DOES CULTURE AFFECT MOTIVATION TO WRITE A REVIEW?

Charalampos Voutsas
s1512080
C.Voutsas@student.utwente.nl

MASTER THESIS COMMUNICATION SCIENCE
MASTER MARKETING COMMUNICATION
FACULTY BEHAVIOURAL SCIENCE UNIVERSITY OF TWENTE

GRADUATION COMMITTEE
1st : Dr. Ardion Beldad
2nd Supervisor: Drs. Mark Tempelman

UNIVERSITY OF TWENTE.

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Abstract

In the post-Web 2.0 era consumers have the ability to participate in the creation process. Mobile apps are affected by this shift through user-generated reviews. This type of electronic Word-of-Mouth has been found to play a critical role in app downloads and purchases. The present paper examines what drives users to submit mobile app reviews, and whether those motivations are affected by culture. A multiple regression model was proposed for this purpose. As the cultural dimension to be selected was that of individualism/collectivism, the sample consisted of Greeks and Germans due to the fact that these two populations illustrated differences on that cultural aspect in previous studies, the first representing the collectivistic end of the dimension, and the latter the individualistic one. The data were collected by means of a questionnaire to Greeks (n = 212) and Germans (n = 205). A regression analysis was performed both pooled and separately for each national group to identify differences between the two populations. The data confirmed attitude as the most significant predictor of the intention to write a mobile app review. The ego-defensive and expressive functions of attitudes, perceived behavioral control, and descriptive and injunctive social norm received statistical support as predictors of intention to write a review for a mobile app. The social function of attitudes was excluded from the analysis due to implications in the factor analysis, while there was no evidence for the utilitarian function of attitudes. When the two populations were examined separately, differences were observed. Intention to write a mobile app review was predicted by perceived behavioral control, injunctive social influence, and attitude in the Greek sample. In the German group, the ego-defensive and expressive function of attitudes, descriptive social norm, and attitude were found to statistically predict intention to write a mobile app review.

Introduction

During the last few decades consumers have increasingly been gaining access to means of massive communication. Specifically, the rise of the World Wide Web in the 90s has provided people with a network in which information can be widely and rapidly spread, while content can be edited and communicated to massive audiences around the globe. This shift to online, rather than offline communications, has contributed to the appropriate conditions for User-Generated Content (UGC) to emerge and to gain importance, among others, in the fields of marketing. Indicative of the new setting is what Constantinides, Romero, and Boria (2008) describe as the Web 2.0 era. In describing the dimensions of Web 2.0, Constantinides et al. (2008) pointed out that this new version of the Internet, emerging in 2005, provides consumers with more control and information in their purchasing decisions.

Christodoulides, Jevons and Bonhomme (2012) noted that consumers nowadays can contribute to shaping brands, which were formerly completely controlled by marketers. Christodoulides, Jevons and Blackshaw (2011) specifically pointed out that "consumption communities" have emerged that, in coexistence with word-of-mouth (WOM) advertising, drive brands which traditionally were under the complete control of managers. According to these authors, co-creation, empowerment, self-concept, and community are "the four antecedents of brand-related UGC" (p.102).

Daugherty, Eastin, and Bright (2008, p. 19) defined UGC as "media content that is created or produced by the general public rather than by paid professionals and is primarily distributed on the Internet". Christodoulides et al. (2011) rejected Daugherty et al.'s definition as being too broad. They defined UGC themselves as content created by consumers that is available to the public, illustrates intention to be creative, and is produced without direct compensation and professional methods. According to Fader and Winer (2012), consumers are nowadays actively contributing to the marketing process by interacting with companies and other consumers. Constantinides et al. (2008) also pointed out that UGC brings consumers and brands closer to each other.

UGC is thus understood to be a multifaceted term, and is not easy to define. There is also not much clarity around what exactly is considered UGC. According to Wyrwoll (2011), Social Media, which are identified as a synonym for UGC by Constantinides et al. (2008), can be broken down to the following platform categories, based on the type of metadata they provide: Blogs, Forums, Location Sharing and Annotation Platforms, Media Sharing Platforms, Microblogs, Question and Answer Platforms, Rating and Review Platforms, and Social Networks.

Of course, overlapping can occur in some instances, when for example one type of platform embeds functions from a different kind (e.g. a Social Network with Rating/Review modules). Balasubramaniam (2009) supported this view, and pointed out different types of UGC can co-exist in one platform. In his work, he cited Rosenbaum's (2008)[1] taxonomy of UGC-types. According to that, there are media websites, chat interfaces, social networks, e-commerce platforms, forums, and blogs comprising the sphere of UGC. A platform falling under any of the above categories can, nowadays, offer the possibility to submit reviews, which is considered is listed as a type of eWoM (Riegner, 2007).

The importance of eWoM generally, and consumer reviews in particular, has been emphasized on in previous studies (Chen & Xie, 2007). Kim and Srivastava (2007) underlined the usefulness of online shopping, and the contribution of reviews to that: Consumers can expose themselves to product information, that is customer reviews, coming from sources other than the brand. These tend to be rather user-oriented, as opposed to information coming from brands or third parties (Chen & XIe, 2007). At the same time managers can easily collect useful feedback and identify possible influencers in a given network.

[1] http://alwayson.goingon.com/permalink/post/22841 is cited in Rosenbaum (2008).

Even before the Web 2.0 era, offline WOM played an important role in the marketing research literature. Katz and Lazarsfeld (1955) pointed out the importance of peer recommendations in commercial settings. Similarly, Wilson and Sherrell (1993) supported the view that consumer-generated information is perceived as being more credible and trustworthy. Social influence however was limited to the source's social environment (Duan, Gu, & Whinston, 2008), whereas distance and time reduced its effect (Ellison & Fudenberg, 1995). Such restrictions have been overcome with the opportunities the Web 2.0 offers. Communications have changed in that brands do not control the public opinion, whereas the flow of messages is more frequent, and of higher volume.

In terms of 'online feedback mechanisms', Dellarocas (2003) identified specific differences to their antecedents. Specifically, their bidirectional character allows for scalable communications. In addition, those communications are more manageable for brands in that they are easier to monitor, while the new situation is nevertheless more challenging (Dellarocas, 2003).

When it comes to eWOM then, academics have focused on the effects of this type of Consumer-to-Consumer communication on commercial decisions. Park, Lee, and Han (2007) considered involvement as a moderator in their purchasing intention model. Then, Amblee and Bui (2011) also identified eWOM as a "significant source of social capital capable of predicting shoppers' buying decisions" (p. 107). Similarly, Kim and Srivastava (2007) emphasized the importance of feedback on products and services coming from sources other than the brands. And in e-commercial settings, Grewal, Iyer, and Levy (2004) identified availability of information in the Web 2.0 era as an enabler for transactions.

Less light has been shed however on mobile app reviews. In particular, the importance of mobile app reviews coming from users has been examined and emphasized on. Iacob and Harrison (2011) for example underlined the binary role of such feedback: For consumers, important information on the service/product are made easily available, and developers can at the same time inspire app improvements.

Online reviews, in general, fall under the broader category of eWOM. When referring to user reviews, this type of eWoM is of course more credible, since it is coming from sources other than brands, and - in the context of mobile apps - developers. The lack of focus on user reviews for mobile apps however has been acknowledged in previous studies (e.g. Vasa, Hoon, Mouzakis, & Noguchi, 2012).

Platzer (2011) underlined the importance of eWoM with regards to mobile app feedback, and developed an automatization process to classify those. Her study's goal was to categorize the increasingly growing body of user reviews for mobile apps. Such reviews can also be used by brands and developers to grasp users' needs in terms of updates (Iacob & Harrison, 2013).

Building on the literature around paid mobile apps and consumers' purchase intention in that context, Hsu and Lin (2015) underlined the critical role of user-generated reviews predicting purchase intention. It is thus only natural that developers want to trigger their users to write reviews about their apps, taking into consideration their multifaceted use. Even though the usefulness of mobile apps has been pointed

out in the past, academics have ignored the motives that drive users to write reviews for mobile apps. Therefore, the present study aims to answer the following question:

RQ1: What are the factors influencing consumers' intention to write a mobile app review?

The History of UGC & Mobile App Reviews

Ewing (2009) identified four eras in the fields of marketing communications. The first one refers to the pre-WWII period, an antecedent of mass communication. The second embraces the period from 1950 to 1990, where mass marketing played a significant role in advertising. The third period began in the early 90s and went through to the early 2000s, an era in which marketing specialists started shifting their focus from massive to one-to-one, more direct techniques. The present era, dating back from the year 2005, the last one identified by Ewing (2009), is characterized by Web 2.0 marketing techniques, with mobile technologies and social networks arising.

While traditional systems excluded consumers from the process of value creation, the last few decades people are actively participating in co-creation, which allows for firms to include consumers in (re)adjusting the product/service (Prahalad & Ramaswamy, 2004). Consumers are nowadays more than ever able to contribute to various processes regarding the product, service, or even the brand. Fader and Winer (2012) characterize the beginning of the 21st century as "the era of social commerce".

However, Christodoulides, Jevons and Blackshaw (2011) argue that UGC's roots can be traced back to the 90s: TV-shows broadcasting funny home videos in the past , for example, are not as different from contemporary UGC as one might think. In this sense, they continue, contemporary technological developments have not created or initialized UGC, but have enhanced the visibility and influence of it.

Finally, Ewing (2009) acknowledged five factors influencing consumers' empowerment in creating and sharing content: mobility in devices and omnipresent wireless networks, viral marketing, consumer-generated content, virtual worlds, and finally, co-created brand meaning. Thus, contemporary technological advances have triggered people to make use of the chance of creating content about brands. In sum, while the 20th century provided consumers with cheap products due to massive production, the 21st century offers them the possibility to participate in the creation process (Christodoulides et al., 2012).

One particularly important type of UGC are online consumer reviews, which fall under the broader category of eWoM. Online shopping, for example, can be particularly frustrating and confusing (Kim & Srivastava, 2007), mainly because of the seemingly endless flow of information in the World Wide Web. The perception of social presence and social influence can therefore be of significant importance for a brand's online activities. Park, Lee, and Han (2007) found an effect of both the quality, as well as the number of reviews on purchase intention.

Kim and Srivastava's (2007) notion is equally, or even more applicable to the mobile app industry. In developing a decision making process in e-commerce, they identified five stages: First, consumers recognize their need for a purchase. They move then forward with searching for, and then evaluating information related to the intended purchase. After obtaining a product or service online, the final stage consists of their post-purchase evaluation.

For mobile apps, the decision making process seems to also be highly dependent on user-generated reviews. As an example, Kelley, Cranor, and Sadeh (2013) examined users' privacy perceptions in an app-selection process. Ratings and user reviews were significantly more important, along with costs, for their participants when selecting a mobile app from Google's Play Store or Apple's App Store. According to Vasa et al. (2012), the key role that reviews play can be attributed to the fact that the mobile app landscape is increasingly antagonistic.

Even though research on UGC has focused mainly on individuals' motivations to participate (Christodoulides et al., 2011), some aspects of UGC-related incentives are still to be explored. Summarizing the basic literature on co-creation, Hoyer, Chady, Dorotic, Krafft, and Singh (2010) indicated that, although motives have already been researched for example in the context of co-creation, they still need some attention. Since co-creation requires resources in terms of time, as well as physical and mental effort (Hoyer et al., 2010), it is important to examine the reasons why some individuals are more willing to get involved in UGC than others, as well as why people differ in their intention to create UGC.

More specific to online reviews for mobile apps, it is still unclear what motivates users to provide developers with feedback about their product. Fu et al. (2013) examined why consumers like or dislike an app by using data from actual reviews. Among their general findings from the one million app reviews they examined, they found that more than half of the total were 5-star ratings. Hoon, Vasa, Schneider, and Grundy suggested that developers should pay attention to what users have to say about their apps, and respectively adjust to their needs and requests. These facts make app reviews even more interesting to developers, since most people tend to submit positive reviews or ratings.

Apart from that, eWOM has been identified as having a bigger impact on consumers when being negative, as opposed to being positive (Park & Lee, 2009). Taking this into consideration, it is important for app developers as well to trigger satisfied users to submit reviews, which can then result in further app downloads and purchases. Therefore, the importance of what drives users to submit reviews, as well as whether there are differences across different groups when it comes to their motives in providing feedback to developers is evident.

Motivation in Writing Mobile App Reviews

Krishnamurthy and Dou (2010) supported the view that consumers' motivations in creating UGC are not exclusively monetary. They created a typology of UGC, based on previous studies. According to this, consumer-motivations in UGC are either rational (e.g. sharing knowledge, arguing for an attitude, etc.), or emotional (e.g. making friends, being entertained, etc.). Nevertheless, the present paper uses another perspective on consumers' incentives for creating UGC, and more specifically writing mobile app reviews.

The functional theory, developed by Katz (1960), postulates that people hold attitudes to serve at least one of four personality functions. As defined by Eagly and Chaiken (1993), an attitude is a "psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor" (p.1). Based on Katz's (1960) theory, Daugherty et al. (2008) proposed that there are four sources of motivation for creating UGC: the utilitarian function, the knowledge function, the value expressive function, and the ego-defensive function. Apart from Katz's proposed functions, Daugherty et al. (2008) added the social function to their research, based on Smith's (1973) work.

People driven by utilitarian incentives engage in UGC for personal gains (e.g. rewards) (Daugherty et al., 2008). The utilitarian function of attitudes help people make decisions based on the extent to which they can maximize benefits/rewards, and minimize punishments/costs (Katz, 1960). Thus, the first hypothesis of this paper is:

H1: The Utilitarian function of attitudes positively influences users' intention to write a mobile app review.

Then, the ego-defensive function motivates consumers to protect themselves from both internal fears and external threats (Daugherty et al., 2008). This type of function, initially examined in Freudian psychology according to Katz (1960), protects users from painful truths about themselves.

Russell-Bennett, Härtel, and Worthington (2013, p. 44) defined the ego-defensive function as one "where the attitude serves to protect one either from external threats or internal feelings". This attitudinal function is rather emotional than rational (Katz, 1960). In the context of writing a mobile app review, the following hypothesis has been developed:

H2: The Ego-Defensive function of attitudes positively influences users' intention to write a mobile app review.

The social function of attitudes, in addition, drives consumers in the context of UGC to participate in socially accepted activities, or connect socially with important others (Daugherty et al., 2008). This function may provide a user with a feeling of belongingness or social presence (Clary et al., 1998).

