The Impact of the Smartwatch's Two-sided Motivation on eWOM Behavior

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Abstract

A smartwatch is the most widely commercialized and successful representative wearable device and has the aspects of both technological devices and fashion items. Thus, smartwatch users have both a utilitarian motivation as an ICT (Information and Communications Technology) device and a hedonic motivation as a fashion accessory. Therefore, to understand how users' motivation affects their reactions to smartwatches, it is necessary to consider both the utilitarian and hedonic motivational factors. As for users' reaction to smartwatches, we focus on eWOM (electronic Word-of-Mouth) to analyze users' candid opinions embedded in it. The purpose of this study is twofold. First, we aim to investigate how both the utilitarian and hedonic motivations of smartwatches are associated with users' positive or negative WOM intention. Second, we investigate the relationship between users' intention of WOM and their actual behavior of eWOM. This study will analyze survey data to measure users' two-sided motivation (utilitarian and hedonic motivations) and WOM intention, as well as actual eWOM data created by users in a smartwatch online forum. Although this is a research-in-progress paper, we expect that this research will provide novel insights on the relationship between users' motivation and their reactions with regard to smartwatches, beyond the conventional findings from extant studies on eWOM that mainly focus on the effectiveness of eWOM communications.

Keywords: Smartwatch, WOM, eWOM, Sentiment Analysis, Hedonic Motivation, Utilitarian Motivation

Introduction

Since the first version of wearable devices was developed by Hubert Upton in 1967 to help hearing-impaired people read lips with a head-up display (HUD) apparatus (Starner and Martin 2015), the smartwatch has been regarded as the first wearable device that has successfully entered the commercialization stage (Jung et al. 2016). In particular, the smartwatch market offers an opportunity for existing watchmakers (e.g., Breitling, Tag Heuer, and Tissot), as well as information and communications technology (ICT) manufacturers (e.g., Apple, Motorola, and Samsung Electronics) to release new lines of products (Buchanan 2016). This heterogeneous market structure (i.e., smartwatches are being produced by both traditional watchmakers and ICT manufacturers) results from the fact that a smartwatch has not only utilitarian dimensions of its characteristics as an ICT device, but also hedonic dimensions as a fashion accessory (Choi and Kim 2016). In other words, smartwatch users should have two types of motivation when it comes to adopting and using this device: utilitarian and hedonic motivations. According to Van der Heijden (2004), conventional information systems are traditionally considered as utilitarian devices that mainly provide utilitarian and instrumental value for users, while a few hedonic information systems (e.g., electronic games) provide self-fulfilling value to users. However, since the smartwatch has characteristics of both utilitarian and hedonic devices, we should consider both aspects of users' motivations and the impact of this two-sided motivation on users' reactions.

In order to gauge users' reactions, word-of-mouth (WOM) can be an effective strategy for collecting credible, reliable, and trustworthy opinions from smartwatch users because it is a consumer-driven communication channel. As a result, consumers often share their opinions or reactions about a certain product among one another (Lau and Ng 2001). Essentially, WOM is employed when a satisfied (or unsatisfied) customer shares his/her experience of the product with others (Dichter 1966). Sundaram et al. (1998) found that the motivation for positive WOM (PWOM) is a positive experience and product involvement. On the other hand, when users are dissatisfied with the product, they express opinions by employing negative WOM (NWOM) (Richins 1983).

In recent years, consumers' WOM has evolved into electronic WOM (eWOM), which is created through online communities, forums, and social networks (Gruen et al. 2006). As it offers advantages that overcome the time and space constraints of traditional WOM (Litvin et al. 2008), many extant studies have focused on eWOM in several research areas (e.g., information systems, marketing, advertising, and tourism). However, while the socioeconomic effects of eWOM itself have been the focus of many extant studies (e.g., Amblee 2016; Park and Lee 2009), little is known about the role of users' two-sided motivation in their behavior of writing either positive or negative eWOM. The scarcity of research on the relationship between users' motivations and their eWOM behaviors may result from the fact that although eWOM itself can be easily collected online, it is relatively difficult (or unnecessary) for the user to cite or mention the reasons for writing eWOM. This can be a critical constraint in understanding how the motivational dimensions of the product (e.g., utilitarian and hedonic motivations of the smartwatch) are reflected in the eWOM of the product user.

