ABSTRACT

Electronic word-of-mouth (eWOM), as a source of user-generated content, has proven to be of great influence on consumers' online decision making processes. In this research, online reviews – as a source of eWOM – were used to study the effects source credibility of a reviewer and popularity of a review on individuals' brand attitude, purchase intention, and perceived quality. Making use of the media richness theory, the moderating roles of the three online media used in this study (blogwebsite, microblogwebsite, and recommendation website) were predicted. Respondents were asked to complete an online questionnaire, in which one of the stimulus conditions was shown. Previously validated scales were used to measure all independent as well as dependent variables. Results show that source credibility and popularity all significantly influence individuals' brand attitude, purchase intention, and perceived quality. When the three online media were taken into account, results were not all significant. However, there is an interesting role for the immediacy of feedback on the effect of popularity on the dependent variables.

SAMENVATTING

Elektronische word-of-mouth, als een bron van user-generated content, heeft een grote invloed op het online besluitsvormingsproces van consumenten. In dit onderzoek zijn online reviews, als een bron van zogenaamde user-generated content, gebruikt om de effecten te meten van source credibility van een reviewer en populariteit van een review op de attitude van een persoon tegenover een merk, zijn koopintentie en de waargenomen kwaliteit van het merk. Op basis van de media richness theory is een onderbouwing gegeven voor de modererende rol van de drie online media die zijn gebruikt in dit onderzoek (blogwebsite, microblogwebsite en vergelijkingswebsite). Respondenten werden gevraagd een online vragenlijst in te vullen, waarin een van de condities werd getoond. In eerdere onderzoeken gevalideerde schalen werden gebruikt om de onafhankelijke en de afhankelijke variabelen te meten. Resultaten laten zien dat source credibility en populariteit van de review een significante invloed hebben op de attitude van een persoon tegenover een merk, zijn koopintentie en de waargenomen kwaliteit van het merk. Wanneer de modererende rol van de drie online media ook in ogenschouw werd genomen, bleken resultaten niet allemaal significant. Er is wel een interessante rol weggelegd voor de snelheid van feedback op het effect van populariteit op de afhankelijke variabelen.

ACKNOWLEGDEMENTS

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INTRODUCTION

The internet plays a big role in our everyday lives, and our opinions displayed on the internet have a great impact on decisions we make. More and more people consult the internet for help on various topics, from looking for a user manual of a microwave to purchasing an actual car. People tend to do so using multiple media, like Google, YouTube, and recommendation websites, but also blogwebsites and social media like Twitter and Facebook. These media are an accumulation of shared information, views, opinions and values that are constantly posted and discussed (Romero, Galuba, Asur, and Huberman, 2011), making it an extremely valuable source of information.

According to a study of Newcom Research (2013) in Holland, a staggering 7.9 million people make use of Facebook, of which 5 million daily. Even more, 7.1 million people use YouTube, 3.9 million people use LinkedIn, and 3.3 million people use Twitter. Besides these social media, people also make use of blogwebsites like Tumblr, and new media are still being introduced. What is interesting is that research shows that internet users sometimes place more trust in these new media than in traditional media (Nielsen, as described in Cheung and Thadani, 2012). It is therefore no surprise that research has focused on these new media. For instance, blogs (e.g. Riegner, 2007; Lee and Youn, 2009), online discussion forums (e.g. Bickart and Schindler, 2001; Zhang and Watts, 2008), social networking sites (social media) (e.g. Riegner, 2007; Bakshy, Hofman, Mason, and Wats, 2011), and online consumer review sites (e.g. Gupta and Harris, 2005; Park and Kim, 2008; Lee and Youn, 2009) have been subject of research multiple times. One very important aspect these new media have in common is that they consist of so-called user-generated content (UGC).

User-generated content (UGC)

UGC can be described as "brand-related content created by consumers that is made permanently available through publicly accessible media, which reflects some degree of creative effort and is created for free outside of professional routines and practices" (Christodoulides, Jevons, and Blackshaw, 2011). Nielsen's research (as described in Cheung and Thadani, 2012) shows that 91% of respondents said they consult online reviews, blogs, and other user-generated content before buying a new product or service. As Dou, Walden, Lee and Lee (2012) note: "reviews are a crucial source of information for consumers and can greatly influence purchase intentions" (p 1). Much of UGC theories and concepts have been studied with regard to reviews, because these are

always user-generated and exist in multiple channels. More specifically, online reviews consist of electronic word-of-mouth (eWOM).

eWOM is defined as a "statement made by potential, actual, or former customers about a product or company, which is made available to a multitude of people and institutions via the Internet" (Hennig-Thurau, Gwinner, Walsh, and Gremle, 2004, p. 39), and can be seen as a sort of user-generated content. eWOM is a powerful source of information because it is immediate, has an enormous reach, is credible, and is always accessible by others (Hennig-Thurau et al., 2004). This is why people more and more often look for this information online to base their purchasing decisions on. Not only do users have a lot of trust in this form of UGC, eWOM is also very capable of establishing interpersonal influence (e.g. Herr, Kardes, and Kim, 1991). For instance, it was found that reviews actually have a significant influence on a consumers' decision making process – and eventually on consumers' purchasing decision (Park and Kim, 2008; ChannelAdvisor, 2010, as described in Cheung and Thadani, 2012).

The question now, is whether brands and marketers – using this process of interpersonal influence – can make their products become more likeable on the online media. And if so: how is this to be done? Is it an expert who has the greatest influence on for instance brand attitude, or is it the guy around the block? Does the popularity of the review have an influence? Does the medium on which the review was posted have an influence?

Cheung and Thadani (2012) conducted a literature analysis, in which multiple studies on the impact of electronic word-of-mouth (eWOM) are summed up. Building on previous literature, we acknowledge reviews as being an incredibly powerful source of user-generated content and electronic word-of-mouth. This is why we want to focus on this means of eWOM in our research. In the literature of reviews (e.g. Chu and Kamal, 2008; Lascu, Bearden, and Rose, 1995), we believe source credibility is one of the most important characteristics of the reviewer. This is the first independent variable in this research. Because the impact of a person's source credibility may be subject to change on new media, we also want to focus on a more basic form of socially available information which is not studied much up to now: popularity of the review. This is the second independent variable in this research. One of the vastly different approaches taken in this research is that we are not focusing on just one new medium, but three. The channels through which the message is communicated (in this research a microblogwebsite, a recommendation (/consumer review) website, and a blogwebsite) are moderating variables. The reason why these media are chosen is because they are all

text-based online media that consist of eWOM, and which content is always available. Above all, there is evidence for each of these channels that they influence the perceptions of eWOM, and also impact on the relationship between independent and dependent variables. For instance, there are a number of studies on the way messages on a microblogwebsite are related to the concept of electronic word-of-mouth (e.g. Jansen, Zhang, Sobel, and Chowdury, 2009). Results from the study of Jansen et al. (2009) show that "microblogging has significant implications for the success of advertisers, businesses, and products as a new eWOM communications" (p. 2170). Research on blogs found that characteristics which very closely link to media richness generally have a positive effect on brand attitude and purchase intention. For instance, interpersonal identification, message exchange, and two-way communication positively influenced brand attitude (Chen, Ching, Tsai, and Kuo, 2008). Lastly, Balaji and Chakrabarti (2010) showed that the perceived media richness of an online discussion forum – which is closely linked to a recommendation website – has significant positive effects on participation, interaction, and learning. This indicates that media richness might have a moderating role.

As dependent variables, we want to see whether user-generated content has any effect on brand-related outcomes. Research by Low and Lamb Jr. (2000) shows that brand image, perceived quality, and brand attitude are "separate measures and distinct dimensions" of brand associations for a brands. In this research, the focus will be on two of these, namely the perceived quality of a brand, and brand attitude. Also, we want to see whether the review characteristics of this study have an effect on the decision to purchase a product or not. That is why the last dependent variable in this research is purchase intention. Previous research on these topics shows a link between positive word-of-mouth communications and brand (re)usage (Grace and O'Cass, 2005). Also, brand attitudes and perceived quality of a brand have an impact on purchase intention (Chen et al., 2008; Lee and Lee, 2009). This would indicate that more favorable brand attitudes and higher perceived quality lead to a higher intention to purchase the brand.

We believe the results of this study can help companies and marketers upgrade their online strategy, influencing individuals the best way they can. The main research question in this study is:

 "To what extent do source credibility of reviewers, and popularity of reviews influence an individual's brand-related outcomes on various online media?"

THEORETICAL FRAMEWORK

Independent variables

Expertise of reviewer

Expertise refers to "the perceived ability of the source to make valid assertions" (McCracken, 1989, p. 311). This is the extent to which a reader perceives the communicator to provide valid information about a certain topic. Expertise is, together with trustworthiness, a very common dimension of a person's overall source credibility (McCracken, 1989; Ohanian, 1991). Trustworthiness is "the perceived willingness of the source to make valid assertions": the extent to which a reader thinks that the communicator can provide information in an honest and sincere manner (McCracken, 1989, p. 311).

Multiple studies have examined the effect of source credibility on a receiver's attitude and behavior responses, often suggesting that highly credible sources produce a more positive attitude and induce more behavioral compliance than do sources that are less credible (e.g. Hovland and Weiss 1951; Ohanian 1991; Petty and Cacioppo, 1986). For instance, mainly from the field of social psychology there is evidence which argues that adding an expert label has an effect on a person's brand perceptions, compared to when no such expert label is added. One of the studies in which arguments are provided in favor of the expert label is the Milgram (1963) experiment, in which he let participants apply electric shocks to other participants, while he or a confederate stood by (dressed in a lab-coat, signaling authority) to convince the participant that the electric shocks did not hurt the other person, and that he should just continue. In the presence of such an authority, people would go way further in applying the shocks than they would when no person of authority was nearby. Milgram (1974) later describes that "when a request or statement is made by a legitimate authority, people are more inclined to comply". Note how closely tied authority is to expertise: if we have no knowledge about a particular field but someone else does, we easily see him as an expert. If he says to do it one way or another, we will probably do so, even if it is not the best way. This is exactly what happened in the Milgram (1963) study.

Previous research has examined reviewer expertise as a dimensions of trust (Smith, Menon, and Sivakumar, 2005). Smith et al. (2005) proposed that a consumer's perceptions of a reviewer's expertise could serve as a cue that influences the level of trust that the consumer places in a reviewer. According to them, the level of trust consumers place in reviewers influences product choice. Findings seem to support this

premise: the expertise of the reviewer showed to be of significant influence on a person's subjective perceptions of influence. Thus, expert reviewers seem to be more influential. More recently, Chu and Kamal (2008), in their research to source credibility in bloggers, found that "the degree of perceived blogger trustworthiness affects the extent of message elaboration, and […] suggest a significant interaction effect on brand attitudes. This interaction reveals that when perceived blogger trustworthiness is high, argument quality has a greater impact on brand attitudes than when perceived blogger trustworthiness is low." (Chu and Kamal, 2008). Further prior research revealed a positive influence for source expertise and trustworthiness on consumer attitudes toward a brand, as well as their intentions, and purchase behaviors (Harmon and Coney, 1982; Lascu, Bearden, and Rose, 1995).

Building on the body of previous research, we believe that consumers are susceptible for the perceived expertise of the reviewer. Source credibility influences individuals' judgments of message credibility and following (brand-related) behaviors. Therefore we formulate the following hypotheses:

H1: The expertise of a reviewer has a positive influence on brand attitudes.