The social function of attitudes has been examined in various contexts, and with different approaches. Herek (1987) looked at this construct as a combination of the

social-adjustive and value-expressive function of attitudes. Similarly, Shavitt and Nelson (2002) claimed that attitudes can serve other purposes from a social point of view as well, like self-expression, and connections to groups. In this paper, nevertheless, the willingness to belong to a bigger group is termed as the social function of attitudes. Accordingly:

H3: The Social function of attitudes positively influences users' intention to write a mobile app.

The value-expressive function from Katz's (1960) model serves consumers by allowing them to "express or relate their self-concepts and values, which enhance one's image in the eyes of the world through matching moral beliefs" (Daugherty et al., 2008, p. 17). Katz's (1960) theory described this construct as one that allows for self-expression, among other things. In the context of the present research, this function has been adjusted and renamed to 'expressive', in that it is believed that users may feel the need to communicate their feelings about an app when writing a review.

In terms of WoM, Anderson (1990) argued that dissatisfied users are more likely to engage in product- or service-related discussions. Verhagen, Nauta, and Feldberg (2013) also supported the view that consumers express themselves in reviewing service providers. Therefore:

H4: The Expressive function of attitudes positively influences users' intention to write a mobile app.

Attitude is also an important predictor of intention in Ajzen's (1988, 1991) Theory of Planned Behavior (TPB). According to TPB, the three predictors of behavioral intention are attitudes, behavioral norms, and perceived behavioral control (Dainton & Zelley, 2004). Cheng, Lam, and Hsu (2006) supported that attitude, norms, and perceived behavioral are antecedents of consumers' intention to engage in negative WoM. The same authors (2005) focused on WoM intention in the context of high end restaurants. Their findings indicated that TPB is applicable to the context of WoM, as attitude, subjective norm, and perceived behavioral control predict intention to engage in negative communications about a service-provider. For that reason, TPB is considered appropriate for the present research.

Daugherty at al. (2008) then argued that a consumer's intention to participate in UGC depends on their attitude towards the UGC experience. They moved on to explain that people are different, and vary therefore in their motivations regarding the creation or consumption of UGC. Daugherty et al. (2008) also found a positive relationship between the consumption of UGC with the attitude towards UGC and the creation of UGC. Additionally, their paper reveals a mediating effect of the attitude towards UGC on "the relationship between the consumption and creation dimensions of UGC" (Daugherty et al., 2008, p. 21).

In the present paper's context, it hypothesized that:

H5: The Attitude towards writing a review for a mobile app positively influences users' intention to write a mobile app.

Moreover, TPB is based on the theory of reasoned action (TRA) developed by Fishbein and Ajzen (1975). They assumed that behaviors are always intentional, which led them to develop the term 'behavioral intention', which is the main construct on which their theory is based. Initially, the theory supported the view that behavioral intention depends on attitudes and behavioral norms (Dainton & Zelley, 2004).

Dainton and Zelley (2004) described attitudes in this context as a person's "sum of beliefs about something" (p. 132). Behavioral norms then are the expectations others set about us with regards to a specific behavior (Dainton & Zelley, 2004). Perceived behavioral control (PBC), then, is the extent to which an individual perceives performing a specific behavior is easy.

PBC has been examined in relation to technology. Venkatesh (2000) argued that control affects a user's perception regarding ease of use in the Technology Acceptance Model. Elie-Dit-Cosaque, Pallud, and Kalika (2011) also pointed out that PBC is an important predictor of actual system adoption in a working environment. Even so, this construct has not been examined in the context of mobile app reviews. Therefore:

H6: Perceived Behavioral Control on writing a review for a mobile app positively influences users' intention to write a mobile app.

Cialdini, Reno, and Kallgren (1990) moved one step further with regards to behavioral norms, termed by them as social norms. Specifically, they broke down the concept of social norms into two types: descriptive social norms (DSN) and injunctive social norms (ISN). DSNs reflect an individual's perception of how most people actually behave in a given situation (Cialdini, 2007). ISN, then, have an effect on an individual when they do what they perceive to be morally acceptable by others (Cialdini, 2007).

According Cialdini et al. (1990), even though both ISN and DSN have a significant effect on one's behavior and intention, this effect of the two types of social norms may vary according to the type of behavior and the context in which the behavior will be performed (Cialdini et al., 1990).

DSN has been examined in various contexts. Cialdini et al. (1990) examined the effects of DSN, and saw participants litter more when they had seen others do the same, and vice versa. Gerber and Rogers (2009) also argued that the perception of others' projected voting behavior affects one's intention to vote. However, Cialdini et al. (2006) found that the descriptive norm lead many people to steal petrified wood from the forest, as a result of the belief that 'others' do so as well. For that reason, DSN is believed to affect behavior not only towards socially desirable outcomes, but also in the opposite direction (Gerber & Rogers, 2009).

Similarly, ISN also has contributed to the knowledge around social influence. For example, gambling has been shown to be related to an individual's perception of

injunctive norms (Larimer & Neighbors, 2003). Similarly, ISN predicted intention to use condoms with steady partners in van Empelen, Schaalma, Kok, and Jansen's (2001) study.

Generally, social influence proved to affect mobile app adoption as well. In a recent qualitative study, Church and de Oliveira (2013) underlined peer adoption and recommendation to be critical in users' acceptance of WhatsApp. Thus:

H7: Descriptive Social Norm positively influences users' intention to write a mobile app.

And:

H8: Injunctive Social Norm positively influences users' intention to write a mobile app.

In total, the present paper focuses on eight constructs as predictors of intention to write a mobile app review: the Utilitarian, Social, Ego-Defensive, and Expressive functions of attitudes, TPB's Perceived Behavioral Control (PBC), Injunctive and Descriptive Social Norms (ISN & DSN), and Attitude Towards Writing a Mobile App Review.

From Katz's typology, the knowledge function of attitudes was excluded due to lack of academic evidence that it predicts intention to create any type of UGC (Daugherty et al., 2008). The Utilitarian, Social and Ego-Defensive functions of attitudes have however been studied and contributed to the predictive power of models regarding intention or attitudes towards creating UGC (Daugherty et al., 2008; Krishnamurthy & Dou, 2010). Social presence, for example, is implied in UGC, and even more so in online user reviews. This is the case both when writing a review, as well as consuming relevant content. That notion extends to both descriptive and injunctive social norm. Finally, TPB's perceived behavioral control and attitude have been confirmed as factors predicting intention, along with injunctive and descriptive social norm, and are thus used here. The applicability of these constructs in the model of this paper is therefore evident.

Hofstede's Dimensions

Segmenting consumers and their incentives to write a review is even more challenging for multinational corporations. With consumers' disposition to trust differing based on their culture among other factors (e.g. Doney, Cannon, & Mullen, 1998), it is important to provide different incentives for different cultural groups.

Culture has been proven to play a significant role in various organizational, as well as individual relationships. Cultural differences have been examined in various contexts. Organizational culture has been seen as an important aspect of organizational identity and image (Hatch & Schultz, 1997). Weick (1987) postulated

that organizational culture could be a source of high reliability. O'Reilly, Chatman, and Caldwell (1991), additionally, examined the importance of congruence between an organization's culture and that of its members. Finally, trust has also been highly associated with several cultural dimensions (e.g. Doney, Cannon, & Mullen, 1998; Huff & Kelley, 2003; Schumann et al., 2010).

In his work on employees in cross-cultural contexts, Hofstede (1983; 1984) developed a framework. This framework was based on the rationale that, in order to define a nation's culture, this nation can be assessed on four dimensions: Individualism versus collectivism, large versus small power distance, strong versus weak uncertainty reduction, and masculinity versus femininity. These dimensions are conceptual continua, that indicate the tension of the members of a culture, which means they are not absolute (Dainton & Zelley, 2004).

Moreover, even though motivations have been examined generally (e.g. Gardner, 1988; Katz, 1960), as well as in the context of UGC (Berthon, Pitt, & Campbell, 2008; Daugherty et al., 2008), little is known about the effects of culture on motivating users to submit a review.

The present paper focuses on one of the aforementioned dimensions. By comparing an individualistic society to a collectivistic society, the aim is to measure the effect of this cultural dimension on the proposed model (see below).

Individualism vs. Collectivism

Individualism refers to the tendency of individuals to care about themselves and people close to them (Hofstede,1984). One of the basic characteristics of individualism is independence (Oyserman, Coon, & Kemmelmeier, 2002), whereas one of collectivism's central concepts is interdependence. Oyserman et al. (2002) argued that individualists assess relationships in terms of gains and losses.

Based on Hoyer et al.'s (2011) notion that UGC requires a person to invest in terms of mental and physical resources, and time, and the fact that individuals motivated by utilitarian incentives focus on personal gains, a connection between the utilitarian function and individualists rather than collectivists is predicted.

Triandis (2001) mentioned autonomy as a characteristic of people in individual cultures. Since collectivists, on the contrary, have the tendency to seek and expect interdependence (Hofstede, 1984), this study postulates a positive relationship between this cultural characteristic and the social function. The social function in UGC is described by Daugherty et al. (2008) as participation in socially accepted activites, and Grewal, Mehta, and Kardes (2000) found a relation between the social-identity function and involvement with a product.

Relevant to WoM, Lam, Lee, and Mizerski (2009) examined the effect of culture on WoM behavior. Their study revealed that there is indeed a relationship between culture and WoM: Individualists tended to not share positive opinions with their in-group. Instead, they preferred to communicate positive feedback to their out-group, possibly by identifying other individualists according to the authors.

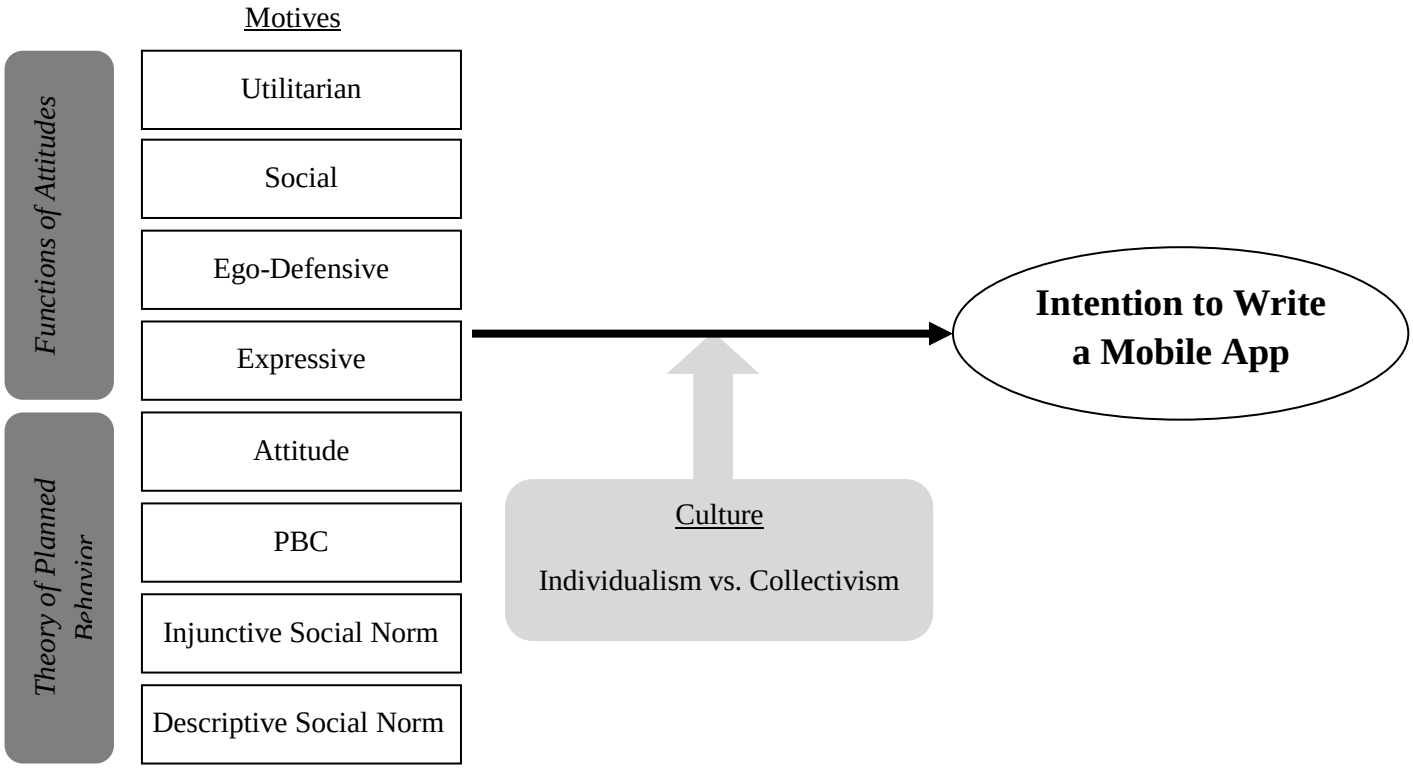
Fong and Burton (2008) also focused their research on cultural differences, and how those affect eWoM behavior. By looking at the individualistic/collectivistic dimension, they examined Chinese and U.S.-national discussion board users. Their findings indicate that individualists, represented by U.S. participants, were more willing to share information than their Chinese counterparts.

Due to the fact that dimension of individualism/collectivism has been examined in the context of WoM, both online and offline, it is considered appropriate to include this cultural facet in this study. To explore whether culture has an effect on intentions in this context, the following secondary research question is addressed:

RQ2: Do factors influencing motivation to write online reviews differ between cultures?

Based on what has been mentioned above, a conceptual model (Figure 1.) was developed to be tested for this study.

Figure 1.



Method

Procedure

In order to address the main research question, and test the hypotheses described above, a survey was created and distributed. Specifically, a questionnaire consisting of at least three items measuring each construct was composed for the purposes of this study. Questionnaires allow for fast distribution and simultaneous completion from participants (Downs & Adrian, 2004), thus reducing time effects. Another factor for choosing the questionnaire as an instrument is that it is one of the most effective means in achieving confidentiality, especially if administered online (Downs & Adrian, 2004). The questionnaire was created in Qualtrics, which is an online platform that allows for the survey to be distributed by means of a link.

People from two countries were chosen to participate based on their cultural dimensions that have been researched in past studies (Hofstede, 1984; Schuhmann et al., 2010; Yoo, Donthu, & Lenartowicz, 2011): Germany as individualistic, and Greece as collectivistic. By selecting participants from these two countries, which have thoroughly been studied on the continuum of collectivism/individualism, it was made sure that the sample would indeed be split in terms of culture.

