte.

Service- and brand-related eWOM antecedents are based on international students’ consumption experiences of educational services provided at LUT and lead to students’ eWOM communication in social media regarding their studies.

Contextual antecedents are defined as non-service-related (or psychological) factors that influence international students’ eWOM communication regarding LUT.

Moderator effect is a situation where a second eWOM antecedent changes the form of the relationship between another antecedent and eWOM (adapted from Hair, Anderson, Tatham & Balck 1998, 170)

eWOM communication is defined in this study as an outcome of service-, brand-related, contextual antecedent, and mediating factors. It includes past eWOM behavior and eWOM intentions in the form of eWOM valence: positivity or negativity of message transmitted (Berger 2014) and activity: frequency and quantity of information transmitted (Harrison-Walker 2001). Moreover, in the context of this thesis, eWOM communication in social media implies posting, ‘liking’, and ‘sharing’ of content related to the university.

1.5. Theoretical framework

Theoretical framework described in this sub-chapter is a combination of a number of antecedents previously specified and studied in WOM in eWOM literature. The framework consists of five service- and brand related antecedents: (dis)satisfaction, commitment, loyalty, brand identification, and brand community commitment; as well as five contextual antecedents: advice seeking, altruistic concerns, desire to help the organization, positive self-enhancement, and social risk. This division of antecedents is made based on classification proposed by Alexandrov, Lilly & Babakus (2013).

The majority of antecedents included in the theoretical framework have been previously researched by a number of authors either in the context of WOM or eWOM, as well as in product-, service- or brand-related settings. However, only few of them have been examined in the context of higher education. For example, Li (2013) and Alves & Raposo (2007) studied the effect of students' satisfaction on loyalty and WOM; Teo & Soutar (2012) examined the effect of students' satisfaction on commitment and WOM. The overall theoretical framework of this study is summed up in Figure 1.1.

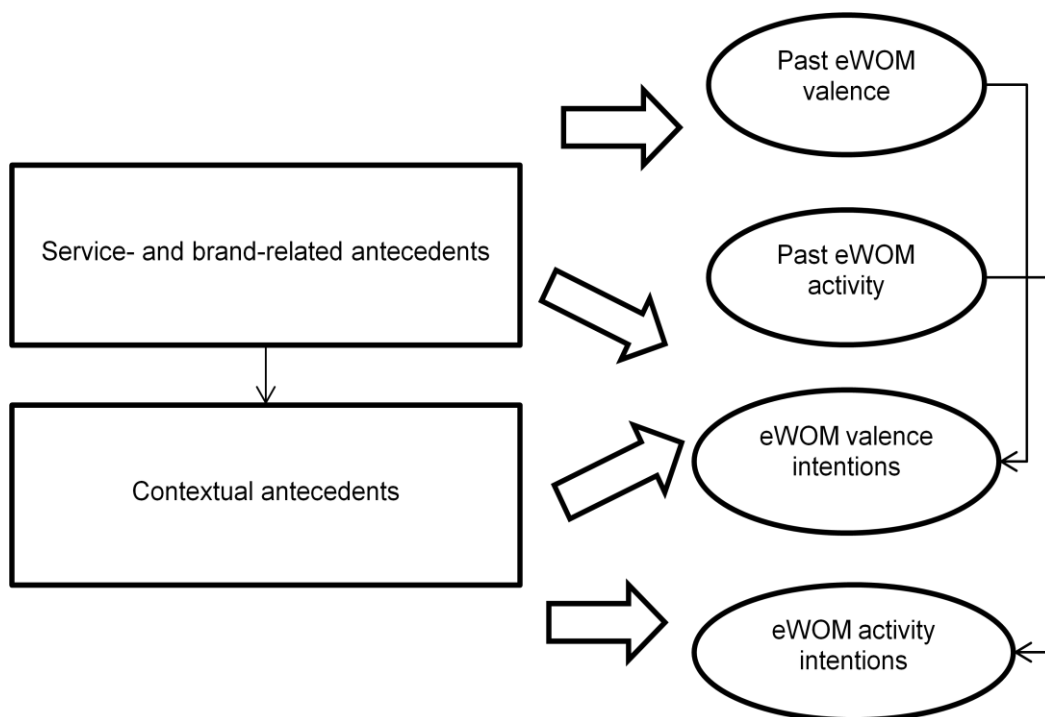


Figure 1.1. Theoretical framework.

1.6. Delimitations

Regarding theoretical delimitations, this master's thesis focuses solely on eWOM, therefore excluding so-called traditional WOM, or face-to-face communications. The reason for that is that considering both types of WOM would be too wide research field to be covered in the context of this master's thesis. On the other hand, Bunker, Rajendran & Corbin (2013, 30) noted that satisfied customers who 'like' company of Facebook "are more likely to engage in positive behaviors beyond the scope of social media". Therefore, the results of this study can be also applicable in the context of traditional WOM communication.

Moreover, in the context of this master's thesis, eWOM communication in social media is considered to be exposed to many people at the same time, which is known as broadcasting. In that sense, face-to-face conversations with only one or a few people (known as narrowcasting) in the case of traditional WOM will not allow to analyze the phenomenon from the chosen perspective. Thus, in this research, the emphasis will be placed on eWOM as broadcasting.

Further, of all eWOM mediums, only such social media channels as social networking sites (Facebook, VKonrakte, Google+, and LinkedIn), image-based sites (Instagram and YouTube), and such microblogging site as Twitter were chosen to be focused on. The reason for that, first of all, is that these eWOM mediums allow broadcasting. Secondly, chosen eWOM mediums can be influenced directly by the university, for example, by establishing or enhancing its position in certain social media channel. Therefore, such eWOM channels as e-mails, Facebook messenger, online discussion forums, blogs, and consumer review sites are not included in the research.

Moreover, eWOM can be studied both as a dependent variable, meaning that it is considered as an outcome of certain antecedents' effect; as well as a dependent variable, which takes into consideration the impact that eWOM has on other variables, for example, on customer behavior or company reputation. In this master's thesis, the phenomenon of eWOM is studied as an outcome of the effect of certain antecedents and, therefore, the consequences of eWOM will not be considered.

Although there is a variety of different factors that have an effect on eWOM behavior, due to the fact that not all of them are well-researched or applicable in the context of education services, the author chose to concentrate on such twelve antecedents as customer satisfaction, dissatisfaction, commitment, loyalty, brand identification, brand community commitment, need for positive self-enhancement, seeking for an advice, concern for others, desire to help the university, and social risk, and attitude towards eWOM.

As for empirical delimitations, the focus of this master's thesis is placed on the current students of international master's degree programmes offered at LUT - freshman and senior year master's degree students, as well as students who started their studies earlier. The reason why the author has decided to concentrate on this segment is that, although the number of international students accepted yearly is more than three times less than the number of students accepted to degree programme offered in Finnish (Lappeenranta

University of Technology 2015), the former segment plays a major role in creating a truly international learning environment as well as establishing and promoting an attractive image for the university on an international level. In addition, international exchange students will not be included in the research population, because this segment would require a different approach due to limited learning experience at the university.

1.7. Research methodology

The theoretical part of the research is built on the existing academic literature on antecedents to WOM and eWOM. Only the most extensively researched antecedents have been chosen to be analyzed in the context of this thesis. A number of scientific articles and several books have been studied in order to create a basis for the research. A number of scientific articles studied had been published in such top marketing journals as Journal of Marketing, Journal of Marketing Research, Journal of Consumer Research, Journal of the Academy of Marketing science, Journal of Consumer Psychology, Journal of Advertising, and Journal of Business Research (Scientific Journal Rankings 2015). The scientific articles have been searched for using such databases as EBSCO, Science Direct, and Emerald.

The empirical part of the research is based on the quantitative research that has been conducted among current students of 11 international master's degree programmes offered at LUT.

1.8. Structure of the research

The first chapter of this master's thesis introduces the topic of the research by firstly giving an overview of the past research on WOM and eWOM and then presenting research aim and questions. Moreover, definitions of the key concepts, theoretical framework, delimitations, and research methodology are explained in the first chapter of this master's thesis.

The second chapter of this thesis is focused on the discussion regarding eWOM communication in the context of social media. First of all, the phenomenon of eWOM in social media is defined and eWOM communication in social media explained. Next, the

theoretical findings on eWOM antecedents are presented from the perspective of service- and brand-related antecedents, and contextual antecedents. In addition, moderator effects between aforementioned antecedents are discussed. The second chapter of the master's thesis ends with the summary of research hypotheses and research framework that is based on the previous empirical findings.

The third and the fourth chapters of this thesis are devoted to empirical study of the topic. Chapter 3 focuses on the discussion of research design and chosen research method. In particular, the case organization is introduced briefly, and data collection and analysis methods are described. The fourth chapter of the master's thesis is devoted to the findings of the research.

The last chapter of the master's thesis is dedicated to discussion and conclusions. The contributions of the study are discussed from the theoretical and managerial viewpoint. In addition, the reliability and validity of the research are assessed, as well as the limitations of the study and suggestions for future research are proposed.

2. UNDERSTANDING eWOM COMMUNICATION

In the context of traditional WOM, Harrison-Walker (2001, 72) stressed that marketers have to be aware of the unique set of antecedents that trigger WOM in order to be able to exploit its role in forming consumers' attitudes and behaviors and therefore be able to incorporate WOM in the marketing mix. Similarly, in the context of eWOM, Liang, Ekinci, Occhiocupo & Whyatt (2013, 585) claimed that it is essential for managers to understand eWOM antecedents and motivations to be able to promote their products and services better and to avoid negative publicity.

With regards to higher education context, it has been determined by Greenacre, Freeman, Cong & Chapman (2014, 40) that potential students often get to know about higher education possibilities from their friends and acquaintances. Therefore, the knowledge on eWOM spread by the current students as well as its antecedents is highly important for promotion of the university and attraction of new applicants.

In this chapter, the phenomenon of eWOM in social media is firstly defined and the concept of eWOM behavior in social media explained. Further, based on the academic literature reviewed, a number of eWOM antecedents are specified and discussed.

2.1. Defining eWOM in social media

One of the most commonly used definitions of eWOM is the one proposed by Hennig-Thurau, Gwinner, Walsh & Gremler (2004, 39), which states that "eWOM communication is any positive or negative statement made by potential, actual, or former customers about a product or company, which is made available to a multitude of people and institutions via the Internet".

However, this definition does not fully cover the nature of eWOM in the context of social media. For example, such customer online behavior as 'sharing' (or forwarding) and 'liking' of the message generated by others is not considered in this definition. Therefore, for the purposes of this research, the definition of eWOM is formulated as follows: eWOM is any positive or negative statement posted, 'liked' or 'shared' by potential, actual, or former customers about a product, service or company, which is made available to a

multitude of people and institutions via social media.

2.2. eWOM communication in social media

According to Chu & Kim (2011) (as cited in Vollmer & Precourt 2008), social media is the most appropriate tool for eWOM communications, because it allows consumers to easily create and transmit information about their experiences with brands, companies, products or services in their social networks that consist of family members, friends, classmates, colleagues, and so forth.

Social media users might post messages and opinions on their accounts, update their profiles or statuses, comment on pages or photos posts. Moreover, consumers can easily pass along friends' posts as well as information about products or brands and forward marketing messages, for example, by becoming a friend or fan and clicking the "like" or "share" button on Facebook brand pages or by hitting the 'retweet' button on Twitter. (Kim, Sung & Kang 2014, 19) Therefore, in some cases, the nature of spreading of eWOM message can be considered as 'viral', which means "rapidly spreading informal online communication between individuals regarding a service or a good" (Goyette, Ricard, Bergeron & Marticotte 2010, 9).

Bunker, Rajendran & Corbin (2013, 21) noted in the context of Facebook that "the 'like' option allows consumers to broadcast their interests and preferences on their Facebook homepage, thus letting their friends know who they support and/or follow". Therefore, by 'liking' content on Facebook, consumers are able to show publicly their relationship with a product, brand or a company (Kim, Sung & Kang 2014, 19; Bunker, Rajendran & Corbin 2013, 21).

In addition to the distinctive characteristics of eWOM communication in social media discussed above, there are also three main perspectives from which both WOM and eWOM phenomena have been examined by many scholars in literature studied. These three approaches are valence of eWOM, activity of eWOM communication, and eWOM incidence.

First of all, similarly to a traditional WOM, eWOM communication can also be considered from the perspective of positivity or negativity of the message people share with each

other, which is defined as valence (Berger 2014, 593; Mazzarol, Sweeney & Soutar 2007, 1481). For example, positive valence (praise) might include making positive comments or recommendations to others about a company or products and services consumed (Brown, Barry, Dacin & Gunst 2005, 125).

Negative WOM, in turn, is explained as negative information made by unsatisfied customers, which very often is a warning to be careful in using certain products or services (Mardhiyah, Dhammesta & Purwanto 2013, 116). Overall, it has been noted by a number of scholars that highly positive and highly negative WOM are the most common examples of WOM (for example, Mazzarol, Sweeney & Soutar 2007; Chevalier & Mayzlin 2006).

Secondly, the approach to measuring WOM communication activity proposed by Harrison-Walker (2001) has been widely applied by researchers. According to this classification, WOM activity consists of the frequency of WOM taking place, the number of people WOM being transmitted to, and the quantity of information provided from a sender to a receiver of WOM (Harrison-Walker 2001, 64). However, in this research, the WOM measurement scale developed by Harrison-Walker (2001) will be applied only partially. The reason for that is that eWOM is considered as broadcasting activity in this study, which implies that eWOM communication in social media is visible to the majority of 'friends' or 'followers' of eWOM sender.

Lastly, WOM incidence means either past eWOM behavior (reported behavior), an actual eWOM behavior, or eWOM intentions (de Matos & Rossi 2008, 591). In WOM literature studied, scholars have examined these WOM and eWOM perspectives mostly separately. For example, Kim, Sung & Kang (2013) focused only on past 'retweeting' behavior on Twitter, Wolny & Mueller (2013), Wasko & Faraj (2005) and Harrison-Walker (2001) examined actual eWOM behavior. Wien & Olsen (2012, 509), and Hong & Yang (2009), in turn, studied intentions to engage in WOM. On the other hand, Brown, Barry, Dacin & Gunst (2005, 128) studied WOM intentions and actual behavior and Cheung & Lee (2012, 224) studied past eWOM behavior and intentions.

Brown, Barry, Dacin & Gunst (2008, 125) claimed that WOM intentions have to be measured prior to the measurement of actual behavior. The findings of the study conducted by Brown and colleagues (2005) suggested "that both positive WOM intentions and positive WOM behavior have a positive relationship with satisfaction, but this

relationship is stronger for WOM measured as intentions”. Podsakoff, MacKenzie, Lee & Podsakoff (2003, 818), in turn, suggested that it is more likely that researchers who measure WOM as an intention will find a stronger relationships between WOM and other variables, because respondents often try to remain cognitively consistent when answering to questionnaires. Similarly, Liang, Ekinci, Occhiocupo & Whyatt (2013, 587), based on Ajzen (1991), highlighted that “the stronger the intention to engage in a specific behavior, the more likely it is that the behavior will be performed”.

Moreover, the past behavior has been determined as a strong predictor of behavioral intentions across different contexts by a number of scholars who studied the theory of planned behavior (TPB). According to this theory, the intentions to perform different kinds of behaviors can be predicted through such determinants as attitude towards behavior, subjective norm, perceived behavioral control, and past behavior (Ajzen 1991, 179).

For example, results of the study conducted by Kidwell & Jewell (2008, 1162) showed that, in the context of credit card acquisition by college students, past behavior has a significant effect on prediction of future intentions. Forward (2009, 198) found that past behavior predicts driver’s intention to violate. Pelling & White (2009, 755) determined that students’ past behavior has a significant influence on intentions and future behavior in terms of social media usage. van der Linden (2011, 355) has also determined in the context of charitable giving that past behavior is a significant determinant of charitable intentions. Based on these findings, the first hypothesis concerning the effect of past eWOM behavior on the behavioral intentions consists of three parts and posits the following:

H1a: Past positive eWOM has a positive effect on positive eWOM intention.

H1b: Past negative eWOM has a positive effect on negative eWOM intention.

H1c: Past eWOM activity has a positive effect on eWOM activity intention.

2.3. eWOM antecedents

“Viewing e-WOM as a conversation between two sources implies a need to understand the process involved in the transmission of information from person to person” (Ho & Dempsey 2010, 1001). Social exchange theory states “that individuals engage in social interaction based on an expectation that it will lead in some way to social rewards such as approval, status, and respect” (Blau 1986, 6-7).

According to Alexandrov, Lilly & Babakus (2013, 533), people tend to evaluate possible benefits and gains before engaging in any social behavior. Therefore, the evaluation process creates expectations about possible gains, which, in turn, become motivations to take action (Alexandrov, Lilly & Babakus 2013, 533). Thus, Ho & Dempsey (2010, 1000), claimed that “electronic content that is “seeded” initially to Internet users who are more readily motivated to pass along content in general and/or if the particular content fits well with the Internet user's forwarding motivation, will more likely reach a large group of Internet users”.