H2: The expertise of a reviewer has a positive influence on a person's purchase intentions.

H3: The expertise of a reviewer has a positive influence on a person's perceived brand quality.

Popularity of the review
The second independent variable in this research is the popularity of the review. The popularity of a review is a kind of user feedback which is often depicted as an amount of users which have looked at, shared, or rated the review. Although the popularity of a review is not often subject of study, e.g. Mishne and Glance (2006), Hsu, Khabiri, and Caverlee (2009), and Tsagkias, Weerkamp, and De Rijke (2009) note that the amount of explicit and publicly available user feedback (like popularity) is one of the most successful indicators of the quality of user-generated content. Even more, research conducted by Ratkiewicz, Fortunato, Flammini, Menczer, and Vespignani (2010) shows that online popularity has an enormous influence on people's opinions, culture, policy,

and profits. This effect of popularity is even more visible with the continuing rise of social media and web advertising.

Previous research shows how susceptible people are for the opinions of others and how easily they conform to the opinions of others (e.g. Sherif, 1937; Asch, 1951), and that conformity increases with the size of the group. Research by Zhu and He (2002) suggests that people have the social desirability to conform to the opinions of others, so they often observe the behavior of others to determine their own behavior. It is not only the opinions of acquaintances such as family and relatives that are very influential for people. As research from Rindfleisch and Inman (1998) shows: consumers are often affected by the sheer weight of popular opinion. The effect of these popular opinions account for consumers' positive changes in brand choice, purchase intention, and overall evaluation of the brand. An example of this is provided in the research of Hanson and Putler (1996), in which they studied the effects of the popularity of software downloads. On the website where people could download the software, they manipulated the download counts. They used a 25% manipulation, a 50% manipulation, and a 100% manipulation. The percentages refer to the amount of downloads which are added, so the 25% manipulation condition has 25% more downloads. For each of these conditions, the number of subsequent downloads were saved during 8 days. Hanson and Putler (1996) concluded that the number of previous downloads were of significant influence for future downloads, with more past downloads leading to more future downloads.

This research shows that just because of the fact that an item has more downloads than another, people like that item more. As Smith, Menon, and Sivakumar (2005) note, the mere availability of peer recommendations can be used as a decision making heuristic, irrespective on the characteristics of those peer recommenders. Even more, Lee, Park, and Han (2008) found a conformity effect in eWOM research. As did Sherif (1937) and Asch (1951), they found that conformity is influenced by group size. In line with this, higher popularity of a review would lead to more conformity and more positive outcomes.

Although the impact of online popularity has been demonstrated in researches like that of Ratkiewicz et al. (2010), the processes that drive popularity in our online world have only begun to be explored. In recent years, no one theory has been formulated which specifically explains the impact of popularity on new media. Most of the research findings can be explained using multiple (classic) social psychological theories. For instance, the Elaboration Likelihood Model (ELM) by Petty and Cacioppo (1986) is very often used to provide evidence for research outcomes related to processing of information and

conformity to other opinions. The central concept in this dual-process model is involvement. Research findings are often explained based on the so-called peripheral route of processing, in which involvement is low and information is processed in a heuristic manner. The Social Identity Theory by Tajfel and Turner (1986) is another model which can be used to explain the conformity to the opinions of others, but it can best be used in an intergroup environment. They hypothesize that people relate to certain groups and dissociate themselves from others. These groups are respectively called in-group and out-group. When an individual sees others as belonging to his in-group, he is very likely to conform to their opinion. This means that it has to be clear that the opinions of others are from others belonging to an individual's in-group. In the context of internet reviews, however, this information is not always available.

Probably the most applicable theory in this context is Festinger's (1954) Social Comparison Theory. This theory states that individuals are motivated to accurately evaluate themselves by examining the opinions and abilities of others and compare them to their own. The explicit and publicly available information about the popularity of a review reflects other's opinions, making it a useful metric to relate themselves to others. What Festinger (1954) also states, is that individuals feel a drive to uniformity. If there are differences between an individual's evaluations of himself against the comparison group, the individual at first has a tendency to persuade others of his own views, and so to gain uniformity. However, the importance of the comparison group increases the pressures towards uniformity, often leading to a change of the individual's opinions. As Asch (1951) found, this effect is even stronger with a large comparison group.

In this study, the comparison group would be the people who have shared the review. And the higher the popularity, the higher the rate of conformity. With the Social Comparison Theory as a basis, and following previous research findings, we propose the following hypotheses:

> H4: The popularity of a review has a positive influence on a person's brand attitudes.

> H5: The popularity of a review has a positive influence on a person's purchase intentions.

> H6: The popularity of a review has a positive influence on a person's perceived product quality.

Dependent variables

In UGC literature, there are a number of dependent variables which have been studied a lot. For instance, effects of independent variables on attitudes towards a person or object have been put to the test (e.g. Doh and Hwang, 2009; Lee and Youn, 2009). Also, effects on purchase intention (e.g. Chang, Cheung, and Lai, 2008; Chen et al., 2008), review credibility (e.g. Cheung, Luo, Sai, and Chen, 2009; Doh and Hwang, 2009), and information adaption (e.g. Zhang and Watts, 2008; Steffes and Burgee, 2009) have been much researched. In the wide variety of topics (see e.g. Cheung and Thadani, 2012), we believe there is a number of topics which are most relevant when looking at review-related outcomes. Because reviews always involve a service or a product of a certain brand, we want to take brand-related outcomes into account in this study. As noted, the focus in this study will be on a person's attitudes towards a brand, the perceived quality of a brand, and the purchase intention.

Brand attitude
Brand attitude is defined as consumers' overall evaluation of a brand – whether good or bad (Mitchell and Olson, 1981). Brand attitude is a subject which has been popular in previous literature. In 1996, Bruner and Hensel reported 66 studies in which brand attitude was a dependent variable, often in research on advertising. As Low and Lamb Jr. (2000) note, brand attitude measures the meaning that consumers attach to brands in their memory, which consequently affects individuals' purchasing behavior.

The way consumers perceive brands is a very prominent component of long-term relationships between companies and consumers (Fournier, 1998). Previous literature shows that advertisements using a brand name have a significant effect on customer satisfaction and brand attitude (Grace and O'Cass, 2005). Research by Keller and Berry (2003), as described in Bakshy, Hofman, Mason, and Watts (2011) shows how brand awareness can be influenced by word-of-mouth communications. These researches show that brand attitude as a dependent variable can be positively influenced by positive advertisements and positive (electronic) word-of-mouth.

Although brand attitudes are studied as dependent variables most of the time, there is some research which has focused on the effect of brand attitudes on other outcomes, such as purchase intention. Research regarding the role brand attitudes play in influencing purchase intention found positive results, meaning that better brand attitudes lead to higher purchase intention (Chen, Ching, Tsai, and Kuo, 2008). This is why the relevance of positive brand attitudes has been broadly acknowledged by companies and

in marketing literature, and this is why it is chosen as one of the dependent variables in this research.

Purchase intention
Purchase intentions are an individual's conscious efforts to purchase a brand or product (Spears and Singh, 2004, as described in Chen et al., 2008). In other words, purchase intentions are personal action tendencies towards the brand. Purchase intention has been studied multiple times in an online setting, often using either a technological approach with the Technology Acceptance Model or from a trust perspective (e.g. Van der Heijden, Verhagen, and Creemers, 2003).

Research of for instance Park and Kim (2008) – conducted in a UGC context – shows that the type of review has an effect on the purchase intention consumers have, with a prominent role for experts. Also, we saw that brand attitudes have an impact on purchase intention (Chen et al., 2008). Research by Chang, Cheung, and Lai (2008) has found the same relationship between brand attitude and purchase intention. This research has also studied (and found) the effect between purchase intention and actual purchase on the internet. Since this research focuses on review effects in a consumer market, and because purchase intention has a significant effect on actual purchase, we believe this forms a very important dependent variable in this research.

Perceived quality
Perceived quality can be defined as "the evaluation based on the product attributes which are objectively measurable" (Lee and Lee, 2009). More specifically, Zeithaml (1988) defines perceived quality as "the consumer's judgment about a product's overall excellence or superiority". Zeithaml (1988) notes that perceived quality is different from objective or actual quality, that it is a higher level of abstraction rather than a specific attribute of a product, that it is a global assessment that in some cases resembles attitude, and that it is a judgment usually made within a consumer's evoked set (p 3).

Perceived quality explains a considerable portion of the variance in the price consumers are willing to pay for brands (Sethuraman and Cole, 1997). The perceived quality of products and services is a very important element in the theory that strong brands add value to consumers' purchase evaluations (Low and Lamb Jr., 2010). More eWOM-related research by Lee and Lee (2009) states that – just as brand attitude – the perceived product quality needs to be considered as a major antecedent to the intention to purchase. As the average rating of the eWOM communication increases, the impact of

perceived quality on purchase intention increases. Because the perceived quality can make the difference between strong brands and normal brands, we acknowledge the impact the perceived quality of a brand can have. This is the reason this is one of the dependent variables in our research.

Moderating variables

Online media

New media provide people with choices as to where to share their information, with whom, and on which frequency. Also, the choices for channels have increased. The research by Newcom Research (2013) showed that multiple new media are very popular nowadays. These channels al vary in their characteristics; some channels are very public (e.g. blogwebsites), whereas others are more private (e.g. Facebook). Some channels can handle lots of information, including long texts, photos, and videos (e.g. Facebook), whereas others are limited to a certain amount of characters and can only link to a photo or video (e.g. Twitter), and not display it. Although all these channels differ, research has never really focused on comparing these channels with one another. Very often, just one channel is subject of research. In this study we want to focus on the differences between certain media, comparing reviews on a blogwebsite, a microblogwebsite, and a recommendation website. For making the comparison between these media, we make use of the media richness theory.

Media Richness Theory

Many theoretical frameworks are formed around the media richness theory (MRT), proposed by Daft and Lengel (1984). Despite the great amount of existing communication theories, the MRT is one of the most applied theories in literature (Suh, 1999; Sun and Cheng, 2007). Also, many researchers have used the MRT as a basis for developing their own theory (e.g. Carlson and Zmud, 1999; Dennis and Valacich, 1999). Originally, the theory was formulated to examine the effects of organizational communication. Daft and Lengel (1984) state that communication channels consist of a number of objective characteristics, which define a channel's capacity to carry 'rich information'. Rich information (as opposed to lean information) is often more capable of reducing equivocality in an individual reading the message. All media channels (from memo, email, and text message to website and social media) have certain intrinsic characteristics which define their richness capacities. These intrinsic characteristics are (Daft, Lengel, and Trevino, 1987; as described in Sun and Cheng, 2007):

- Capacity for immediate feedback: The medium facilitates quick convergence on a common interpretation.
- Capacity to transmit multiple cues: An array of cues, including physical presence, voice inflections, body gestures, words, numbers, and graphic symbols, facilitate conveyance of interpretation and meaning, rather than simply information or data.
- Language variety: Numbers and formulas provide greater precision, but natural language conveys a broader set of concepts and ideas.
- Capacity of the medium to have a personal focus: This refers either to the conveyance of emotions and feelings, or to the ability of the medium to be tailored to the specific needs and perspectives of the receiver.