The survey was distributed online by means of social networks, emails, forums, and eWOM. The World Wide Web (WWW) posits as the most efficient way to collect data from various cultures, as it offers the possibility to collect data from human subjects remotely (Dooley, 2009). This way of collecting data also reassured participants of their responses' anonymity (Downs & Adrian, 2004).

To ensure the nationality of participants, given the lack of control in the cyber-space, all invites to participants sent out underlined the importance of the subjects coming from one of the two selected countries. Nevertheless, participants volunteered to fill out the questionnaire. In that sense, a convenience sampling method was applied, combined with purposive sampling as people were requested to match the nationality requirements to participate (Dooley, 2009).

Before conducting the main survey, a pretest was considered necessary. First, the author's translation of the questionnaire had to be verified by a native speaker from each of the two target countries. Therefore, one German native speaker and one Greek native speaker were asked to translate the questionnaire from English to their native language. Comparisons were made with the author's translation, and disagreements were solved through discussion. This way language effects were minimized.

The second part of the pretest included a small sample of users filling out the survey to confirm its clarity and measure the time needed to do so. The average time for both was approximately eight minutes, and participants in the main study were therefore told that this would be the time required to take part in the study in the introductory part.

Measures

The first part of the questionnaire introduced participants to the study, and reassured them of the confidentiality of their answers. Additionally, a definition of mobile app reviews, as well as examples of mobile software distribution platforms were provided for clarity around the study's context. In total, eight constructs were measured. Individualism was excluded from the survey due to previous data confirming Germans' and Greeks' scores on that cultural dimension (e.g. Hofstede, 1984), with the former representing the individualistic end of the dimension, and the latter the collectivistic side.

After welcoming and thanking the respondents for taking the survey, demographic questions were asked. Those included the participant's age group, their gender, and education level. Additionally, with regards to their relation to mobile apps and reviews thereof, respondents were asked to state whether they had submitted a review for a mobile app within the last six months, and what type of apps they use most. The app types were collected by Google's Play Store and Apple's App Store. Those were matched to each other, and eventually similar categories were merged into a total of eleven categories.

As mentioned in the previous section, the motives that drive users to create UGC, and specifically write a mobile app were measured. To assess the participants' utilitarian function of attitudes (UTF) in that context, items like "Submitting an online review for a mobile app benefits me personally" (Daugherty et al., 2008) were used. Except for that, items were constructed, and adjusted to the current research's purposes. In total, the utilitarian function was measured with five items.

The social function (SOC), then, was measured with four items from Clary, Snyder, Ridge, Miene, and Haugen (1994). In addition to items like "Writing an online review for a mobile app makes me feel part of a community" from Clary et al.'s work (1994), newly formulated sentences were included as well. Four items were used to measure this construct.

Additionally, the ego-defensive function (EGD) was measured with three items like "Writing an online review for a mobile app makes me feel important" from Clary et al.'s work (1998), and subjects stating their degree of agreement in relation to those.

The three items used to measure the expressive function (EXP) were also adopted from one of Clary et al.'s (1994) past studies. Those were adjusted to the research's context. Participants were asked to provide their degree of agreement to statements like "Writing an online review for a mobile app makes me feel important".

Due to the fact that the expressive function was introduced in this paper, all four items used for this construct were self-formulated. People, thus, were asked to provide the extent to which they agreed to statements like "Writing a review enables me to express my frustration about the application" or "…provides me with the opportunity to express my opinion about the app".

To measure perceived behavioral control (PBC), a combination of five self-formulated and previously used items (Netemeyer, Burton, & Johnston, 1991) were employed. Participants were asked to state their agreement with regards to sentences

like “I have control over writing an online review for a mobile app” and “If I wanted to, I could easily write a review for a mobile app”.

Both descriptive social norm (DSN) and injunctive social norm (ISN) were measured with four and three items respectively, including items deriving from White, Smith, Terry, Greenslade, and McKimmie’s paper (2009), as well as newly formulated items. Examples of those are “A lot of people around me write mobile app reviews” (DSN), and “My close social contacts approve of me writing mobile app reviews” (ISN).

All of the above of the proposed model’s independent variables were measured on a five-point Likert scale. Specifically, participants were requested to state the extent to which they agreed to the above sentences, with 1 mirroring “Completely Disagree”, and five standing for “Completely Agree”.

To measure the attitude towards writing a mobile app review (ATT), a five-point semantic differential scale was used. Respondents stated how Pleasant/Unpleasant, Enjoyable/Not Enjoyable, Good/Bad, and Positive/Negative “Writing a review for a mobile app” is to them, based on Daugherty et al.’s (2008), and Moon and Kim’s (2001) previous work.

Finally, similar to the majority of the structures, a five-point Likert scale was used to measure participants’ agreement to self-formulated statements like “I will frequently submit reviews for mobile apps in the future” to measure their intention to write a mobile app review (INT). An overview of the variables measured and the statements used can be found in Table 1.

Factor & Reliability Analysis

Due to the nature of the instrument used, a factor analysis was considered necessary. Since the questionnaire was distributed in each groups’ native languages, the factor analysis was executed separately for each country to control for language effects.

Confirmatory research is appropriate when testing relationships between constructs that have been examined before (Dooley, 2009). According to Suhr (2006), Confirmatory Factor Analysis (CFA), as opposed to Exploratory Factor Analysis (EFA), is useful when prior research and theories support the suggested model to be tested. Due to the fact that the relationship of the independent variables and the target variable has been tested and proven before (e.g. Ajzen, 1991; Daugherty et al., 2008), employing CFA to find underlying constructs that the questionnaire was measuring was considered applicable.

Due to problematic loadings, some items were removed. Complications were caused among other things by the fact that the CFA had to be executed separately per population. Specifically, clear loadings in the Greek population for one construct’s items did not guarantee clear loadings in the German population, and vice versa.

Table 1.

Code	Item	Recoded
UTF1	*Submitting an online review for a mobile app benefits me personally.*	*No*
UTF2	*I can win free app upgrades by writing an online review for a mobile app.*	*No*
UTF3	*Writing on online review for a mobile app is an opportunity to be virtually remunerated (e.g. in-app points, virtual money, etc.).*	*No*
UTF4	*By writing mobile app reviews I have the possibility to receive financial rewards.*	*No*
UTF5	*Writing a mobile app review offers me the possibility to earn free upgrades for that app.*	*No*
SOC1	*Writing an online review for a mobile app makes me feel like a part of a community.*	*No*
SOC2	*Submitting reviews is a good way to interact with people.*	*No*
SOC3	*Contributing to the community by writing an online review for a mobile app is important to me.*	*No*
SOC4	*Writing an online review for a mobile app makes me feel like a part of a community.*	*No*
EGD1	*Writing an online review for a mobile app makes me feel important.*	*No*
EGD2	*My self-esteem is increased when I write a review for a mobile app.*	*No*
EGD3	*Writing an online review for a mobile app makes me feel needed.*	*No*
EXP1	*Writing a review enables me to express my frustration about the application.*	*No*
EXP2	*Writing a review allows me to express my satisfaction about the app.*	*No*
EXP3	*When providing feedback for a mobile app, the review I submit reflects my thoughts and feelings about the app.*	*No*
EXP4	*Writing a review for a mobile app provides me with the opportunity to express my opinion about the app.*	*No*
PBC1	*I have control over writing an online review for a mobile app.*	*No*
PBC2	*For me, writing a mobile app review is easy.*	*No*
PBC3	*If I wanted to, I could easily write a review for a mobile app.*	*No*
PBC4	*It is mostly up to me whether I will submit a mobile app review.*	*No*
PBC5	*Add about time: I have the time to write reviews for mobile apps.*	*No*
DSN1	*A lot of people around me write mobile app reviews.*	*No*
DSN2	*A high percentage of people important to me write online reviews for mobile apps.*	*No*
DSN3	*I believe people around me provide feedback to app developers through reviews.*	*No*
DSN4	*People important to me refrain from writing reviews for mobile apps.*	*Yes*
ISN1	*People who are important to me think that submitting a review is something that I should do.*	*No*
ISN2	*My close social contacts approve of me writing mobile app reviews.*	*No*
ISN3	*People in my close environment expect me to submit online reviews for mobile apps.*	*No*
ATT1	*Writing a review for a mobile app is pleasant/unpleasant.*	*Yes*
ATT2	*Writing a review for a mobile app is enjoyable/not enjoyable.*	*Yes*
ATT3	*Writing a review for a mobile app is good/bad.*	*Yes*
ATT4	*Writing a review for a mobile app is positive/negative.*	*Yes*
INT1	*I will not hesitate writing reviews for mobile applications anytime soon.*	*No*
INT2	*I have a strong inclination to write a review for a mobile application in the coming weeks.*	*No*
INT3	*I do not see any problem in writing a review for a mobile application any time soon.*	*No*
INT4	*I will frequently submit reviews for mobile apps in the future.*	*No*

First, all items of the Social function of attitudes were removed due to scattered loadings and implications with the target construct. Thus, SOC was not included in further analysis. The items for UTF, EGD, and EXP illustrated clear loadings on the same factor for both populations, and thus remained intact.

That was not the case for the rest of the constructs however. Particularly, PBC5, DSN2, DSN4, ISN2, ATT2, and INT2 were removed since they were loading on

multiple factors, or on factors that they were not supposed to measure. Table 2. lists the items and their loadings on factors per country.

Table 2.

Factor Loadings

	Greece								Germany							
Factors	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
UTF1	*.667*								*.487*							
UTF2	*.881*								*.774*							
UTF3	*.772*								*.690*							
UTF4	*.810*								*.755*							
UTF5	*.884*								*.750*							
EGD1			*.879*								*.909*					
EGD2			*.895*								*.858*					
EGD3			*.853*								*.836*					
EXP1		*.805*								*.850*						
EXP2		*.882*								*.880*						
EXP3		*.736*								*.764*						
EXP4		*.784*								*.864*						
PBC1				*.633*								*.702*				
PBC2				*.736*								*.735*				
PBC3				*.803*								*.641*				
PBC4				*.689*								*.731*				
DSN1								*.788*								*.788*
DSN3								*.848*								*.845*
ISN1							*.838*								*.854*	
ISN3							*.751*								*.837*	
ATT1						*.628*								*.680*		
ATT3						*.868*								*.838*		
ATT4						*.816*								*.824*		
INT1					*.820*								*.786*			
INT3					*.797*								*.699*			
INT4					*.638*								*.749*			

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Rotation converged in 7 iterationss

After looking for underlying constructs within the items of measurements, a reliability analysis was considered useful to establish the consistency across items that were labeled to measure the same construct (Dooley, 2009). For that purpose, Cronbach's coefficient alpha was used as a measure to determine how consistent the questionnaire was on an interitem basis. According to Dooley (2009), this is one of the most common method to establish internal reliability. Reliability in multi-item constructs was measured both on a per-population basis, as well as clustered.

Table 3.

Initial Eigenvalues

	Greece			*Germany*		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.289	24.188	24.188	3.450	13.269	13.269
2	3.727	14.336	38.525	5.742	22.085	35.354
3	2.397	9.220	47.745	2.076	7.986	43.340
4	1.767	6.796	54.541	1.969	7.573	50.913
5	1.585	6.098	60.638	1.476	5.675	57.473
6	1.401	5.390	66.029	1.706	6.560	63.148
7	1.095	4.213	70.242	1.058	4.069	67.217
8	.910	3.500	73.742	.893	3.436	70.653

Extraction Method: Principal Component Analysis.

The first two factors, then, explained more than 35% of the variance for both the Greek (38.525) and the German population (35.354). Adding the next two factors to that exceeded 50% of the explained variance in both cases. The last four factors explained less than 20% of the variance. The eigenvalues were higher than 1 for all factors except for number eight. Factor one in the Greek and factor two in the German sample were the only components with an eigenvalue higher than 5. Factor two and three in the Greek sample, and factor one and three in the German sample had the next highest eigenvalues. The remaining factors had an eigenvalue of less than 2, but higher than one in both groups. the detailed list of eigenvalues and the explained variance percentage is displayed in Table 3.

In most cases, the items used proved to be reliable without further intervention. UTF's five items had a reliability coefficient of $\alpha = .871$ and $\alpha = .754$ for the Greek and German group respectively. In both cases, removing any item would not enhance the measures' reliability to a significant extent.

SOC was excluded from the model and further analysis due to implications in the CFA. Hence, the items' reliability was not measured.

EGD's three items were remarkably reliable and consistent across the two national groups. In both cases, the items reached a coefficient of $\alpha = .894$, and removing items would only weaken reliability in this instance. For that reason, no changes were made, and all items were considered for the calculation of the total EGD score.

That was also the case for EXP's items: the items were quite reliable ($\alpha = .867$ for Greeks & $\alpha = .887$ for Germans), and proceeding with less items would not significantly increase reliability of the construct measurement.

For PBC then, the items measuring the construct were reliable enough. In the Greek population, the reliability coefficient was $\alpha = .770$, whereas for the German population it was $\alpha = .714$. Therefore, no items were removed for further analysis.

On the contrary, reliability was not satisfying for the items measuring DSN, especially regarding Greek participants. Specifically, even though the German dataset provided reliable results ($\alpha = .740$), the Greek part did not ($\alpha = .671$). However, given

the fact that this construct was eventually calculated on a two-item basis, it was decided to not remove anything.

In addition, ISN's results during the reliability analysis were similar to EGD's and EXP's items' reliability. In particular, the items illustrated a reliability coefficient of $\alpha = .808$ for the Greek participants, and $\alpha = .819$ for the German participants. On that basis, and as was decided for EGD and EXP, no adjustments were made.

Moreover, the same rationale justifies the decision to leave the three-item ATT-measure untouched. For the Greek group, reliability was $\alpha = .766$, whereas for Germans it was a = .782.

Finally, the measure for INT also provided satisfying reliability: $\alpha = .790$ and $\alpha = .765$ for the Greek and German participants respectively. Removing any of the three remaining items used would reduce the measure's reliability, and therefore this scale remained unaffected as well. A complete overview of the items' correlation and the resulting coefficients of removing them is available in Table 4.

Table 4.