In order to overcome this limitation and fill the research gap in the current literature, this study uses a survey to measure users' utilitarian and hedonic motivations for using or purchasing smartwatches (i.e., based on users' perceptions), along with their intention of WOM. Moreover, this study analyzes several real eWOM communications that were written by the survey participants during a certain period to measure the positivity and negativity of their actual reactions to these devices. Specifically, we measure perceived usefulness, which represents the utilitarian motivation, perceived pleasure, which represents the hedonic motivation, and intentions of positive and negative WOM by using an online survey in the context of smartwatches. In addition, we also measure the positive and negative emotions of the survey participants' eWOM by using sentiment analysis methods. Furthermore, we analyze the responses using two research models (i.e., positive and negative eWOM models) to obtain more varied research results, based on the emotional direction (valence) of eWOM.

The purpose of the current study is twofold. First, this study aims to examine how the utilitarian and hedonic motivations of a smartwatch influence users' actual behavior of eWOM. Second, this study investigates the reasons as to why smartwatch users write positive or negative eWOM. For these purposes, we include the intention of WOM (i.e., intention of positive and negative WOM) in our research model,

which is expected to link the relationship between perceived usefulness and perceived pleasure regarding smartwatches and the actual behavior of eWOM (i.e., positive and negative eWOM). Through this attempt, we believe that this research will create new knowledge on the role of users' motivation and intention in promoting actual eWOM behaviors; additionally, it will extend the scope of existing research on eWOM.

The remainder of this paper is structured as follows. The second section contains the theoretical background. The third section provides the research model and hypotheses. The fourth section includes the research method describing the measurements and data collection, followed by several expected implications.

Literature Review

Utilitarian and Hedonic Motivations behind Smartwatch Use

Van der Heijden (2004) argued that information systems can be classified according to the type of user motivation (i.e., extrinsic and intrinsic). More specifically, information systems can be divided into a utilitarian information system (UIS), which is driven by a utilitarian motivation (i.e., extrinsic motivation) such as an extrinsic benefit or performance improvement through interactions with the system; and a hedonic information system (HIS), driven by a hedonic motivation (i.e., intrinsic motivation) such as an intrinsic benefit or self-fulfilling experiences derived from the process of interacting with the system itself (Lowry et al. 2012; Van der Heijden 2004).

A smartwatch is defined as a computerized wristwatch that incorporates the functions of a personal digital assistant (PDA) and a timekeeper (Edwards 2013). Therefore, consumers purchase smartwatches for the functionalities they offer (i.e., utilitarian purposes) such as phone call alerts, schedule notification, weather information, and heart rate monitoring. In other words, users utilize their smartwatches as UIS, based on a utilitarian motivation. However, wristwatches have traditionally played the role of a fashion accessory (Domzal and Unger 1985), and smartwatches also have a similar role. For instance, many manufacturers design smartwatches to resemble premium wristwatches with features such as a rounded display or a user interface similar to that of a wristwatch. Also, smartwatch users customize the watch's face to resemble a luxury wristwatch so as to make it look better (Lyons 2015). These arguments provide the basis to consider a smartwatch as HIS, because people often buy and use smartwatches as a result of their hedonic motivation. In sum, the nature of a smartwatch is a mix of both utilitarian (UIS) and hedonic (HIS) motivations.

Accordingly, to understand the nature of a smartwatch, both UIS and HIS should be considered together. Therefore, in our research model, we consider perceived usefulness as a utilitarian motivation (Song et al. 2008) and perceived pleasure as a hedonic motivation (Van der Heijden 2004). In particular, to investigate how these two motivations affect smartwatch users' reactions, we select traditional WOM and eWOM as the medium for smartwatch users to express their personal and direct opinions.