These four characteristics help develop a common and shared meaning between the broadcaster and the receiver of the message, on which the notion of the richness of information is based. On the basis of differences between these four characteristics, channels can be placed on a so-called 'media richness continuum', describing their relative richness (e.g. Rice, 1992). According to the MRT, messages should be communicated via a medium which has sufficient richness capabilities (Daft and Lengel, 1986).

As noted before, the media richness theory has been used many times in previous research regarding organizational communication media. Most previous studies have only taken into account a single media, but in these studies, significant results for media richness were often found (e.g. Balaji and Chakrabarti, 2010; Chen, Ching, Tsai, and Kuo, 2008; Jansen, Zhang, Sobel, and Chowdury, 2009). One study in which multiple channels are taken into account is conducted by Te'eni, Sagie, Schwartz, Zaidman, and Amichai-Hamburger (2001). They studied the effect of text-based communication via letter, memo, fax, and memo, and found that people prefer certain message and medium attributes for different communication strategies.

Research conducted in consumer contexts, for instance Jahng, Jain, and Ramamurthy (2006), found a relationship between product type and media richness of an electronic commerce interface. Buying a complex product requires greater richness than buying a simple product does. Also, Brunelle (2009) found empirical support for media richness theory in a commercial context and "for causal relationships explaining consumers' intentions to use online stores in their information search and transaction tasks". In other words: the higher the perceived media richness, the higher the intention to use an online

store in an information task, and the higher the intention to use online stores in a transaction task.

The media richness theory has often been the foundation for newer theories and it has proven to be a useful theory to determine differences between media. Moreover, compared to other theories about media and their usage, media richness theory is considered a theory in which richness is viewed as a relatively objective feature that is largely inherent in the medium (Schmitz and Fulk, 1991). This is why we choose for the media richness theory as a basis of our theoretical framework. The media richness theory will be applied to the three different online media: microblogwebsite, blogwebsite, and recommendation website. We choose for these media because these channels are open to everyone, mainly rely on text-based information (instead of video-based), and are very popular when it comes to consumer goods.

Microblogwebsite

Twitter is a very popular medium, as we could see in the numbers of Newcom Research (2013). Mainly, it is known for its microblogging characteristics, in which one has to write a message in no more than 140 characters. Photos and videos can be added to a message (a 'tweet') using a link to this information. Although users are able to fence their personal account from strangers, by far the most users leave it open for everyone to see. Users can search for topics or for users, and in the results tweets from all over the world are shown. With over 3.3 million users in Holland in 2013 (Newcom Research, 2013), Twitter is a very popular new medium on which user-generated content is placed and an extremely valuable source of user-generated behavior. Therefore, in recent years, the number of studies on Twitter has increased. Most of them focus on the microblogging character of Twitter or even indexed the whole Twitter sphere to get to know the characteristics of Twitter (e.g. Kwak, Lee, Park and Moon, 2010). Research on popularity on Twitter has pointed out that the number of retweets can be used as a measure of the tweet's popularity, and consequently the popularity of the tweet's writer (Kwak, Lee, Park and Moon, 2010). Cha, Haddadi, Benevenuto, and Gummadi (2010) found that the number of retweets is not only an indicator of popularity, but also a good measure of influence. However, for as far we know, there is no previous literature which focuses on the media richness characteristics of Twitter. Therefore, the characteristics are based on the theoretical components of the media richness theory. Twitter can be perceived as a medium which is average in media richness. Due to the microblogging nature, and the 140 characters in one message, an individual has a fairly limited amount of information one can communicate. Therefore, the possibility for language variety is low, as well as

the possibility to use multiple cues in one message. However – also inherent in the microblogging nature – there is the fast communicating with others. Therefore, the capacity for immediate feedback is high. This immediate feedback can be given directly to one person, making the medium scoring high on the capacity to have a personal focus. Overall, the medium can be seen as having average media richness.

Blogwebsite

Blogwebsites can be seen as the bigger brother of Twitter. Blogwebsites generally are websites on which very little restrictions are placed when it comes to number of characters or media added to a message. At the moment, Tumblr is a very popular blogging platform, on which individuals have their own accounts on which they place their blogs.

Research on blogs has mainly focused on the impact of blogs for education (Deng and Yuen, 2011), politics (Wallsten, 2007) and healthcare (Kovic, Lulic, and Brumini, 2008). Results of these studies generally conclude that the use of blogwebsites can contribute to user involvement and that blogs often have a multifaceted effect on dependent variables. Like Twitter, there is not a large body or literature on blogs which specifically focuses on the media richness. The study of Saeed and Sinnappan (2009) is one of the few who does so. In this research a blogwebsite's characteristics were linked to the media richness theory. Just as with a great variety of other studies, this study focused on the perceived media richness on the behavioral intention to use a blog. Results show that there is a significant effect between media richness and intention to use blogwebsites, which indicates that the higher the perceived media richness, the more the users perceive the blog as easy to use (and finally use it). The study of Saeed and Sinnappan (2009) does not further determine a level of media richness for blogs. Therefore, just as in the microblogwebsite condition the media richness has to be established using the components of the media richness theory. First of all, for blogwebsites there is no limit on the amount of characters which can be used to compose a message. Also, pictures, videos, and other media can be used to add an extra dimension to the message. Therefore, we can say that blogwebsites are high on language variety and the ability to use multiple cues. On the contrary, the short and immediate nature which we identified for Twitter is somewhat slower in the blogwebsite. The capacity of the blogwebsite for immediate feedback is therefore medium. Lastly, because a message on a blogwebsite can not be directed to one person in particular, the ability for the medium to have a personal focus is low. Although a message can be addressed to one person in particular, this is most of the times not a guarantee that this person will read it. After all, there are

millions of blogwebsites online. Therefore, the likelihood that a blogger will adjust a message on a blogwebsite to one person in particular is very low. Overall, we can say the media richness of a blogwebsite is a little above average.

Recommendation website

A recommendation website is a place on the internet where people – in a review – share their product and brand experiences with others. Subject of these reviews are a great variety of products. The power of a recommendation website is that almost all reviewers have actually used the product or are using it at the moment. This is why it is a very reliable source of information when consumers want to buy new goods. The reviews on these recommendation websites are available for all to see.

A recommendation website is very closely linked to an online consumer discussion forum, which Luo, Luo, Schatzberg, and Sia (2013) describe as: "a virtual platform where members share their consuming experiences and viewpoints." On these online consumer discussion forums, members also get purchasing suggestions and opinions from one another by reading each other's reviews. This medium is filled with user-generated content, meaning there is a lot of interpersonal influence. As we have seen before, this has a great influence on people's brand-related outcomes.

As with blogwebsites and microblogwebsites, research on the media richness of recommendation websites is very scarce. Since recommendation websites are so closely linked to online (consumer) discussion forums, we can relate to findings in this area of research. As far as we know, only Balaji and Chakrabarti (2010) conducted research specifically focused on media richness theory in online discussion forums. They tested the effects of media richness on the communication context and perceived learning. The results show that the perceived media richness of an online discussion forum has significant positive effects on (student) participation, interaction, and learning. This means that the higher the media richness, the stronger the effects on the dependent variables will be. This is the same relation as Saeed and Sinnappan (2009) found. However, these researchers did not determine a certain level of media richness for this medium. Therefore, as with the microblogwebsite and the blogwebsite conditions, the richness for the recommendation website condition is based on the theoretical grounds of the media richness theory. Messages on a recommendation website are often limited to a certain amount of characters, but more than 140. The use of pictures and other media is oftentimes not possible, but in the text there is more space to share ideas and viewpoints. Because of these restrictions, the capacity for language variety and the

capacity to use multiple cues are medium. Even more, recommendation websites are media on which a message is posted for others to read, not to actively discuss ideas. This is why the recommendation website is low on both the ability for personalization and the ability for immediate feedback. Overall, the media can be defined as being below average on media richness.

Hypotheses

As pointed out, there are very little results from previous research which specifically link media richness to these new media which are based on user-generated content. However, since the media richness theory consists of a strong theoretical basis with four intrinsic characteristics (Schmitz and Fulk, 1991), the media can safely be scored on these characteristics. Doing this, the blogwebsite condition was noted as highest in richness, the recommendation website as lowest in richness. The following hypotheses are proposed:

> H7: The source credibility of a reviewer has a more positive influence on brand attitudes when the review is written on a blogwebsite than when it is written on a microblogwebsite or recommendation website.

> H8: The source credibility of a reviewer has a more positive influence on a person's purchase intentions when the review is written on a blogwebsite than when it is written on a microblogwebsite or recommendation website.

> H9: The source credibility of a reviewer has a more positive influence on a person's perceived brand quality when the review is written on a blogwebsite than when it is written on a microblogwebsite or recommendation website.

> H10: The popularity of a review has a more positive influence on a person's brand attitudes when the review is written on a blogwebsite than when it is written on a microblogwebsite or recommendation website.

> H11: The popularity of a review has a more positive influence on a person's purchase intentions when the review is written on a blogwebsite than when it is written on a microblogwebsite or recommendation website.

H12: The popularity of a review has a more positive influence on a person's perceived product quality when the review is written on a blogwebsite than when it is written on a microblogwebsite or recommendation website.
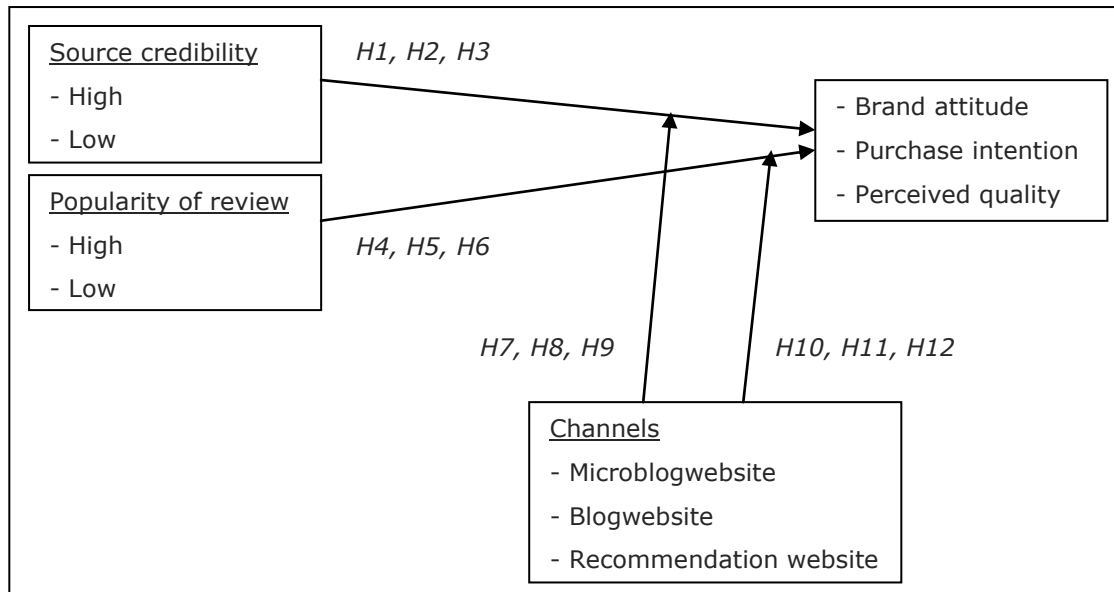

Figure 1: research model and overview of hypotheses

METHODOLOGY

As shown in figure 1, in this research two independent variables were used; source credibility and popularity. The two independent variables had two values; low vs. high expertise of the blogger, and low vs. high popularity of the reviews, making it a 2*2 design. Because of the nature of the moderating conditions, we added three more conditions to our design, making it a 2*2*3 design. In total, there were 12 conditions.