Reliability Analysis (Cronbach's Alpha)

	Greece	Germany
Item	**Item Correlation**	**Item Correlation**
UTF1	*.563*	*.398*
UTF2	*.797*	*.613*
UTF3	*.628*	*.480*
UTF4	*.722*	*.518*
UTF5	*.794*	*.608*
UTFTotal	*.871*	*.754*
EGD1	*.794*	*.834*
EGD2	*.814*	*.765*
EGD3	*.772*	*.780*
EGDTotal	*.894*	*.894*
EXP1	*.706*	*.772*
EXP2	*.785*	*.814*
EXP3	*.638*	*.682*
EXP4	*.759*	*.756*
EXPTotal	*.867*	*.887*
PBC1	*.508*	*.527*
PBC2	*.563*	*.479*
PBC3	*.674*	*.471*
PBC4	*.535*	*.525*
PBCTotal	*.770*	*.714*
DSN1	*.505*	*.587*
DSN3	*.505*	*.587*
DSNTotal	*.671*	*.740*
ISN1	*.679*	*.694*
ISN3	*.679*	*.694*
ISNTotal	*.808*	*.819*
ATT1	*.432*	*.545*
ATT3	*.720*	*.644*
ATT4	*.666*	*.678*
ATTTotal	*.766*	*.782*
INT1	*.693*	*.659*
INT3	*.666*	*.530*
INT4	*.544*	*.610*
INTTotal	*.790*	*.765*

Demographics

The questionnaire was actively distributed for a period of ten days. The total number of participants amounted to 417. In total, 203 Germans and 214 Greeks submitted complete responses to the questionnaire. The dropout rate, defined as the participants who started but did not complete the survey divided by the total number of participants who started it, was 32.5% in total (35% for German participants, 30% for Greeks participants). Due to the nature of contemporary social networks and web-based communication channels, it was not possible to obtain a tangible number for the survey's reach.

In total, 229 (54.9%) female and 188 (45.1) male participants submitted complete responses to the questionnaire. With regards to the participants' age groups, the majority (58%) was 25 - 34 years old, 23.5% was 18 - 24, and 12% belongs to the third age group (35 - 44). Only 66.5% of the participants were at least 45 years old. Therefore, the last two age groups (45 - 54 & 55 or older) were merged (45 or older) for further analysis of the results.

Similar to the participants' age, the majority of the subjects' education level reflects that of the author's. Specifically, 39.1% hold a 4-year Bachelor's degree (or equivalent), and 20.1% a Master's degree. Then, 13.9% hold a Doctoral/PhD degree, which adds to the total of 72.1% of participants who obtained a higher education-degree. To conclude, 10.8% hold a 2-year college or equivalent professional degree, 12% have graduated from some college, 2.6% from High School, and only 0.7% dropped out before reaching their High School graduation. Also, another 0.7% of the respondents indicated they finished a type of education level different than the ones mentioned above ('Other').

The majority of subjects stated they spend their time using Social Networking apps (65.9%). Entertainment and Gaming apps followed (10.3%), whereas 7.9% of users mainly use music apps. The rest of the categories cumulatively collected only 15.8% of the responses.

Finally, one very important demographic is the percentage of users who have submitted a review within the last six months. Specifically, 128 participants, which amounts to 30.7% of the whole, have submitted a mobile app review within the last half a year. This shows that a significant number of users submit mobile app reviews, but also that there is room for improvement for app developers in terms of motivating people to do so. Table 5. summarizes the participants' extended demographic data.

Table 5.

		Country							
		Greece			Germany			Total	
		N	*GR %*	*Total%*	*N*	*DE %*	*Total%*	*N*	*Total%*
	Total	*214*	*100%*	*51%*	*203*	*100%*	*49%*	*417*	*100%*
Gender	*Male*	*91*	*43%*	*22%*	*97*	*48%*	*23%*	*188*	*45%*
	Female	*123*	*57%*	*29%*	*106*	*52%*	*25%*	*229*	*55%*
Age Group	*18 - 24*	*43*	*20%*	*10%*	*55*	*27%*	*13%*	*98*	*24%*
	25 - 34	*129*	*60%*	*31%*	*113*	*56%*	*27%*	*242*	*58%*
	35 - 44	*27*	*13%*	*6%*	*23*	*11%*	*6%*	*50*	*12%*
	45 or more	*15*	*7%*	*3%*	*12*	*6%*	*2%*	*27*	*7%*
Education	*Less than High School*	*0*	*0%*	*0%*	*3*	*1%*	*1%*	*3*	*1%*
	High School	*1*	*0%*	*0%*	*10*	*5%*	*2%*	*11*	*3%*
	Some College	*31*	*14%*	*7%*	*19*	*9%*	*5%*	*50*	*12%*
	2-year College or equivalent professional degree	*8*	*4%*	*2%*	*37*	*18%*	*9%*	*45*	*11%*
	4-year Bachelor's (or equivalent)	*86*	*40%*	*21%*	*77*	*38%*	*18%*	*163*	*39%*
	Master's	*81*	*38%*	*19%*	*3*	*1%*	*1%*	*84*	*20%*
	Doctoral/PhD	*5*	*2%*	*1%*	*53*	*26%*	*13%*	*58*	*14%*
	Other	*2*	*1%*	*0%*	*1*	*0%*	*0%*	*3*	*1%*
App Type	*1. Entertainment/Gaming*	*22*	*10%*	*5%*	*21*	*10%*	*5%*	*43*	*10%*
	2. Social Networking	*143*	*67%*	*34%*	*132*	*65%*	*32%*	*275*	*66%*
	3. Music	*15*	*7%*	*4%*	*18*	*9%*	*4%*	*33*	*8%*
	4. Books/News/Magazine	*7*	*3%*	*2%*	*10*	*5%*	*2%*	*17*	*4%*
	5. Health/Sports	*3*	*1%*	*1%*	*7*	*3%*	*2%*	*10*	*2%*
	6. Shopping	*0*	*0%*	*0%*	*3*	*1%*	*1%*	*3*	*1%*
	7. Utilities/Banking	*11*	*5%*	*3%*	*4*	*2%*	*1%*	*15*	*4%*
	8. Professional	*7*	*3%*	*2%*	*3*	*1%*	*1%*	*10*	*2%*
	9. Lifestyle	*1*	*0%*	*0%*	*1*	*0%*	*0%*	*2*	*0%*
	10. Food & Drink	*1*	*0%*	*0%*	*0*	*0%*	*0%*	*1*	*0%*
	11. Productivity	*4*	*2%*	*1%*	*4*	*2%*	*1%*	*8*	*2%*
Review Submitted Last Six Months	*Yes*	*71*	*33%*	*17%*	*57*	*28%*	*14%*	*128*	*31%*
	No	*143*	*67%*	*34%*	*146*	*72%*	*35%*	*289*	*69%*
	Total	*214*	*100%*	*51%*	*203*	*100%*	*49%*	*417*	*100%*

Results

To analyze the data obtained, specific steps were needed to be taken upfront. First, a factor analysis and reliability analysis was conducted, as described in the previous part of this paper. The factor analysis was employed to ensure that the items intended to measure a construct do indeed measure one construct, and not multiple constructs (Dooley, 2009).

After that, to confirm the constructs' inter-item reliability, and strengthen the questionnaire's reliability, Cronbach's coefficient alpha was calculated for each target construct's items. This method is applicable in cases where items offer three or more options as an answer (Dooley, 2009). Since all scales were used on a five-point basis, measuring the questionnaire's reliability with this method was considered appropriate. Finally, the demographics were examined and analyzed to rearrange the samples into sensible groups, as described above. These steps have been described in the previous section.

After the above steps, the analysis proceeded with regression analyses across the populations, as well as with the pooled version of the data, to test the model. Specifically, to measure whether the proposed model's independent variables can explain variation in the target variable (Dooley, 2009), their correlation was assessed. The rest of this part focuses on correlations and the regression analyses conducted.

Correlations

First, the mean scores and standard deviations were calculated for both samples. This was done without the constructs and items that were excluded in the factor analysis. Thus, included in this part were: UTF, EGD, EXP, PBC, DSN, ISN, ATT, and finally INT as the target construct.

The highest scores were observed in EXP ($\mu = 3.87$), PBC ($\mu = 3.77$), and ATT ($\mu = 3.55$). In those cases, the average indicates that respondents were inclined to agree to the statements. Then, the score for INT ($\mu = 3.00$) and DSN ($\mu = 2.63$) shows neutral agreement/disagreement of the participants. Finally, the subjects inclined to disagree with the statements regarding UTF ($\mu = .2.56$), EGD ($\mu = 2.14$), and ISN ($\mu = 2.23$).

In terms of the spread in the scores, the highest standard deviation was noticed in EGD (std. dev. = .98). Relatively high standard deviations were also observed for UTF (std. dev. = .82), ISN (std. dev. = .88), and INT (std. dev. = .86). Then, the standard deviation for EXP was .76, for PBC .69, for DSN .79, and for ATT .76., whereas there were no notable differences in the variations of the construct scores when examining the two populations separately.

The scores did slightly differ across the two populations. For UTF, the Greeks' participants score was $\mu = 2.45$, and $\mu = 2.68$ for the Germans. The average scores in EGD were also different ($\mu = 2.04$ for Greek participants, and $\mu = 2.24$ for the Germans).The differences in EXP, PBC, DSN, and ISN were very marginal. Greeks had an average score of $\mu = 3.66$ in ATT, as opposed to their German counterparts ($\mu = 3.44$). Finally, even though the average in INT indicates a slight intention to write a

mobile app review for Greeks (μ = 3.25), this is not the case for their German counterparts (μ = 2.74).

No notable differences were observed across the two populations' standard deviations. The extensive descriptive statistics for the scores in the model's variables can be found in Table 6. The correlation analysis was considered necessary to examine the association between the variables, as well as explore the valence in those relationships.

Table 6.

Variable Scores per Country

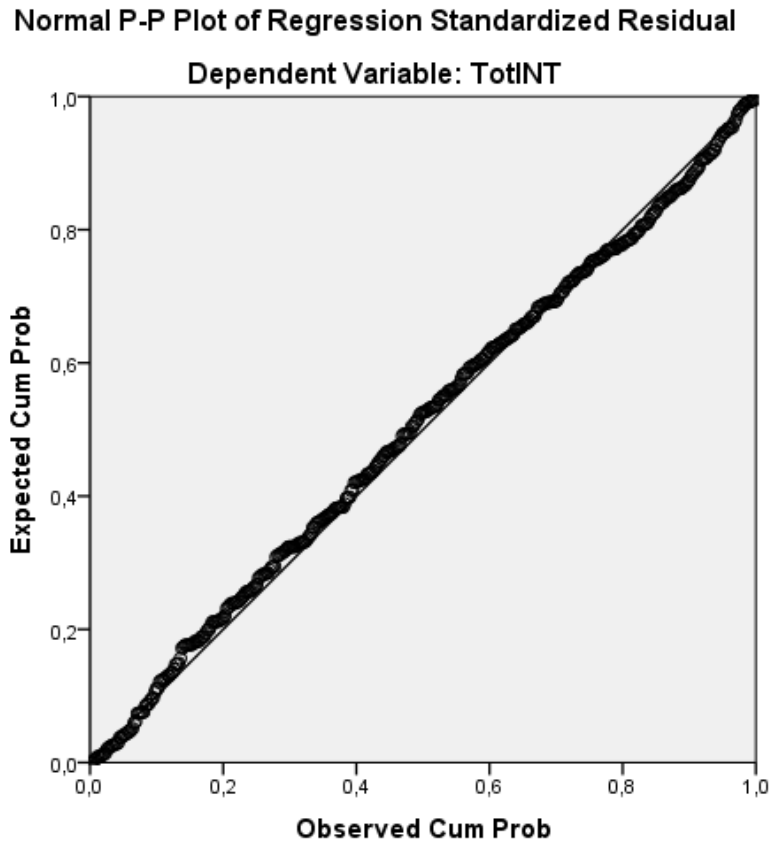
		UTF	EGD	EXP	PBC	DSN	ISN	ATT	INT
Greece	**Mean**	*2.45*	*2.04*	*3.93*	*3.76*	*2.65*	*2.31*	*3.66*	*3.25*
	Std. Deviation	*.84*	*.88*	*.70*	*.69*	*.74*	*.86*	*.73*	*.77*
	Median	*2.40*	*2.00*	*4.00*	*4.00*	*2.50*	*2.50*	*3.67*	*3.33*
	Minimum	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
	Maximum	*4.80*	*4.33*	*5.00*	*5.00*	*4.50*	*5.00*	*5.00*	*5.00*
Germany	**Mean**	*2.68*	*2.24*	*3.81*	*3.78*	*2.61*	*2.13*	*3.44*	*2.74*
	Std. Deviation	*.78*	*1.06*	*.82*	*.69*	*.85*	*.89*	*.79*	*.87*
	Median	*2.60*	*2.00*	*4.00*	*4.00*	*3.00*	*2.00*	*3.33*	*2.67*
	Minimum	*1.00*	*1.00*	*1.00*	*1.25*	*1.00*	*1.00*	*1.00*	*1.00*
	Maximum	*5.00*	*5.00*	*5.00*	*5.00*	*4.00*	*4.50*	*5.00*	*5.00*
Total	**Mean**	*2.56*	*2.14*	*3.87*	*3.77*	*2.63*	*2.23*	*3.55*	*3.00*
	Std. Deviation	*.82*	*.98*	*.76*	*.69*	*.79*	*.88*	*.76*	*.86*
	Median	*2.60*	*2.00*	*4.00*	*4.00*	*3.00*	*2.00*	*3.67*	*3.00*
	Minimum	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
	Maximum	*5.00*	*5.00*	*5.00*	*5.00*	*4.50*	*5.00*	*5.00*	*5.00*

Model Testing

In the last part of the data analysis the proposed model was tested. As described above, during the factor analysis it was decided to remove not only items, but also the SOC variable as a whole from further analysis. Thus, the model was tested with seven independent variables taken into consideration (UTF, EGD, EXP, PBC, DSN, ISN, ATT), and one target variable (INT).

Initially, the correlations across the model's variables were measured. Of course, first it was considered necessary to confirm the linearity of the model, as well as the fact that errors in the measurements were independent. Normality was examined by looking at the unstandardized residuals (Loman & Hans-Vaughn, 2013). Figure 2. illustrates the normality of the distribution, as the values gather across and around the line. Then, as per Fombey and Guilkey's (1978) suggestion, the Durbin-Watson statistic was calculated and was 1.751, which is adequately indicating independent measurements.