Wolny & Mueller (2013, 565) stressed that the amount of frameworks specifically developed for studying of WOM in online context is still limited. Therefore, a number of scholars still refer to WOM theory to explain eWOM, because the underlying idea behind these phenomena is the same (Wolny & Mueller 2013; Trusov, Bucklin & Pauwels 2009; Hennig-Thurau, Gwinner, Walsh & Gremler 2004). That being said, the discussion in this chapter will be also based to a large extent on previous research on antecedents to traditional WOM.

Based on the classification of WOM antecedents into product-, service-, brand-related antecedents and contextual (or non-service-related) antecedents suggested by Alexandrov, Lilly & Babakus (2013), the following sub-section is firstly focused on discussion of service- and brand-related eWOM antecedents. Further, a number of contextual eWOM antecedents are analyzed.

2.3.1 Service- and brand-related antecedents

2.3.1.1 *(Dis)satisfaction*

Oliver (1980, 466) proposed that exceeded expectations lead to customer's satisfaction, unmet expectations, on the other hand, result in customer dissatisfaction. According to Fornell (1992, 12), customer satisfaction or dissatisfaction refers to good or bad feelings or attitudes experienced by customers after consuming products or services. In the present study, customer satisfaction and dissatisfaction are referred to as students' satisfaction and dissatisfaction.

Customer satisfaction has been determined as a key driver of WOM by a number of researchers who have also widely acknowledged the importance of this antecedent for eWOM communications (for example, Lang & Hyde 2013; Das 2013; Bechwati & Nasr 2011; Dichter 1966). The impact of customer satisfaction on WOM has been researched extensively compared to other product- and service-related antecedents, possibly due to its applicability across different products, services and experiences (Lang & Hyde 2013, 11).

It has been proven by Anderson (1998, 5) that customers who have “extreme levels of satisfaction or dissatisfaction are more likely to share experiences than customers with neutral opinions”. This idea was summarized in the form of U-shaped model. Moreover, Anderson (1998, 5) determined that although dissatisfied customers spread more WOM compared to satisfied ones, the size of this difference might be exaggerated.

According to de Matos & Rossi (2008, 579), the expectancy disconfirmation theory has been the dominant model for conceptualizing and measuring customer satisfaction. Based on this theory, customers evaluate the performance of the purchased product or consumed service and then compare it to the expectations they had prior to that (Oliver 1980, 460). de Matos & Rossi (2008, 580) determined in their meta-analytic analysis of WOM antecedents that customer satisfaction has a significantly positive effect on WOM activity: frequency of WOM, number of people involved, and quantity of information provided.

The results of the study conducted by Hong & Yang (2009, 398) on the effects of organization reputation, relational satisfaction, and customer-company identification on positive WOM, indicated that relational satisfaction has a direct impact on positive WOM. Therefore, the scholars stressed that satisfactory relationship with the customers encourages them to spread positive WOM (Hong & Yang 2009, 398-399).

Moreover, in their study on positive WOM intentions in food industry, Wien & Olsen (2012, 505) stressed the necessity to distinguish between such two perspectives from which customer satisfaction can be considered as transaction-specific and cumulative evaluations. More specifically, “transaction-specific satisfaction refers to the consumer's dis/satisfaction with a discrete service encounter”, and “cumulative satisfaction refers to the consumer's overall dis/satisfaction with the organization based on all encounters and experiences with that particular organization” (Bitner & Hubbert 1994, 76-77). That being

said, the results of the study conducted by Wien & Olsen (2012, 511) showed that customer satisfaction is the dominating predictor of positive WOM intentions in the case of cumulative experiences but not in the case of transaction-based experiences.

Lang & Hyde (2013) pinpointed that it is common that satisfied customers are more willing to engage in positive WOM, whereas dissatisfaction has established itself as a key antecedent to negative WOM (Blodgett, Granbois, & Walters 1993). Bunker, Rajendran & Corbin (2013, 26) studied a variety of factors that affect customer's intention to 'like' company's posts on Facebook and found that 'liking' as eWOM behavior is highly correlated with person's satisfaction with the products or services consumed. According to Brown, Barry, Dacin & Gunst (2005, 133), customer satisfaction with a brand has a significant influence on positive WOM intentions and behaviors, but is affected by customer commitment. Das (2013, 101) pinpointed that companies should not create unrealistic expectations which might lead to customer negative WOM communications.

On the other hand, in addition to studies showing positive effect of satisfaction on positive WOM and positive effect of dissatisfaction on negative WOM, there are also a number of studies that did not support these propositions. For example, it has been determined by Parthasarathy & Forlani (2010, 1147) in the context of innovative products that even satisfied customers may speak negatively of the products they have used. In addition to that, Reynolds & Beatty (1999, 25) did not find support to their proposition that satisfaction with a retailer results in more positive WOM about it. The scholars explained that it might be that due to the use of a single item to measure WOM (Reynolds & Beatty 1999, 25).

In their study on antecedents to negative eWOM in healthcare industry, Mardhiyah, Dhammesta & Purwanto (2013, 126) did not support the proposition that patients' dissatisfaction has a strong impact on intentions to engage in negative eWOM communication. The scholars emphasized that it might be due to the fact that the majority of respondents were of mature age (35-40 years) and with post-graduate education level, which means "that they are more logical than emotional when doing something" (Mardhiyah, Dhammesta & Purwanto 2013, 127).

Moreover, no direct relationship between satisfaction and WOM communications was found in the context of education services. For example, Teo & Soutar (2012, 689) studied the role of service quality, satisfaction and affective commitment in WOM formation among students of one of the universities in Singapore and found that students'

satisfaction has an indirect impact WOM on activity and praise of WOM spread by the students.

Similarly, Li (2013, 379-383) and Alves & Raposo (2007, 584) determined that satisfaction does not have a direct effect on WOM spread by university students about their studies. In addition, in their study of university alumni, Arnett, German & Hunt (2003, 100-101) did observe any relationship between alumni's satisfaction with the university and their readiness to speak about it favorably online. Based on these results, Li (2013, 379-383) concluded that the way university students' satisfaction or dissatisfaction affects WOM they spread about the university differs from the way satisfaction influences WOM in service industry in general.

Brown, Barry, Dacin & Gunst (2005) noted that the reason for these conflicting results in the studies on customer satisfaction and WOM is that there might be other factors that might have a moderator effect on satisfaction.

Contrary to the previous findings in the research in the higher education context and consistent with the findings in the service sector in general, the second hypothesis is proposed as follows:

H2: Students' satisfaction has a positive effect on (H2a) past positive eWOM, (H2b) past eWOM activity, (H2c) positive eWOM intention, and (H2d) eWOM activity intention.

In the case of students' dissatisfaction with their university experience, the third hypothesis posits:

H3: Student dissatisfaction has a positive effect on (H3a) past negative eWOM, (H3b) past eWOM activity, (H3c) negative eWOM intention, and (H3d) eWOM activity intention.

2.3.1.2 Commitment

Moorman, Zaltman & Deshpandé (1992, 316) defined "commitment as an enduring desire to maintain a valuable relationship". The results of the study conducted by (Brown, Barry,

Dacin & Gunst 2005, 133) in the retailing context showed that the effect of satisfaction on positive WOM is moderated by the extent to which consumers are committed to the retailer. In particular, the scholars determined that the more the customers were committed to a retailer, the weaker was the effect of satisfaction on positive WOM spread about it. Based on these findings, the fourth hypothesis is formulated as follows:

H4: Students' commitment has a negative impact on the effect of satisfaction on (H4a) past positive eWOM, (H4b) past eWOM activity, (H4c) positive eWOM intention, and (H4d) eWOM activity intention.

In addition, the scholars found out that in the situation where customers identify themselves with a company, it results in an increase of positive eWOM spread about the company, as well as in an increase of a commitment to a marketer that also boosts customers' willingness to spread positive eWOM (Brown, Barry, Dacin & Gunst 2005, 133-134).

Also, the scholars pinpointed an interesting connection between customer satisfaction and brand or company commitment. In particular, "it may be that a highly committed consumer who has experienced lower levels of satisfaction may "talk up" a company as a defense mechanism, based on a need to reinforce that he or she made a good decision to enter into a relationship with the company in the first place". (Brown, Barry, Dacin & Gunst 2005, 133) In other words, the customers who have a lower satisfaction level but who are committed to their relationship with an organization might still engage in positive eWOM regarding the organization. Moreover, the scholars outlined that achieving customers' commitment to the organization might be crucial for the companies in the service industry. (Brown, Barry, Dacin & Gunst 2005, 133)

In their meta-analysis of WOM literature, de Matos & Rossi (2008, 592) found that customer commitment has a strongest effect on WOM valence and activity, which the authors considered unusual, as very often customer satisfaction has been considered as the main correlate of WOM. Therefore, the authors suggested "that the most important way for managers to increase customers' likelihood of favorable recommendations could be to increase customers' commitment to the organization" (de Matos & Rossi 2008, 592). According to the scholars, in order to increase customer's commitment, managers could improve "identification and the values shared between customers and the company as an incentive for customers' advocacy" (de Matos & Rossi 2008, 592). Similarly, in their study

on motivators for fashion brand-related eWOM engagement, Wolny & Mueller (2013, 574) found that brand-committed consumers are more likely to interact about brands online and spread positive eWOM (Wolny & Mueller 2013, 574).

Based on the findings of previous studies on the effect of customer commitment on WOM, the fifth hypothesis is formulated as follows:

H5: Students' commitment has a positive effect on (H5a) past positive eWOM, (H5b) past eWOM activity, (H5c) positive eWOM intention, and (H5d) eWOM activity intention.

2.3.1.3 Loyalty

According to Jones & Sasser (1995, 94), "customer loyalty is the feeling of attachment to or affection for a company's people, products, or services". In the context of higher education, Li (2013, 377) defined students' loyalty as "the feeling of attachment to or affection for a university's staff, faculty, and their services" (Li 2013, 377). Such previously discussed WOM antecedents as customer (dis)satisfaction and customer commitment are considered as drivers of customer loyalty (Noyan & Simsek 2014, 1220; Goldsmith, Flynn & Stacey 2009, 7).

In their meta-analytic review of WOM antecedents, de Matos & Rossi (2008, 591) found that customer loyalty has a higher effect on WOM intention than on actual WOM behavior. Moreover, the scholars determined that customer loyalty has a weaker relationship with positive WOM than satisfaction. On the other hand, the authors pinpointed that disloyalty has a stronger relationship with negative WOM than does dissatisfaction on negative WOM (de Matos & Rossi 2008, 578). Based on that, the scholars stressed that satisfied customers are not necessarily loyal (de Matos & Rossi 2008, 592).

In the context of higher education services, Alves & Raposo (2007, 584) and Li (2013, 379-383) studied the effect of a number of antecedents on eWOM behavior and found that loyal students are more likely to engage in positive WOM about their studies. Students' loyalty is, in turn, determined by their satisfaction with education services, which means that students have to be firstly satisfied with education services in order to engage in WOM (Li 2013, 375). Based on that finding, the sixth hypothesis is proposed as follows:

H6: Students' satisfaction has a positive influence on the effect of students' loyalty on (H6a) past positive eWOM, (H6b) past eWOM activity, (H6c) positive eWOM intention, and (H6d) eWOM activity intention.

The author noted that this finding is different from the results achieved by Harrison-Walker (2001) in the context of veterinary and beauty salons services and concluded that students need to feel passionate and confident about their studies in order to engage in WOM about his/her university (Li 2013, 383). For that reason, the scholars claimed that "school authority must put more effort to delight students in order to create the WOM effect compared to other service industries" (Li 2013, 383). In addition, delight was previously found to play a great role in eWOM recommendations by Bechwati & Nasr (2011, 64).

Based on the findings of the study conducted by Li (2013) in the context of educational services, the seventh hypothesis is proposed as follows:

H7: Students' loyalty has a positive effect on (H7a) past positive eWOM, (H7b) past eWOM activity, (H7c) positive eWOM intention, and (H7d) eWOM activity intention.

Moreover, in his study on relationships among service quality, customer loyalty, and WOM in the context of private higher education in Taiwan, Li (2013, 381) came to the conclusion that loyalty will keep a student retained at the current university in case he or she plans to pursue a higher degree.

2.3.1.4 Brand identification

According to Bagozzi & Dholakia (2006, 49), "brand identification is the extent to which the consumer sees his or her own self-image as overlapping with the brand's image". A stronger customers' identification with a brand and its community results in a higher involvement with the brand (Bagozzi & Dholakia 2006, 49).

Escalas & Bettman (2005, 388), in turn, noted that brand identification can be used in order to define him/herself, to distinguishing oneself from non-brand users, as well as to present the concept of self to others. It has also been determined in the earlier study conducted by the same scholars "that when consumers' self-concepts are linked to a

brand, then the company behind the brand may be able to gain an enduring competitive advantage because this type of connection is difficult for competitors to imitate” (Escalas & Bettman 2003, 347).

According to Brown, Barry, Dacin & Gunst (2005, 133), customer identification with a brand has a significant influence on positive WOM intentions and behaviors. Similarly, Kim, Sung & Kang (2014, 22) in their study on followers’ ‘retweeting’ behavior on Twitter determined that the extent to which followers of brands identify themselves with the brands contributes the most to their ‘retweeting’ behavior.

The results of the study conducted by Hong & Yang (2009, 399) showed that customers who identify themselves more strongly with a company are more willing to engage in positive WOM. Moreover, the scholars came to the conclusion that in order for a customer to identify him/herself with a company or a brand, a company has to establish “distinct characteristics that can easily be perceived by the customer” (Hong & Yang 2009, 399).

Muntinga, Moorman, & Smit (2011, 35-36) conducted a study on brand-related social media use and came to the conclusion that eWOM in social media can be considered as a way of self-expression if a consumer sees posting in social media as a way to support his or her self-concept. Therefore, the scholars concluded that the extent to which a consumer associates him/herself with a brand has an impact on his or her likelihood to contribute to brand-related content in social media (Muntinga, Moorman, & Smit 2011, 35-36).

Consistent with the previous research, in their study on self-enhancement as a motivation to share content online, Taylor, Strutton, & Thompson (2012, 23) found that “when consumers perceive an online advertisement as consistent with their self-concept, they are more likely to share that message with others”. The scholars emphasized that this finding is especially important in the context of eWOM and viral marketing (Taylor, Strutton, & Thompson 2012, 23).

There are several other concepts in the marketing literature that are similar to the concept of consumer brand or company identification. For example, according to Harrison-Walker (2001), the concept of customer identification is similar to ‘affective commitment’, which Evanschitzky et al. (2006, 1208) defined as “a person’s emotional attachment to a brand or organization, which is based on a person’s identification with that brand or organization

and is built through trust and creating an emotional connection". Harrison-Walker (2001, 68) determined that affirmative commitment to the organization results in positive WOM and higher frequency of WOM spread.

In the context of higher education, Teo & Soutar (2012, 688) found that affective commitment has an effect on positive WOM and WOM activity. Affective commitment is, in turn, positively influenced by students' satisfaction with their studies (Teo & Soutar 2012, 687). Therefore, due to a positive effect of affective commitment on eWOM spread by students, it is necessary for higher education institutions to achieve this kind of commitment. (Teo & Soutar 2012, 688). Based on these findings, the eighth hypothesis is formulated as follows:

H8: Students' brand identification with LUT has a positive effect on (H8a) past positive eWOM, (H8b) past eWOM activity, (H8c) positive eWOM intention, and (H8d) eWOM activity intention.

Moreover, taking into consideration the fact that the effect of affective commitment on WOM is influenced by satisfaction (Teo & Soutar 2012, 687), the next hypothesis is proposed as follows:

H9: Students' satisfaction has a positive influence on the effect of students' brand identification on (H9a) past positive eWOM, (H9b) past eWOM activity, (H9c) positive eWOM intention, and (H9d) eWOM activity intention.

The results of the study conducted by (Arnett, German, & Hunt 2003, 100) showed that it is important for higher education marketers to encourage students' active involvement in school activities and to improve or maintain the level of university prestige, because it will boost and strengthen students' identification with the university. That, in turn, will motivate students to support the university (Arnett, German, & Hunt 2003, 100). Moreover, the scholars determined that prestige of a university as a brand has a direct and positive effect on the likelihood that the alumni will promote the university to others (Arnett, German, & Hunt 2003, 100-101).

2.3.1.5 Virtual brand community commitment

According to Muniz & O'Guinn (2001, 412), "brand community is a specialized, non-geographically bound community, based on a structured set of social relationships among admirers of a brand". Identification with the brand community involves consumer's self-awareness of his or her membership within the community as well as perception of similarities with other community members and differences from non-members. Moreover, brand community membership implies the understanding of rituals, traditions, and norms. (Muniz & O'Guinn 2001, 412) Overall, brand communities create "social structure to the relationship between marketer and consumer" (Muniz & O'Guinn 2001, 427).