WOM and eWOM

WOM is the traditional face-to-face interaction or direct communication concerning products, services, or companies among individuals who are not part of a commercial organization (Litvin et al. 2008). Further, WOM conversations have the advantage of credibility, reliability, and trustworthiness, being derived from a direct and consumer-driven communication channel (Lau and Ng 2001). Thus, WOM can be classified into positive and negative, based on the emotional direction of information flow contained in the message (Buttle 1998). Sundaram et al. (1998) argued that positive WOM motivation and negative WOM motivation are somewhat different. They suggested that consumers engage in positive WOM driven via product involvement, self-enhancement, altruism, and helping the company. In contrast, negative WOM is the result of vengeance, anxiety reduction, altruism, and advice seeking. Particularly, product involvement and vengeance were identified as the most important motives for each WOM, respectively.

With the recent development of ICT, WOM has evolved into eWOM. Gruen et al. (2006) argued that eWOM is formed similarly to the mechanism of traditional WOM and also has the same effects, such as credibility and reliability. In addition, eWOM has the advantage of being easily accessed, searched, and linked because it exists in the online space, unlike the temporality of traditional WOM (Litvin et al. 2008). Due to these advantages, several prior studies have been recently conducted on the socioeconomic effectiveness or value of eWOM (e.g., Amblee 2016; Babić Rosario et al. 2016; Mudambi and Schuff 2010; Park and Lee 2009).

However, most extant studies have focused on eWOM, and there is little research that has examined the role of users' two-sided motivation in encouraging product users to write positive or negative eWOM. The scarcity of studies on this topic may be attributed to the fact that eWOM can be easily collected online, but it is relatively difficult to ask users about their reasons for writing it. Focusing on this problem, we attempt not only to measure the utilitarian and hedonic motivations of smartwatches through online surveys on smartwatch users, but we also analyze the actual eWOM written by users in a smartwatch forum. In addition, we focus on the valence of eWOM (i.e., positive versus negative), similar to research that analyzes traditional WOM for the positivity and negativity of the communications (Sundaram et al. 1998).

Measuring Positive and Negative Sentiment of eWOM

Many previous studies have shown that an analysis of eWOM messages includes not only the actual text, but also a variety of additional data related to eWOM such as star ratings, a reviewer's reputation, and hit counts (e.g., Lee et al. 2016; Mudambi and Schuff 2010; Tang and Guo 2015). Tang and Guo (2015) suggested that the former (i.e., actual text) is difficult to analyze; however, analyzing it will provide us with the true nature of eWOM, while the latter (i.e., additional data) is easy to analyze, but has limitations, as those peripheral characteristics are surrogate information of eWOM. They also argued that star ratings condense the participants' diverse experiences with a loss of information, whereas analyzing texts in eWOM allows us to obtain more detailed and undistorted information from eWOM. In this regard, Mudambi and Schuff (2010) proved that an extreme star rating for the experience of goods is rather meaningless and futile. For this reason, we decided to analyze eWOM to measure the emotional direction of eWOM messaging.

Sentiment analysis is a technique that helps systematically identify the positivity and negativity in content based on natural language processing (Wilson et al. 2009). This analysis method can be divided into a supervised method based on training data, and a lexicon-based method based on pre-defined term dictionaries, including sentiment orientation (Saif et al. 2016). The supervised method can improve accuracy through training classifiers such as the Support Vector Machine or Naïve Bayes (e.g., Saif et al. 2012). However, it is difficult to obtain reliable training data, and the results are altered when the training data are changed (Liu 2010). The lexicon-based model, on the other hand, uses a pre-verified universal emotion dictionary such as linguistic inquiry and word count (LIWC), SentiWordNet, or MPQA (Ribeiro et al. 2016). Therefore, even though the accuracy may be relatively insufficient, a more reliable and stable result can be expected (Saif et al. 2016). Based on these previous studies, we found that it is difficult to obtain validated training data in the smartwatch context; moreover, it is difficult to guarantee content validity when applying the supervised method for this study. Therefore, for our research, we determined that the lexicon-based method is more stable and reliable than the supervised method in the context of smartwatches.