Figure 2.



In terms of differences across the two populations, the correlations of INT with the independent variables was examined. As can be seen in Table 8., the correlation of EXP and ATT with INT was similar across the two groups. Remarkably higher correlations with INT are observed in the Greek population in comparison to the German population for PBC ($r = .445$, $p < \alpha = 0.01$ and $r = .172$, $p < \alpha = .05$ respectively) and ISN ($r = .395$, $p < \alpha = .01$ and $r = .281$, $p < \alpha = .01$ respectively). This was not the case for the remaining independent variables. Specifically, for EGD the correlation with INT was $r = .262$ ($p < \alpha = .01$) for German participants, and $r = .194$ ($p < \alpha = .01$) for Greek participants. The same pattern was identified for the correlation between EGD and INT ($r = .298$, $p < \alpha = .01$ for Greece, and $r = .395$, $p < \alpha = .01$ for Germany), and even more so between DSN and INT ($r = .225$, $p < \alpha = .01$ for Greece, and $r = .354$, $p < \alpha = .01$ for Germany).

Table 7.

Correlations (TOTAL)

		UTF	EGD	EXP	PBC	DSN	ISN	ATT	INT
UTF	Pearson Correlation	1							
	Sig. (2-tailed)								
EGD	Pearson Correlation	**,258****	1						
	Sig. (2-tailed)	,000							
EXP	Pearson Correlation	,079	**,172****	1					
	Sig. (2-tailed)	,109	,000						
PBC	Pearson Correlation	,014	,061	**,411****	1				
	Sig. (2-tailed)	,775	,213	,000					
DSN	Pearson Correlation	**,171****	**,201****	,079	,094	1			
	Sig. (2-tailed)	,000	,000	,106	,056				
ISN	Pearson Correlation	**,231****	**,324****	,060	,057	**,436****	1		
	Sig. (2-tailed)	,000	,000	,225	,244	,000			
ATT	Pearson Correlation	**,195****	**,281****	**,318****	**,244****	**,139****	**,160****	1	
	Sig. (2-tailed)	,000	,000	,000	,000	,004	,001		
INT	Pearson Correlation	**,172****	**,303****	**,337****	**,286****	**,290****	**,349****	**,445****	1
	Sig. (2-tailed)	,000	,000	,000	,000	,000	,000	,000	
	N	417	417	417	417	417	417	417	417

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

Then, the model could explain an important percentage of the variation, especially when examining the populations as separate cases. Specifically, 34 % of the variation in the dependent variable can be explained by the model with the two samples clustered. However, the prediction goes up to 38.7% for the Greek population and 36.8% for the German population when analyzed separately (Table 9.). The model summary also reveals that

Table 8.

Correlations (Greece & Germany)

	Country	UTF	EGD	EXP	PBC	DSN	ISN	ATT	INT
UTF	Greece	1							
	Germany	1							
EGD	Greece	**,237****	1						
	Germany	**,260****	1						
EXP	Greece	,071	**,171***	1					
	Germany	,114	**,192****	1					
PBC	Greece	,028	,076	**,487****	1				
	Germany	-,006	,046	**,351****	1				
DSN	Greece	**,175***	**,154***	**,136***	**,161***	1			
	Germany	**,180***	**,243****	,032	,032	1			
ISN	Greece	**,225****	**,438****	**,143***	,097	**,377****	1		
	Germany	**,278****	**,256****	-,028	,020	**,490****	1		
ATT	Greece	**,201****	**,235****	**,379****	**,301****	,094	**,216****	1	
	Germany	**,240****	**,354****	**,254****	**,198****	**,174***	,083	1	
INT	Greece	**,194****	**,298****	**,347****	**,445****	**,225****	**,395****	**,409****	1
	Germany	**,262****	**,395****	**,312****	**,172***	**,354****	**,281****	**,443****	1

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

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

Table 9.

Model Summary[b]

Country	Adjusted R Square	Std. Error of the Estimate
Total	,340	,17402
Greece	,387	,366
Germany	,368	,345

a. Predictors: (Constant), ATT, DSN, UTF, PBC, EGD, EXP, ISN

b. Dependent Variable: INT

Additionally, the analysis revealed that some variables are considered predictors of the target variable (INT). Specifically, the model's regression analysis for the Greek population (r^2 = .387, F = 18.598, $p < \alpha = .05$) and the German population (r^2 = .368, F = 16.191, $p < \alpha = .05$) confirmed that for both cases. The linear regression line, then, for the Greek data is:

$$INT = 0.006 + 0.053*UTF + 0,077*EGD + 0.061*EXP + 0.355*PBC + 0.030*DSN + 0.222*ISN + 0.213*ATT$$

and for the German counterpart:

$$INT = -0.102 + 0.075*UTF + 0.140*EGD + 0.199*EXP + 0.047*PBC + 0.199*DSN + 0.103*ISN + 0.295*ATT$$

Table 10.

Regression Coefficients

Country		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
Greece	(Constant)	.006	.057		.111	.911
	UTF	.053	.052	.058	1.011	.313
	EGD	.077	.054	.089	1.430	.154
	EXP	.061	.072	.056	.850	.396
	PBC	**.355**	**.071**	**.320**	**5.036**	**.000**
	DSN	.030	.062	.028	.474	.636
	ISN	**.222**	**.058**	**.250**	**3.821**	**.000**
	ATT	**.213**	**.065**	**.202**	**3.272**	**.001**
Germany	(Constant)	-.102	.068		-1.511	.132
	UTF	.075	.068	.068	1.094	.275
	EGD	**.140**	**.053**	**.171**	**2.660**	**.008**
	EXP	**.199**	**.067**	**.187**	**2.971**	**.003**
	PBC	.047	.078	.037	.598	.551
	DSN	**.199**	**.068**	**.195**	**2.935**	**.004**
	ISN	.103	.066	.105	1.547	.124
	ATT	**.295**	**.070**	**.268**	**4.193**	**.000**

a. Dependent Variable: INT

In Table 10. it is clear that the demographic variable 'Country' moderates the role of the independent variables in the model. Specifically, in the Greek condition, the independent variables who are statistically significant predictors of INT are PBC, ISN, and ATT. That is not the case for the Germans however. In that case, EGD, EXP, DSN, and ATT are predictors of the model's independent variable. The revised model for the Greek and German population is depicted in Figure 3. and Figure 4. respectively.

Figure 3.

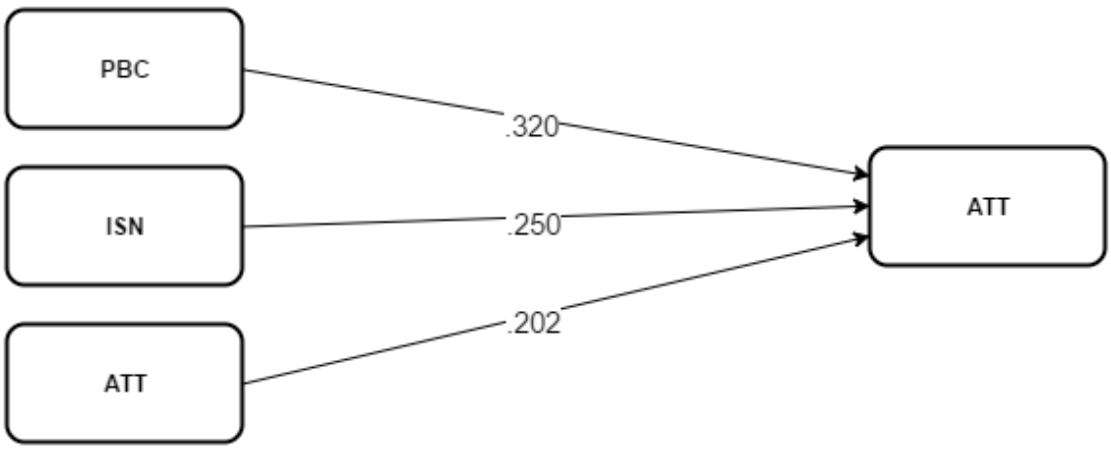
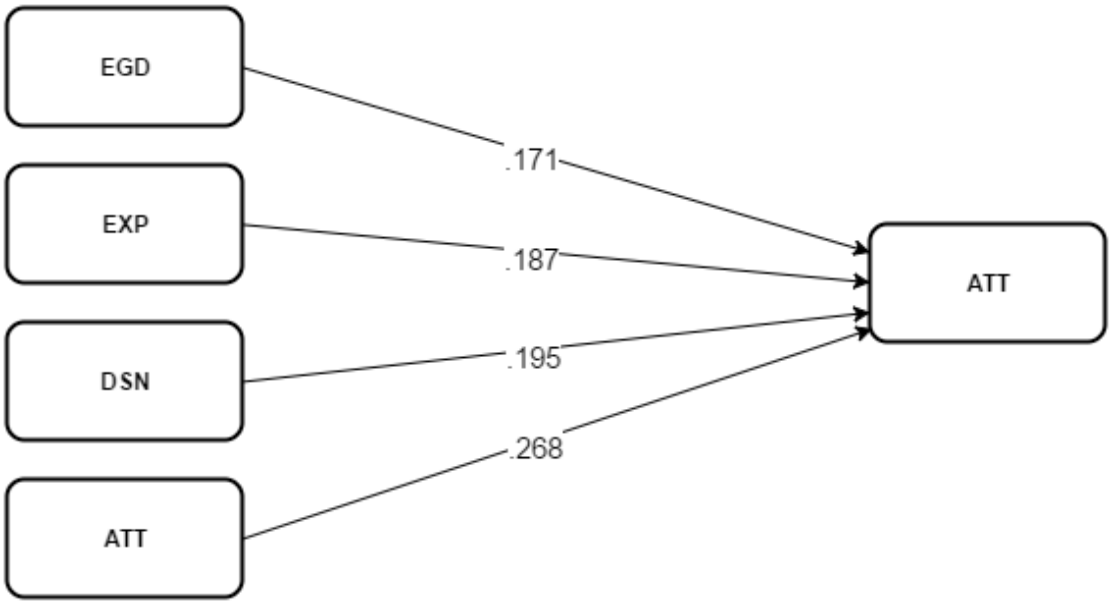


Figure 4.



Discussion

The present paper aimed at providing clarification around the motivations that drive users to submit mobile app reviews. In addition to that, cultural effects on the proposed model were examined.

Then, the demographic data collected revealed some interesting facts. Out of a total of 417 participants, 31% had submitted a review for a mobile app within six months prior to taking part in the survey. This is an important statistic, and shows the high percentage of people who engage in eWoM not only as observers, but also as actors.

Moreover, differences in construct scores across populations were significant for UTF, EGD, ISN, ATT, and INT. Greek participants scored remarkably higher in ISN, ATT, and INT, whereas German participants had higher score in UTF and EGD. In terms of the users who had submitted a review within the last six months versus those who had not, significantly different mean scores were observed for one construct in EGD, EXP, PBC, DSN, ISI, ATT, and INT. Impressive is the fact that gender also played a role, in that female participants had significantly lower scores in PBC than male participants. This translates into an effect of gender on how easy female participants perceive submitting a review is.

Regarding the variables now, it is also important to point out that the model was tested twice to make comparisons between Greek and German participants. Significant correlations were observed between INT and all the independent variables. The independent variables explained an important degree of the variation observed in the dependent variable. That was the case for both populations. What is of interest though, and answers RQ2, is that culture, reflected in this study in the selection of the two countries, did play a moderating role in the model.

Even though *H2* was not tested, due to the fact that SOC was removed from further analysis, and *H1* could not be confirmed, due to the lack of statistically significant effects of UTF on INT, the rest of the hypotheses can be confirmed. In particular, *H3*, *H4*, *H5*, *H6*, *H7*, *H8*, were confirmed by the data. Significant correlations emerged for both populations, as well as the pooled dataset, for all of the model's predictors except for UTF and SOC.

To be more specific, in the Greek condition, PBC, ISN, and ATT were statistically significant predictors of INT. For the German sample, INT was statistically significantly predicted by EGD, EXP, DSN, and ATT. UTF did not predict INT in either condition.

In line with previous studies, the model found statistical support for most independent variables. Daugherty et al. (2008) also found relationships between the ego-defensive, the social, and the value-expressive function of attitudes, with participation in UGC. In line with that work, there was no support for UTF as a predictor of intention to write a mobile app in this paper either. This may be explained by the fact that users possibly do not perceive that there will be an actual reward when writing a mobile app review. Instead, the remaining constructs in the model may as well be perceived as being rewards themselves. Even though UTF was clearly defined

in the items used to measure that construct, participants may have had difficulties connecting that to tangible rewards in writing mobile app reviews.

Another important finding of the study is that PBC was a predictor of INT for the Greek part, but not for the German participants. In terms of culture, individualists seem to value freedom of choice (Oyserman et al., 2002). Since PBC focuses on external factors affecting a person's behaviour, the individualistic nature of the German participants, emphasizing freedom of choice, may explain why PBC was not a significant predictor in their case as opposed to the Greek sample.

The expressive function of attitudes then postulates that people hold attitudes to "express or relate their self-concepts and values, which enhance one's image in the eyes of the world through matching moral beliefs" (Daugherty et al., 2008, p. 17). In line with past research, the results indicate that Germans do write mobile apps to express themselves, whereas the data did not confirm this for the Greek part. Accordingly, Fong and Burton's study (2008) revealed that individualists were more willing to express themselves to others in comparison to collectivists.

On the contrary, collectivists express themselves in a more limited way, especially when it comes to personal feelings (Oyserman et al., 2002). In Daugherty et al.'s work (2008), the expressive function was defined as one that allows "people to express or relate their self-concepts and values, which enhance one's image" (p.17). This is applicable to individualistic cultures, with members prioritizing themselves over the whole.

Accordingly, EGD serves an individual's self-image (Daugherty et al., 2008). In individualistic societies, autonomy is prevalent (Triandis, 2001), and for units prioritizing the protection of the self-image is prevalent (Oyserman et al., 2002). For collectivists, on the other side, relationships rather than the self is of importance. This seems to be able to explain why Greeks, as a collectivistic society, were not motivated by the ego-defensive function of attitudes, as opposed to their German counterparts.

Even though ISN and DSN are often examined as one construct, that is social influence (e.g. Daugherty et al., 2008), the present paper approached the two constructs separately. The findings support this decision.