Shang, Chen, & Liao (2006, 400) defined virtual brand community as a special kind of brand community. On the example of Facebook, the largest virtual community, Royo-Vela & Casamassima (2011, 519) described that all the registered members (users) can connect for free of charge and interact with other people in the networks organized by, for example, city, region, school, university, or workplace. Only confirmed friends or members of the same group or network can see the information spread by the user. The scholars also stressed that people belonging in virtual communities might hardly know each other in real life. (Royo-Vela & Casamassima 2011, 519).

According to Baumeister & Leary (1995) the need to belong is a fundamental need that drives people to create and maintain bonds with other people. Further, Spencer, Fein & Lomore (2001, 61) determined that the self-concept is, to a large extent, formed through interactions with others. Hennig-Thurau, Gwinner, Walsh & Gremler (2004, 48) in turn, found that need for social bonding has a strong effect on frequency of visiting social media platforms and posting in social media. Moreover, the scholars determined that the frequency of engagement in eWOM communication increases as the social benefits derived from the social network increase.

Bagozzi & Dholakia (2006, 58) found that social intentions are the strongest driver of group behavior in a brand community. Moreover, the scholars claimed that social identity with the brand community contributes to the person's brand identification, which means that brand community might be a convenient way to acquire new customers and create a sense of attachment and loyalty among them. (Bagozzi & Dholakia 2006, 59) Ho & Dempsey (2010, 1004), however, did not find the need for social bonding to have a significant effect on online content sharing.

According to Chi (2011, 45), who studied the motivations of customers engagement in brand communities on Facebook in Taiwanese context, a need to be socially connected is one of the underlying reasons for individual's engagement in online social networking and more specifically, in virtual brand communities. However, the author pointed out that the result might be influenced by the fact that survey respondents belonged to collectivistic culture (Chi 2011, 44).

Hur, Ahn & Kim (2011, 1207), in their study in the context of Chinese female brand community, found that brand community commitment has the greatest effect on positive WOM. In their study on eWOM behavior on Twitter, Kim, Sung & Kang (2014, 22) found that brand followers' commitment to brand pages on Twitter is a significant predictor of 'retweeting' messages produced by brands.

Cheung & Lee (2012, 222) analyzed the drivers of eWOM in online consumer opinion-platforms and determined that sense of belonging had the largest influence on consumers' eWOM intentions. In their study on the effect of social- and self-motives on the intentions to share positive and negative WOM, Alexandrov, Lilly & Babakus (2013, 542) found that the effect of social bonding on WOM is significantly higher for positive than for negative WOM. Therefore, the scholars determined that one way marketers could boost positive WOM about products, services or brands is by taking into consideration customers' need to bond with others (Alexandrov, Lilly & Babakus 2013).

Similarly, in the study conducted by Wolny & Mueller (2013, 575) in the fashion industry context, it was determined that the need for social interactions is linked to the frequency of eWOM communications. The scholars pinpointed that it is clear that social media users appreciate the social benefits they receive when writing posts, liking or sharing brand-related posts with friends (Wolny & Mueller 2013, 575). On the other hand, Wolny & Mueller (2013, 569) noted that sometimes people might talk about product or services simply to have a conversation.

Based on the previous findings made by Alexandrov, Lilly & Babakus (2013, 542), Chi (2011, 45), Hur, Ahn & Kim (2011, 1207), Hennig-Thurau, Gwinner, Walsh & Gremler (2004, 48), the next hypothesis is formulated as follows:

H10: Students' commitment to virtual university community has a positive effect on (H10a) past positive eWOM, (H10b) past eWOM activity, (H10c) positive eWOM intention, and (H10d) eWOM activity intention.

2.3.2 Contextual antecedents

2.3.2.1 Need for an advice

According to Sundaram, Mitra & Webster (1998, 530), advice seeking need is related to obtaining an advice on how to solve a problem. Based on the literature studied, this WOM and eWOM antecedent has been examined only by a few researchers. Sundaram, Mitra & Webster (1998, 531) found that the customers who were not happy with the purchase and did not receive any help from the company were likely to ask for an advice from others and, thus, spread negative WOM.

Moreover, Hennig-Thurau, Gwinner, Walsh & Gremler (2004, 48) found that advice seeking need has an effect on the eWOM behavior on opinion platforms, in particular, on frequency of posting in social media. Similarly, the findings of the study conducted by Sun, Youn, Wu & Kuntaraporn (2006, 1117-1118) in the context of music-related communications determined that need for advice is essential motivation for eWOM. On the contrary, Wolny & Mueller (2013, 575) did not find advice seeking need to have a significant impact on frequency of eWOM communications in the context of fashion brands.

Based on the previous findings made by Sun, Youn, Wu & Kuntaraporn (2006), Hennig-Thurau, Gwinner, Walsh & Gremler (2004), and Sundaram, Mitra & Webster (1998) and and, the next hypothesis is formulated as follows:

H11: Students' need for an advice has a positive effect on (H11a) past negative eWOM, (H11b) past eWOM activity, (H11c) negative eWOM intention, and (H11d) eWOM activity intention.

2.3.2.2 Altruistic concerns

Dichter (1966, 151) referred to person's altruistic concerns as other-involvement and defined it as "the need and intend to help, to share with the other person enthusiasm in, and benefits of things enjoyed". The author determined a positive relationship between this factors and WOM communications (Dichter 1966). Price, Feick & Guskey (2005, 257), in turn, explained altruistic concerns as "the intention to benefit others as an expression of internal values, regardless of social or motivational reinforcement".

Sundaram, Mitra & Webster (1998, 529) defined concern for others (also known as altruism) as "the act of doing something for others without expecting any reward in return". The scholars found that altruistic motives drive consumers to share positive WOM about products, services or brands consumed (Sundaram, Mitra & Webster 1998, 529). Moreover, the scholars also found the relationship between this factors and negative WOM. In particular, the motivation to spread negative WOM about a product or service was explained by the desire to protect others from the problems that they had experienced with a product or service. The customer's motivation is, therefore, to make others aware of negative consequences of certain actions. (Sundaram, Mitra & Webster 1998, 530)

Based on the results of previous studies on WOM motivations, Hennig-Thurau, Gwinner, Walsh & Gremler (2004) analyzed the effect of a number of motivational factors on eWOM communications in the context of web-based consumer opinion platforms. 'Concern for other consumers' variable was studied among others and it was determined as a direct motivation to engage in eWOM communications. According to the study, people who have a high score on this variable tend to post messages on opinion platforms more frequently compared to those with low score. (Hennig-Thurau, Gwinner, Walsh & Gremler 2004, 48-49) Based on the findings made by Sundaram, Mitra & Webster (1998) and Hennig-Thurau, Gwinner, Walsh & Gremler (2004) with regards to altruistic concerns and positive WOM, the following hypothesis is proposed:

H12: Students' positive altruistic concerns have a positive effect on (H12a) past positive eWOM, (H12b) past eWOM activity, (H12c) positive eWOM intention, and (H12d) eWOM activity intention.

Price, Feick & Guskey (2005, 262) studied everyday market behavior and found that altruism is one of the most important antecedents to market helping behavior. The scholars stressed that the greater level of consumer's altruistic intentions results in a higher willingness to help other customers. The scholars suggested that in order to stimulate information diffusion, marketers should encourage market helping behavior by appealing to altruistic motives. For example, such advertising message as "If you enjoy(ed) your stay with us, tell a friend," was suggested as the one that companies might use to stimulate eWOM communications. (Price, Feick & Guskey 2005, 262)

Similarly, Cheung & Lee (2012, 222), in their analysis of drivers of consumer eWOM on opinion platforms, determined that consumers' eWOM intention has a significant relationship with the enjoyment of helping others. Alexandrov, Lilly & Babakus (2013), however, noted that personal altruistic concerns enable people to satisfy certain needs. In particular, according to the scholars, the satisfaction of self- and social needs is the reward for the altruistic concerns. (Alexandrov, Lilly & Babakus 2013, 536) Moreover, the authors determined that the intention to help others is considerably higher for negative WOM than for positive WOM (Alexandrov, Lilly & Babakus 2013, 542). With regards to customer's altruistic concerns as an antecedent to negative eWOM communications, it was found to be an important factor by Mardhiyah, Dhammesta & Purwanto (2013, 127) in their study in the healthcare services context.

Based on this latter finding as well as the finding made by Sundaram, Mitra & Webster (1998) with regards to altruistic concerns and negative WOM, the following hypothesis is formulated:

H13: Students' negative altruistic concerns have a positive effect on (H13a) past negative eWOM, (H13b) past eWOM activity, (H13c) negative eWOM intention, and (H13d) eWOM activity intention.

On the other hand, the results of the study conducted by Wasko & Faraj (2005, 50) in the context of electronic network of practice (online forum) provided weak evidence to the fact that individuals who enjoy helping others provide more helpful advice. Similarly, in their study in the context of eWOM related to fashion brands, Wolny & Mueller (2013, 575) did not find concern for others to have a significant influence on frequency of eWOM related to fashion brands.

2.3.2.3 *Desire to help the organization*

Based on the literature studied, this WOM and eWOM antecedent has been examined only by a few researchers. According to Sundaram, Mitra & Webster (1998, 530), the desire to help a company is in a way altruistic. Drawing on the previous research on altruistic concerns for others, the scholars explained that in the case of desire to help the company, the customer's goal is to help a company but not another consumer. The scholars also found a positive relationship between this antecedent and positive WOM. (Sundaram, Mitra & Webster 1998, 530)

Similarly, Hennig-Thurau, Gwinner, Walsh & Gremler (2004, 42) found that satisfied consumers might spread positive eWOM on opinion platforms in order to give a company "something in return" for a positive experience and to support the company's success. Based on the findings previously made by Sundaram, Mitra & Webster (1998) and Hennig-Thurau, Gwinner, Walsh & Gremler (2004), the next hypothesis is proposed as follows:

H14: Students' desire to help the university has a positive effect on (H14a) past positive eWOM, (H14b) past eWOM activity, (H14c) positive eWOM intention, and (H14d) eWOM activity intention.

2.3.2.4 *Need for self-enhancement*

According to the social exchange theory, an expectation that participation in social interactions might boost personal reputation in the network is one of the benefits that an individual might get from interaction with others (Blau 1986, 259, 269).

Dichter (1966) was the first researcher who identified self-involvement as a driver for engaging in WOM communications (Hennig-Thurau, Gwinner, Walsh & Gremler 2004). According to Dicher (1966, 149-150), self-involvement implies a person communicating about product experiences in order to confirm or reassure him/herself in front of others. In this case, a product or service is used to carry him/herself through doubts and insecurity (Dichter 1966, 150).

Sundaram, Mitra & Webster (1998, 529) found that consumers tend to share their positive experiences from consumption of a product or service in order to enhance the way other people see them and to be regarded as intelligent consumers. Hennig-Thurau, Gwinner, Walsh & Gremler (2004, 48) determined that the need for self-enhancement has a positive effect on the frequency of posting on virtual opinion platforms.

Similarly, the results of the study conducted by Wasko & Faraj (2005, 50) in the electronic network of practice (online forum) indicated that individual knowledge contribution to the forum conversations is influenced by the understanding of how one's participation affects his/her professional reputation. Therefore, the scholars stressed that in order to encourage knowledge exchange in the electronic network of practice, managers should enable participants to built and enhance their personal reputation (Wasko & Faraj 2005, 52). Consistent with the results of the previous studies conducted by Dichter (1966) and Hennig-Thurau, Gwinner, Walsh & Gremler (2004), Bechwati & Nasr (2011, 64) also considered concern for other consumers to be one of the main antecedents to consumer communications.

In the recent studies on eWOM, Cheung & Lee (2012, 221) found that consumer's intention to take part in eWOM communication on online consumer-opinion platforms is associated with an ambition to boost his or her reputation. Moreover, the results of the study conducted by Taylor, Strutton & Thompson (2012, 23) on self-enhancement as a motivation for sharing online advertising confirmed that the message that Internet users share with their online social networks is determined by the need for self-enhancement. Moreover, the scholars found that consumers see a higher self-enhancement value of online advertisement, if the brand is consistent with their self-concept. Taylor, Strutton & Thompson (2012, 23) noted that consumers engage in eWOM communication about self-relevant products more often than about utilitarian products. Based on the finding made by Taylor, Strutton & Thompson (2012), the next hypothesis is formulated as follows:

H15: Students' identification with LUT has a positive influence on the effect of students' self-enhancement need on (H15a) past positive eWOM, (H15b) past eWOM activity, (H15c) positive eWOM intention, and (H15d) eWOM activity intention.

Alexandrov, Lilly & Babakus (2013) considered self-needs and social-needs as initial antecedents to WOM and investigated their impact on WOM paying special attention to

product- and brand-related communication. The scholars came to the conclusion that WOM is the consequence of the “intention to engage in a social interaction that is initiated by the intention to satisfy self-needs” (Alexandrov, Lilly & Babakus 2013, 531-532). Moreover, it was determined that positive WOM is affected mainly by self-enhancement, which showed that by spreading positive WOM, the sender is aiming to boost self-image (Alexandrov, Lilly & Babakus 2013, 542). Based on that, the following hypothesis is proposed:

H16: Students' need for self-enhancement has a positive effect on (H16a) past positive eWOM, (H16b) past eWOM activity, (H16c) positive eWOM intention, and (H16d) eWOM activity intention.

In addition, the scholars pinpointed that although WOM communication is very often related to products or brands, it serves a way to satisfy self- and social needs. More specifically, product-, service- or brand related WOM communications is a way to say “perceive me well”. Therefore, the scholars suggested that marketers could increase positive WOM about products, services or brands by enabling consumers to satisfy their self-enhancement need. (Alexandrov, Lilly & Babakus 2013, 543)

In addition, Wolny & Mueller (2013, 575) linked the need for self-enhancement to the importance of being perceived as an opinion leader. Similarly to the results of the previous research on the relationship between self-enhancement and WOM, Eisingerich et al. (2015, 127) also found in their recent study on reasons for spreading WOM and eWOM that consumers' need for self-enhancement can trigger WOM referrals in the company's favor.

2.3.2.5 Social risk

According to Eisingerich et al. (2015, 120), social risk is associated with customers feeling “more vulnerable to the judgment of others when broadcasting their opinions to a larger group of recipients of varying degrees of closeness”.

In their research on WOM activity, triggers, and conditions, Mazzarol, Sweeney & Soutar (2007, 1488) also acknowledged that the risks associated with providing WOM can decrease the intention to provide WOM. In particular, the scholars found that WOM

senders might be reluctant to engage in positive WOM communications if the receiver has little experience with the company, products or services being discussed. Moreover, consumers may be reluctant to engage in negative WOM “due to the giver’s sense of fair play”. In other words, consumers worried that the negative WOM they provide could damage the organization involved, which, on the other hand, was considered unreasonable due to a previous history of positive experiences. (Mazzarol, Sweeney & Soutar 2007, 1488)

The finding of the study conducted by Eisingerich et al. (2015, 120) determined that due to perceived social risk, in comparison to traditional face-to-face communications, consumers are less willing to spread positive eWOM about favorite product, services or brands on such social networking site as Facebook. Therefore, the scholars suggested that marketers should make sure “that consumers do not feel threatened by social judgments and sanctions as a result of eWOM”. (Eisingerich et al. 2015, 127) Based on these findings, the next hypothesis posits the following:

H17: Students’ social risk perception has a negative effect on (H17a) past positive eWOM, (H17b) past eWOM activity, (H17c) positive eWOM intention, and (H17d) eWOM activity intention.

2.3.2.6 Attitude towards eWOM

Attitude towards a certain behavior is a part of the Theory of Reasoned Action (TRA), according to which, such factors as attitude and subjective norm influence the intention to perform behavior and therefore behavior itself (Wolny & Mueller 2013 cited in Ajzen & Fishbein 1980). Therefore, “attitude towards behavior is a function of the perceived consequences associated with the behavior and their value to the person” (Wolny & Mueller 2013, 570). Further, “subjective norm is a function of beliefs about the views of important others and motivation of complying with those opinions” (Wolny & Mueller 2013 cited in Ajzen & Fishbein 1980). The latter component is, however, not included in this research, as it is to a large extent covered by such eWOM antecedent as virtual community commitment.

In their study on antecedents to traveler’s eWOM, Liang, Ekinci, Occhiocupo & Whyatt (2013, 597) found that traveler’s intention to take part in eWOM regarding travel

experience is affected by his or her satisfaction with it, which is, in turn, affected by an overall attitude towards eWOM communication. This finding indicated that consumer's (dis)satisfaction with travel experiences does not necessarily result in positive or negative eWOM. In order to engage in eWOM communication, a consumer has to believe that it is a useful communication channel to express his or her feelings. (Liang, Ekinci, Occhiocupo & Whyatt 2013, 597)

The results of the study conducted by Wolny & Mueller (2013, 573) confirmed the proposition that people's eWOM communication regarding fashion brands is influenced by their general attitude toward eWOM communication. Based on that, the authors stressed that "inclusions of psychological and sociological needs as drivers of behaviors may allow a better understanding of the eWOM engagement concept" (Wolny & Mueller 2013, 575). Based on these findings, the last hypothesis is proposed as follows:

H18: Students' favorable attitude towards eWOM has a positive effect on (H18a) past positive eWOM, (H18b) past eWOM activity, (H18c) positive eWOM intention, and (H18d) eWOM activity intention.