Research Model and Hypotheses Development

Research Model

As discussed above, the motivations associated with positive WOM (i.e., product involvement, self-enhancement, altruism, and helping the company), and those for negative WOM (vengeance, anxiety reduction, altruism, and advice seeking) differ from each other (Sundaram et al. 1998). Therefore, based on the emotional direction of eWOM (i.e., positive versus negative), we divided our research model into two parts. Figure 1 depicts the two research models.

In the positive eWOM model, perceived usefulness and perceived pleasure were applied as predictors for the intention of positive WOM and positive eWOM. Similarly, in the negative eWOM model, the two constructs (i.e., perceived usefulness and perceived pleasure) were employed as predictors for the intention of negative WOM and **negative eWOM**. Furthermore, in the positive eWOM model, the relationship between the intention of positive WOM and positive eWOM is based on the theory of reasoned action (TRA), where actual behavior is preceded by reasoned intention (Sheppard et al. 1988). Similarly, TRA is also a basic theory to explain the relationship between the intention of negative WOM and negative eWOM in the negative eWOM model.
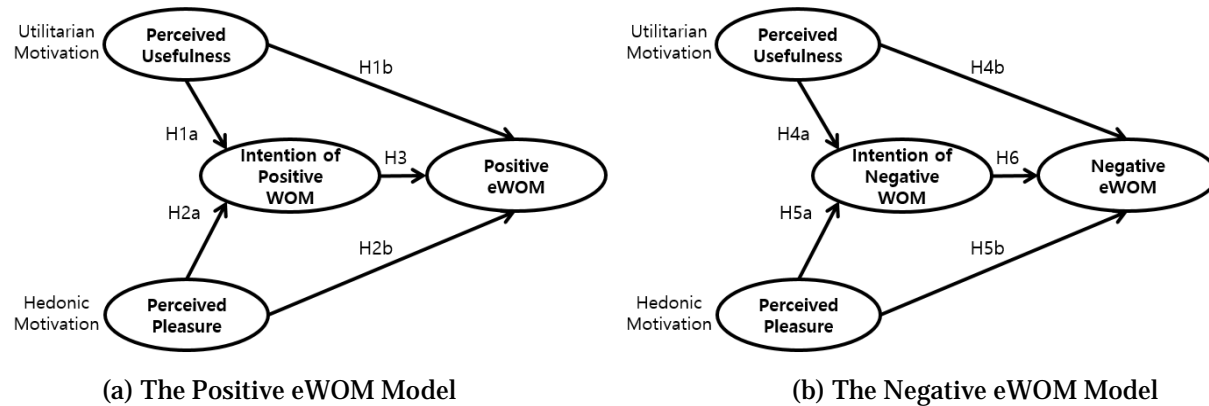
Utilitarian Motivation — Perceived Usefulness

Hedonic Motivation — Perceived Pleasure

Intention of Positive WOM

Positive eWOM

H1a H1b H2a H2b H3

(a) The Positive eWOM Model

Utilitarian Motivation — Perceived Usefulness

Hedonic Motivation — Perceived Pleasure

Intention of Negative WOM

Negative eWOM

H4a H4b H5a H5b H6

(b) The Negative eWOM Model

Figure 1. Research Model

Hypotheses Development

Motivations for Smartwatch Adoption: Impact on Positive WOM

As discussed above, positive WOM can be derived from the positive experience of a product itself, such as product involvement (Sundaram et al. 1998). Perceived usefulness is a typical utilitarian experience of a product or system perceived by the user, which measures the extent of performance enhancement (Song et al. 2008). Furthermore, Song et al. (2008) empirically verified that perceived usefulness has a positive impact on positive WOM in the context of mobile commerce, indicating that perceived usefulness has a utilitarian motivation (formed by the utilitarian experience) for positive WOM. In the context of smartwatches, users perceive the usefulness of the device through its functionality, such as checking phone calls, confirming the weather, or monitoring heart rate, which can act as a utilitarian motivation for positive WOM. In addition, eWOM is also a form of WOM, and the mechanism of eWOM is similar to traditional WOM (Gruen et al. 2006). Therefore, we posit that:

H1a: *Perceived usefulness is positively related to the intention of positive WOM.*
H1b: *Perceived usefulness is positively related to positive eWOM.*

In addition, a hedonic experience can be another factor that motivates positive WOM (Deng et al. 2010). Perceived pleasure indicates the degree of hedonic and emotional feelings such as joy, interest, and happiness (De Wulf et al. 2006). Song et al. (2008) classified perceived pleasure as a hedonic experience. Moreover, they empirically validated the notion that perceived enjoyment, which is synonymous for perceived pleasure, drives positive WOM in the context of mobile commerce. Therefore, perceived pleasure serves as a hedonic motivation for WOM. In the context of smartwatches, the device works as a fashion accessory and also as an ICT device (Choi and Kim 2016). Therefore, consumers may feel delighted simply by watching their aesthetically designed smartwatch strapped onto their wrist, along with the pleasurable feeling of owning the fashion item. In addition, since eWOM can be considered as a form of WOM (Gruen et al. 2006), we posit that:

H2a: *Perceived pleasure is positively related to the intention of positive WOM.*
H2b: *Perceived pleasure is positively related to positive eWOM.*

Extant studies (e.g., Ajzen 1991; Sheppard et al. 1988; Venkatesh and Davis 2000) have found that intention is an antecedent of behavior. Hence, we can assume that the intention of positive WOM communications leads to actual positive WOM behavior. As discussed above, eWOM is an online form of WOM, with similar mechanisms to traditional WOM (Gruen et al. 2006). Therefore, we believe that the intention of WOM can also serve as a cause of actual eWOM behavior, without the influence of other external factors. More specifically, a consumer's intention to recommend his/her smartwatch to acquaintances can lead to actual recommendation behavior in online environments. In particular, our aim is to investigate how genuine WOM intention affects actual eWOM behavior, beyond other reasons such as commercial purposes or anonymity in an online setting. Therefore, we posit that:

H3: *The intention of positive WOM is positively related to positive eWOM.*

Motivations for Smartwatch Adoption: Impact on Negative WOM

Negative WOM is the outcome of negative product experiences, such as vengeance and anxiety reduction (Sundaram et al. 1998). According to expectancy disconfirmation theory (Oliver 1980), consumers feel dissatisfied when the product's performance disappoints them or is less than what they expected. In addition, Anderson (1998) argued that negative WOM results from a disappointing consumption experience. Since a smartwatch is also an ICT device, perceived usefulness can be a key determinant when purchasing it. Consumers may expect the various functions of a smartwatch to improve their lives. However, if users perceive their smartwatches as being less useful than what they had expected, the perceptions (i.e., negative perceived usefulness) could be a motivation for negative WOM, as Anderson (1998) claimed. In addition, since eWOM is also a form of WOM, and the mechanism of eWOM is similar to traditional WOM (Gruen et al. 2006), we posit that:

H4a: *Perceived usefulness is negatively related to the intention of negative WOM.*
H4b: *Perceived usefulness is negatively related to negative eWOM.*

Perceived pleasure is a factor representing the hedonic experience (Song et al. 2008), which can be obtained from the experience of a smartwatch as a fashion accessory, as described above. Furthermore, in their study related to telecommunication services, Verhagen et al. (2013) empirically validated the notion that positive emotions such as joy, enthusiasm, and happiness can alleviate negative eWOM. Thus, the perceived pleasure of smartwatches can play a negative role as a hedonic motivation for negative eWOM. Particularly, the motivations for negative WOM, such as vengeance or anxiety reduction (Sundaram et al. 1998), can be related to affection (i.e., hedonic motivation) rather than cognition (i.e., utilitarian motivation). In this sense, we expect that perceived pleasure will be closely related to negative eWOM. In addition, since eWOM can be considered as a form of WOM (Gruen et al. 2006), we posit that:

H5a: *Perceived pleasure is negatively related to the intention of negative WOM.*
H5b: *Perceived pleasure is negatively related to negative eWOM.*