Specifically, for the Greek part, ISN proved to be an important predictor of intention to write a review for a mobile app. This can be explained by the cultural aspect of individualism/collectivism considered in this paper. Collectivists generally depend on others, and adjust their behavior to social norms (Triandis, 2001). For that reason, the fact that the Greek, collectivistic sample is affected by what they perceive others to consider 'acceptable behavior', it is logical to argue that this type of social influence has a significant effect on intention to behave in a certain way in the collectivistic condition. However, this is not applicable to individualistic societies.

Interestingly enough, even though DSN and ISN have similarities in their effects on intention and actual behaviour (e.g. Cialdini et al., 2006), the results were quite different for the two cultures in this study. The results indicate that Germans are affected by the actual behaviour of others. In contrast, DSN was not a predictor of INT in the context of writing mobile app reviews for Greeks.

Finally, regarding the analysis conducted, two points have to be pinpointed. First, the reliability analysis revealed that some of the questionnaire's items were loading on factors that they were not intended to measure. This lead to adjustments in the model, that is SOC was removed, and numerous items were not included in the calculation of the variables' scores.

In addition to that, a confirmatory factor analysis was employed to find underlying structures in the model's variables. The reason for that is the fact that relationships across the dependent and the independent variables have been examined in past studies. Nevertheless, this is a slight implication on the study's reliability and validity.

Second, to ensure the validity of the measurements, a pretest was conducted. The fact that the questionnaire was translated into the target languages by an independent observer supports the measurement's content validity by controlling for language effects.

The reliability analysis was conducted after the factor analysis. Only the remaining items were considered in that part. The analysis revealed that all measures were reliable. This was expected however to some degree, given the fact that most scales included at least one item from previous studies.

Conclusion

Implications for Researchers

This study provides a general outline on the motivations that lead users to submit reviews. In addition to that, it was also important to point out that culture did indeed affect the relationships between the independent and the dependent variables. However, some light has been shed on motivations in creating any type of UGC, as well as writing mobile app reviews. Effects of culture on the proposed model were also observed.

The model suggests that EGD, EXP, PBC. DSN, ISN, and ATT predict INT. However, the participants' country of origin moderates those effects. In the Greek group, PBC, ISN, and ATT played an important role in predicting intention to write a mobile app. For the German part, EGD, EXP, DSN, and ATT were important predictors of INT.

Finally, taking into consideration that UTF is not a significant predictor, the model confirms Krishnamurthy and Dou's (2010) are not only driven by monetary motives when creating UGC. In addition to that, Daugherty et al.'s (2008) study also failed to prove a positive relationship between UTF and a participant's attitude towards UGC creation.

Implications for Practice

Apart from the academic implications, this research can provide insights to developers on how to convince users to submit a review. What is important here is the fact that UTF does not predict intention to submit a mobile app review. This could as well be used by marketers and/or developers to avoid (virtually) remunerating users for providing feedback. Instead, such resources can be allocated elsewhere.

Moreover, marketers and developers need to focus on the culture of their target group. Individualistic countries seem to value more what others actually do. Communicating to users what their social circle is actually doing in terms of mobile app reviews might be effective in convincing users to submit reviews themselves as well.

Accordingly, individualists seem to be more willing to express their feelings (Oyserman et al., 2002). This was not the case for the Greek, collectivistic group of participants. Therefore, it makes sense to motivate the former to express themselves, as opposed using that function to trigger behaviour in the latter.

Finally, for the Greek participants, ISN and PBC were significant predictors, apart from ATT, for INT. Even though attitude and injunctive social norms is not something that can be massively influenced by developers, perceived behavioural control is something they should look out to enhance. This can be done by making submitting a mobile app review while using a mobile app as user-friendly and simple as possible. Based on the findings, this should have an effect on users' intention to write a mobile app review in collectivistic countries.

Limitations & Future Research

With regards to future research, knowledge on motivations to write a mobile app reviews is still limited. In order to fully understand what makes users provide feedback to app developers, it would be highly beneficial to invest in exploratory, qualitative research. Moreover, since the proposed model explained only some of the independent variable's variation, it is important to find how the intention to write a mobile is affected by further variables.

Another important aspect to consider are the differences in the effects of social norms per cultural group. The fact that two groups are influenced by social norms in a different way needs to be further looked into in the context of eWoM.

Then, the present study did not measure the participants' culture, but rather relied on past research to group the respondents, due to limited resources. Even though differences between the two groups were indeed identified, it is not possible to clearly indicate the causal relationship between individualism/collectivism and the differences observed. Moreover, including more cultural dimensions would also be of interest, especially to marketers.

Even though the questionnaire in this study was pretested, and it was attempted to minimize the error by various means, the results should be approached with caution. To begin with, the sampling method applied (purposive & convenience) makes the study vulnerable to bias effects. However, it is important to note that

comparing the results to other studies with similar results (e.g. Daugherty et al., 2008) enhances confidence in the findings observed.

Finally, this paper only considered one cultural dimension. In order to clearly understand the effects of culture on motivations in writing a mobile app review, future studies should look into this type of research in order to optimize processes around mobile app reviews.

References

Ajzen. I. (1988). *Attitudes, personality, and behavior*. Chicago, IL: The Dorsey Press.

Ajzen. I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes, 50*(2). 179-211.

Amblee. N., & Bui, T. (2011). Harnessing the influence of social proof in online shopping: The effect of electronic word of mouth on sales of digital microproducts. *International Journal of Electronic Commerce, 16*(2). 91-114.

Anderson, E. W. (1998). Customer satisfaction and word of mouth. *Journal of service research, 1*(1), 5-17.

Balasubramaniam, N. (2009). User-generated content. In *Proceedings of business aspects of the internet of things, seminar of advanced topics* (pp. 28-33). Zurich: ETH.

Berthon. P.R., Pitt. L. F., & Campbell. C. (2008). Ad Lib: When Consumers Create the Ad. *California Management Review, 50*(4). 6-30. doi:10.2307/41166454

Bruner. G. C., James. K. E., & Hensel. P. J. (2000). *Marketing Scales Handbook: A Completion of Multi-Item Measures*. Vol. III. Chicago, IL: American Marketing Association.

Chen, Y., & Xie, J. (2008). Online consumer review: Word-of-mouth as a new element of marketing communication mix. *Management Science, 54*(3), 477-491.

Cheng, S., Lam, T., & Hsu, C. H. (2005). Testing the sufficiency of the theory of planned behavior: A case of customer dissatisfaction responses in restaurants. *International Journal of Hospitality Management*, *24*(4), 475-492.

Cheng, S., Lam, T., & Hsu, C. H. (2006). Negative word-of-mouth communication intention: an application of the theory of planned behavior.*Journal of Hospitality & Tourism Research, 30*(1), 95-116.

Christodoulides, G., Jevons, C., & Blackshaw, P. (2011). The voice of the consumer speaks forcefully in brand identity. *Journal of Advertising Research, 51*(1 50th Anniversary Supplement), 101-111.

Christodoulides, G., Jevons, C., & Bonhomme, J. (2012). Memo to marketers: Quantitative evidence for change. *Journal of advertising research*, *52*(1), 53-64.

Church, K., & de Oliveira, R. (2013, August). What's up with whatsapp?: comparing mobile instant messaging behaviors with traditional SMS. In*Proceedings of the 15th international conference on Human-computer interaction with mobile devices and services* (pp. 352-361). ACM.

Cialdini, R. B. (2007). Descriptive social norms as underappreciated sources of social control. *Psychometrika*, *72*(2), 263-268.

Cialdini, R. B., Demaine, L. J., Sagarin, B. J., Barrett, D. W., Rhoads, K., & Winter, P. L. (2006). Managing social norms for persuasive impact. *Social influence*, *1*(1), 3-15.

Cialdini, R. B., Reno, R. R., & Kallgren, C. A. (1990). A focus theory of normative conduct: recycling the concept of norms to reduce littering in public places. *Journal of personality and social psychology*, *58*(6), 1015. doi:10.1037/0022-3514.58.6.1015

Clary, E. G., Snyder, M., Ridge, R. D., Miene, P. K., & Haugen, J. A. (1994). Matching messages to motives in persuasion: A functional approach to promoting Volunteerism1. *Journal of Applied Social Psychology*, *24*(13), 1129-1146. doi:10.1111/j.1559-1816.1994.tb01548.x

Clary, E. G., Snyder, M., Ridge, R. D., Copeland, J., Stukas, A. A., Haugen, J., & Miene, P. (1998). Understanding and assessing the motivations of volunteers: a functional approach. *Journal of personality and social psychology*, *74*(6), 1516.

Constantinides, E., Romero, C. L., & Boria, M. A. G. (2008). Social media: a new frontier for retailers?. In *European Retail Research* (pp. 1-28). Gabler Verlag. doi:10.1007/978-3-8349-8099-1_1

Dainton, M., & Zelley, E. D. (2014). *Applying communication theory for professional life: A practical introduction*. Sage publications.

Daugherty, T., Eastin, M. S., & Bright, L. (2008). Exploring consumer motivations for creating user-generated content. *Journal of Interactive Advertising*, *8*(2), 16-25. doi:10.1080/15252019.2008.10722139

Dellarocas, C. (2003). The digitization of word of mouth: Promise and challenges of online feedback mechanisms. *Management science*, *49*(10), 1407-1424.

Doney. P. M., Cannon. J. P., & Mullen. M. R. (1998). Understanding the Influence of National Culture on the Development of Trust. *The Academy of Management Review*, *23*(3). 601-620. doi:10.5465/AMR.1998.926629

Dooley. D. (2009). *Social research methods*. Essex, UK: Pearson Education Limited.

Downs. C. W., & Adrian. A. D. (2004). *Assessing organizational communication: Strategic communication audits*. New York: The Guilford Press.

Duan, W., Gu, B., & Whinston, A. B. (2008). Do online reviews matter?—An empirical investigation of panel data. *Decision support systems*, *45*(4), 1007-1016.

Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Harcourt Brace Jovanovich College Publishers.

Elie-Dit-Cosaque, C., Pallud, J., & Kalika, M. (2011). The influence of individual, contextual, and social factors on perceived behavioral control of information technology: A field theory approach. *Journal of Management Information Systems*, *28*(3), 201-234.

Ellison, G., & Fudenberg, D. (1995). Word-of-mouth communication and social learning. *The Quarterly Journal of Economics*, 93-125.

Ewing, M. T. (2009). Integrated marketing communications measurement and evaluation. *Journal of Marketing Communications*, *15*(2-3), 103-117. doi: 10.1080/13527260902757514

Fader, P. S., & Winer, R. S. (2012). Introduction to the special issue on the emergence and impact of user-generated content. *Marketing Science*, *31*(3), 369-371. doi:10.1287/mksc.1120.0715

Fishbein, M. (1975). i Ajzen, I.(1975). Belief, Attitude, Intention, and Behaviour: An Introduction to Theory and Research. Reading, MA: Addison-Wesley.

Fomby, T. B., & Guilkey, D. K. (1978). On choosing the optimal level of significance for the Durbin-Watson test and the Bayesian alternative. *Journal of Econometrics*, *8*(2), 203-213.

Fu, B., Lin, J., Li, L., Faloutsos, C., Hong, J., & Sadeh, N. (2013, August). Why people hate your app: Making sense of user feedback in a mobile app store. In *Proceedings of the 19th ACM SIGKDD international conference on Knowledge discovery and data mining* (pp. 1276-1284). ACM.

Gardner. R. C. (1988). Attitudes and Motivation [Abstract]. *Annual Review of Applied Linguistics, 9*. 135-148. Abstract retrieved from http://journals.cambridge.org

Grewal, D., Iyer, G. R., & Levy, M. (2004). Internet retailing: enablers, limiters and market consequences. *Journal of Business Research*, *57*(7), 703-713.

Gerber, A. S., & Rogers, T. (2009). Descriptive social norms and motivation to vote: Everybody's voting and so should you. *The Journal of Politics*,*71*(01), 178-191.

Grewal, R., Mehta, R., & Kardes, F. R. (2000). The role of the social-identity function of attitudes in consumer innovativeness and opinion leadership.*Journal of Economic Psychology*, *21*(3), 233-252. doi:10.1016/S0167-4870(00)00003-9

Hatch, M. J., & Schultz, M. (1997). Relations between organizational culture, identity and image. *European Journal of marketing*, *31*(5/6), 356-365. doi:10.1108 /eb060636

Herek, G. M. (1987). Can functions be measured? A new perspective on the functional approach to attitudes. *Social Psychology Quarterly*, 285-303.

Hofstede, G. (1983). The cultural relativity of organizational practices and theories. *Journal of international business studies*, 75-89. Retrieved from http://im.univie.ac.at/fileadmin/user_upload/proj_windsperger/KFK/KfK/CountryCulture.pdf

Hofstede, G. (1984). Cultural dimensions in management and planning. *Asia Pacific journal of management*, *1*(2), 81-99. doi:10.1007/BF01733682

Hoon, L., Vasa, R., Schneider, J. G., & Grundy, J. (2013). An analysis of the mobile app review landscape: trends and implications. *Faculty of Information and Communication Technologies, Swinburne University of Technology, Tech. Rep*.

Hoyer, W. D., Chandy, R., Dorotic, M., Krafft, M., & Singh, S. S. (2010). Consumer cocreation in new product development. *Journal of Service Research*, *13*(3), 283-296. doi:10.1177/1094670510375604

Hsu, C. L., & Lin, J. C. C. (2015). What drives purchase intention for paid mobile apps?–An expectation confirmation model with perceived value.*Electronic Commerce Research and Applications*, *14*(1), 46-57.

Huff, L., & Kelley, L. (2003). Levels of organizational trust in individualist versus collectivist societies: A seven-nation study. *Organization Science*,*14*(1), 81-90. doi:10.1287/orsc.14.1.81.12807

Iacob, C., & Harrison, R. (2013, May). Retrieving and analyzing mobile apps feature requests from online reviews. In *Mining Software Repositories (MSR), 2013 10th IEEE Working Conference on* (pp. 41-44). IEEE.

Katz, D. (1960). The functional approach to the study of attitudes. *Public opinion quarterly*, *24*(2), 163-204. doi:10.1086/266945

Katz. E., & Lazarsfeld. P. F. (1955). *Personal Influence. The part played by people in the flow of mass communications*. Transaction Publishers.

Kelley, P. G., Cranor, L. F., & Sadeh, N. (2013, April). Privacy as part of the app decision-making process. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (pp. 3393-3402). ACM.