Respondents

Participants were invited to fill in the online questionnaire using a link to the website. E-mails with the link were sent, and the link was shared on personal social media of the researcher. Furthermore, because the call to fill in the questionnaire was also shared by others on social media, a lot of individuals were reached via indirect networks. The research has been conducted during a 3-week period. Since the questionnaire was in Dutch, all respondents spoke Dutch. Also, knowledge of at least one of the channels used in the research was verified. No further criteria were specified for respondents to contribute to the research. In total, a number of 389 people filled in the questionnaire, of which 6 were later removed due to outlying scores, leaving data of 383 respondents. 194 respondents were male, 188 respondents were female, and 1 respondent did not indicate a gender (table 1). The average age of respondents was 32 (table 2). The respondents were evenly distributed over the 12 stimulus conditions.

Table 1: distribution of gender in the study sample

		n
Gender	Female	188
	Male	194

Table 2: mean age of the study sample

	M	SD
Age	31.77	11.4

Questionnaire

An online questionnaire (via Qualtrics.com) was used, which consisted of an introductory story in which the goal of the research was explained, one of the 12 conditions as stimulus material (presented at random), items for the independent, dependent, and moderating variables, and general demographical questions. Items for source credibility were derived from research from Newell and Goldsmith (2001). Items for brand attitude were derived from Priester and Petty (2003), and Lee, Park, and Han (2008). Items for purchase intention were derived from Yoo and Donthu (2001), and Meyers-Levy and Peracchio (1996). Items for perceived quality were also derived from Yoo and Donthu (2001). Items for media richness were developed on the basis of the theoretical components of the media richness theory (Daft and Lengel, 1984). Items for popularity were our own, and were straight-forward questions which were tested in the pre-test. All items can be found in Appendix 1. All questions were scored on a 7-points Likert scale.

Experimental setting

For source credibility, in the non-expert condition the review was posted by a user, whereas in the expert condition the review was posted by an expert. The difference between the user and the expert could be seen in the text. In the non-expert condition the text was rather superficial, whereas in the expert condition the text was written using expert language. More important, in the description of the reviewer in the expert condition could be seen that he was a salesman in a TV-company, whereas in the non-expert condition the reviewer was a father of 2 children with no indication of occupation.

To visualize the popularity of the review, we made use of a bar in which the amount of shares of the review was shown. In the low popularity condition there was only a small amount of shares, whereas in the high popularity condition the review was shared many times. For the recommendation website we made use of a flame instead of a bar. The amount of shares remained the same.

The differences between the media were displayed using different URLs, and a different lay-out between the media. For instance, in the blogwebsite condition the review was placed on a website named www.blogger.com, while in the recommendation website condition the review was posted on a website named www.tv-vergelijk.nl ('www.tv-comparison.nl'). For the microblogwebsite condition, the Twitter lay-out was consistently used.

Statistical analysis

A MAN(C)OVA was used to analyze the results of the study. The direct effects of the independent variables on the dependent variables were analyzed using a MANOVA. To test the effects of the moderating media a MANCOVA was used.

Pretest

A pretest was conducted to test which individuals are perceived to be most influential on the topic of televisions. Of 13 individuals asked, 11 named a salesman in a TV-company to be very influential. This is why the expert in our study was a salesman in a TV-company. Furthermore, the 12 conditions (2 levels of expertise * 2 levels of popularity * 3 different media) were tested to see whether there were no significant differences in perceived source credibility, popularity, and media richness over the three media. Also, it was tested to see whether there were significant differences between the low and high level of source credibility, and the high and low level of popularity. In total, 11 individuals filled in this survey. Results of this analysis showed an unwanted significant difference for popularity over the three media ($F_{(2,126)} = 3.35$, $p = 0.038$). This effect was caused by the blogwebsite, where both the unpopular and the popular condition were perceived as less popular than their low and high counterparts in the recommendation website and microblog condition. Because of this, the amount of shares in these conditions were slightly increased. This proved to be successful: the low popularity condition and the high popularity condition increased in perceived popularity. This time, however, the low popularity condition was still rather low for the blogwebsite condition compared to the recommendation website condition and the microblogwebsite condition. This is why the amount of shares for the low popularity condition on the blogwebsite was again slightly increased, and the amount of shares for the high popularity condition on the blogwebsite was slightly decreased. As we expected, no significant differences in source credibility were found over the three media ($F_{(2,122)} = 0.63$, $p = 0.535$). Furthermore, as we wanted, there were significant differences in media richness over the three media ($F_{(2,123)} = 3.59$, $p = 0.031$). Also, there were significant differences between the low and high source credibility conditions ($F_{(1,122)} = 54.96$, $p < 0.001$), and the low and high popularity conditions ($F_{(1,126)} = 234.04$, $p < 0.001$). This resulted in a firm basis for our research. The research was put online.

Measurements

Internal consistency of the scales

To test the reliability of the various scales, the Cronbach's alpha for each scale was assessed. In the research, six different scales were used. The expertise items could be placed into one scale with a Cronbach's alpha of .9, which indicates a very high level of internal consistency. The trustworthiness items can also be placed into one scale with a Cronbach's alpha of .84. Together, the expertise items and the trustworthiness items formed the source credibility. These items taken together proved to be highly internally consistent (alpha = .90). The three popularity items could be placed into one scale (alpha = .90), as well as the six items for brand attitude (alpha = .92), the three items for purchase intention (alpha = .83), and the three items for perceived quality (alpha = .90). The items for media richness did not prove to have a high internal consistency (alpha = .40). To test whether the media richness consisted of multiple underlying factors, we conducted a factor analysis (see table 3). Results showed that the two items for the capacity for immediate feedback could be placed on one scale, and that the three items for language variety, ability for the medium to have a personal focus and the items for the medium to transmit multiple cues could be taken together as one factor. One media richness item on the questionnaire was dropped. The richness scale for immediacy of feedback was composed of the items: "This communication medium allows the author to quickly share his opinion", and "This communication medium slows down the communication of the author*". The richness scale for the language variety, personal focus, and transmission of multiple cues was composed of the items: "This communication medium allows the author to communicate a variety of different cues (such as emotional tone, attitude, or formality) in his review", "This communication medium allows the author to tailor his message to my personal requirements", and "This communication medium allows the author to use rich and varied language in his review". For these two factors, the Cronbach's alpha was measured again. These scales still did not prove to be very high on internal consistency. The construct for immediate feedback had a Cronbach's alpha of .40, the other construct had a Cronbach's alpha of .51.

Table 3: factor analysis outcomes of the media richness items

	Component		
	1	2	3
This communication medium allows the author to quickly share his opinion.	.32	.74	
This communication medium allows the author to communicate a variety of different cues (such as emotional tone, attitude, or formality) in his review.	.71		
This communication medium allows the author to tailor his message to my personal requirements.	.78		.33
This communication medium allows the author to use rich and varied language in his review.	.59	-.38	
This communication medium slows down the communication of the author.*		.78	.39
The author couldn't easily communicate some ideas to me because of the communication conditions.*			.90

Assumptions of dependent variables

After collecting the data of the research, the data was checked for outliers. Analysis showed 6 outliers, which were removed from the data. Next, checks for the assumptions of homoscedasticity, and linearity were conducted. These analyses showed that the assumptions of homoscedasticity and linearity were met. Because the data was gathered using multiple channels, we can fairly assume that the assumption of independence was met. Furthermore, because there were at least 30 participants per condition, it was safe to assume that the assumption of normality was also met.

RESULTS

Manipulations check

Source credibility

Results show that the high source credibility conditions (M = 4.41, SD = 1.08) were perceived as significantly more credible than the low source credibility conditions (M = 3.57, SD = 1.15) ($F_{(1,381)}$ = 55.79, p < 0.001).

Popularity

The high popularity conditions (M = 4.33, SD = 1.37) were perceived as significantly more popular than the low popularity conditions (M = 3.17, SD = 1.38) ($F_{(1,381)}$ = 68.35, p < 0.001).

Richness perception: immediate feedback[1]

For the three media, significant differences were found for the extent into which people experience the media to have an ability for immediate feedback ($F_{(2,380)}$ = 20.68, p < 0.001). Although the blogwebsite conditions (M = 5.04, SD = 1.09) and the recommendation website conditions (M = 5.05, SD = 0.94) were pretty much alike, the microblogwebsite (M = 5.74, SD = 0.97) conditions were perceived as significantly higher in their capacity for immediate feedback than the others.

Richness perception: language variety, personalization and ability to use multiple cues[2]

For the three media, significant differences were found for the extent into which people experience the media to be capable for language variety, personalization and to have the ability to transmit multiple cues ($F_{(2,380)}$ = 8.72, p < 0.001). Here, the blogwebsite conditions (M= 4.63, SD = 1.07), the recommendation website conditions (M = 4.39, SD = 1.03), and the microblogwebsite conditions (M = 4.02, SD = 1.38) were all perceived as significantly different in their capacity for language variety, personalization, and ability to transmit multiple cues.

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[1] The three online media did not prove to lead to any significant moderating effects in the relationship between independent and dependent variables. Because the differences between the three media were explained using the media richness theory, we – instead of making a distinction between the three online media – chose to look at the moderating effects of the media richness items. As seen before, two factors emerged on the basis of the media richness items. We believe these two factors are moderators which inherently differ in the three media, and are therefore good alternatives. Also, we believe they are better predictors and more stable over conditions than single items, which explains why we did not take single items into account.
[2] See point above.

Analysis of main effects

Source credibility

Source credibility of the reviewer has an effect on all dependent variables. The effect of source credibility on brand attitude is significant ($F(1,379) = 16.4$, $p < 0.001$). What is interesting here, is that reviews written by reviewers high on source credibility (M = 3.64, SD = 0.90) actually lead to a less positive attitude towards the brand compared to reviews written by reviewers low on source credibility (M = 4.02, SD = 0.91). Therefore, H1 is not confirmed.

The effect of source credibility on purchase intention also proves to be significant ($F(1,379) = 5.02$, $p = 0.026$). Here, the reviews written by reviewers high on source credibility (M = 2.79, SD = 1.16) lead to higher purchase intention than the reviews written by reviews low on source credibility (M = 2.53, SD = 1.11). H2 is confirmed. Lastly, the effect of source credibility on perceived quality of the product proved to be significant ($F(1,379) = 8.51$, $p = 0.004$). Here, the reviews written by reviewers high on source credibility (M = 3.84, SD = 1.26) lead to higher perceived quality than the reviews written by reviewers low on source credibility (M = 3.47, SD = 1.22). H3 is confirmed.

Popularity

The popularity of the review has an effect on two of the dependent variables. The effect of popularity on brand attitude is significant ($F(1,379) = 5.26$, $p = 0.022$), with reviews high on popularity (M = 3.72, SD = 0.91) leading to a less favorable brand attitude than reviews low on popularity (M = 3.93, SD = 0.93). Therefore, H4 can not be confirmed. Also, the effect of popularity on perceived quality proved to be significant ($F(1,379) = 6.92$, $p = 0.009$), with popular reviews (M = 3.83, SD = 1.23 leading to higher perceived quality than reviews low on popularity (M = 3.49, SD = 1.25). H5 can be confirmed. The popularity of the review does not have a significant effect on the purchase intention ($F(1,379) = 2.55$, $p = 0.11$). H6 can not be confirmed. An overview of all main effects is given in table 4.