2.4. Summary of research hypotheses

This chapter has presented the theoretical part of the research by discussing a number of WOM and eWOM antecedents. The research hypotheses have been proposed in line with the general discussion. Nevertheless, the summary of research hypotheses is provided in Table 2.1.

Table 2.1. Summary of research hypotheses.

H1	H1a: Past positive eWOM has a positive effect on positive eWOM intention. H1b: Past negative eWOM has a positive effect on negative eWOM intention. H1c: Past eWOM activity has a positive effect on (H1b) eWOM activity intention.
H2	Students' satisfaction has a positive effect on (H2a) past positive eWOM, (H2b) past eWOM activity, (H2c) positive eWOM intention, and (H2d) eWOM activity intention.
H3	Student dissatisfaction has a positive effect on (H3a) past negative eWOM, (H3b) past eWOM activity, (H3c) negative eWOM intention, and (H3d) eWOM activity intention.
H4	Students' commitment has a negative impact on the effect of satisfaction on (H4a) past positive eWOM, (H4b) past eWOM activity, (H4c) positive eWOM intention, and (H4d) eWOM activity intention.
H5	Students' commitment has a positive effect on (H5a) past positive eWOM, (H5b) past eWOM activity, (H5c) positive eWOM intention, and (H5d) eWOM activity intention.
H6	Students' satisfaction has a positive influence on the effect of students' loyalty on (H6a) past positive eWOM, (H6b) past eWOM activity, (H6c) positive eWOM intention, and (H6d) eWOM activity intention.
H7	Students' loyalty has a positive effect on (H7a) past positive eWOM, (H7b) past eWOM activity, (H7c) positive eWOM intention, and (H7d) eWOM activity intention.
H8	Students' brand identification with LUT has a positive effect on (H8a) past positive eWOM, (H8b) past eWOM activity, (H8c) positive eWOM intention, and (H8d) eWOM activity intention.
H9	Students' satisfaction has a positive influence on the effect of students' brand identification on (H9a) past positive eWOM, (H9b) past eWOM activity, (H9c) positive eWOM intention, and (H9d) eWOM activity intention.
H10	Students' commitment to virtual university community has a positive effect on (H10a) past positive eWOM, (H10b) past eWOM activity, (H10c) positive eWOM intention, and (H10d) eWOM activity intention.
H11	Students' need for an advice has a positive effect on (H11a) past negative eWOM, (H11b) past eWOM activity, (H11c) negative eWOM intention, and (H11d) eWOM activity intention.
H12	Students' positive altruistic concerns have a positive effect on (H12a) past positive eWOM, (H12b) past eWOM activity, (H12c) positive eWOM intention, and (H12d) eWOM activity intention.
H13	Students' negative altruistic concerns have a positive effect on (H13a) past negative eWOM, (H13b) past eWOM activity, (H13c) negative eWOM intention, and (H13d) eWOM activity intention.
H14	Students' desire to help the university has a positive effect on (H14a) past positive eWOM, (H14b) past eWOM activity, (H14c) positive eWOM intention, and (H14d) eWOM activity intention.
H15	Students' identification with LUT has a positive influence on the effect of students' self-enhancement need on (H15a) past positive eWOM, (H15b) past eWOM activity, (H15c) positive eWOM intention, and (H15d) eWOM activity intention.
H16	Students' need for self-enhancement has a positive effect on (H16a) past positive eWOM, (H16b) past eWOM activity, (H16c) positive eWOM intention, and (H16d) eWOM activity intention.
H17	Students' social risk perception has a negative effect on (H17a) past positive eWOM, (H17b) past eWOM activity, (H17c) positive eWOM intention, and (H17d) eWOM activity intention.
H18	Students' favorable attitude towards eWOM has a positive effect on (H18a) past positive eWOM, (H18b) past eWOM activity, (H18c) positive eWOM intention, and (H18d) eWOM activity intention.

Figure 2.1. summarizes the hypothesized effects of service- and brand-related antecedents, contextual antecedents, and moderating factors on eWOM that have been previously explained in the theoretical part of the study. In this figure, bolded arrows represent the moderating effect between variables. The relationships between variables illustrated in Figure 2.1. will be tested empirically in the following chapters.

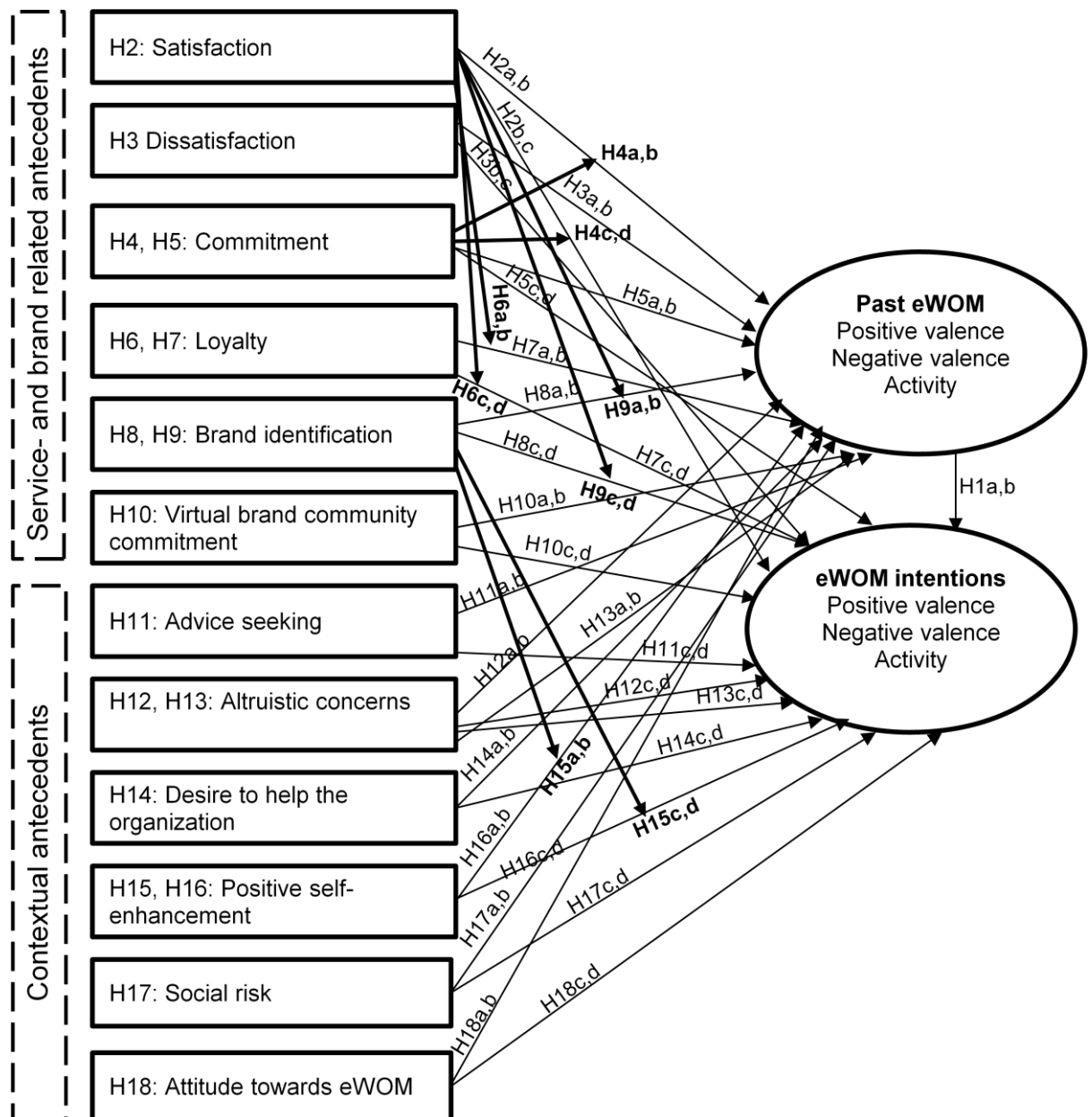


Figure 2.1. Research framework.

3. RESEARCH DESIGN AND METHODS

The empirical part of this master's thesis is based on quantitative research method. The quantitative research method has been chosen because one of its primary goals is to examine the relationship between certain variables (Creswell 2013, 4), which serves the purpose of this master's thesis that aims at determining the effect of certain antecedents on certain eWOM characteristics. Moreover, the present study is considered as explanatory, as in line with the definition, it establishes causal relationships between variables (Saunders, Lewis & Thornhill 2009, 140).

The phases of the empirical study are summed up in Figure 3.1.

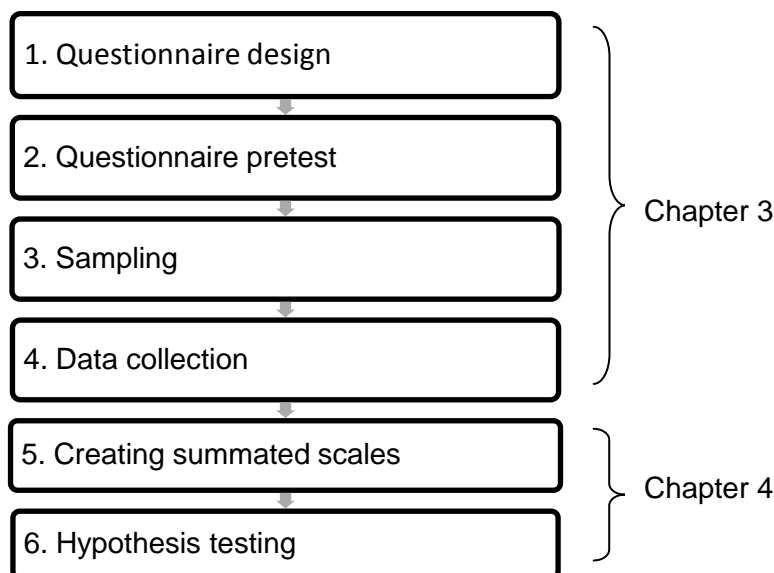


Figure 3.1. Phases of the empirical study.

3.1. Introduction of the case organization

Lappeenranta University of Technology (LUT) is a university located in South-Eastern part of Finland that was founded in 1969. It is considered to be a pioneering science university in Finland that brings together the fields of science and business. The international community of the university consists of around 6500 students of almost 70 different nationalities, and there are 984 members of staff in total. Lappeenranta University of Technology has co-operation partners in 48 countries worldwide. (Key Facts 2015)

In addition to educational services, the university provides research, innovation, and recruitment services to companies (Cooperation & Services 2015). The core values of the university include “the courage to succeed, the passion for innovation through science, and the will to build well-being” (Introducing the University 2015). In the context of this master’s thesis, LUT is considered as an example of a service-based organization.

3.2. Questionnaire design

An online questionnaire consisting of four main sections was created using Qualtrics software. The first section was related to students’ background information and, thus, such information as gender, age, country of origin, master’s degree programme, and the year of beginning of studies at the university were specified. The second part consisted of the questions related to service-, brand-related, and contextual eWOM antecedents, as well as eWOM moderators. The third part of the questionnaire was devoted to past eWOM behavior and eWOM intentions. The past eWOM behavior and eWOM intentions were studied based on students’ online communications on such seven social media platforms as Facebook, Instagram, Twitter, Google+, YouTube, LinkedIn, and VKontakte. The last part of the questionnaire included contact information necessary for the raffle of an incentive.

The section of the questionnaire related to respondents’ background consisted of multiple-choice questions, and in the sections related to eWOM antecedents, past eWOM communication, and eWOM intentions matrix-type questions were applied. At the end of the questionnaire, open-ended questions were asked for general feedback regarding university’s online presence, and for contact information necessary for the raffle.

The measurements of eWOM antecedents were adapted from the scales previously developed and validated by scholars in top marketing journals, for example, *Journal of the Academy of Marketing Science*, *International Journal of Marketing Research*, *International Journal of Advertising*, and *European Journal of Marketing*. Table 3.1. gives an overview of the scales applied in the present study. The measurement scales are presented in Appendix 2. 7-point Likert-type scales with responses ranging from “1-strongly disagree” to “7-strongly agree” were used, as this response range was mainly used in the initial sources.

Table 3.1. Summary of measurement scales.

Scale	Author(s)	Journal
Satisfaction	Teo & Soutar (2012)	International Journal of Educational Management
Dissatisfaction	Adapted from Teo & Soutar (2012) satisfaction scale	NA
Commitment	Brown, Barry, Dacin & Gunst (2005)	Journal of the Academy of Marketing Science
Loyalty	Li (2013)	Asia Pasific Management Review
Brand identification	Algesheimer, Dholakia & Herrmann (2005)	Journal of Marketing
Advice seeking	Hennig-Thurau, Gwinner, Walsh & Gremler (2004), Chu & Kim (2011)	Journal of Interactive Marketing, International Journal of Advertising
Desire to help the company	Hennig-Thurau, Gwinner, Walsh & Gremler (2004), Wasko & Faraj (2005)	Journal of Interactive Marketing, MIS Quarterly
Altruistic concerns	Hennig-Thurau, Gwinner, Walsh & Gremler (2004)	Journal of Interactive Marketing
Positive self-enhancement	Hennig-Thurau, Gwinner, Walsh & Gremler (2004), Alexandrov, Lilly & Babakus (2013)	Journal of Interactive Marketing, Journal of the Academy of Marketing Science
Attitude towards eWOM	Wolny & Mueller (2013)	Journal of Marketing Management
Social risk	Eisingerich et al. (2015)	Journal of Consumer Psychology
Virtual brand community commitment	Sung, Kim, Kwon, Moon (2010), Hennig-Thurau, Gwinner, Walsh & Gremler (2004)	Journal of Global Marketing, Journal of Interactive Marketing
eWOM activity	Harrison-Walker (2001)	Journal of Service Research
Positive eWOM	Goyette, Ricard, Bergeron & Marticotte (2010)	Canadian Journal of Administrative Sciences
Negative eWOM	Goyette, Ricard, Bergeron & Marticotte (2010), Ranaweera & Menon (2013)	Canadian Journal of Administrative Sciences, European Journal of Marketing
eWOM intentions	Teo & Soutar (2012)	International Journal of Educational Management

3.3. Questionnaire pretest

According to Collins (2003, 229), “survey questionnaires, which are a type of measuring instrument, can and should be tested to ensure they meet their purpose”. Therefore, a pilot study was carried out one week before the actual data collection among 17 randomly selected Finnish master’s degree students, and Finnish and international doctoral students of LUT. Participants were invited to answer to the questionnaire via the university

e-mail. They were asked to answer to the questions of a web-survey and to outline any difficulties in understanding the questions, and to give suggestions for improvement.

According on the results of pretesting, there were no major difficulties in understanding the questions. Based on the feedback and suggestions received, some scale items were refined and additional explanations of the items were added to the questionnaire in order to make it clearer. Moreover, additional labels were added to the Likert-type scales.

3.4. Sampling

The research population, which means the “full set of cases from which a sample is taken” (Saunders, Lewis & Thornhill 2009, 212), consisted of all current first and second year students who study in 11 international master’s degree programmes offered at LUT (Applying to LUT Master’s programmes 2015). Based on the number of recipients in the university e-mail list through which the questionnaires were distributed to the first and second year students of international master’s programmes, the population of the study consisted of 712 students. In addition to that, the population included a number of students who began their studies in international master’s programmes earlier than 2013 but have not completed them yet. These students were recruited via Facebook groups, and thus the total number of people belonging to this segment is unknown.

Research sample consists of a sub-group of a larger population (Saunders et al. 2009, 600) that can be used to infer something about the larger group (Churchill 1995, 574) According to Hair, Anderson, Tatham & Black (1998, 166), in order to perform factor and regression analysis and receive generalizable results, a minimum sample has to contain at least five times as many cases as there are independent variables chosen to be studied. Considering the fact that there are 13 independent variables in the present study, a minimum number of respondents had to be 65.

3.5. Data collection

The survey strategy was chosen for data collection because it allowed to collect quantitative data that could be analyzed quantitatively. In particular, the data collected using a survey allowed to test proposed hypothesis and therefore determine relationships between variables.

The data were collected via a self-administrated web survey from April 27 to May 8. An invitation to participate in the survey was sent via university e-mail list to all 712 current first and second year students of international master's programmes offered at LUT. A follow-up reminder to take survey was published in three Facebook groups devoted to international students of LUT during the first week of data collection. A follow-up messages reminding students to participate in the survey was sent via the e-mail list a week after the beginning of data collection.