Kim, Y., & Srivastava, J. (2007, August). Impact of social influence in e-commerce decision making. In *Proceedings of the ninth international conference on Electronic commerce* (pp. 293-302). ACM. doi:10.1145/1282100.1282157

Krishnamurthy, S., & Dou, W. (2008). Note from special issue editors: advertising with user-generated content: a framework and research agenda.*Journal of Interactive Advertising*, *8*(2), 1-4.

Lam, D., Lee, A., & Mizerski, R. (2009). The effects of cultural values in word-of-mouth communication. *Journal of International Marketing*, *17*(3), 55-70.

Fong, J., & Burton, S. (2008). A cross-cultural comparison of electronic word-of-mouth and country-of-origin effects. *Journal of Business Research*,*61*(3), 233-242.

Larimer, M. E., & Neighbors, C. (2003). Normative misperception and the impact of descriptive and injunctive norms on college student gambling.*Psychology of Addictive Behaviors*, *17*(3), 235.

Lomax, R. G., & Hahs-Vaughn, D. L. (2013). *An introduction to statistical concepts*. Routledge.

Netemeyer, R. G., Burton, S., & Johnston, M. (1991). A comparison of two models for the prediction of volitional and goal-directed behaviors: A confirmatory analysis approach. *Social Psychology Quarterly*, 87-100.

O'Reilly, C. A., Chatman, J., & Caldwell, D. F. (1991). People and organizational culture: A profile comparison approach to assessing person-organization

fit. *Academy of management journal*, *34*(3), 487-516. 487-516. doi:10.2307/256404

Oyserman, D., Coon, H. M., & Kemmelmeier, M. (2002). Rethinking individualism and collectivism: evaluation of theoretical assumptions and meta-analyses. *Psychological bulletin*, *128*(1), 3. doi: 10.1037//0033-2909.128.1.3

Park, C., & Lee, T. M. (2009). Information direction, website reputation and eWOM effect: A moderating role of product type. *Journal of Business research*, *62*(1), 61-67.

Park, D. H., Lee, J., & Han, I. (2007). The effect of on-line consumer reviews on consumer purchasing intention: The moderating role of involvement.*International Journal of Electronic Commerce*, *11*(4), 125-148. DOI**:**10.2753/JEC1086-4415110405

Platzer. E. (2011). Opportunities of automated motive-based user review analysis in the context of mobile app acceptance. *Proc. CECIIS*, 309-316.

Prahalad, C. K., & Ramaswamy, V. (2004). Co-creation experiences: The next practice in value creation. *Journal of interactive marketing*, *18*(3), 5-14. doi: 10.1002/dir.20015

Riegner, C. (2007). Word of mouth on the web: The impact of Web 2.0 on consumer purchase decisions. *Journal of advertising research*, *47*(4), 436-447.

Russell-Bennett, R., Härtel, C. E., & Worthington, S. (2013). Exploring a functional approach to attitudinal brand loyalty. *Australasian Marketing Journal (AMJ)*, *21*(1), 43-51.

Schumann, J. H., von Wangenheim, F., Stringfellow, A., Yang, Z., Praxmarer, S., Jimenez, F. R., ... & Komor, M. (2010). Drivers of trust in relational service exchange: understanding the importance of cross-cultural differences. *Journal of Service Research*. 453-468. doi:10.1177/1094670510368425

Shavitt, S., & Nelson, M. R. (2002). The role of attitude functions in persuasion and social judgment. *The persuasion handbook: Developments in theory and practice*, 137-153.

Smith, M.B. (1973). Handbook of Political Psychology. J. N. Knutson (ed.). *Political Attitudes* (pp. 57-82). San Francisco: Jossey-Bass.

Suhr, D. D. (2006). *Exploratory or confirmatory factor analysis?* (pp. 1-17). Cary: SAS Institute.

Triandis. H. C.(2001). Individualism-collectivism and personality. *Journal of Personality*, *69*, 907–924. doi:10.1111/1467-6494.696169

Triandis. H. C., & Gelfland. M. J. (1998). Converging measurement of horizontal and vertical individualism and collectivism. *Journal of Personality and Social Psychology*, *74*, 118-128. doi:10.1037/0022-3514.74.1.118

Triandis, H. C., McCusker, C., & Hui, C. H. (1990). Multimethod probes of individualism and collectivism. *Journal of personality and social psychology*, *59*(5), 1006. doi:10.1037/0022-3514.59.5.1006

Van Empelen, P., Schaalma, H. P., Kok, G., & Jansen, M. W. (2001). Predicting condom use with casual and steady sex partners among drug users. *Health Education Research*, *16*(3), 293-305.

Vasa, R., Hoon, L., Mouzakis, K., & Noguchi, A. (2012, November). A preliminary analysis of mobile app user reviews. In *Proceedings of the 24th Australian Computer-Human Interaction Conference* (pp. 241-244). ACM.

Venkatesh, V. (2000). Determinants of perceived ease of use: Integrating control, intrinsic motivation, and emotion into the technology acceptance model. *Information systems research*, *11*(4), 342-365.

Verhagen, T., Nauta, A., & Feldberg, F. (2013). Negative online word-of-mouth: Behavioral indicator or emotional release?. *Computers in Human Behavior*, *29*(4), 1430-1440.

Weick, K. E. (1987). Organizational culture as a source of high reliability.*California management review*, *29*(2), 112-127. Retrieved from http://www.itn.liu.se/mit/education/courses/tnfl05-risk-och-olycksanalys/vecka-48/1.305709/Weick1987.pdf

White, K. M., Smith, J. R., Terry, D. J., Greenslade, J. H., & McKimmie, B. M. (2009). Social influence in the theory of planned behaviour: The role of descriptive, injunctive, and in-group norms. *British Journal of Social Psychology*, *48*(1), 135-158.

Wilson, E. J., & Sherrell, D. L. (1993). Source effects in communication and persuasion research: A meta-analysis of effect size. *Journal of the Academy of Marketing Science*, *21*(2), 101-112.

Appendix

Questionnaire: English Version

Thank you for taking time to complete this survey conducted by the University of Twente. The information gathered from this survey will be used to examine users' perception of User-Generated Content. The aim of the present study is to recognize what motivates users to write online reviews for mobile apps. It is not mandatory to have written a review before.
Please respond to the below questions and statements with regards to submitting an online review for a mobile app. A mobile app review in this context is defined as any public feedback provided to app developers through a mobile software distribution platform (e.g. Apple's App Store, Google's Play Store, etc.).
The questionnaire should take about 8 minutes to be completed. All data collected will be anonymous and used for academic purposes only. You are allowed to participate only once.
For feedback and/or more information about the study feel free to contact us:
c.voutsas@student.utwente.nl

First, we would like you to provide us with some information about how you use mobile apps.

What kind of apps do you use the most?

1. Entertainment/Games
2. Social Networking
3. Music
4. Books/News /Magazines
5. Health/Sports
6. Shopping
7. Utilities/Banking
8. Business
9. Lifestyle
10. Food & Drink
11. Productivity

Have you submitted a mobile app review within the last six months?
1. Yes
2. No

What is your gender?

1. Male
2. Female

What is your age?

1. 18 - 24
2. 25 - 34
3. 35 - 44
4. 45 - 54
5. 55 or older

What is the highest level of education you have completed?

1. Less than High School
2. High School
3. Some College
4. 2-year College or equivalent professional degree
5. 4-year Bachelor's (or equivalent)
6. Master's
7. Doctoral/PhD
8. Other

In this section we would like you to tell us some things about your experience with mobile app reviews.

Please state the extent to which you agree with the following statements.

5-point Likert scale, where 1 = Strongly Disagree, and 5 = Strongly Agree
1. Submitting an online review for a mobile app benefits me personally.
2. I can win free app upgrades by writing an online review for a mobile app.
3. Writing on online review for a mobile app is an opportunity to be virtually remunerated (e.g. in-app points, virtual money, etc.).
4. By writing mobile app reviews I have the possibility to receive financial rewards.
5. Writing a mobile app review offers me the possibility to earn free upgrades for that app.

Please state the extent to which you agree with the following statements.

5-point Likert scale, where 1 = Strongly Disagree, and 5 = Strongly Agree
1. Writing an online review for a mobile app makes me feel like a part of a community.
2. Submitting reviews is a good way to interact with people.
3. Contributing to the community by writing an online review for a mobile app is important to me.
4. Writing a review enables me to inform people about my experience with an app.

Likewise:

5-point Likert scale, where 1 = Strongly Disagree, and 5 = Strongly Agree
1. Writing an online review for a mobile app makes me feel important.
2. My self-esteem is increased when I write a review for a mobile app.
3. Writing an online review for a mobile app makes me feel needed.

Please let us know how you feel about the following statements.

Please state the extent to which you agree with the following statements.

5-point Likert scale, where 1 = Strongly Disagree, and 5 = Strongly Agree
1. Writing a review enables me to express my frustration about the application.
2. Writing a review allows me to express my satisfaction about the app.
3. When providing feedback for a mobile app, the review I submit reflects my thoughts and feelings about the app.
4. Writing a review for a mobile app provides me with the opportunity to express my opinion about the app.

Please continue as instructed above.

5-point Likert scale, where 1 = Strongly Disagree, and 5 = Strongly Agree
1. I have control over writing an online review for a mobile app.
2. For me, writing a mobile app review is easy.
3. If I wanted to, I could easily write a review for a mobile app.
4. It is mostly up to me whether I will submit a mobile app review.
5. Add about time: I have the time to write reviews for mobile apps.

Likewise:

5-point Likert scale, where 1 = Strongly Disagree, and 5 = Strongly Agree
1. A lot of people around me write mobile app reviews.
2. A high percentage of people important to me write online reviews for mobile apps.
3. I believe people around me provide feedback to app developers through reviews.
4. People important to me refrain from writing reviews for mobile apps.

Likewise:

5-point Likert scale, where 1 = Strongly Disagree, and 5 = Strongly Agree
1. People who are important to me think that submitting a review is something that I should do.
2. My close social contacts approve of me writing mobile app reviews.
3. People in my close environment expect me to submit online reviews for mobile apps.

Finally, please let us know how you feel about mobile app review.

Writing a mobile app review is:

5-point semantic differential scale	
1. Pleasant	Unpleasant
2. Enjoyable	Not Enjoyable
3. Good	Bad
4. Positive	Negative

Please state the extent to which you agree to the following statements.

5-point Likert scale, where 1 = Strongly Disagree, and 5 = Strongly Agree
1. I will not hesitate writing reviews for mobile applications anytime soon.
2. I have a strong inclination to write a review for a mobile application in the coming weeks.
3. I do not see any problem in writing a review for a mobile application any time soon.
4. I will frequently submit reviews for mobile apps in the future.

Questionnaire: Greek Version

Ευχαριστούμε που βρήκατε τον χρόνο να συμμετάσχετε σε αυτήν την έρευνα του Πανεπιστημίου του Τβέντε (University of Twente). Οι πληροφορίες που θα συλλεχθούν από την παρούσα έρευνα θα χρησιμοποιηθούν για να εξεταστούν οι αντιλήψεις των χρηστών για διαδικτυακό περιεχόμενο δημιουργοί του οποίου είναι χρήστες. Στόχος της έρευνας είναι να αναγνωριστούν τα κίνητρα που οδηγούν τους χρήστες να υποβάλλουν ονλάιν αξιολογήσεις για κινητές εφαρμογές. Δεν είναι υποχρεωτικό να έχετε κάνει αξιολόγηση για κάποια εφαρμογή κινητής συσκευής.Παρακαλούμε απαντήστε στις παρακάτω ερωτήσεις και δηλώσεις σε σχέση με την υποβολή διαδικτυακών αξιολογήσεων για κινητές εφαρμογές. Ως αξιολόγηση κινητής εφαρμογής σε αυτό το πλάισιο ορίζεται κάθε δημοσιευμένη άποψη με στόχο τους προγραμματιστές της εφαρμογής, μέσω κάποιας κινητής πλατφόρμας διακίνησης προγραμμάτων (π.χ. το App Store της Apple, το Play Store της Google, κ.ο.κ.).Ο χρόνος που χρειάζεται για να συμπληρωθεί το ερωτηματολόγιο δεν υπερβαίνει τα 8 λεπτά. Τα δεδομένα που θα συλλεχθούν θα είναι ανώνυμα και θα χρησιμοποιηθούν αποκλειστικά για ακαδημαϊκούς σκοπούς. Παρακαλούμε η συμμετοχή ανά άτομο να περιοριστεί στη μία. Σε περίπτωση που θέλετε να θέσετε κάποιες ερωτήσεις, ή να μοιραστείτε την άποψή σας για την έρευνα μαζί μας, μη διστάσετε να επικοινωνήσετε μέσω email:c.voutsas@student.utwente.nl

Αρχικά, θα θέλαμε να μας δώσετε κάποιες πληροφορίες σχετικά με το πώς χρησιμοποιείτε κινητές εφαρμογές.

Ποια κατηγορία εφαρμογών χρησιμοποιείτε περισσότερο (παρακαλούμε επιλέξτε μόνο ένα από τα παρακάτω);

1. Διασκέδαση/Παιχνίδια
2. Κοινωνικής Δικτύωσης
3. Μουσική
4. Βιβλία/Νέα/Περιοδικά
5. Υγεία/Αθλητισμός
6. Αγορές
7. Πληρωμών/Τραπέζικές
8. Επαγγελματικές
9. Lifestyle
10. Φαγητό & Ποτό
11. Παραγωγικότητας

Έχετε υποβάλλει την αξιολόγησή σας για κάποια εφαρμογή κινητού/τάμπλετ τους τελευταίους έξι μήνες;

1. Ναι
2. Όχι

Ποιο είναι το γένος σας;

1. Άρρεν
2. Θήλυ

Ποια είναι η ηλικία σας;

1. 18 - 24
2. 25 - 34
3. 35 - 44
4. 45 - 54
5. 55 ή παραπάνω

Ποια είναι η ανώτερη βαθμίδα εκπαίδευσης από την οποία έχετε αποφοιτήσει;

1. Δημοτικό
2. Γυμνάσιο
3. Λύκειο
4. Διετές επαγγελματικό πτυχίο/δίπλωμα
5. ΑΕΙ, ΤΕΙ, ή ισοδύναμη ιδιωτική εκπαίδευση
6. Μεταπτυχιακό
7. Διδακτορικό
8. Άλλο

Στις παρακάτω ερωτήσεις θέλουμε να μας πείτε κάποια πράγματα για την εμπειρία σας με αξιολογήσεις κινητών εφαρμογών.