Table 4: main effects of source credibility and popularity on brand attitude, purchase intention, and perceived quality

Independent variable	Dependent variable	H#	Df	F	p
Source credibility	Brand attitude	H1	1	16.40	< 0.001
	Purchase intention	H2	1	5.02	0.026
	Perceived quality	H3	1	8.51	0.004
Popularity	Brand attitude	H4	1	5.26	0.022
	Purchase intention	H5	1	2.55	0.111
	Perceived quality	H6	1	6.92	0.009

Analysis of interaction effects

*Source credibility * immediate feedback*

For source credibility of the reviewer, no significant interaction effects were found. The effects of source credibility on brand attitude were not significantly different for people who experienced the media to have a high capacity for immediate feedback and for people who experienced the media to have a low capacity for immediate feedback $(F(1,374) = 0.28, p = 0.596)$. Also, there were no significant differences for source credibility between people who experienced the media to have a high capacity for immediate feedback and for people who experienced the media to have a low capacity for immediate feedback for purchase intention $(F(1,374) = 0.67, p = 0.415)$ and for perceived quality $(F(1,374) = 0.002, p = 0.968)$.

*Source credibility * language variety, personalization and ability to use multiple cues*

For source credibility of the reviewer, no significant interaction effects were found. The effects of source credibility on brand attitude were not significantly different for people who experienced the media to have a high capacity for language variety, personalization and ability to use multiple cues and for people who experienced the media to have a low capacity for language variety, personalization and ability to use multiple cues $(F(1,374) = 0.08, p = 0.774)$. Also, there were no significant differences for source credibility between people who experienced the media to have a high capacity for language variety, personalization and ability to use multiple cues and for people who experienced the media to have a low capacity for language variety, personalization and ability to use multiple cues for purchase intention $(F(1,374) = 1.86, p = 0.174)$ and for perceived quality $(F(1,374) = 0.13, p = 0.719)$. Therefore, H7, H8, and H9 are not confirmed.

*Popularity * immediate feedback*

The effects of popularity of the review on brand attitude were not significantly different for people who experienced the media to have a high capacity for immediate feedback and for people who experienced the media to have a low capacity for immediate feedback ($F_{(1,374)} = 1.20$, $p = 0.274$). The effects of popularity of the review on purchase intention were significantly different for people who experienced the media to have a high capacity for immediate feedback and for people who experienced the media to have a low capacity for immediate feedback ($F_{(1,374)} = 6.03$, $p = 0.015$). This means that unpopular reviews, while the perceived immediacy of feedback of the medium increases, lead to an increasingly less intention to purchase the product. Popular reviews, on the other hand, lead to an increasing intention to purchase the product when the perceived immediacy of feedback of the medium increases (figure 2).

Figure 2: interaction effect of immediacy of feedback on the relationship between popularity and purchase intention

Furthermore, the effects of popularity of the review on perceived quality of the product were marginally significantly different for people who experienced the media to have a high capacity for immediate feedback and for people who experienced the media to have a low capacity for immediate feedback ($F_{(1,374)} = 3.82$, $p = 0.051$). This means that – on a marginal level of significance – unpopular reviews, while the perceived immediacy of feedback of the medium increases, do not lead to any changes in perceived quality of the

product. Popular reviews, on the other hand, lead to an increase in the perceived quality of the product when the perceived immediacy of feedback of the medium increases (figure 3).
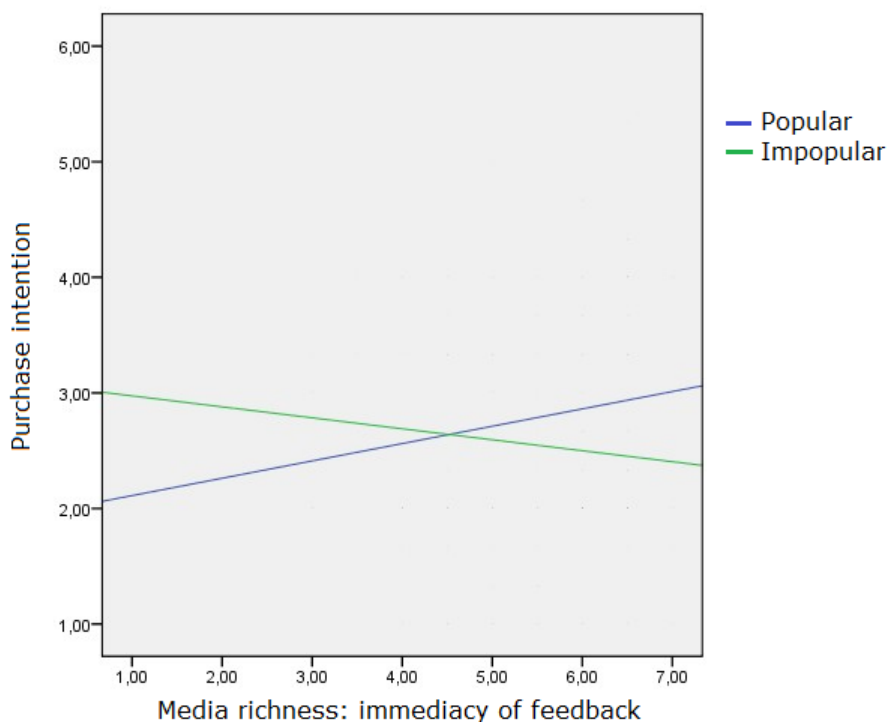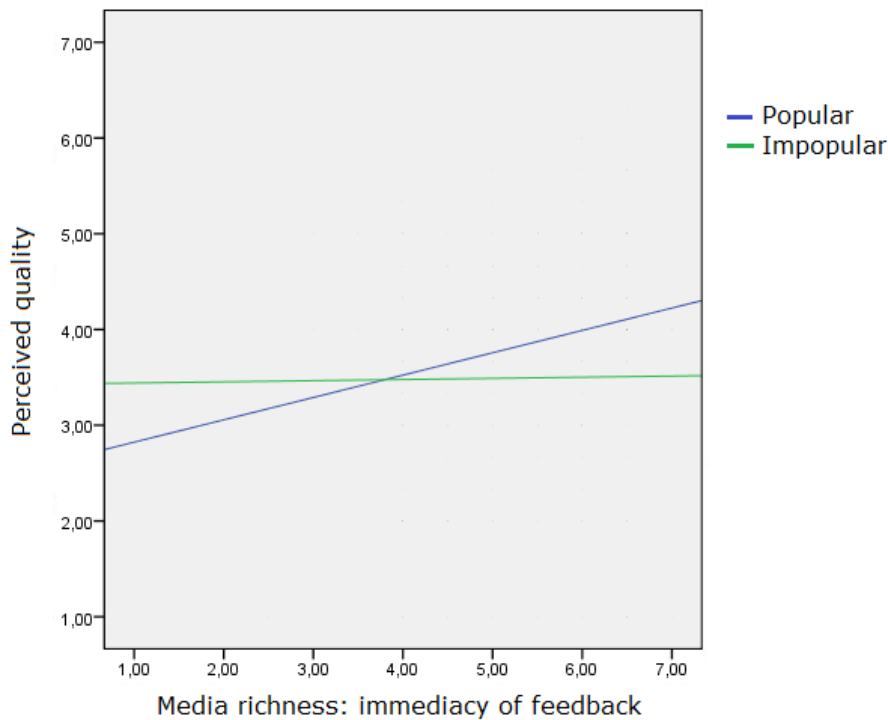

Figure 3: interaction effect of immediacy of feedback on the relationship between popularity and perceived quality

*Popularity * language variety, personalization and ability to use multiple cues*
For popularity of the review, no significant interaction effects were found. The effects of popularity of the review on brand attitude were not significantly different for people who experienced the media to have a high capacity for language variety, personalization and ability to use multiple cues and for people who experienced the media to have a low capacity for language variety, personalization and ability to use multiple cues ($F(1,374) = 0.16$, $p = 0.686$). Also, there were no significant differences for popularity of the review between people who experienced the media to have a high capacity for language variety, personalization and ability to use multiple cues and for people who experienced the media to have a low capacity for language variety, personalization and ability to use multiple cues for purchase intention ($F(1,374) = 0.09$, $p = 0.771$) and for perceived quality ($F(1,374) = 0.01$, $p = 0.92$). H10 is not confirmed. H11 and H12 are partly confirmed. An overview of all moderating effects can be found in table 5.

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Table 5: moderating effects of immediacy of feedback, and language variety, personalization and ability to use multiple cues on the relation between source credibility and popularity on brand attitude, purchase intention, and perceived quality

Independent variable	Moderating variable	Dependent variable	H#	Df	F	p
Source credibility	1*	Brand attitude	H7	1	0.28	0.596
		Purchase intention	H8	1	0.67	0.415
		Perceived quality	H9	1	0.00	0.968
	2**	Brand attitude	H7	1	0.08	0.774
		Purchase intention	H8	1	1.86	0.174
		Perceived quality	H9	1	0.13	0.719
Popularity	1*	Brand attitude	H10	1	1.20	0.274
		Purchase intention	H11	1	6.03	0.015
		Perceived quality	H12	1	3.82	0.051
	2**	Brand attitude	H10	1	0.16	0.686
		Purchase intention	H11	1	0.09	0.771
		Perceived quality	H12	1	0.01	0.920

* Immediacy of feedback

** Language variety, personalization and ability to use multiple cues

CONCLUSION

The results provided by this research generally support the hypotheses; significant effects were found for almost all relationships between the independent variables and dependent variables. As observed, the role of the moderating variables is not as influential as hypothesized. Findings of the effect between independent and dependent variables are discussed, as well as the (absence of a) moderating role of the three online media.

Main effects

The results for the main effects of source credibility of the reviewer and popularity of the review partly match our hypotheses.

Source credibility

Although the effects of source credibility on brand attitude did prove to be significant, these effects were different than was hypothesized. The hypothesis was that reading a review from a highly credible reviewer will lead to a more positive brand attitude than when reading a review from a reviewer who is less credible. Results, however, show that individuals reading a review from a less credible reviewer had a more positive brand attitude than individuals reading a review from a highly credible reviewer. This effect was also found in previous research (e.g. Huang and Chen, 2006) and indicates that normal reviewers (when compared to expert reviewers) create more favorable brand attitudes than expert reviewers. As stated earlier, because more individuals are connected to the internet than ever before, theoretically, all individuals can use the major amount of publicly available knowledge to become subject experts of their own. This could lead to a diminishing effect of expertise on the influence of eWOM, making the expert less influential – or the 'normal' users more influential. Also, Priester and Petty (2003) argued that: "Given that the goal of advertising is to influence a consumer's behavior over a long period of time and in the face of counter-persuasion attempts by other advertisements, it is sensible for marketers to be interested in establishing thoughtful (i.e., elaborated) attitudes toward the product that are able to persist, resist, and guide behavior. And the use of an untrustworthy endorser might be a useful strategic tool in accomplishing this very goal". In this perspective, a normal user can be more influential because the use of an untrustworthy reviewer might be a strategic tool to let individuals think about the product more, and make their own choices.