As discussed above, many extant studies (e.g., Ajzen 1991; Sheppard et al. 1988; Venkatesh and Davis 2000) have found that intention plays a major role as an antecedent of behavior. Therefore, the intention of negative WOM will lead to actual negative WOM. Also, we believe that negative eWOM will be derived from the intention of negative WOM because the mechanisms and causes of eWOM are similar to those of traditional WOM (Gruen et al. 2006). More specifically, the intention to talk negatively to friends can lead to actual negative eWOM behavior in online spaces. Hence, we posit that:

H6: *The intention of negative WOM is positively related to negative eWOM.*

Research Method

Measurements

In this study, we attempt to measure smartwatch users' perceptions and emotional directions (or valence) of eWOM in different ways. That is, we measure users' motivations (utilitarian and hedonic) and intention using a survey. With the survey, we measure the positivity or negativity of emotions in actual eWOM using sentiment analysis. For survey data collection, we adopt the measures validated in extant studies, and the items for each construct are modified to fit the context of our study. The measures consist of multiple items anchored on seven-point Likert scales.

Perceived usefulness is operationalized as the extent to which a smartwatch owner perceives that his/her daily life has been improved by using the smartwatch; it is measured by adapting the scales used by Venkatesh and Davis (2000). Perceived pleasure is operationalized as the degree of smartwatch users' emotional and hedonic feelings, such as interest, joy, and happiness, when using a smartwatch (De Wulf et al. 2006; Menon and Kahn 2002). It is measured by adapting the items from De Wulf et al. (2006). The intention of positive WOM is operationalized as the degree to which a smartwatch owner perceives that he/she will recommend the smartwatch to his/her friends; it is measured by using the scales from Maxham (2001). The intention of negative WOM is operationalized as the degree to which a smartwatch owner perceives that he/she will talk negatively to friends about his/her smartwatch experience (Sundaram et al.

1998). It is measured by adapting the items used by Jones et al. (2007). Appendix A presents the details of the measurement items.

In order to measure the positivity and negativity of users' eWOM, we apply the LIWC program as a sentiment analysis tool for two reasons. First, LIWC is one of the most widely used text analysis tools that has been successfully used in many existing academic studies (e.g., Jin et al. 2013; Tang and Guo 2015). Second, the word count strategy, adopted by LIWC, is a validated technique among most researchers; it assures the validity of the analysis results (Tang and Guo 2015). Therefore, positive eWOM is operationalized as a positive word percentage in eWOM posted by each user, while negative eWOM is operationalized as a negative word percentage in eWOM posted by each user (Jin et al. 2013). Table 1 shows the operational definitions for the variables used in our research model.

Construct	Operational Definition		References
Perceived Usefulness (PU)	The extent to which a smartwatch owner perceives that his/her daily life has been improved by using a smartwatch		Venkatesh and Davis (2000)
Perceived Pleasure (PP)	The degree of a smartwatch user's emotional and hedonic feelings such as interest, joy, and happiness when he/she uses a smartwatch		De Wulf et al. (2006); Menon and Kahn (2002)
Intention of Positive WOM (IPW)	The degree to which a smartwatch owner perceives that he/she will recommend a smartwatch to his/her friends.		Maxham (2001)
Intention of Negative WOM (INW)	The degree to which a smartwatch owner perceives that he/she will talk negatively to friends about his/her smartwatch experience.		Sundaram et al. (1998)
Positive eWOM (PW)	The percentage of positive words in eWOM posted by each user.	$\dfrac{\text{\# of positive emotional words}}{\text{\# of total words}}$ (LIWC)	Jin et al. (2013)
Negative eWOM (NW)	The percentage of negative words in eWOM posted by each user.	$\dfrac{\text{\# of negative emotional words}}{\text{\# of total words}}$ (LIWC)	Jin et al. (2013)