After two weeks of data collection, 159 questionnaires were received in total, therefore the response rate for the present survey was $(159/712)*100=22\%$. Out of the received questionnaires, 90 questionnaires were usable for the analyses. The rest of the questionnaires were either incomplete or were filled out by the students who did not communicate about LUT in social media. Moreover, this response rate might be attributed to the fact that the questionnaire was quite lengthy (took approximate 25 to complete) and that the survey was carried out at the end of spring semester, meaning that potential respondents might have already finished their studies or were busy getting ready for the final examinations.

4. RESEARCH RESULTS AND ANALYSIS

In this chapter the results of the survey are analyzed and discussed. Firstly, respondents' background information is presented in order to give an overview regarding the research sample. Secondly, the process of creation of summated scales consisting of factor analysis and reliability analysis is described. Further, the results of hypothesis testing are presented.

4.1. Respondents' background information

Altogether 159 students of international master's degree programmes offered at LUT participated in the survey. Among the respondents, 86 (54%) were males and 73 (46%) females. The majority of respondents began their studies at LUT in 2014 (53%), followed by those who began their studies in 2013 (28%), and earlier (19%). Figure 4.1. summarizes the respondents' profile based on the number of years studied at LUT.

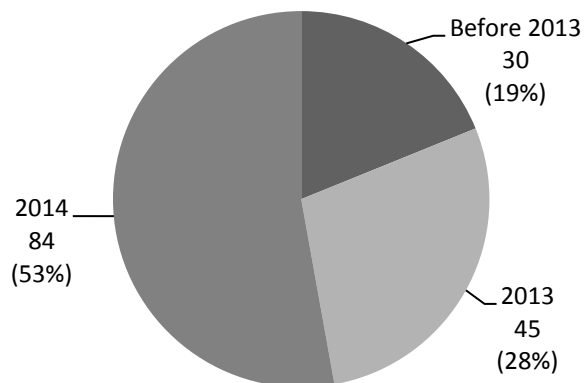


Figure 4.1. The year of the beginning of studies at LUT.

Table 4.1. summarizes the profile of respondents based on their country of origin.

Table 4.1. Respondents' country of origin.

Country	Number of respondents	%
Bangladesh	6	4%
Belarus	1	1%
Brazil	1	1%
China	4	3%
Cyprus	1	1%
Czech Republic	1	1%
Estonia	2	1%
Finland	32	20%
France	5	3%
Germany	4	3%
Ghana	4	3%
Hong Kong	1	1%
Hungary	1	1%
India	9	6%
Indonesia	1	1%
Iran	17	11%
Iraq	1	1%
Italy	1	1%
Kazakhstan	1	1%
Kyrgyzstan	1	1%
Lithuania	1	1%
Nepal	2	1%
Nigeria	4	3%
Pakistan	5	3%
Russian Federation	36	23%
Spain	4	3%
Sri Lanka	2	1%
Thailand	1	1%
Turkey	1	1%
Ukraine	2	1%
Tanzania	2	1%
USA	1	1%
Viet Nam	4	3%
Total	159	100%

Figure 4.2. summarizes respondents' background based on the degree programme. According to the data, the majority of the respondents were students of master's programme in International Marketing Management (MIMM).

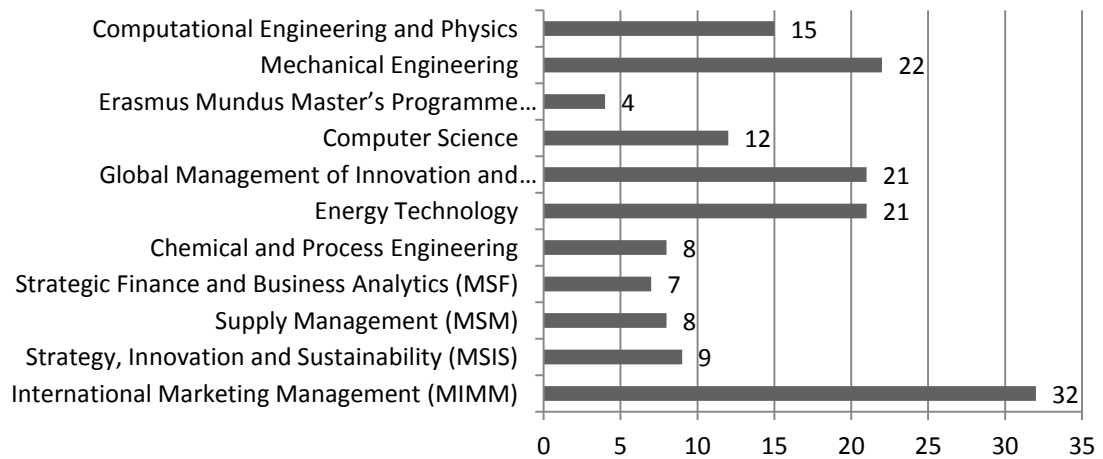
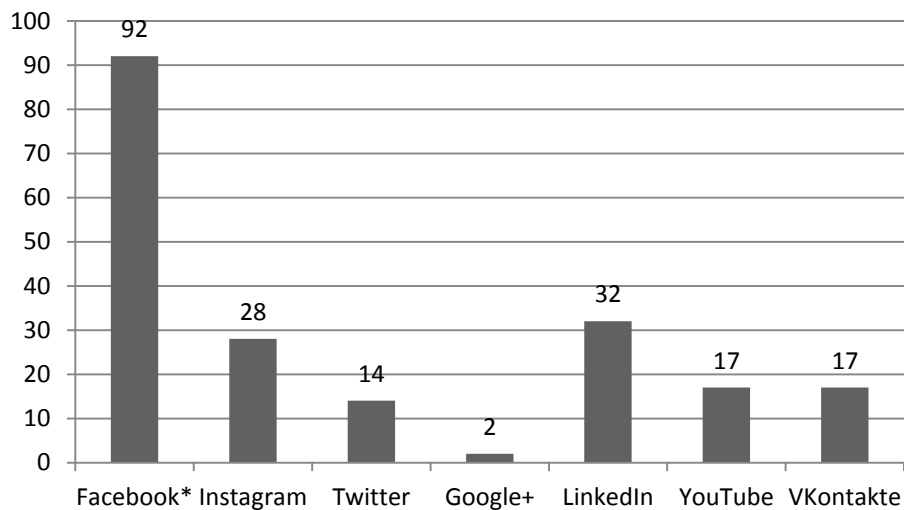


Figure 4.2. Respondents' master's degree programme.

Out of seven social media platforms on which LUT is currently represented, Facebook was determined as the main social media channel on which students of international master's degree spread eWOM regarding the university. On the other hand, Google+ turned out to be the least used platform for eWOM communications related to the studies at LUT. Figure 4.3. gives a general overview of social media platform used by students of international master's degree programmes of LUT to spread eWOM related to the university.



*Excluding Messenger

Figure 4.3. Students communication regarding LUT in social media.

Considering the fact that Facebook is used by the largest number students, the following analysis and hypothesis testing will be conducted on the basis of the aforementioned social media platform.

4.2. Creating summated scales

Summated scales is a method that allows to combine several variables that measure the same concept into a single composite variable, and to reduce measurement error (Hair, Anderson, Tatham & Black 1998, 116-117). Summated scales were created from the statements included in the questionnaire after factor and reliability analyses using IBM SPSS Statistics 22 software were conducted.

4.2.1 Factor analysis

“The aim of factor analysis is to find a way to condense the information contained in a number of original variables into a smaller set of factors with a minimum loss of information”. In other words, factor analysis examines the validity of measurement items. (Hair, Anderson, Tatham & Black 1998, 14) A cut-off value 0.4 for factor loadings was applied for a variable as a removal criterion from the measurement scale.

A factor analysis applying Maximum Likelihood extraction and VARIMAX rotation method was performed for dimension reduction. Altogether, there were 13 independent and 6 dependent variables in the model. At first, factor analysis combining multiple scales was performed. However, very often scale statements were not loading on the correct factor, which means that chosen variables represented more than one factor. It might be due to, for example, a small sample size, a large number of variables, and the closeness of the concepts chosen to be studied. It was determined that scale statements were loading on the correct factor when analyzed in pairs. In addition, a few statements were analyzed in a group consisting of free and four statements.

As a result, some of the statements that were supposed to measure the same concept but did not load in the same factor or did not load at all were excluded from the measurement scales and reliability of improved scales were assessed. Therefore, such measurement scales as ‘brand identification’, ‘desire to help the organization’, and ‘positive altruistic

concerns' were reduced by one statement; and 'positive self-enhancement', 'loyalty', and 'attitude towards eWOM' were reduced by two statements. Moreover, the content of measurement items belonging to the same factor were analyzed in order to ensure face validity of measurement scales. Face validity stands for "the extent to which the indicator set is subjectively viewed as covering the concept it purports to measure" (Leemans et al. 2015, 75). The final factor solutions (rotated factor matrixes) are presented in Appendix 1. Eigenvalues, '% of variance explained', and 'cumulative % of variance explained' refer to the variances of the factors analyzed (Factor Analysis 2015). Pearson correlation matrix is presented in Appendix 4.

4.2.2 Reliability analysis

Reliability analysis assesses "the degree of consistency between multiple measurements of a variable" (Churchill 1995, 117). In this study, three- and four-item scales were used to measure eWOM antecedents, past eWOM activity, eWOM activity intentions, past eWOM, and eWOM intentions. The majority of measurement scales were based on the existing eWOM literature (see Table 3.1.) The measure of reliability, Cronbach's α , of all the initial scales exceeded the generally agreed upon lower limit of 0.7 (see Table 4.2.). However, in this study, the Cronbach's α value of 0.6 was regarded as lower limit, as it is considered to be acceptable in exploratory studies (Churchill 1995, 118).

As a result, the reliability of the majority of final measurement scales exceeded the minimum value of Cronbach's α set at 0.6. Despite the face validity of measurements that was achieved by factor analysis, three of the final scales - positive altruistic concerns, positive self-enhancement and attitude towards eWOM - did not meet the minimum requirement and thus were paid special attention to in the further analysis. A lower reliability of these measurement scales might be explained by a rather small sample size. The final number of statements, the Cronbach's α values of measurement scales, as well as measurement scales' mean scores are presented in Table 4.2.

Table 4.2. Measurement properties of the scales.

Scale	Initial α	N of items	α of a refined scale	N of refined items	N of cases	Mean score
Satisfaction	0.870	4	0.887	4	129	5.948
Dissatisfaction	NA	4	0.888	4	112	2.368
Commitment	0.940	4	0.930	4	129	5.638
Loyalty	0.804	4	0.886	2	129	5.745
Brand identification	0.801*	4	0.807	3	129	5.477
Advice seeking	0.785*	4	0.697	4	120	4.505
Desire to help the company	0.838	4	0.696	3	120	4.517
Positive altruistic concerns	0.802	3	0.570	2	120	4.695
Negative altruistic concerns	0.802	3	0.880	3	112	2.180
Positive self-enhancement	0.778	4	0.562	2	120	4.260
Attitude towards eWOM	0.800	4	0.471	2	120	4.700
Social risk	0.980	4	0.878	4	112	2.000
Virtual brand community commitment	0.890*	4	0.926	4	92	5.685
Past eWOM activity	NA	4	0.886	4	91	4.800
eWOM activity intention	NA	4	0.854	4	90	4.405
Past positive eWOM	0.890	3	0.922	3	91	5.401
Positive eWOM intention	NA	3	0.903	3	90	4.677
Past negative eWOM	NA	3	0.971	3	91	2.480
Negative eWOM intention	NA	3	0.900	3	90	2.457

* α calculated for the first three statements

In order to test moderating effects among eWOM antecedents, the following moderation terms were created: commitment and satisfaction, satisfaction and loyalty, satisfaction and brand identification, and brand identification and positive self-enhancement.

4.3. Testing research hypotheses

4.3.1 Regression analysis

Hierarchical multiple linear regression analysis was conducted in order to test research hypotheses. According to Churchill (1995, 148), "multiple regression analysis is a statistical technique that can be used to analyze the relationship between a single dependent (criterion) variable and several independent (predictor) variables". Based on the research framework that consists of six dependent variables, six separate regression analyses were run.

Regression analyses were conducted both using and excluding the variables with poor reliability (positive altruistic concerns, need for positive self-enhancement, and attitude towards eWOM). The results showed that the models are significant in both cases;

therefore further analysis was performed including the variables with lower reliability. The results of these analyses are discussed in this sub-chapter.

Adjusted coefficient of determination (adjusted R^2) “takes into account the number of independent variables included in the regression equation and the sample size” (Hair, Anderson, Tatham & Black 1998, 142). The results for adjusted R^2 showed that independent variables explain up to 54.7% of the variability of dependent variables. The results for R^2 change coefficient demonstrated that adding moderating terms slightly improved the first model. Therefore, the second model of each regression analysis was used for further analysis. F-ratio describes the results of F-test “for the additional contribution to prediction accuracy of a variable above that of the variables already in the equation” (Hair, Anderson, Tatham & Black 1998, 146).

Four hierarchical regression analyses were performed considering independent variables in the first model and adding moderation terms to the second model. Two last analyses were run without division into separate models. The results of the Analysis of Variance (ANOVA) of five regressions showed that there is a linear relationship between variables in developed models, as the value of Sig. was lower than 0.05 (see Table 4.3.) The results of the sixth regression showed that students’ dissatisfaction, need for an advice, negative altruistic concerns, and past negative eWOM are not significant predictors of negative eWOM intentions. Therefore, the hypotheses related to this dependent variable could not be tested and thus were excluded from further analysis. A summary of Adjusted R^2 , R^2 change, F-ratio, and Sig. (ANOVA) values is presented in Table 4.3.

Table 4.3. Summary of Adjusted R², R² change, F-ratio, and Sig. (ANOVA) values.

	Model1	Model2
Regression #1	Adjusted R ² = 0.517 R ² change=0.586 F-ratio=8.399 Sig. (ANOVA)=0.000	Adjusted R ² =0.547 R ² change=0.046 F-ratio=7.401 Sig. (ANOVA)=0.000
Regression #2	Adjusted R ² = 0.416 R ² change=0.508 F-ratio=5.534 Sig. (ANOVA)=0.000	Adjusted R ² = 0.418 R ² change=0.028 F-ratio=4.556 Sig.(ANOVA)=0.000
Regression #3	Adjusted R ² = 0.350 R ² change=0.422 F-ratio=5.839 Sig. (ANOVA)=0.000	Adjusted R ² = 0.351 R ² change=0.030 F-ratio=4.477 Sig. (ANOVA)=0.000
Regression #4	Adjusted R ² = 0.317 R ² change=0.401 F-ratio=4.750 Sig. (ANOVA)=0.000	Adjusted R ² = 0.309 R ² change=0.025 F-ratio=3.658 Sig. (ANOVA)=0.000
Regression #5	Adjusted R ² = 0.190 R ² change=0.217 F-ratio=8.031 Sig. (ANOVA)=0.000	Not calculated
Regression #6	Adjusted R ² = 0.446 R ² change=0.630 F-ratio=3.411 Sig. (ANOVA)=0.66	Not calculated

In order to test research hypotheses, such coefficients as B, Beta, *t*, Sig., and Tol. were analyzed. B value stands for the initial regression coefficient of the variable. In other words, it shows the extent to which the value of an independent variable contributes to the value of a dependent variable. Beta means standardized regression coefficient, *t*-value and Sig. measure the statistical significance of variables. In this research, the critical value of Sig. was set at 0.10 (10%). Tolerance (Tol.) is a measure of collinearity and multicollinearity. (Hair, Anderson, Tatham & Black 1998, 146-148) According to the overall results, there was a considerable number of Tol. values that were close to 0, which means that those variables were highly predicted by other independent variables.

The first regression analysis considered the effect of a number of eWOM antecedents on past eWOM activity. The results of this analysis are presents in Table 4.4.

Table 4.4. Regression coefficients for past eWOM activity.