The effect of source credibility on purchase intention was perceived as we hypothesized, with expert reviewers having more influence on the purchase intention than normal reviewers. This means that when an individual reads a review by an expert, he or she is more likely to purchase the product reviewed than after reading a review by a normal user.

Also, for the effect of source credibility on perceived quality, a significant influence was found. This means that when an individual reads a review by an expert, he or she is more likely to perceive the quality of the product to be higher when compared to reading a review by a normal user.

Popularity

Although the effect of the popularity of the review was significant, results showed the same pattern as with source credibility: higher popularity of the review leads to lower brand attitudes than when the review is unpopular. An explanation for this can be provided looking at earlier research into the quantity of reviews. As stated, we expected that popularity of a review would be regarded a heuristic cue. Based on Petty and Cacciopo's (1986) elaboration likelihood model (ELM), the prediction is that low involved individuals are very easily influenced by this heuristic cue, whereas high involved individuals are not. High involved individuals are deliberately processing the information, and are therefore more influenced by good quality of arguments than heuristic cues like quantity or popularity of reviews. This relationship of involvement on the processing of quantity has also often been stated and/or found by previous researchers (e.g. Lee, Park, and Han, 2008; Park, Lee, and Han, 2007; Sher and Lee, 2009). However, not all previous research findings have noted that cues like quantity are always processed in a heuristic manner. For instance, Park, Lee, and Han (2007), in their research on quality and quantity of reviews, found that low involved consumers are affected by the quantity rather than the quality of reviews (as we predicted for popularity), but high involved consumers are affected by review quantity mainly when the review quality is high. This means that this heuristic cue is only processed when certain conditions are met. Even more interesting are the findings by MacKenzie and Spreng (1992), which state that when involvement is increased, the impact of central brand processing on brand attitudes increases, whereas the impact of a peripheral cue on brand attitudes decreases. Moreover, they found that higher involvement does not have an effect on the impact of peripheral cues (say: popularity) on other brand-related outcomes, such as brand cognitions. This means that for high involved consumers, deliberate processing of brand-related information increases, thereby positively influencing brand attitudes. With the

increasing involvement, the role of the peripheral cue decreases. These findings from previous research can exactly explain our findings, and the other than hypothesized effect of popularity on brand attitudes (hypothesized was that high popularity leads to better brand attitudes than low popularity). That is why, based on these results from previous literature, we believe that popularity – just like quantity of reviews in the previous literature – is not as much the heuristic cue we expected it to be, but is probably processed in a more conscious and deliberate way, by individuals who are higher involved than we predicted. This is why higher popularity of the review does not lead to higher brand attitude, but even leads to lower attitudes toward the brand.

The effect of popularity of the review on purchase intention was perceived as we hypothesized, with popular reviews having more influence on the purchase intention than unpopular reviews. This means that when an individual reads a review that is shared often, he or she is more likely to purchase the product reviewed than after reading a review which is unpopular.

The effect of popularity of the review on perceived quality was not confirmed. This means that there is no difference in perceived quality of a brand for popular versus unpopular reviews. We believe this might have something to do with the way the review is processed. Where expertise is a trait of the reviewer, the amount of shares only reflects the popularity. Popularity can be used as an indication for brand attitude. After all, when a lot of people share something, it must be a popular item in the minds of those people as well. As we stated in the explanation of source credibility, the opinion of many might influence brand attitudes, and in this case also purchase intention (Tajfel and Turner, 1986). Even more, Chen et al. (2008) found a relationship between brand attitude and purchase intention; more positive brand attitudes lead to higher purchase intentions. It could be that these two are related in such a way that the effect of popularity influenced only these two, and not popularity of the TV. On the other hand, popularity of the review in itself says nothing about the quality of the TV.

Moderating effects

The results partly confirmed our hypotheses about the moderating role the media (richness) on which the reviews were posted played. As seen in the results, the media richness of the channels was split into two constructs: the ability for immediate feedback of the medium as one, and the ability for personalization, multiple cues, and language variety as another. These two constructs of media richness had less effect than we hypothesized.

Media richness: immediacy of feedback

This construct of media richness did not influence the relation between the independent variables and a person's attitude towards a brand. The influence of a channel's ability for immediate feedback on the effect of popularity of the review on purchase intention did prove to be significant: the immediacy of feedback has a significant effect on the relationship between the popularity of a review and the intention to purchase the product. As shown in figure 2, media on which the capacity for immediate feedback is perceived as higher, the purchase intention after reading popular reviews is higher than when the medium is perceived as less capable for immediate feedback. This effect was not found for source credibility.

Furthermore, the influence of a channel's ability for immediate feedback on the effect of popularity on perceived quality proved to be marginally significant. This means that media on which the capacity for immediate feedback is perceived as higher, the perceived quality of the product for popular reviews is higher than when the medium is compared as less capable for immediate feedback (figure 3). Again, this effect was not found for source credibility.

What attracts our attention is the fact that the immediacy of feedback has an effect on the relationship between popularity and the dependent variables, but not on the effect between source credibility and the dependent variables. How this finding comes into being is a question which is rather hard to answer. One explanation is that source credibility is processed in a different way than popularity is in conditions with high ability for immediate feedback. It could be that in conditions which have a high ability for immediate feedback the expert role does not matter much. After all, if an individual has any questions about the product, he or she can very quickly ask the reviewer for more information. Therefore, an expert reviewer is not necessarily more influential than a normal reviewer. Popularity, however, is a characteristic of the review, and cannot be clarified by communicating about it. This impossibility for further clarification can account for more influence of high popularity.

Another explanation, as Daft and Lengel (1986) noted, is based on the concept of task-medium fit. This holds that the task and the medium have to be adjusted to each other for best results. For instance, a rich communication task is best communicated via a rich medium (such as face to face), whereas a lean communication task is best communicated via a leaner medium (such as a letter or e-mail). Now, source credibility

can be processed in a central fashion, whereas popularity in itself is a heuristical cue. Possibly, the media are experienced as rather lean in their capacity for immediate feedback, and a peripheral cue better fits the media. Following Daft and Lengel (1986) this would lead to better communication outcomes – in this case higher purchase intention and higher perceived quality. The question remains why the media's capacity for immediate feedback does not moderate the effect of popularity on brand attitudes. Research needs to be conducted to further clarify these assumptions.

Media richness: ability for personalization, multiple cues, and language variety
This construct of media richness did not influence any relation between the independent and the dependent variables. This means that the ability for personalization, multiple cues, and language variety characteristics of the blogwebsite, microblogwebsite, and recommendation website do not increase or decrease the effect source credibility has on a person's attitudes towards the brand, a person's purchase intention, or a person's perceived quality of the brand. Also, no moderating role of ability for personalization, multiple cues, and language variety of the channels for the relationship between popularity and a person's brand attitudes, purchase intention, and perceived quality were found.

Explanations for these findings can be provided using the theoretical grounds of the media richness theory (Daft and Lengel, 1986). First, all media used in this study were online, text-based media. This means that these media are all on the leaner side of the richness continuum. If richer media (like video) were also taken into the picture, the chances for significant moderating effects would be bigger. However, because this would do no good for the experimental nature of this research, we deliberately chose for three text-based media. This aim for experimental research might also have impacted the possibility for language variety. Because we wanted to keep the message as alike as possible in all situations – in order to counter the effect of irrelevant information (Gaeth and Shanteau, 1984) – there were no large differences in the messages. This can account for insignificant moderating effect of language variety on the relationship between independent and dependent variables. Adding to these notions, richness perceptions can differ over individuals and media. Carlson and Zmud (1996) noted that there are two factors that influence an individual's richness perceptions. These are the fact that richness perceptions for a specific communication channel can be dynamic within individuals, and the fact that individuals may simultaneously possess different richness perceptions for the same channel. Research has to be conducted to further verify the role of the media richness theory in these researches.

A final attempt to explain the lack of effects was to test the complexity of the product. In line with the task-medium fit of the media richness theory (Daft and Lengel, 1986), and as found in previous research (Jahng, Jain, and Ramamurthy, 2006), buying a complex product requires greater richness than buying a simple product. This is why a post-test was conducted. Using scales from the research of McCabe (1987) we assessed the complexity of TVs. Results (n = 10) show that on a 1 to 5 Likert-scale, the mean complexity of TVs was 3.09, which means that TVs are of average complexity.

DISCUSSION

In this research the effects of source credibility of a reviewer and popularity of the review on brand-related outcomes, namely brand attitudes, purchase intention, and perceived quality were studied. This research was conducted using three different media: a blogwebsite, a microblogwebsite, and a recommendation website. Also, this research studied whether there were any effects of media richness on the effects between source credibility and brand-related outcomes, and on the effects between popularity and brand-related outcomes. Main effects were nearly all significant, the moderating role of the media richness of the three media were (all but two) not significant. Managerial implications, limitations, and directions for future research are discussed.

Managerial implications

Using results from this study, marketers can influence the way consumers perceive a certain brand. Results show that the stimulation of co-creation and consumer input some brands strive for on their online media, is – depending on the goal – not always a successful strategy. For instance, if one wants to influence the way a consumer thinks about a brand, a marketer can use expert opinions to elaborate on how good the brand is, but more positive brand attitudes are established using evaluations of other consumers. In this instance, stimulating consumer input is a good way to go. On the other hand, if a marketer wants to increase the perceived quality and purchase intention, it is better to use the views of an expert. This means that content created by normal users (compared to experts) is does not have a significant effect. Also, if it is a marketer's goal to increase the sale of his product and he wants to make use of user-generated content, we now know that the best way to influence individuals is by doing so on a medium on which the perceived immediacy of feedback is perceived to be high, like Twitter. Also, marketers can make use of this data to create a medium with high perceived immediacy of feedback. For instance, aviation company Air France-KLM has a rule which states that on Twitter, a question has to be answered within 30 minutes, thereby creating a channel with a very high amount of perceived immediate feedback. This same goes for if a marketer wants to influence the way people think about the quality of the product. Higher perceived quality is established using media that have a high capacity for immediate feedback.

Limitations and directions for future research

Although the media richness theory is a very established theory in communications research, and despite of the firm theoretical constructs it measures, we found that the media richness has not yet been applied to social influential communication research before. Our objective in this study was to uncover interesting relationships and an eye-opening use of the media richness theory in social influential research. Although we found some interesting results, we also found that the firm theoretical framework for the media richness theory for studies like these lacks. Looking at previous literature, there are only very few studies which have tried to explain differences in brand-related outcomes by comparing a number of channels on the basis of the media richness theory. Because this theory has proved the various uses to which it can be put, we believe it can be very useful in explaining how variety in richness can inhibit or promote interpersonal influence, ultimately leading to attitude and behavioral changes. This is why we want to encourage future researchers to study the topic of interpersonal influence on multiple channels to take into account the media richness theory as a framework.

Furthermore, the scales for the media richness were – like previous studies of Schmitz and Fulk (1991), and Carlson and Zmud (1999) – derived from the theoretical components of the media richness theory. In the studies by Schmitz and Fulk (1991), and Carlson and Zmud (1999), these scales have proved to be reliable. In this research the Cronbach's alphas for these scales were low, which points to low internal consistency. That is why we suggest future researchers to develop a (highly) consistent scale for media richness items, one that can be used in interpersonal influence research as well – not only in an organizational context.