Table 1. Operational Definitions of the Constructs

Data Collection

To collect the data for our research model, we needed to use both a survey of smartwatch users and secondary data (i.e., eWOM) created by the users (survey respondents). Therefore, we selected an online forum related to smartwatches, conducted an online survey of the forum members, and crawled articles written by the members who participated in the survey for a certain period of time. Mobile Nations is a leading online media platform with more than 5 million members, consisting of several online communities focused on mobile technologies and devices (Mobilenations.com 2017). On Mobile Nations, there are four smartwatch forums (i.e., http://forums.imore.com/apple-watch, http://forums.connectedly.com/smartwatches-f147, http://forums.androidcentral.com/android-wear, and http://forums.androidcentral.com/smartwatches-non-android-wear) where various discussions on smartwatches take place. We posted survey requests on these forums and collected the user IDs of the survey participants, in order to collect their eWOM only if they agreed that we could collect and analyze their eWOM for certain period of time.

The online survey was conducted for about two months, from mid-December 2015 to February 2016. A total of 134 questionnaires were collected, and we provided US$3 Amazon e-coupons to participants who agreed to receive the gift. In addition to the online survey results, we plan to collect eWOM data (i.e., secondary data) written by the participants by using the RSelenium package in R, which enables a researcher to automate browsers locally and remotely (Harrison and Harrison 2014). For the next step, our research

model will be examined by employing the structural equation modeling (SEM) approach, based on both the online survey results and the secondary data.

Expected Contributions

Although it is still a research-in-progress paper, we believe that this study will provide meaningful theoretical and practical implications, as follows.

For the theory, first, this study identifies and empirically validates the role of two-sided motivational factors with regard to smartwatches in affecting users' actual eWOM behaviors by analyzing both survey and text-mining data, which has rarely been attempted in previous studies. Our validated measures of two-sided motivation for smartwatches and their impact on both WOM intention and eWOM behavior will contribute to the body of knowledge in the literature on eWOM and users' motivation for ICT devices. Second, our prospective results on smartwatch users' two-sided motivation and their eWOM reactions will help us better understand the nature of smartwatches, which have the characteristics of both a technological device and a fashion item. This will provide novel insights into research on wearable devices and will suggest possible directions for future research. Third, our attempt to analyze the relationship between survey and sentiment analysis data will make a methodological contribution to the analysis of eWOM, since this study validates the motivational mechanisms of the resulting eWOM. In particular, the prospective results of our study will show different mechanisms of users' positive versus negative eWOM behaviors, created by the same motivational factors with regard to smartwatches.

For practice, we believe that our research will provide directions for practitioners to understand, interpret, and use the potential of eWOM as an analytical tool. Specifically, the prospective results of our study will provide smartwatch makers with valuable implications on which motivational triggers they should focus on when designing their products in order to increase positive reactions, and at the same time, reduce negative reactions from users, since eWOM is now becoming a very important source of product information for consumers and affects the actual sales of products. For instance, we may find that positive reactions are significantly related to both utilitarian and hedonic motivations, while negative reactions are mainly related to utilitarian motivations. Or, we may find that the intention for positive WOM is less related to actual positive eWOM behavior, while the intention for negative WOM is more strongly related to actual negative eWOM. We believe that these prospective results will provide a great deal of interesting stories to tell practitioners who will design and market smartwatches.

Appendix. Survey Questionnaire Items

Construct	Item	References
Perceived Usefulness	1. I find this smartwatch to be useful in my daily life. 2. Using this smartwatch in my daily life increases my productivity. 3. Using this smartwatch enhances my effectiveness in my daily life.	Venkatesh and Davis (2000)
Perceived Pleasure	1. My smartwatch makes me happy. 2. I have fun with my smartwatch. 3. I find my smartwatch amusing.	De Wulf et al. (2006)
Intention of Positive WOM	1. I am likely to spread positive WOM (Word of Mouth) about my smartwatch. 2. I would recommend this smartwatch to my friends. 3. Given my experience with my smartwatch, I would recommend it to my friends.	Maxham (2001)
Intention of Negative WOM	1. I will warn my friends and relatives not to use this smartwatch. 2. I will complain to my friends and relatives about this smartwatch. 3. I will tell my friends and relatives not to use this smartwatch.	Jones et al. (2007)

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