Independent variables	B	Beta	t	Sig	Tol.	Hyp.	Result
Satisfaction	-1.254	-0.860	-1.565	0.122	0.017	H2b	Rejected
Dissatisfaction	0.058	0.064	0.433	0.666	0.234	H3b	Rejected
Commitment -> Satisfaction	0.022	0.685	0.725	0.471	0.006	H4b	Rejected
Commitment	-0.356	-0.269	-0.435	0.665	0.234	H5b	Rejected
Satisfaction -> Loyalty	-0.036	-0.667	-0.726	0.470	0.006	H6b	Rejected
Loyalty	0.654	0.317	0.523	0.603	0.014	H7b	Rejected
Brand identification	-1.719	-1.229	-1.651	0.103	0.009	H8b	Rejected
Satisfaction -> Brand ident.	0.071	1.947	1.749	0.085	0.004	H9b	Supported
Virtual brand community com.	0.848	0.557	6.018	0.000	0.587	H10b	Supported
Need for an advice	-0.328	-0.235	-2.925	0.005	0.781	H11b	Part. support.
Positive altruistic concerns	-0.464	-0.166	-2.166	0.034	0.853	H12b	Part. support.
Negative altruistic concerns	-0.114	-0.085	-0.533	0.596	0.196	H13b	Rejected
Desire to help the organization	0.205	0.103	1.227	0.224	0.712	H14b	Rejected
Brand ident. -> Positive self-en.	-0.013	-0.140	-0.376	0.708	0.036	H15b	Rejected
Positive self-enhancement	0.665	0.294	0.980	0.331	0,056	H16b	Rejected
Social risk	0.234	0.202	1.275	0.206	0.200	H17b	Rejected
Attitude towards eWOM	-0.060	-0,027	-0.343	0.732	0.840	H18b	Rejected

It was determined that students' satisfaction with their studies has a moderator effect on students' identification with the university. In other words, students' satisfaction increases their identification with the university as a brand. This, in turn, made students communicate more actively about the university in social media in the past. Thus, hypothesis H9b was supported. Moreover, the results indicated that students' commitment to the LUT virtual community on Facebook positively affected students' eWOM activity. In other words, the more the students were committed to the LUT community on Facebook, the more actively they posted, 'liked', and 'shared' content related to the university on that social media platform. Therefore, hypothesis H10b was supported.

Further, it was found that the effect of students' need for an advice on past eWOM activity was significant. However, due to negative value of Beta coefficient, hypothesis H11b was supported only partially. It can be therefore noted that the more students of LUT needed advice regarding their studies in the past, the less they engaged in eWOM regarding that issue.

The relationship between students' positive altruistic concerns and past eWOM activity was also considered as significant. However, contrary to what has been hypothesized, the relationship between these variables turned to be negative, meaning that the more students were concerned about other students and other people belonging to their social network on Facebook, the less they were willing to help them on social media with their positive experiences at LUT. Therefore, hypothesis H12b was supported partially. However, attention should be paid to the fact that the measurement scale for positive

altruistic concerns had a coefficient of reliability lower than 0.6. The rest of the hypothesized relationships turned out to be insignificant. Moreover, negative Beta values indicated that the effect of a number of eWOM antecedents turned out to be opposite to what had been hypothesized.

The second regression analysis considered the effect of service- and brand-related, and contextual antecedents on eWOM activity intentions. The results of this analysis are presented in Table 4.5.

Table 4.5. Regression coefficients for eWOM activity intention.

Independent variables	B	Beta	t	Sig.	Tol.	Hyp.	Result
Past eWOM activity	0.290	0.336	2.515	0.014	0.367	H1c	Supported
Satisfaction	-1.508	-1.197	-1.878	0.064	0.016	H2d	Part. support.
Dissatisfaction	0.043	0.053	0.323	0.747	0.233	H3d	Rejected
Commitment -> Satisfaction	0.053	1.936	1.790	0.078	0.006	H4d	Part. support.
Commitment	-1.551	-1.355	-1.920	0.059	0.013	H5d	Part. support.
Satisfaction -> Loyalty	0.032	0.669	0.635	0.527	0.006	H6d	Rejected
Loyalty	-0.616	-0.345	-0.499	0.620	0.014	H7d	Rejected
Brand identification	0.355	0.294	0.340	0.735	0.009	H8d	Rejected
Satisfaction -> Brand ident.	-0.021	-0.671	-0.518	0.606	0.004	H9d	Rejected
Virtual brand community com.	0.459	0.348	2.696	0.009	0.393	H10d	Supported
Need for an advice	-0.019	-0.016	-0.116	0.869	0.699	H11d	Rejected
Positive altruistic concerns	-0.193	-0.080	-0.885	0.379	0.801	H12d	Rejected
Negative altruistic concerns	-0.176	-0.153	-0.836	0.406	0.195	H13d	Rejected
Desire to help the organization	-0.008	-0.005	-0.047	0.962	0.698	H14d	Rejected
Brand ident. -> Positive self-enh.	0.021	0.266	0.627	0.533	0.036	H15d	Rejected
Positive self-enhancement	-0.462	-0.236	-0.686	0.495	0.055	H16d	Rejected
Social risk	0.003	0.003	0.017	0.986	0.196	H17d	Rejected
Attitude towards eWOM	0.399	0.203	2.304	0.024	0.839	H18d	Supported

Based on the results, students' past eWOM activity was found to have a significantly positive effect on eWOM activity intention. Therefore, hypothesis H1c was supported. Hypothesis H2d was partially supported. Although it was determined that students' satisfaction has a significant effect on eWOM activity intentions, this effect turned out to be negative, meaning that the more students are satisfied with their studies at LUT, the less they are willing to express it in social media.

In addition, the results of hierarchical regression analyses indicated that students' commitment has a significant effect on students' satisfaction. However, contrary to what was hypothesized, it appeared that the more students are committed to the university, the more satisfied they are with their studies. This, in turn, positively affected students' activity of posting, 'liking', and 'sharing' content about LUT on Facebook. Therefore, hypothesis H4d was supported partially.

Moreover, it was found that the more students are committed to their studies at the university, the less they are willing to spread eWOM in social media. This result was also different from what was hypothesized, thus hypothesis H5d was supported partially. Similarly to the previous regression analysis, hypothesis H10d that proposed a positive effect of students' commitment to the LUT Facebook community on past eWOM activity was supported in the context of eWOM activity intentions as well.

Further, the results showed that students' positive attitude towards eWOM communication has a positive effect on eWOM activity intentions, therefore hypothesis H18d was supported. It means that the more favorable is students' attitude towards online communications, the higher is their eWOM activity intention. However, attention should be paid to the fact that the measurement scale for attitude towards eWOM had a coefficient of reliability lower than 0.6. The rest of the hypotheses related to the effect of eWOM antecedents on eWOM activity intention were not supported in this study. Similarly to previous analysis, a number of proposed relationships turned out to have a negative B coefficient in this regression analysis as well.

The third regression analysis examined the relationship between aforementioned antecedents and past positive eWOM. The results of this analysis are presented in Table 4.6.

Table 4.6. Regression coefficients for past positive eWOM.

Independent variables	B	Beta	t	Sig.	Tol.	Hyp.	Result
Satisfaction	-0.945	-0.966	-1.533	0.129	0.018	H2a	Reject.
Commitment -> Satisfaction	0.023	1.077	0.989	0.326	0.006	H4a	Reject.
Commitment	-0.519	-0.583	-0.823	0.413	0.014	H5a	Reject.
Satisfaction -> Loyalty	0.013	0.361	0.329	0.743	0.006	H6a	Reject.
Loyalty	-0.463	-0.334	-0.465	0.643	0.014	H7a	Reject.
Brand identification	-0.205	-0.218	-0.256	0.799	0.010	H8a	Reject.
Satisfaction -> Brand ident.	0.011	0.437	0.334	0.739	0.004	H9a	Reject.
Virtual brand com. commit.	0.492	0.482	4.549	0.000	0.644	H10a	Support.
Positive altruistic concerns	-0.087	-0.046	-0.512	0.610	0.884	H12a	Reject.
Desire to help the organization	0.182	0.136	1.406	0.164	0.773	H14a	Reject.
Brand ident. -> Positive self-enh.	0.006	0.103	0.233	0.816	0.037	H15a	Reject.
Positive self-enhancement	0.036	0.024	0.066	0.948	0.055	H16a	Reject.
Social risk	0.062	0.079	0.566	0.573	0.366	H17a	Reject.
Attitude towards eWOM	-0.155	-0.089	-0.919	0.361	0.769	H18a	Reject.

Similarly to the results of the effect of students' commitment to LUT's Facebook community on eWOM presented in the previous discussion, this analysis also showed a significantly positive effect of this antecedent on the positivity of eWOM spread by the

students about the university on Facebook. The rest of the hypotheses regarding the effect of eWOM antecedents on past positive eWOM were rejected.

The fourth regression analysis considered the effect of eWOM antecedents on positive eWOM intentions. The results of this analysis are presented in Table 4.7.

Table 4.7. Regression coefficients for positive eWOM intention.

Independent variables	B	Beta	t	Sig.	Tol.	Hyp.	Result
Past positive eWOM	0.182	0.292	2.286	0.025	0.548	H1a	Support.
Satisfaction	-0.321	-0.490	-0.738	0.463	0.018	H2c	Reject.
Commitment -> Satisfaction	0.011	0.749	0.659	0.512	0.006	H4c	Reject.
Commitment	-0.278	-0.467	-0.632	0.529	0.014	H5c	Reject.
Satisfaction -> Loyalty	-0.033	-1.360	-1.197	0.235	0.006	H6c	Reject.
Loyalty	0.980	1.055	1.413	0.162	0.014	H7c	Reject.
Brand identification	-0.580	-0.922	-1.040	0.302	0.010	H8c	Reject.
Satisfaction -> Brand ident.	0.028	1.706	1.257	0.213	0.004	H9c	Reject.
Virtual brand com. commit	0.184	0.269	2.168	0.033	0.506	H10c	Support.
Positive altruistic concerns	0.005	0.004	0.044	0.965	0.881	H12c	Reject.
Desire to help the organization	-0.030	-0.033	-0.328	0.744	0.753	H14c	Reject.
Brand ident. -> Positive self-enh.	-0.008	-0.189	-0.411	0.682	0.037	H15c	Reject.
Positive self-enhancement	0.055	0.054	0.143	0.866	0.055	H16c	Reject.
Social risk	0.055	0.106	0.725	0.471	0.365	H17c	Reject.
Attitude towards eWOM	-0.161	-0.138	-1.188	0.238	0.790	H18c	Reject.

According to the results, intention to spread positive eWOM about the university turned out to be positively influenced by students' past behavior. Therefore, hypothesis H1a was supported. In addition, the relationship between students' commitment to LUT's community on Facebook and intention to engage in positive eWOM regarding the university was also determined as significantly positive, which was in line with the hypothesized relationship between these variables. Therefore, hypothesis H10c was also supported. The rest of the hypothesized relationships between eWOM antecedents and intention to spread positive eWOM about the university did not find confirmation in the present study.

The fifth regression analysis concentrated on the effect of eWOM antecedents on past negative eWOM. The results of this analysis are presented in Table 4.8.

Table 4.8. Regression coefficients for past negative eWOM.

Independent variables	B	Beta	t	Sig.	Tol.	Hyp.	Result
Dissatisfaction	0.157	0.167	1.045	0.299	0.352	H3a	Reject.
Need for an advice	0.068	0.047	0.495	0.622	0.993	H11a	Reject.
Negative altruistic concerns	0.437	0.320	2.001	0.049	0.353	H13a	Support.

In this analysis, hypothesis H13a that proposed a positive relationship between students' negative altruistic concerns and past negative eWOM was supported. It means that the more students were willing to share their negative experiences at LUT to save others from the same bad experiences, the more negative eWOM they spread about the university on Facebook in the past. The remaining two propositions did not find support in this analysis.

The results of the last regression analysis that were not considered in hypothesis testing due to insignificant Sig. value are presented in Table 4.9.

Table 4.9. Regression coefficients for past negative eWOM intention.

Independent variables	B	Beta	t	Sig.	Tol.	Hyp.	Result.
Past negative eWOM	-0.125	-0.192	-0.792	0.451	0.783	H1b	
Dissatisfaction	0.398	0.650	1.783	0.112	0.347	H3c	Excluded from the analysis
Need for an advice	-0.040	-0.042	-0.196	0.849	0.990	H11c	
Negative altruistic concerns	0.216	0.242	0.655	0.531	0.337	H13c	

4.4. Summary of research results

The aim of this study was to examine antecedents of eWOM communication in social media in higher education context. This goal was achieved by investigating the significance of the effect of service- and brand-related antecedents, contextual antecedents, and moderating factors on such eWOM characteristics as positive eWOM, negative eWOM, and eWOM activity. Moreover, past eWOM behavior and eWOM intentions were considered.

Hypotheses H2a-H10d discussed the effect of such service- and brand-related eWOM antecedents as satisfaction, dissatisfaction, commitment, loyalty, brand identification, and virtual brand community commitment on past positive and negative eWOM, past eWOM activity, and eWOM activity intentions. Based on the results, it can be concluded that satisfaction, commitment, and virtual brand community commitment have an effect on eWOM in higher education context, whereas dissatisfaction, loyalty, and brand identification do not have an effect on eWOM in higher education context.

Hypotheses H11a-H18d examined the effect of such contextual eWOM antecedents as need for an advice, positive and negative altruistic concerns, desire to help the organization, need for positive self-enhancement, social risk perception, and attitude

towards eWOM on aforementioned eWOM characteristics. Based on the results, it can be concluded that need for an advice, positive altruistic concerns, negative altruistic concerns, and attitude towards eWOM communication have an effect on eWOM in higher education context, whereas desire to help the organization, need for positive self-enhancement, and social risk perception do not have an effect on eWOM in educational context.

Several moderating effects between eWOM antecedents were examined in the present study. The results of hierarchical regression analyses indicated that, in the higher education context, students' commitment to their relationship with the university increases their satisfaction with their studies. Commitment to the relationship with the university meant students' involvement with their studies, as well as participation in different events organized by the university.

In addition, it was found that students' satisfaction with their studies increased students' identification with the university and it had a positive effect on eWOM spread about the university in the past. On the other hand, it was determined that in the higher education context, students' satisfaction with their studies does not affect loyalty (or willingness to recommend university to others); and students' identification with LUT as a brand does not affect a need for positive self-enhancement, which means spreading positive message about the university in order to feel good about him/herself.

Moreover, the relationship between past eWOM behavior and eWOM intentions was tested. The results of regression analysis indicated that past positive eWOM has a positive effect on positive eWOM intention and past eWOM activity has a positive effect on eWOM activity intentions among students of LUT. No relationships between past negative eWOM and negative eWOM intentions were determined in the present study.

5. DISCUSSION AND CONCLUSIONS

This chapter focuses on the discussion of the main implications of the present study. Firstly, theoretical contributions are determined, and, secondly, managerial implications are discussed. After that, reliability and validity of the research are assessed and limitations and suggestions for future research are made.

5.1. Theoretical contributions

As eWOM is still rather under-researched phenomenon, the majority of its antecedents examined in this master's thesis have not been studied in the higher education context yet. Therefore, the results of this study make a significant contribution to the existing eWOM literature by adding knowledge on the way different eWOM antecedents affect eWOM communications in higher education context. The following sub-chapter discusses the main theoretical contributions of this study in more detail.

5.1.1 Service- and brand-related antecedents

In this study, the effect of such six eWOM antecedents as satisfactions, dissatisfaction, commitment, loyalty, brand identification, and virtual brand community commitment was examined.

At first, it should be noted that the results of the study confirmed the effect of past eWOM activity on eWOM activity intention, and past positive eWOM on positive eWOM intention. These results are consistent with previous studies on the effect of past behavior on behavioral intentions (van der Linden 2011, 355; Forward 2009, 198; Kidwell & Jewell 2008, 1162).

Consistent with the earlier findings made by Li (2013, 379-383), Teo & Soutar (2012, 689), and Alves & Raposo (2007, 584) in their research on satisfaction as eWOM antecedent in the higher education context, no positive relationship between students' satisfaction, positive eWOM, and activity was determined in this study. Instead, it was found that the more students are satisfied with their studies, the less actively they engage in positive

eWOM regarding their studies in social media. This finding might be explained by the assumption made by Mardhiyah, Dhammesta & Purwanto (2013, 127) according to which people of a mature age or with post-graduate education level tend to act more logically rather than emotionally. It can be assumed that the latter assumption might be applicable with regards to graduate students as well. Overall, this study supported the conclusion drawn by Li (2013, 379-383) who noted that the way university students' satisfaction or dissatisfaction affects WOM they spread about the university differs from the way satisfaction influences WOM in service industry in general.

Regarding students' commitment to their relationship with the university, contrary to what has been previously found by researchers (e.g. Wolny & Mueller 2013, 574; Brown, Barry, Dacin & Gunst 2005, 133) in various contexts other than educational, no positive relationship between students' commitment and eWOM intentions and activity was observed in higher education context. Instead, an opposite effect was determined. In particular, the more the students are committed to their studies at the university, the less they are willing to spread eWOM in social media.

When it comes to loyalty, contrary to what Li (2013, 379-383) and Alves & Raposo (2007, 584) have previously determined in the higher education context, no evidence of students' loyalty affecting eWOM valence and activity was observed in the present study. In addition, no relationship between students' identification with the university as a brand and eWOM was found in the present study. This finding is contrary to what Teo & Soutar (2012, 687) have previously determined in their study in the higher education context.

As for virtual brand community commitment, the results of the present study are consistent with the previous findings made by Alexandrov, Lilly & Babakus (2013, 542), Chi (2011, 45), Hur, Ahn & Kim (2011, 1207), Hennig-Thurau, Gwinner, Walsh & Gremler (2004, 48), which stated that brand community commitment affects positive eWOM and activity. In this study, this proposition was supported in the context of Facebook.

5.1.2 Contextual antecedents

Need for an advice, altruistic concerns, desire to help the organization, need for positive self-enhancement, social risk perception, and attitude towards eWOM communication were studied in this study as contextual antecedents.