Also, we want to encourage researchers to study the effects of different product types on dependent variables in a media richness setting. For instance, research conducted by Jahng, Jain, and Ramamurthy (2006) in a consumer context, found a relationship between product type and media richness of an electronic commerce interface. Buying a complex product requires greater richness than buying a simple product does.

REFERENCES

Asch, S.E. Effects of group pressure upon the modification and distortion of judgments, in: H. Guetzkow (Ed.), Groups, Leadership and Men, Carnegie Press, Pittsburgh, PA, 1951, pp. 177–190.

Balaji, M.S., and Chakrabarti, D. (2010). Student interaction in online discussion forum: empirical research from 'media richness theory' perspective. *Journal of Interactive Online Learning, 9*(1), 1-22.

Bakshy, E., Hofman, J.M., Mason, W.A., and Watts, D.J. (2011). Everyone's An Influencer: Quantifying Influence on Twitter, *Proceedings of WSDM 2011*. 65-74.

Bickart, B., and Schindler, R. (2001). Internet forums as influential sources of consumer information. *Journal of Interactive Marketing, 15*, 31–40.

Brunelle, E. (2009). Introducing Media Richness into an Integrated Model of Consumers' Intentions to Use Online Stores in Their Purchase Process. *Journal of Internet Commerce, 8*(3), 222–245.

Carlson, J.R., and Zmud, R.W. (1999). Channel expansion theory and the experiential nature of media richness perceptions. *The Academy of Management Journal, 42*(2), 153-170.

Cha, M., Haddadi, H., Benevenuto, F., and Gummadi, K.P. (2010). Measuring User Influence in Twitter: The Million Follower Fallacy. Proc. International AAAI Conference on Weblogs and Social Media (ICWSM), May 2010.

Chang, M.K., Cheung, W., and Lai, V.S. (2005). Literature derived reference models for the adoption of online shopping. *Information and Management, 42,* 543–559.

ChannelAdvisor, Through the Eyes of the Consumer: 2010 Consumer Shopping Habit Survey, 2010.

Chen, J., Ching, R., Tsai, H., and Kuo, Y. (2008). Blog effects on brand attitude and purchase intention. *International Conference on Service Systems and Service Management 2008*, 1-6.

Cheung, C.M.K., and Thadani, D.R. (2012). The impact of electronic word-of-mouth communication: A literature analysis and integrative model. *Decision Support Systems 54*, 461-470.

Cheung, M., Luo, C., Sia, C., and Chen. H. (2009). Credibility of electronic word-of-mouth: informational and normative determinants of on-line consumer recommendations, *International Journal of Electronic Commerce, 13*(4), 9-38.

Christodoulides, G., Jevons, C. and Blackshaw, P. (2011). The voice of the consumer speaks forcefully in brand identity: user-generated content forces smart marketers to listen. *Journal of Advertising Research, 51*(1), 101-111.

Chu, S., and Kamal, S. (2008). The effect of perceived blogger credibility and argument quality on message elaboration and brand attitudes: an exploratory study. *Journal of Interactive Advertising, 8*(2), 26-37.

Cialdini, R. (2001). *Influence, Science and Practice*. Boston: Allyn and Bacon.

Daft, R., and Lengel, R. (1984). Information richness: A new approach to managerial behavior and organization design. *In B. M. Staw and L. L. Cummings (Eds.), Research in organizational behavior, vol. 6: 191- 233.* Greenwich, CT: JAI Press

Daft, R., and Lengel, R. (1986). Organizational information requirements, media richness and structural design. *Management science, 32*(5), 554-571.

Deng, L., and Yuen, A.H.K. (2011). Towards a framework for educational affordances of blogs. *Computers and education, 56*(2), 441-451.

Dennis, A.R., and Valacich, J.S. (1999). Rethinking Media Richness; Towards a Theory of Media Synchronicity. *HICSS '99 Proceedings of the Thirty-Second Annual Hawaii International Conference on System Sciences*, *1*(1), 1-10.

Doh, S.J., and Hwang, J.S. (2009). How consumers evaluate eWOM (electronic word-of-mouth) messages. *Cyberpsychology and Behavior, 12*(2), 193–197.

Dou, X., Walden, J.A., Lee, S., and Lee, J.Y. (2012). Does source matter? Examining source effects in online product reviews. *Computers in Human Behavior, 28*(5), 1555–1563.

Festinger, L. (1954). A theory of social comparison processes. *Human relations, 7*(2), 117-140.

Fournier, S. (1998). Consumers and their brands: developing relationship theory in consumer research. *Journal of Consumer Research, 24*, 343-73.

Gaeth, G.J., and Shanteau, J. (1984). Reducing the Influence of Irrelevant Information on
Experienced Decision Makers. *Organizational behavior and human performance, 33,* 263-282.

Gupta, P., and Harris, J. (2005). How e-WOM recommendations influence product consideration and quality of choice: a motivation to process information perspective. *Journal of Business Research, 63*(9–10), 1041–1049.

Hanson, W.A., and Putler, D.S. (1996). Hits and misses: Herd behavior and online product popularity. *Marketing Letters, 7*(4), 297-305.

Harmon, R. R., and Coney, K. A. (1982). The persuasive effects of source credibility in buy and lease situations*. Journal of Marketing Research, 19*, 255–260.

Heijden, H.V.D., Verhagen, T., and Creemers, M. (2003). Understanding online purchase intentions: Contributions from technology and trust perspectives. *European Journal of Information Systems, 12*(1), 41-48.

Hennig-Thurau, T., Gwinner, K.P., Walsh, G., and Gremler, D.D. (2004). Electronic Word-of-Mouth via Consumer-Opinion Platforms: What Motivates Consumers to Articulate Themselves on the Internet? *Journal of Interactive Marketing*, *18*(1), 38-52.

Herr, P.M., Kardes, F.R., and Kim, J. (1991). The effects of word-of-mouth and product-attribute information on persuasion: an accessibility-diagnosticity perspective. *Journal of Consumer Research, 17*(4), 454–462.

Hovland, C.I., and Weiss, W. (1951). The influence of source credibility on communication effectiveness. *Public Opinion Quarterly*, *15,* 635-650.

Hsu, C., Khabiri, E., and Caverlee, J. (2009). Ranking comments on the social web. *Proceedings of the International Conference on Computational Science and Engineering, 4*, 90–97.

Huang, J. and Chen, Y. (2006). Herding in Online Product Choice. *Psychology and Marketing, 23*(5), 413–428.

Jahng, J., Jain, H.K., and Ramamurthy, K. (2006). An Empirical Study of the Impact of Product Characteristics and Electronic Commerce Interface Richness on Consumer Attitude and Purchase Intentions. *IEEE Transactions on Systems, Man, and Cybernetics, Part A: Systems and Humans*, *36*(6), 1185-1201.

Kovic, I., Lulic, I., and Brumini, G. (2008). Examining the medical blogosphere: An online survey of medical bloggers. *Journal of Medical Internet Research, 10*(3). Article number e28.

Kwak, H., Lee, C., Park, H., and Moon, S. (2010). What is Twitter, a social network or a news media? *WWW '10 Proceedings of the 19th international conference on World wide web,* 591-600.

Lascu, D.N., Bearden,W. O., and Rose, R.L. (1995). Norm extremity and interpersonal influences on consumer conformity. *Journal of Business Research, 32*, 201–212.

Lee, J., Park, D., and Han, I. (2008). The effect of negative online consumer reviews on product attitude: an information processing view. *Electronic Commerce Research and Applications, 7*(3), 341–352.

Lee, J., Park, D., and 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.

Lee, M., and Youn, S. (2009). Electronic word of mouth (eWOM): how eWOM platforms influence consumer product judgement. *International Journal of Advertising: The*

Quarterly Review of Marketing Communications, 28(3), 473–499.

Low, G.S., and Lamb Jr., C.W. (2000). The measurement and dimensionality of brand associations. *Journal of Product and Brand Management, 9*(6), 350-368.

MacKenzie, S.B., and Spreng, R.A. (1992). How does motivation moderate the impact of central and peripheral processing on brand attitudes and intentions? *Journal of Consumer Research, 18*(4), 519-529.

McCabe, D.L. (1987). Buying group structure: constrictions at the top. *Journal of Marketing, 51,* 89-98.

Meyers-Levy, J., and Peracchio, L.A. (1996). Moderators of the impact of self-reference on persuasion. *Journal of Consumer Research, 22*(4), 408-423.

Milgram, S. (1963). Behavioral study of obedience. *Journal of Abnormal and Social Psychology, 67*, 371–378.

Milgram, S. (1974). Obedience to Authority. London: Tavistock.

Mishne, G., and Glance, N. (2006). Leave a reply: An analysis of weblog comments. In *Proceedings of the 3rd Annual Workshop on the Weblogging Ecosystem (WWW'06)*.

Mitchell, A.A., and Olson, J.C. (1981). Are product attribute beliefs the only mediator of advertising effects on brand attitude? *Journal of Marketing Research*, *18*, 318-332.

Newcom Research and Consultancy's Social Media Onderzoek 2013. (2013). Verkregen op 8 april, 2013, via http://www.newcomresearch.nl/socialmedia.

Newell, S. J., and Goldsmith, R. E. (2001). The development of a scale to measure perceived corporate credibility. *Journal of Business Research, 52*(3), 235-247.

Ohanian, R. (1991). Construction and Validation of a Scale to Measure Celebrity Endorsers' Perceived Expertise, Trustworthiness, and Attractiveness. *Journal of Advertising*, *19*(3), 39-52.

Park, D., and Kim, S. (2008). The effects of consumer knowledge on message processing of electronic word-of-mouth via online consumer reviews. *Electronic Commerce Research and Applications, 7*(4), 399–410.

Park, D.H., Lee, J., and 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.

Petty, R.E., and Cacioppo, J.T. (1986). From Communication and persuasion: Central and peripheral routes to attitude change. New York: Springer-Verlag.

Petty, R. E., Cacioppo, J. T., and Goldman, R. (1981). Personal involvement as a determinant of argument-based persuasion. *Journal of Personality and Social Psychology, 41*, 847-55.

Ratkiewicz, J., Fortunato, S., Flammini, A., Menczer, F., and Vespignani, A. (2010). Characterizing and modeling the dynamics of online popularity, Phys. Rev. Lett. 105, 158701.

Rice, R.E. (1992). Use of new media, and effectiveness: a multi-site exploration of media richness. *Organization science, 3*(4). 475-500.

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.

Rindfleisch, A., and Inman, J.J. (1998). Explaining the familiarity-liking relationship: mere exposure, information availability, or social desirability? *Marketing Letters, 9*(1), 5–19.

Romero, D.M., Galuba, W., Asur, S., and Huberman, B.A. (2011). Influence and passivity on Twitter. *Machine Learning and Knowledge Discovery in Databases, 69*(13), 18-33.

Saeed, N., and Sinnappan, S. (2009). Effects of media richness on user acceptance of Web 2.0 technologies in higher education. In R. Hijón-Neira, and R. Hijón-Neira (ed.), *Advanced Learning (str. 233-244). Vukovar, Croatia: In-Teh.*

Sethuraman, R. and Cole, C. (1997). Why do consumers pay more for national brands than for store brands? Marketing Science Institute, Report No. 97-126, Cambridge, MA.