Παρακαλούμε δηλώστε τον βαθμό συμφωνίας σας με τις παρακάτω προτάσεις.

UTF	5-point Likert scale, where 1 = Strongly Disagree, and 5 = Strongly Agree
1. Με το να υποβάλλω μια αξιολόγηση για κάποια κινητή εφαρμογή επωφελούμαι προσωπικά.	
2. Μπορώ να κερδίσω δωρεάν αναβαθμίσεις γράφοντας μια αξιολόγηση για κάποια κινητή εφαρμογή.	
3. Το να γράψω μια κριτική για μια εφαρμογή κινητού/τάμπλετ είναι μια ευκαιρία να ανταμοιφθώ εικονικά (π.χ. εικονικά χρήματα ή πόντοι εντός της εφαρμογής, κτλ.).	
4. Καταχωρώντας αξιολογήσεις κινητών εφαρμογών έχω τη δυνατότητα να απολαύσω οικονομικά οφέλη.	
5. Το να υποβάλλω την αξιολόγησή μου για μια εφαρμογή κινητού/τάμπλετ μου δίνει τη δυνατότητα να κερδίσω δωρεάν αναβαθμίσεις για την εφαρμογή (π.χ. Premium έκδοση της εφαρμογής).	

Παρακαλούμε δηλώστε τον βαθμό συμφωνίας σας με τις παρακάτω προτάσεις.

SOC	5-point Likert scale, where 1 = Strongly Disagree, and 5 = Strongly Agree
1. Το να γράφω την αξιολόγησή μου για μια κινητή εφαρμογή με κάνει να νιώθω πως είμαι κομμάτι μιας κοινότητας.	
2. Το να υποβάλλω αξιολογήσεις για κινητές εφαρμογές είναι καλός τρόπος για να έρθω σε επαφή με κόσμο.	
3. Το να συνεισφέρω στην κοινότητα καταχωρώντας μια αξιολόγηση είναι σημαντικό για μένα.	
4. Μπορώ να ενημερώσω κόσμο για τις εμπειρίες μου με μια εφαρμογή αξιολογώντας μια κινητή εφαρμογή.	

Παρομοίως:

EGD	5-point Likert scale, where 1 = Strongly Disagree, and 5 = Strongly Agree
1. Το να γράψω μια αξιολόγηση για μια κινητή εφαρμογή με κάνει να νιώθω σημαντικός.	
2. Η αυτοεκτίμησή μου αυξάνεται όταν γράφω αξιολογήσεις για κινητές εφαρμογές.	
3. Νιώθω αναγκαίος όταν γράφω αξιολογήσεις για κινητές εφαρμογές.	

Παρακαλούμε πείτε μας πώς νιώθετε σχετικά με τις παρακάτω προτάσεις.

Παρακαλούμε δηλώστε τον βαθμό συμφωνίας σας με τις παρακάτω προτάσεις.

EXP	5-point Likert scale, where 1 = Strongly Disagree, and 5 = Strongly Agree
1. Το να γράφω αξιολογήσεις μου δίνει τη δυνατότητα να εκφράσω την απογοήτευσή μου για κάποια εφαρμογή.	
2. Υποβάλλοντας μια αξιολόγηση μπορώ να εκφράσω την ικανοποίησή μου για μια εφαρμογή.	
3. Όταν δίνω την άποψή μου για κάποια εφαρμογή κινητού/τάμπλετ, η αξιολόγησή μου αντανακλά τις σκέψεις και τα αισθήματά μου για την εφαρμογή.	
4. Γράφοντας μια αξιολόγηση για μια κινητή εφαρμογή μου δίνει την δυνατότητα να εκφράσω την άποψή μου για την εφαρμογή.	

Παρακαλούμε συνεχίστε όπως και παραπάνω.

PBC	5-point Likert scale, where 1 = Strongly Disagree, and 5 = Strongly Agree
1. Έχω τον απόλυτο έλεγχο όταν θέλω να γράψω μια αξιολόγηση για μια εφαρμογή κινητού/τάμπλετ	
2. Μου είναι εύκολο να υποβάλλω την αξιολόγησή μου για μια κινητή εφαρμογή.	
3. Αν ήθελα, θα μπορούσα εύκολα να γράψω μια αξιολόγηση.	
4. Εξαρτάται κυρίως από εμένα το εάν θα αξιολογήσω κινητή εφαρμογή.	
5. Έχω τον χρόνο για να υποβάλλω αξιολογήσεις για κινητές εφαρμογές.	

Παρομοίως:

DSI	5-point Likert scale, where 1 = Strongly Disagree, and 5 = Strongly Agree
1. Πολλοί άνθρωποι στον περίγυρό μου γράφουν αξιολογήσεις για κινητές εφαρμογές.	
2. Ένα μεγάλο ποσοστό των ανθρώπων που είναι σημαντικοί για μένα αξιολογούν κινητές εφαρμογές.	
3. Πιστεύω ότι άτομα στον περίγυρό μου δίνουν την άποψή τους για εφαρμογές σε προγραμματιστές μέσω εφαρμογών.	
4. Άτομα στον κλειστό μου κοινωνικό περίγυρο απέχουν από το να γράφουν αξιολογήσεις κινητών εφαρμογών.	

Παρομοίως:

ISI	5-point Likert scale, where 1 = Strongly Disagree, and 5 = Strongly Agree
1. Οι άνθρωποι που είναι σημαντικοί για μένα θεωρούν το να κάνεις αξιολογήσεις εφαρμογών είναι κάτι που θα έπρεπε κανείς να κάνει.	
2. Ο κύκλος των κοινωνικών μου επαφών είναι δεκτικοί στο να γράφω αξιολογήσεις κινητών εφαρμογών.	
3. Άτομα στον κλειστό μου κοινωνικό περίγυρο περιμένουν από μένα να υποβάλλω αξιολογήσεις για κινητές εφαρμογές.	

Τέλος, παρακαλούμε πείτε μας πώς νιώθετε για τις αξιολογήσεις κινητών συσκευών.

Το να γράψω μια αξιολόγηση για κάποια κινητή εφαρμογή είναι:

ATT	5-point semantic differential scale
1. Ευχάριστο	Δυσάρεστο
2. Απολαυστικό	Βαρετό
3. Καλό	Κακό
4. Θετικό	Αρνητκό

Παρακαλούμε δηλώστε τον βαθμό συμφωνίας σας με τις παρακάτω προτάσεις.

INT	5-point Likert scale, where 1 = Strongly Disagree, and 5 = Strongly Agree
1. Δεν θα διστάσω να γράψω μια αξιολόγηση για κινητή εφαρμογή στο άμεσο μέλλον.	
2. Έχω την έντονη τάση να υποβάλλω μια αξιολόγηση για κινητή εφαρμογή τις ερχόμενες εβδομάδες.	
3. Δεν βλέπω κανέναν πρόβλημα στο να γράψω μια αξιολόγηση για κινητή εφαρμογή στο άμεσο μέλλον.	
4. Θα καταθέτω συχνά αξιολογήσεις για εφαρμογές κινητού/τάμπλετ στο μέλλον.	

Questionnaire: German Version

Sehr geehrte Damen und Herren,im Rahmen meiner Masterarbeit an der Universität Twente, wird die Wahrnehmung von Usern auf „User-Generated Content" untersucht. Das Ziel dieser Studie ist es zu analysieren, welche Motive User dazu bewegt, Online Bewertungen für mobile Applikationen abzugeben. Eine Bewertung für mobile Applikationen ist in diesem Kontext als öffentliches Feedback definiert, das über eine mobile Software erfolgt (Apple App Store, Google Play Store, etc.) und sich an die Entwickler mobiler Applikationen richtet. Für das Ausfüllen des Fragebogens ist es nicht notwendig, dass Sie bereits eine Online Bewertung für eine Applikation abgegeben haben.Ich würde Sie bitten, sich ca. 8 Minuten Zeit zu nehmen, um den vorliegenden Fragebogen auszufüllen. Die Daten werden anonym erhoben, streng vertraulich behandelt und ausschließlich für wissenschaftliche Zwecke verwendet. Herzlichen Dank für Ihre Unterstützung!Babis VoutsasKontakt für Rückfragen: c.voutsas@student.utwente.nl

Zunächst möchten wir Sie bitten, uns einige Informationen darüber zu liefern, wie Sie mobile Anwendungen nutzen.

Welche Anwendungen verwenden Sie am häufigsten?

1. Unterhaltung / Spiele
2. Soziale Netzwerke
3. Musik
4. Bücher/Nachrichten/Magazine
5. Gesundheit/Sport
6. Shopping
7. Nebenkosten/Banken
8. Business
9. Lifestyle
10. Gastronomie
11. Produktivität

Haben Sie innerhalb der letzten sechs Monate eine Bewertung für eine mobile App abgegeben?

1. Ja
2. Nein

Was ist Ihr Geschlecht?

1. Mann
2. Frau

Was ist Ihr Alter?

1. 18 - 24
2. 25 - 34
3. 35 - 44
4. 45 - 54
5. 55 oder älter

Was ist Ihr höchster Bildungsgrad?

1. Hauptschule
2. Realschule
3. Gymnasium
4. Ausbildung/Fachhochschule
5. Bachelor oder gleichwertig
6. Master oder gleichwertig
7. Doktortitel
8. Sonstiger

Bitte geben Sie an inwiefern Sie den folgenden Aussagen zustimmen.

UTF	5-point Likert scale, where 1 = Strongly Disagree, and 5 = Strongly Agree
1. Das Einreichen einer Onlinerezension für eine mobile Applikation nützt mir persönlich.	
2. Ich kann durch das Verfassen einer Onlinerezension App Upgrades gewinnen.	
3. Das Verfassen einer Onlinerezension ist eine Möglichkeit, virtuell belohnt zu werden (in-app Punkte, virtuelles Guthaben, etc.)	
4. Durch das Verfassen einer Bewertung für eine App habe ich die Möglichkeit finanzielle Gegenleistungen zu erhalten.	
5. Durch das Verfassen einer Rezension für eine App habe ich die Moeglichkeit, diese App zu upgraden.	

Bitte geben Sie an inwiefern Sie den folgenden Aussagen zustimmen.

SOC	5-point Likert scale, where 1 = Strongly Disagree, and 5 = Strongly Agree
1. Das Verfassen einer Onlinerezension gibt mir das Gefühl, Teil einer Gemeinschaft zu sein.	
2. Das Verfassen von Rezensionen ist ein guter Weg mit anderen Menschen zu interagieren.	
3. Es ist mir wichtig durch das Verfassen Onlinerezension der Gemeinschaft beizutragen.	
4. Durch das Verfassen einer Bewertung kann ich anderen Menschen meine Erfahrungen mit der App mitteilen.	

Ebenso:

EGD	5-point Likert scale, where 1 = Strongly Disagree, and 5 = Strongly Agree
1. Das Verfassen einer Onlinerezension gibt mir ein Gefühl von Wichtigkeit.	
2. Wenn ich eine Rezension für eine App schreibe steigt mein Selbstwertgefühl.	
3. Das Verfassen einer Onlinerezension einer App gibt mir das Gefühl gebraucht zu werden.	

Bitte sagen Sie uns jetzt, wie Sie sich über die folgenden Aussagen fühlen.

Bitte geben Sie an inwiefern Sie den folgenden Aussagen zustimmen.

EXP	5-point Likert scale, where 1 = Strongly Disagree, and 5 = Strongly Agree
1. Beim Verfassen einer Rezension kann ich meine Frustration mit der App ausdrücken.	
2. Beim Schreiben einer Rezension kann ich meine Zufriedenheit mit der App ausdrücken.	
3. Meine Rezension spiegelt meine Gedanken und Gefühle bezüglich der App aus.	
4. Das Verfassen einer Rezension gibt mir die Möglichkeit meine Meinung über die App kundzutun.	

Bitte fahren Sie fort, wie oben angewiesen.

PBC	5-point Likert scale, where 1 = Strongly Disagree, and 5 = Strongly Agree
1. Ich habe Kontrolle über das Verfassen einer Onlinerezension für eine App.	
2. Das Verfassen einer Rezension fällt mir leicht.	
3. Wenn ich wollen würde, könnte ich mühelos eine Rezension zu einer App verfassen.	
4. Es ist hauptsächlich meine Entscheidung, ob ich eine Rezension für eine App verfasse oder nicht.	
5. Ich habe Zeit Rezensionen für Apps zu verfassen.	

Ebenso:

DSN	5-point Likert scale, where 1 = Strongly Disagree, and 5 = Strongly Agree
1. Viele Leute in meiner Bekanntschaft verfassen Rezensionen für mobile Applikationen.	
2. Viele Menschen die mir wichtig sind schreiben Onlinerezensionen für mobile Apps.	
3. Ich glaube Leute in meinem Umfeld geben Appentwicklern Feedback durch Rezensionen.	
4. Menschen die mir wichtig sind verzichten darauf, Rezensionen für mobile Applikationen zu verfassen.	

Ebenso:

ISN	5-point Likert scale, where 1 = Strongly Disagree, and 5 = Strongly Agree
1. Menschen die mir wichtig sind denken, dass ich Rezensionen verfassen sollte.	
2. Meine engen sozialen Kontakte billigen es, dass ich Bewertungen für Apps schreibe.	
3. Menschen in meinem engen Umfeld erwarten, dass ich Onlinerezensionen für Apps verfasse.	

Schließlich, lassen Sie uns bitte wissen, wie Sie sich über das Schreiben von Bewertungen für mobile Apps fühlen.

Das Verfassen einer Bewertung für eine App ist:

ATT	5-point semantic differential scale
1. angenehm	unangenehm
2. unterhaltsam	nicht unterhaltsam
3. gut	schlecht
4. positiv	negativ

Bitte geben Sie an inwiefern Sie den folgenden Aussagen zustimmen.

INT	5-point Likert scale, where 1 = Strongly Disagree, and 5 = Strongly Agree
1. Ich zögere nicht eine Rezension für eine App in naher Zukunft zu verfassen.	
2. Ich habe eine starke Neigung in den kommenden Wochen eine Bewertung für eine mobile App zu verfassen.	
3. Es besteht für mich kein Problem darin, bald eine Rezension für eine mobile App zu schreiben.	
4. Ich werde in Zukunft häufig Bewertungen für mobile Apps verfassen.	