With regards to a need for an advice, the results of the present study did not confirm what Sun, Youn, Wu & Kuntaraporn (2006), Hennig-Thurau, Gwinner, Walsh & Gremler (2004), and Sundaram, Mitra & Webster (1998) have previously determined in the context of brands and products. In particular, no positive effect of this eWOM antecedent on negative eWOM and activity was observed. Instead, it was found that the more the students need an advice, the less they are willing to engage in eWOM in social media.

When it comes to students' altruistic concerns, the results of the present study were also different from the previous findings. In particular, in terms of positive altruistic concerns, contrary to Sundaram, Mitra & Webster (1998) and Hennig-Thurau, Gwinner, Walsh & Gremler (2004), it was determined that the more the students were willing to help other students or other members of their social media networks, the less active they were in spreading eWOM in Facebook in the past. On the other hand, with regards to negative altruistic concerns, the results were consistent with Mardhiyah, Dhammesta & Purwanto (2013, 127), and Sundaram, Mitra & Webster (1998), who claimed that negative altruistic concerns are an antecedent to negative eWOM.

As for desire to help the organization, no significant effect of this antecedent on eWOM was observed in this study, which is contrary to what Hennig-Thurau, Gwinner, Walsh & Gremler (2004) and Sundaram, Mitra & Webster (1998) have previously determined. Similarly, need for positive self-enhancement was not found to have a significant effect on eWOM either, which is different from the findings made by Alexandrov, Lilly & Babakus (2013, 542). Moreover, contrary to the results of the study conducted by Eisingerich et al. (2015, 127), no relationship between students' social risk perception and eWOM was observed in the present study. Overall, based on these results, it can be emphasized that the effect of aforementioned eWOM antecedents is different in the context of higher education compared to other service-based or product-based organizations.

Lastly, with regards to the attitude towards eWOM, the results of the study were consistent with the findings made by Wolny & Mueller (2013, 573). In particular it was determined that the more the students are social media savvy, the higher is their eWOM activity intention.

5.1.3 Moderating effects

The moderating effect of commitment on satisfaction, satisfaction on loyalty and brand identification, and brand identification on the need for positive self-enhancement were analyzed in the present study.

Consistent with the results previously achieved by Brown, Barry, Dacin & Gunst (2005, 133-134), this study also determined a significant moderating effect of commitment on satisfaction and eWOM activity. However, contrary to what has been hypothesized, the determined relationship had an opposite effect. Moreover, similar to what Teo & Soutar (2012, 687) have previously suggested in the higher education context, this study also confirmed the moderating effect of satisfaction on brand identification. However, it was only observed in the case of past eWOM activity.

As for moderating effects of satisfaction on loyalty and brand identification on the need for positive self-enhancement, the results of the study did not confirm these effects, which is contrary to what Li (2013, 375) and Strutton & Thompson (2012) have determined previously.

5.2. Managerial implications

Based on the study of the effect of a number of eWOM antecedents, several practical implications relevant to brand strategies can be derived. For example, how to encourage positive eWOM, and how to avoid negative eWOM spread by the students about the university in social media.

The results of the study showed that 98 out of 159 current LUT's international master's degree students were engaging in eWOM communications regarding their studies, which might mean that a considerable amount of communication regarding the university is taking place offline in the form of traditional WOM, or via personal messages. Moreover, out of seven social media platforms examined, Facebook turned out to be the most preferred social media platform for spreading eWOM concerning LUT, followed by LinkedIn, and Instagram.

According to the results of the present study, one way to encourage students' positive eWOM about the university is to strengthen their sense of belongingness to university's online community. Although due to low usage of other social media platforms (LinkedIn, Instagram, Twitter, VKontakte, and YouTube), the results of this study are based solely on Facebook, the general idea can be still generalized to other social media platforms as well. In other words, along with the growth of students' sense of belongingness to the LUT community on those platforms, the university will be able to generate more positive eWOM in social media.

In order to strengthen students' belongingness to the LUT's online community, first of all, students' overall sense of belongingness to LUT should be enhanced. For example, this might mean finding better ways to get different students' groups involved in activities and events organized by the university. Annual students' satisfaction surveys are a good source of information regarding what could be improved. Moreover, the message posted on LUT's social media pages should emphasize the importance of each student to the university, as well as to enable them to interact with fellow students. Overall, boosting students' sense of belongingness to the LUT community (both online and offline) will result in the higher activity of posting, 'liking', and 'sharing' content about the university in social media.

Moreover, it is worthwhile to mention that students' commitment to their studies and extra-curriculum activities affect students' satisfaction with the university. Students' satisfaction, in turn, increases students' identification with the university as a brand. This, in turn, has a positive effect on how actively students communicate about the university in social media. Therefore, students' satisfaction and commitment are the aspects that could be enhanced in order to achieve a broader coverage in social media in the form of eWOM.

However, managers should also keep in mind the fact that highly satisfied and committed to LUT students very often choose to not express their feelings online. Moreover, in case of a need for an advice or help, LUT students prefer to not communicate with fellow LUT students in online community (LUT's Facebook page in this case). That being said, the role of narrowcasting - personal online (e.g. via Facebook Messenger) or offline conversations, as well as the role of university's personnel become more important.

Moreover, the results of the study also indicated that students who have positive attitude towards eWOM communication are more willing to spread positive eWOM about the

university in social media. It is therefore important for the university to target these members of the university's online community with the right message (based on the study – the one that emphasizes sense of belongingness to the university) that would result in positive eWOM shared with their personal social networks.

By understanding the eWOM antecedents that drive students' negative eWOM about the university, the managers will be able to reduce the amount of negative eWOM spread about the university online. The results of the study showed that students' negative altruistic concerns is the main antecedent to negative eWOM. In other words, LUT students' negative eWOM is driven by a desire to protect others from the problems that they had experienced during their studies at LUT. This finding is directly related to students' perception of the actual quality of educational services received at LUT, which was not studied in this master's thesis. Moreover, it emphasizes the importance of the possibility to get help or an advice from university personnel. As it was mentioned earlier, students' satisfaction surveys are a good source of information in this case.

5.3. Reliability and validity of research

Research reliability is associated with the "extent to which data collection techniques or analysis procedures will yield consistent findings" (Saunders, Lewis & Thornhill 2009, 156). Although the majority of measurement scales used in the study were previously developed and validated by the scholars in the top marketing journals, as well as the research questionnaire was pretested, three scales that had a Cronbach's alpha value slightly lower than 0.6 were identified in the process of creation of summated scales. Therefore, a more careful attention was paid to those variables in the further analysis.

Research validity "is concerned with whether the findings are really about what they appear to be about" (Saunders, Lewis & Thornhill 2009, 156). It can be divided into internal and external validity. "Internal validity refers to ability to attribute the effect that was observed to the experimental variable and not to other factors" (Churchill 1995, 202). Internal validity was maintained by reviewing theory on a number of eWOM antecedents and specifying measurement construct based on that. Moreover, research sample design, and questionnaire pretesting also aimed at maintaining internal research validity.

External validity of research is related to generalisability of results (Saunders 2009, 151). In this research, the results achieved in the context of LUT and its students' of international master's degree programmes can be generalized to the same segment both in other Finnish universities and abroad. Based on the results, it can be concluded that the effect of eWOM antecedents in educational sector is different from the effect they have in the context of other service-based organizations. Therefore, the results of this study are only applicable in the higher education context.

5.4. Limitations and suggestions for future research

The present study has certain limitations that need to be taken into consideration when interpreting the results. First of all, because only 22% of current students of international master's degree programmes at LUT responded to the questionnaire, it might have had an effect on the statistical power of the research. Therefore, it is possible that some significant relationships between analyzed variables might have remained unidentified.

Secondly, the results associated with the effects of positive altruistic concerns, students' need for self-enhancement, and attitude towards eWOM on eWOM characteristics have to be paid special attention to, as the measurement scales for these variables had Cronbach's α coefficient lower than 0,6.

Another limitation of this study refers to the fact that only quantitative data were analyzed, meaning that such aspect of eWOM as content was not taken into consideration. Therefore, it would be beneficial for further research to examine this eWOM characteristic in the higher education context as well. Such qualitative research methods as, for example, person-to-person interviews or experiments could be applied for that purpose.

In addition, the research settings of this study were limited to eWOM as broadcasting only, which means that the phenomenon of online narrowcasting (communication on Facebook Messenger, for example), as well as traditional (offline) communication were not studied. A further consideration of these settings would create a clearer picture of the nature of eWOM in the higher education context.

Moreover, an interesting idea regarding possible effect of the level of educational attainment on eWOM that has been previously assumed by Mardhiyah, Dhammesta &

Purwanto (2013, 127) and might have taken place in the present study could be explored in more detail in future research. For example, the eWOM spread by bachelor's degree and doctoral degree students might be compared. Further research on eWOM in higher education context might also examine the difference between eWOM spread by students belonging to different 'schools', for example business students and engineering students.

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APPENDICES

Appendix 1. Factor analysis results.

Table 1.1. Final factor solution for 'satisfaction' and 'commitment' measurement scales.

Variables	Factor 1	Factor 2
Satisfaction1	0.662	
Satisfaction2	0.877	
Satisfaction3	0.415	
Satisfaction4	0.558	
Commitment1		0.548
Commitment2		0.696
Commitment3		0.600
Commitment4		0.531
Eigenvalue	2.789	1.622
% of variance explained	34.868	21.276
Cumulative % of variance explained	34.868	55.140

Table 1.2. Final factor solution for 'brand identification' and 'positive self-enhancement' measurement scales.

Variables	Factor 1	Factor 2
Brand identification1	0.607	
Brand identification3	0.792	
Brand identification4	0.519	
Positive self-enhancement1		0.660
Positive self-enhancement4		0.443
Eigenvalue	1.966	1.255
% of variance explained	39.322	25.091
Cumulative % of variance explained	39.322	64.413

Table 1.3. Final factor solution for 'loyalty' and 'advice seeking need' measurement scales.

Variables	Factor 1	Factor 2
Loyalty3		0.577
Loyalty4		0.999
Need for an advice1	0.720	
Need for an advice 2	0.688	
Need for an advice 3	0.502	
Need for an advice 4	0.526	
Eigenvalue	2.145	1.611
% of variance explained	35.757	26.864
Cumulative % of variance explained	35.757	62.602

Table 1.4. Final factor solution for 'desire to help the company' and 'dissatisfaction' measurement scales.

Variables	Factor 1	Factor 2
Helping the organization1		0.458
Helping the organization3		0.585
Helping the organization4		0.841
Dissatisfaction1	0.889	
Dissatisfaction 2	0.847	
Dissatisfaction3	0.788	
Dissatisfaction4	0.739	
Eigenvalue	3.058	1.748
% of variance explained	43.685	24.695
Cumulative % of variance explained	43.685	68.651

Table 1.5. Final factor solution for 'positive altruistic concerns' and 'negative altruistic concerns' measurement scales.

Variables	Factor 1	Factor 2
Positive altruistic concern1	0.430	
Positive altruistic concern3	0.999	
Negative altruistic concern1		0.793
Negative altruistic concern2		0.812
Negative altruistic concern3		0.927
Eigenvalue	2.241	1.430
% of variance explained	48.248	28.608
Cumulative % of variance explained	48.428	77.036

Table 1.6. Final factor solution for 'attitude towards eWOM' and 'social risk' measurement scales.

Variables	Factor 1	Factor 2
Attitude towards eWOM3		0.527
Attitude towards eWOM4		0.641
Social risk1	0.765	
Social risk2	0.678	
Social risk3	0.826	
Social risk4	0.954	
Eigenvalue	2.991	1.374
% of variance explained	49.850	22.434
Cumulative % of variance explained	49.850	72.284

Table 1.7. Final factor solution for 'Facebook community commitment', 'past eWOM activity', and 'eWOM activity intention' measurement scales.

Variables	Factor 1	Factor 2	Factor 3
Facebook community commitment1	0.750		
Facebook community commitment2	0.804		
Facebook community commitment3	0.835		
Facebook community commitment4	0.690		
Past eWOM activity1		0.778	
Past eWOM activity2		0.554	
Past eWOM activity3		0.829	
Past eWOM activity4		0.665	
eWOM activity intention1			0.828
eWOM activity intention2			0.504
eWOM activity intention3			0.688
eWOM activity intention4			0.693
Eigenvalue	6.788	1.246	1.107
% of variance explained	56.570	10.382	9.228
Cumulative % of variance explained	56.570	66.952	76.180

Table 1.8. Final factor solution measurements for 'past positive eWOM', 'past negative eWOM', 'positive eWOM intention', and 'negative eWOM intention' measurement scales.

Variables	Factor 1	Factor 2	Factor 3	Factor 4
Past positive eWOM1		0.813		
Past positive eWOM2		0.872		
Past positive eWOM3		0.902		
Past negative eWOM1	0.892			
Past negative eWOM2	0.945			
Past negative eWOM3	0.926			
Positive eWOM intention1				0.698
Positive eWOM intention2				0.839
Positive eWOM intention3				0.885
Negative eWOM intention1			0.777	
Negative eWOM intention2			0.878	
Negative eWOM intention3			0.845	
Eigenvalue	4.955	3.104	1.522	1.021
% of variance explained	41.293	25.867	12.687	8.511
Cumulative % of variance explained	41.293	67.160	79.847	88.357

Table 1.9. Final factor solution for 'Facebook community commitment', 'past eWOM activity, and 'eWOM activity intention' measurement scales.

Variables	Factor 1	Factor 2	Factor 3
Facebook community commitment1	0.750		
Facebook community commitment2	0.804		
Facebook community commitment3	0.838		
Facebook community commitment4	0.690		
Past eWOM activity1		0.778	
Past eWOM activity2		0.554	
Past eWOM activity3		0.829	
Past eWOM activity4		0.665	
eWOM activity intention1			0.828
eWOM activity intention2			0.504
eWOM activity intention3			0.688
eWOM activity intention4			0.693
Eigenvalue	6.788	1.788	1.107
% of variance explained	56.570	10.382	9.228
Cumulative % of variance explained	56.570	66.952	76.180

Appendix 2. Measurement scale items

Satisfaction

1. I am satisfied with my decision to study at LUT
2. My choice of LUT was a wise one
3. I have enjoyed studying at LUT
4. LUT has met my expectations

Dissatisfaction

1. I am dissatisfied with my decision to study at LUT
2. My choice of LUT was not a right one
3. I have not enjoyed studying at LUT
4. LUT has not met my expectations

Commitment

1. I am committed to my relationship with LUT
2. I really care about my ongoing relationship with LUT
3. The relationship that I have with LUT is something I am very committed to
4. The relationship that I have with LUT deserves my maximum effort to maintain

Loyalty

1. If pursuing a higher degree, I prefer to keep staying at LUT*
2. I will finish my degree programme regardless of high living costs*
3. If asked, I will recommend my friends to study at LUT
4. I will recommend LUT even without being asked

Brand identification

1. The image of LUT and my self-image are similar in many respects*
2. LUT plays an important role in my life
3. LUT says a lot about the kind of person I am
4. I like being a students at LUT

Advice seeking

1. I expect to receive tips from fellow students
2. I expect to receive support from fellow students
3. I hope to receive advice from fellow students that helps me solve my problems with my studies
4. I like to get fellow students' advice via social media when I have issues with my studies

Desire to help the organization

1. I want to help LUT be successful via social media
2. In my opinion, good universities should be supported*
3. It feels good to help LUT
4. I enjoy helping LUT

Altruistic concerns

1. I want to warn other students of my bad experiences at LUT
2. I want to warn my other friends or followers on social media of my bad experiences at LUT
3. I want to save other students from having the same negative experiences as me at LUT

4. Based on my positive experience at LUT, I want to help others who are considering pursuing master's degree to make a right choice
5. I like to give advice to fellow students*
6. I want to give others who are considering pursuing master's degree an opportunity to choose the right university

Need for positive self-enhancement

1. I like to express my joy about a choice of a right university*
2. I feel good when I can tell others about my studies at LUT*
3. My posts about LUT in social media shows that I am a clever student
4. I like to create a positive impression on others by communicating about LUT in social media

Attitude towards eWOM

1. Writing comments and posts in social media is a nice thing*
2. Taking part in online conversations is useful*
3. I feel that my life is enriched by online communication
4. I don't want to miss out on what is happening in social media

Social risk perception

1. I feel it is risky to say positive things about LUT in social media
2. I am worried that people may disapprove of me when I recommend LUT in social media
3. I am afraid that I may be embarrassed by recommending LUT in social media
4. I am afraid that I may look stupid by recommending LUT in social media

Virtual brand community commitment

1. I am proud to belong to LUT community on (Facebook)
2. I feel a sense of belonging to LUT community on (Facebook)
3. I care about long-term success of LUT community on (Facebook)
4. It is fun to communicate with fellow LUT students on (Facebook)