Sher, P., and Lee, S. (2009) Consumer skepticism and online reviews: an elaboration likelihood model perspective. *Social Behavior and Personality, 37*(1), 137–144.

Sherif, M. (1937). An experimental approach to the study of attitudes. *Sociometry, 1*(1/2), 90-98.

Smith, D., Menon, S., and Sivakumar, K. (2005). Online peer and editorial recommendations, trust, and choice in virtual markets. *Journal of Interactive Marketing 19*(3), 15–37.

Steffes, E.M., Burgee, L.E. (2009). Social ties and online word of mouth, *Internet Research 19*(1) 42–59.

Suh, K.S. (1999). Impact of communication medium on task performance and satisfaction: an examination of media-richness theory. *Information & Management, 35*, 295-312.

Sun, P., and Cheng, H.K. (2007). The design of instructional multimedia in e-Learning: a media richness theory-based approach. *Computers and education, 49*, 662-676.

Tajfel, H. and Turner, J. C. (1986). The social identity theory of inter-group behavior. In S. Worchel and L. W. Austin (eds.), *Psychology of Intergroup Relations*. Chicago: Nelson-Hall

Te'eni, D., Sagie, A., Schwartz, D., Zaidman, N., and Amichai-Hamburger, Y. (2001). The process of organizational communication: a model and field study. *IEEE Transactions on Professional Communication, 44*(1), 6–20.

Trevino, L., Lengel, R., and Daft, R. (1987). Media symbolism, media richness, and media choice in organizations. *Communication Research, 14*, 553-574.

Tsagkias, M., Weerkamp, W., and De Rijke, M. (2009). Predicting the volume of comments on online news stories. In *Proceeding of the 18th ACM Conference on*

Information and Knowledge Management (CIKM'09). ACM, New York, NY, 1765–1768.

Wallsten, K. (2007). Agenda setting and the blogosphere: An analysis of the relationship between mainstream media and political blogs. *Review of Policy Research, 24*(6), 567-587.

Yoo, B., and Donthu, N. (2001). Developing and validating a multidimensional consumer-based brand equity scale. *Journal of Business Research, 52*, 1-14.

Zeithaml, V. (1988). Consumer perceptions of price, quality, and value: a means-end and synthesis of evidence. *Journal of Marketing, 52*(3), 2-22.

Zhang, W., Watts, S.A. (2008). Capitalizing on content: information adoption in two online communities. *Journal of the Association for Information Systems 9*(2). 73–94.

APPENDIX 1: QUESTIONNAIRE ITEMS

Source credibility

Hieronder staat een aantal beweringen over de auteur van de review. Geeft u aan in hoeverre u het hiermee (on)eens bent.

Item 1 Expertise	De auteur heeft veel ervaring
Item 2 Expertise	De auteur is bekwaam in wat hij doet
Item 3 Expertise	De auteur heeft veel expertise
Item 4 Expertise*	De auteur heeft *niet* veel ervaring
Item 1 Trustworthiness	Ik vertrouw de auteur
Item 2 Trustworthiness	De auteur maakt vertrouwende beweringen
Item 3 Trustworthiness	De auteur is eerlijk
Item 4 Trustworthiness	Ik geloof *niet* wat de auteur mij vertelt

Original items

Item 1 Expertise	The author has a great amount of experience
Item 2 Expertise	The author is skilled in what he/she does
Item 3 Expertise	The author has great expertise
Item 4 Expertise	The author does *not* have much experience
Item 1 Trustworthiness	I trust the author
Item 2 Trustworthiness	The author makes trustful claims
Item 3 Trustworthiness	the author is honest
Item 4 Trustworthiness	I do *not* believe what the author tells me

Popularity

Hieronder staat een aantal beweringen over de populariteit van de review. Geeft u aan in hoeverre u het hiermee (on)eens bent.

Item 1	Deze review is populair onder andere mensen
Item 2	Deze review is vaak gedeeld
Item 3	Andere mensen vinden deze review interessant

Media richness

Hieronder staat een aantal beweringen over het communicatiemedium. Met het communicatiemedium wordt het gebruikte kanaal bedoeld zoals weergegeven in de afbeelding (óf blogsite, óf vergelijkingssite, óf Twitter). Geeft u aan in hoeverre u het met deze beweringen (on)eens bent.

Item 1	Dit communicatiemedium geeft de auteur de mogelijkheid om snel zijn mening te geven.
Item 2	Dit communicatiemedium geeft de auteur de mogelijkheid om een variëteit aan nonverbale boodschappen te gebruiken in zijn review (zoals emotie, attitude en formaliteit).
Item 3	Dit communicatiemedium geeft de auteur de mogelijkheid om de boodschap aan te passen aan mijn persoonlijke behoeftes.
Item 4	Dit communicatiemedium geeft de auteur de mogelijkheid om rijke en gevarieerde taal te gebruiken in zijn review.
Item 1a	Dit communicatiemedium vertraagt de communicatie van de auteur
Item 4a	De auteur kan sommige ideeën niet makkelijk aan mij overbrengen vanwege het communicatiemedium

Original items

Item 1	This communication medium allows the author to quickly share his opinion.
Item 2	This communication medium allows the author to communicate a variety of different cues (such as emotional tone, attitude, or formality) in his review.
Item 3	This communication medium allows the author to tailor his message to my personal requirements.
Item 4	This communication medium allows the author to use rich and varied language in his review.
Item 1a	This communication medium slows down the communication of the author.*
Item 4a	The author couldn't easily communicate some ideas to me because of the communication conditions.*

Brand attitude

Hieronder ziet u een aantal algemene eigenschappen van een product. Geef per eigenschap aan hoe u het merk Vinqe waardeert.

Item 1	Positief - negatief
Item 2	Heilzaam - schadelijk
Item 3	Verstandig - onverstandig
Item 4	Goed - slecht
Item 5	Gunstig - ongunstig
Item 6	Bevredigend - onbevredigend

Original items

Item 1	Positive - negative
Item 2	Beneficial - harmful
Item 3	Wise - foolish
Item 4	Good - bad
Item 5	Favorable - unfavorable
Item 6	Unsatisfactory - unsatisfactory

Purchase intention

Hieronder staat een aantal beweringen met betrekking tot de Vinqe TV's. Geeft u per bewering aan in hoeverre u het hiermee (on)eens bent.

Item 1	Ik zou een TV van Vinqe kopen
Item 2	Ik ben van plan een TV van Vinqe te kopen
Item 3	Ik zou een TV van Vinqe aanraden bij mijn vrienden

Original items

Item 1	I would like to buy X
Item 2	I intend to purchase X
Item 3	I would recommendent X to my friends

Perceived product quality

Hieronder staat een aantal beweringen met betrekking tot de Vinqe TV's. Geeft u per bewering aan in hoeverre u het hiermee (on)eens bent.

Item 1	Een Vinqe TV is van hoge kwaliteit
Item 2	De waarschijnlijkheid dat een Vinqe TV functioneel zou zijn is erg hoog
Item 3	De waarschijnlijke kwaliteit van een Vinqe TV is zeer hoog

Original items

Item 1	X is of high quality
Item 2	The possibility that X would be functional is very high
Item 3	The possible quality of X is extremely high

APPENDIX 2: STIMULUS MATERIALS

Figure 4: stimulus material of the microblogwebsite condition: high source credibility and high popularity

Figure 5: stimulus material of the recommendation website condition: low source credibility and low popularity
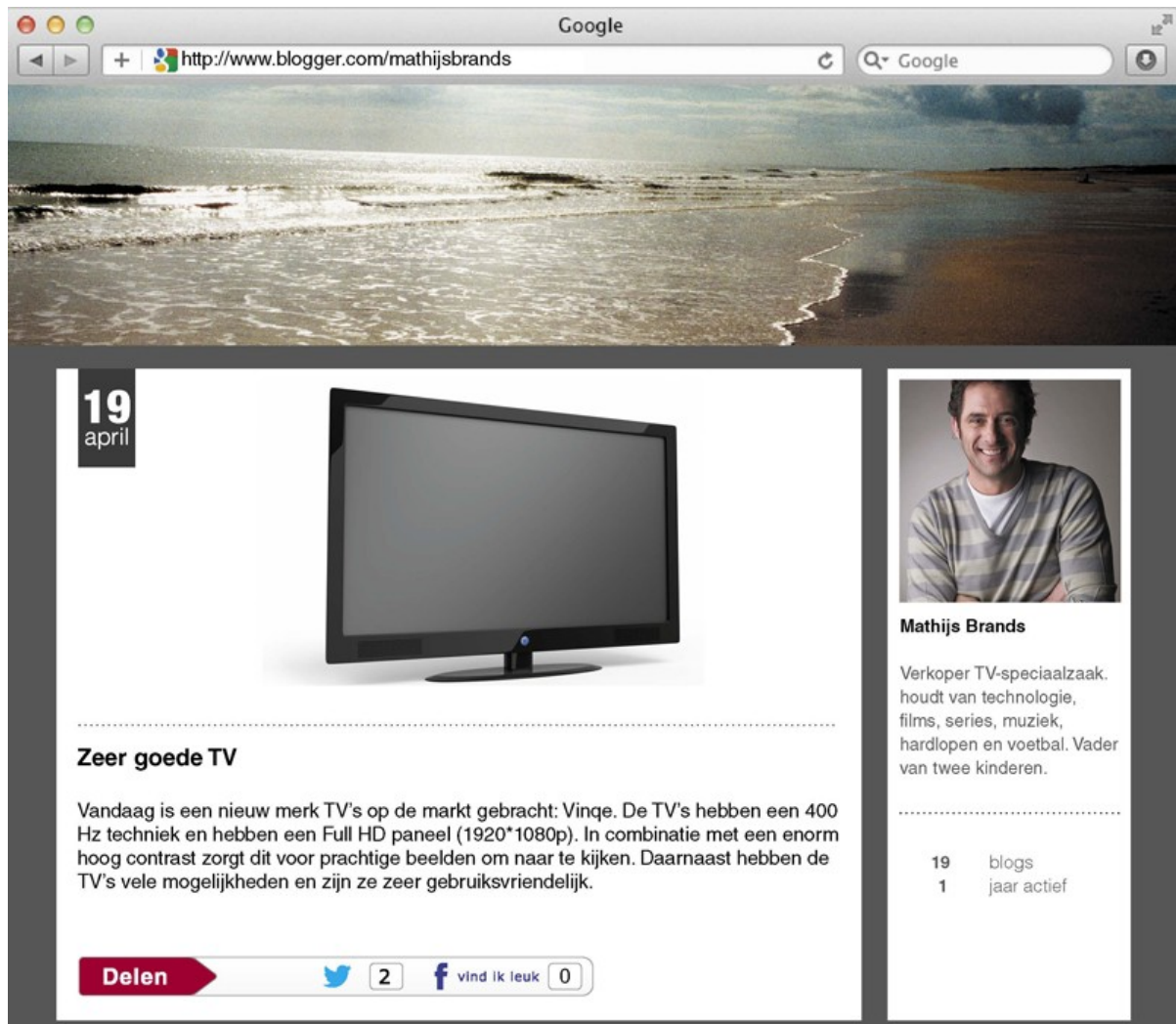
Figure 6: stimulus material of the blogwebsite condition: high source credibility and low popularity