Past eWOM activity

1. I have mentioned LUT to others on (Facebook) quite often
2. I have 'liked' posts made by LUT on (Facebook) quite often
3. I have 'shared' posts made by LUT on (Facebook) quite often
4. When writing posts about LUT on (Facebook), I tended to talk about it in detail

Past positive eWOM

1. I have spoken of good sides of LUT on (Facebook)
2. I have mostly said positive things to others about LUT on (Facebook)
3. I have spoken favorably of LUT to others on (Facebook)

Past negative eWOM

1. I have said negative things about LUT to others on (Facebook)
2. I have criticized LUT on (Facebook)
3. I complain about LUT on (Facebook)

eWOM activity intention

1. I won't miss an opportunity to mention LUT on (Facebook)
2. I won't miss an opportunity to 'like' posts made by LUT on (Facebook)
3. I won't miss an opportunity to 'share' posts made by LUT on (Facebook)
4. When posting about LUT on (Facebook), I will describe it in detail

Positive eWOM intention

1. I will speak of good sides of LUT on (Facebook)
2. I will mostly say positive things to others about LUT on (Facebook)
3. I will speak favorably of LUT to others on (Facebook)

Negative eWOM intention

1. I will say negative things about LUT to others on (Facebook)
2. I will criticize LUT on (Facebook)
3. I will complain about LUT on (Facebook)

*Excluded from the final measurement scale

Appendix 3. Frequency of students' social media use

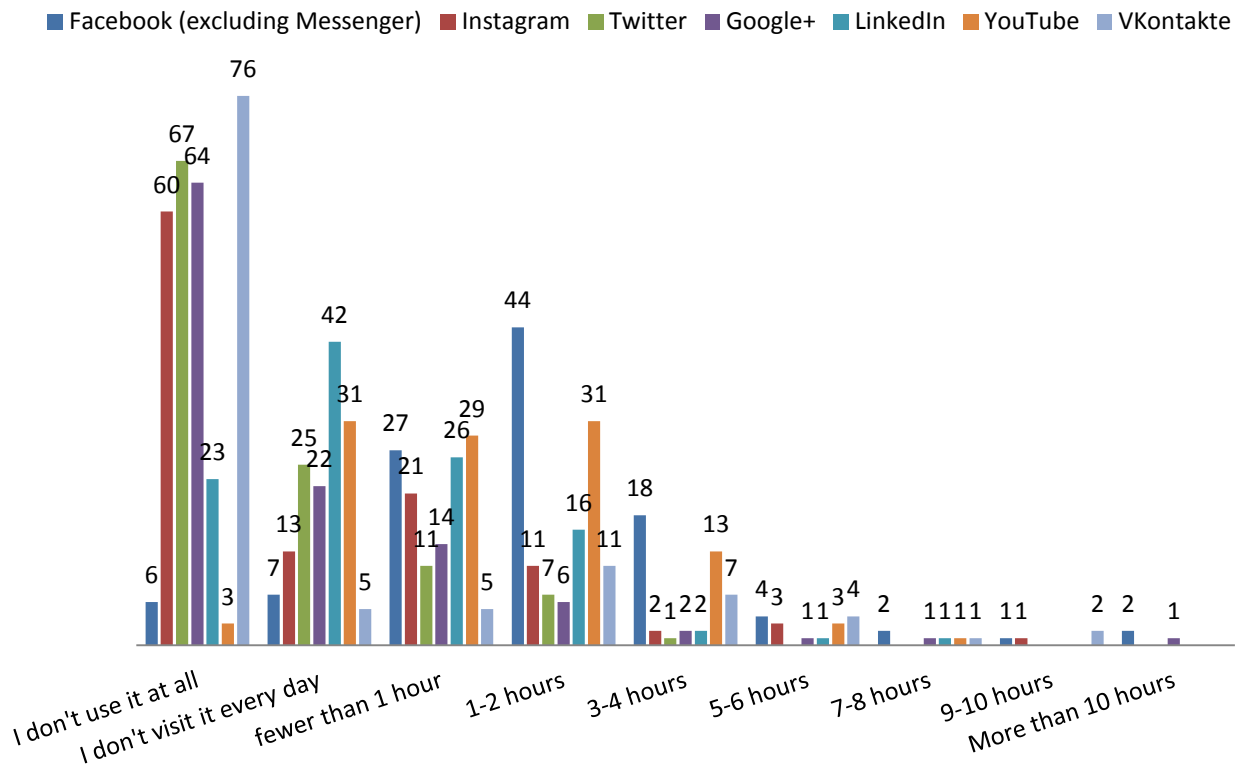


Figure 3.1. Students' daily social media use.

Appendix 4. Pearson correlation matrix.

		Correlations (Part I)							
		PastPos EWOM	PastNeg EWOM	PastEWO Mactivity	IntWO Mpos	IntWO Mneg	IntEWOM activity	Satisf	Dissat
PastPosEW OM	Pearson Correlation	1	-,009	,792**	,537**	-,652*	,560**	,165	-,289**
	Sig. (2-tailed)		,930	,000	,000	,016	,000	,117	,005
	N	91	91	91	90	13	90	91	91
PastNegEW OM	Pearson Correlation	-,009	1	,146	-,281**	,190	-,031	-,317**	,421**
	Sig. (2-tailed)	,930		,167	,007	,534	,768	,002	,000
	N	91	91	91	90	13	90	91	91
PastEWO Mactivity	Pearson Correlation	,792**	,146	1	,408**	-,527	,591**	,145	-,168
	Sig. (2-tailed)	,000	,167		,000	,064	,000	,170	,111
	N	91	91	91	90	13	90	91	91
IntWOMpos	Pearson Correlation	,537**	-,281**	,408**	1	-,406	,644**	,249*	-,309**
	Sig. (2-tailed)	,000	,007	,000		,169	,000	,018	,003
	N	90	90	90	90	13	90	90	90
IntWOMneg	Pearson Correlation	-,652*	,190	-,527	-,406	1	-,225	-,576*	,767**
	Sig. (2-tailed)	,016	,534	,064	,169		,460	,020	,001
	N	13	13	13	13	16	13	16	16
IntEWOMac tivity	Pearson Correlation	,560**	-,031	,591**	,644**	-,225	1	,218*	-,260*
	Sig. (2-tailed)	,000	,768	,000	,000	,460		,039	,013
	N	90	90	90	90	13	90	90	90
Satisf	Pearson Correlation	,165	-,317**	,145	,249*	-,576*	,218*	1	-,572**
	Sig. (2-tailed)	,117	,002	,170	,018	,020	,039		,000
	N	91	91	91	90	16	90	129	112
Dissat	Pearson Correlation	-,289**	,421**	-,168	-,309**	,767**	-,260*	-,572**	1
	Sig. (2-tailed)	,005	,000	,111	,003	,001	,013	,000	
	N	91	91	91	90	16	90	112	112
Commit	Pearson Correlation	,305**	-,121	,297**	,239*	-,587*	,140	,274**	-,372**
	Sig. (2-tailed)	,003	,252	,004	,023	,017	,187	,002	,000
	N	91	91	91	90	16	90	129	112
Loyalty	Pearson Correlation	,134	-,226*	,104	,315**	-,581*	,273**	,625**	-,408**
	Sig. (2-tailed)	,205	,031	,326	,002	,018	,009	,000	,000
	N	91	91	91	90	16	90	129	112
Brand ID	Pearson Correlation	,266*	-,254*	,191	,326**	-,667**	,217*	,608**	-,462**
	Sig. (2-tailed)	,011	,015	,070	,002	,005	,040	,000	,000
	N	91	91	91	90	16	90	129	112
FBcommitm	Pearson Correlation	,596**	,009	,656**	,574**	-,632*	,614**	,242*	-,429**
	Sig. (2-tailed)	,000	,933	,000	,000	,021	,000	,020	,000
	N	91	91	91	90	13	90	92	92
Advice	Pearson Correlation	-,093	,033	-,147	-,020	-,091	-,036	-,095	-,060
	Sig. (2-tailed)	,379	,759	,165	,853	,738	,737	,304	,533
	N	91	91	91	90	16	90	120	112

AltruPos	Pearson Correlation	-,105	-,089	-,232*	-,091	-,144	-,239*	-,048	-,031
	Sig. (2-tailed)	,322	,401	,027	,392	,596	,023	,604	,748
	N	91	91	91	90	16	90	120	112
AltruNeg	Pearson Correlation	-,158	,453**	-,061	-,236*	,679**	-,173	-,580**	,804**
	Sig. (2-tailed)	,135	,000	,563	,025	,004	,103	,000	,000
	N	91	91	91	90	16	90	112	112
Helping	Pearson Correlation	,137	,178	,094	-,009	,172	,036	,073	,096
	Sig. (2-tailed)	,195	,092	,373	,929	,525	,733	,426	,312
	N	91	91	91	90	16	90	120	112
Pos S-E	Pearson Correlation	,231*	,192	,301**	,066	,143	,189	,094	-,003
	Sig. (2-tailed)	,027	,069	,004	,539	,596	,074	,306	,972
	N	91	91	91	90	16	90	120	112
Social risk	Pearson Correlation	-,147	,483**	-,074	-,260*	,681**	-,209*	-,542**	,778**
	Sig. (2-tailed)	,164	,000	,484	,013	,004	,048	,000	,000
	N	91	91	91	90	16	90	112	112
Attitude	Pearson Correlation	,031	-,120	-,025	,113	,190	,205	,105	-,062
	Sig. (2-tailed)	,773	,256	,812	,287	,481	,053	,255	,518
	N	91	91	91	90	16	90	120	112

Correlations (Part II)

		Com mit	Loyalt y	brand ID	FBcom mitm	Advic e	AltruP os	Altru Neg	Helpu ni	posS E	Social_ risk
PastPosEW OM	Pearson Correlation	,305**	,134	,266*	,596**	-,093	-,105	-,158	,137	,231*	-,147
	Sig. (2-tailed)	,003	,205	,011	,000	,379	,322	,135	,195	,027	,164
	N	91	91	91	91	91	91	91	91	91	91
PastNegE WOM	Pearson Correlation	-,121	-,226*	-,254*	,009	,033	-,089	,453**	,178	,192	,483**
	Sig. (2-tailed)	,252	,031	,015	,933	,759	,401	,000	,092	,069	,000
	N	91	91	91	91	91	91	91	91	91	91
PastEWOM activity	Pearson Correlation	,297**	,104	,191	,656**	-,147	-,232*	-,061	,094	,301**	-,074
	Sig. (2-tailed)	,004	,326	,070	,000	,165	,027	,563	,373	,004	,484
	N	91	91	91	91	91	91	91	91	91	91
IntWOMpos	Pearson Correlation	,239*	,315**	,326**	,574**	-,020	-,091	-,236*	-,009	,066	-,260*
	Sig. (2-tailed)	,023	,002	,002	,000	,853	,392	,025	,929	,539	,013
	N	90	90	90	90	90	90	90	90	90	90
IntWOMneg	Pearson Correlation	-,587*	-,581*	,667**	-,632*	-,091	-,144	,679**	,172	,143	,681**
	Sig. (2-tailed)	,017	,018	,005	,021	,738	,596	,004	,525	,596	,004
	N	16	16	16	13	16	16	16	16	16	16
IntEWOMa ctivity	Pearson Correlation	,140	,273**	,217*	,614**	-,036	-,239*	-,173	,036	,189	-,209*
	Sig. (2-tailed)	,187	,009	,040	,000	,737	,023	,103	,733	,074	,048
	N	90	90	90	90	90	90	90	90	90	90
Satisf	Pearson Correlation	,274**	,625**	,608**	,242*	-,095	-,048	,580**	,073	,094	-,542**
	Sig. (2-tailed)	,002	,000	,000	,020	,304	,604	,000	,426	,306	,000
	N	129	129	129	92	120	120	112	120	120	112
Dissat	Pearson Correlation	-,372**	-,408**	-,462**	-,429**	-,060	-,031	,804**	,096	-,003	,778**
	Sig. (2-tailed)	,000	,000	,000	,000	,533	,748	,000	,312	,972	,000

	N	112	112	112	92	112	112	112	112	112	112
Commit	Pearson Correlation	1	,199*	,389**	,337**	-,058	,083	,348**	-,054	-,080	-,393**
	Sig. (2-tailed)		,024	,000	,001	,532	,369	,000	,561	,383	,000
	N	129	129	129	92	120	120	112	120	120	112
Loyalty	Pearson Correlation	,199*	1	,574**	,287**	-,061	-,108	,403**	,013	,101	-,416**
	Sig. (2-tailed)	,024		,000	,006	,506	,240	,000	,891	,272	,000
	N	129	129	129	92	120	120	112	120	120	112
Brand ID	Pearson Correlation	,389**	,574**	1	,328**	,001	-,061	,375**	,041	,171	-,456**
	Sig. (2-tailed)	,000	,000		,001	,988	,510	,000	,654	,062	,000
	N	129	129	129	92	120	120	112	120	120	112
FBcommitm	Pearson Correlation	,337**	,287**	,328**	1	,007	-,127	-,248*	,028	,186	-,363**
	Sig. (2-tailed)	,001	,006	,001		,945	,229	,017	,793	,076	,000
	N	92	92	92	92	92	92	92	92	92	92
Advice	Pearson Correlation	-,058	-,061	,001	,007	1	,029	-,014	,252**	,190*	,058
	Sig. (2-tailed)	,532	,506	,988	,945		,749	,881	,006	,038	,542
	N	120	120	120	92	120	120	112	120	120	112
AltruPos	Pearson Correlation	,083	-,108	-,061	-,127	,029	1	,005	,165	-,050	,040
	Sig. (2-tailed)	,369	,240	,510	,229	,749		,955	,072	,589	,678
	N	120	120	120	92	120	120	112	120	120	112
AltruNeg	Pearson Correlation	,348**	,403**	,375**	-,248*	-,014	,005	1	,047	,075	,824**
	Sig. (2-tailed)	,000	,000	,000	,017	,881	,955		,624	,432	,000
	N	112	112	112	92	112	112	112	112	112	112
Helpuni	Pearson Correlation	-,054	,013	,041	,028	,252**	,165	,047	1	,236**	,106
	Sig. (2-tailed)	,561	,891	,654	,793	,006	,072	,624		,009	,266
	N	120	120	120	92	120	120	112	120	120	112
Pos S-E	Pearson Correlation	-,080	,101	,171	,186	,190*	-,050	,075	,236**	1	,232*
	Sig. (2-tailed)	,383	,272	,062	,076	,038	,589	,432	,009		,014
	N	120	120	120	92	120	120	112	120	120	112
Social risk	Pearson Correlation	,393**	,416**	,456**	-,363**	,058	,040	,824**	,106	,232*	1
	Sig. (2-tailed)	,000	,000	,000	,000	,542	,678	,000	,266	,014	
	N	112	112	112	92	112	112	112	112	112	112
Attitude	Pearson Correlation	-,057	,120	,138	,079	,216*	-,027	-,045	,225*	,162	-,072
	Sig. (2-tailed)	,537	,192	,134	,457	,018	,767	,639	,013	,078	,452
	N	120	120	120	92	120	120	112	120	120	112

Correlations (Part III)

	Attitude	
PastPosEWOM	Pearson Correlation	,031
	Sig. (2-tailed)	,773
	N	91
PastNegEWOM	Pearson Correlation	-,120
	Sig. (2-tailed)	,256
	N	91
PastEWOMactivity	Pearson Correlation	-,025
	Sig. (2-tailed)	,812
	N	91
IntWOMpos	Pearson Correlation	,113
	Sig. (2-tailed)	,287

	N	90
IntWOMneg	Pearson Correlation	,190
	Sig. (2-tailed)	,481
	N	16
IntEWOMactivity	Pearson Correlation	,205
	Sig. (2-tailed)	,053
	N	90
Satisf	Pearson Correlation	,105
	Sig. (2-tailed)	,255
	N	120
Dissat	Pearson Correlation	-,062
	Sig. (2-tailed)	,518
	N	112
Commit	Pearson Correlation	-,057
	Sig. (2-tailed)	,537
	N	120
Loyalty	Pearson Correlation	,120
	Sig. (2-tailed)	,192
	N	120
Brand ID	Pearson Correlation	,138
	Sig. (2-tailed)	,134
	N	120
FBcommitment	Pearson Correlation	,079
	Sig. (2-tailed)	,457
	N	92
Advice	Pearson Correlation	,216
	Sig. (2-tailed)	,018
	N	120
AltruPos	Pearson Correlation	-,027
	Sig. (2-tailed)	,767
	N	120
AltruNeg	Pearson Correlation	-,045
	Sig. (2-tailed)	,639
	N	112
Helping	Pearson Correlation	,225
	Sig. (2-tailed)	,013
	N	120
Pos S-E	Pearson Correlation	,162
	Sig. (2-tailed)	,078
	N	120
Social risk	Pearson Correlation	-,072
	Sig. (2-tailed)	,452
	N	112
Attitude	Pearson Correlation	1
	Sig. (2-tailed)	
	N	120

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

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