The impact of online consumer reviews factors on the Dutch consumer buying decision.

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ABSTRACT

Since the fast and still increasingly adoption of buying products or services online, online consumer reviews have become increasingly more important. The online consumer review involves positive or negative statements made by consumers and experts about a product or service. This consumer-created information is helpful for decision-making on purchases because it provides consumers with indirect experiences. This paper is concerned with identifying five relevant factors of online reviews that have an impact on the consumer buying decision. A pilot questionnaire has been conducted and it's practical applicability has been tested among 244 Dutch respondents. It proves that in fact the five factors of online reviews have an impact on the consumer buying decision. Finally some practical valuable feedback for future research and practical contribution has been made.

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Keywords
Online consumer reviews, eWOM, OCR, consumer buying decision,

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1. INTRODUCTION

The rise of new media channels and consumer communication platforms during the last years has offered new possibilities for electronic word-of-mouth (eWOM) communication. The number of consumers, who use Web 2.0 tools (such as social media and online review platforms) to exchange product information and communicate their opinion about products and services, is growing tremendously fast. This new form of word-of-mouth (WOM) communication contributes to the rising development of a new era of consumer empowerment. It enables consumers to easily share and exchange knowledge, information and experiences with like-minded individuals worldwide (Olsen, Trimi, & Lee, 2012).

The electronic word-of-mouth has recently attracted the attention among marketing professionals. Traditionally, consumers' expectations about products or services were formed in two ways: by either traditional marketing efforts or word- of-mouth communication. It has been demonstrated by several studies that WOM communication is more credible and trustworthy than traditional marketing efforts (Christodoulides, Michaelidou & Argyriou, 2012; de Matos & Rossi, 2008). This also counts for eWOM, which is perceived as more credible, relevant, and having a higher degree of empathy (Christodoulides, Michaelidou & Argyriou, 2012; Bickart & Schindler, 2001).

Recent social consumer research reports have shown that when making buying decisions, Internet users trust online reviews posted by unknown consumers more than they trust traditional media (DiMauro, Bulmer, 2014). In addition, user-generated content (UGC) in the form of online consumer reviews was found to significantly influence consumer purchasing decisions (Chang, Cheung, Lai, 2005). 91% of respondents mentioned that they consult online reviews, blogs, and other user-generated content before purchasing a new product or service, 46% of which are then influenced in the way they to purchase. his phenomenon of "online orientation" will bring new challenges for businesses. The reputation of a product, service or company is no longer defined by what they report or how they say they stand for. Instead, they are increasingly defined by the shared opinions and experiences of social connected consumers.

A lot of research has been done to eWOM in a business perspective; the influence of social media to corporate reputation (Kietzmann, Hermkens, McCarthy, Silvestre, 2011), how to deal with reputation threats in social media and the influence of social media in marketing (Kim, Ko, 2012). Also there is a lot of research done in the field of online reviews: Do consumers use them? (Chatterjee, 2001) What is the impact of reviews on (forecasting) sales (Hu, Liu, Jie, Zhang, 2008) and what is the impact on product attitude? (Park, Lee, & Han, 2007).

However, in current research on online reviews, many are concerned about the impact of online reviews on product sales as well as the effectiveness of online reviews. Studies of the impact on consumer buying decisions are rare. Some of them, regarded online reviews as a single element to discuss their impact on the purchase decision instead of all relevant factors of online reviews on the consumer's buying decision. This missing element in the existing literature is leading us to the following research question:

"What are the relevant factors in online reviews that have an impact on the consumer buying decision?"

The objective of this paper is therefore to (1) get a general insight into the consumer buying decision and to identify the relevant factors of online consumer reviews that might have an impact on this buying decision, (2) developing a pilot questionnaire which investigates the influence and the magnitude of these different factors, and finally to (3) test the pilot questionnaire practicability and provide some valuable feedback for future research and practical contribution.

This paper consists of three parts. The first part of this paper will give an overview of the existing literature that will give an understanding of the factors of online consumer reviews and the consumer buying decision. Furthermore we introduce our conceptual research model based on the "integrative framework of the impact of eWOM communication" by Cheung and Thadani (2012). In the second part, we introduce our pilot questionnaire and the empirical research is done based on 244 respondents. Finally this paper ends with a conclusion and discussion where we provide some valuable contribution for practical use and future research.

2. THEORETICAL BACKGROUND

The literature review is focuses on providing an overview of the current literature about the relevant factors of online consumer reviews. To understand these relevant factors first the basic knowledge about WOM, eWOM, OCR and the consumer buying decision are explained. The author did the research based on keywords including "WOM", "word-of-mouth", "electronic word-of-mouth", "eWOM", "online consumer review", "OCR", "online reviews", "factors online reviews" and "consumer buying decision" on different scientific search engines such as Google Scholar, Library & archive University Twente, Web of Science, ScienceResearch and Scopus. Also the snowball method was been applied to retrieve new relevant articles from the founded relevant literature.

2.1 Word-of-mouth

Word-of-mouth communications have received a lot of attention from both practitioners and academics for years. Since the early 1960's, it has been demonstrated by researchers that personal conversations and information exchange of information among acquaintances not only influence consumers' choices and buying decisions (Arndt, 1967) but also shape consumers expectations (Zeithaml & Bitner, 1996), pre-use attitudes and post-usage perceptions of a product or service (Burzynski & Bayer, 1977). According to Godes and Mayzlin (2004), Maxham and Netemeyer (2002) the word-of-mouth communication is one of the most influential resources of the transmission of information. According to Arndt (1976), word-of-mouth communication can be defined as "Oral, person to person communication between a receiver and a communicator whom the receiver perceives as non-commercial, regarding a brand, a product or a service".

2.2 Electronic word-of-mouth

The Internet has enabled new forms of communication platforms that further empower both providers and consumers, allowing a basis for the sharing of information and opinions both from Business to Consumer, and from Consumer to Consumer. Electronic word-of-mouth (eWOM) communication refers to "any positive or negative statement made by potential, actual, or former customers about a product or service, which is made available to a multitude of people and institutions via the Internet" (Hennig-Thurau et al., 2004). eWOM communication can take place in different settings. Consumers can post their information and opinions on weblogs (e.g. iphoneclub.nl), social network sites (e.g. Facebook.com, Twitter.com), review websites (e.g. kieskeurig.nl, trustpilot.com, besteproduct.nl) and sometimes directly on the seller or manufacture his website.

While the eWOM has most of it's characteristics in common with traditional WOM communication, in several dimensions it differs from the traditional WOM communication. First of all, compared the eWOM with the traditional WOM, the eWOM has the features of spreading information, fast and large volume of information, instantly ready to receive, anonymous and transcend space and time (Hennig-Thurau et al., 2004).

eWOM communications involve the exchanges of information in asynchronous mode to multiple receivers. (Hung, Li, 2004). It is not needed that information needs to be exchange at the same time when all communicators are physically present (Karakaya, Barnes, 2010). For example; online users can write comments that others can read later. In traditional WOM, information is mostly exchanged in dialogs and private one on one sessions. According to Blodgett, Granbois, & Walters (1993), traditional WOM about a negative experience reaches an average of nine people, while the eWOM can reaches thousands of people (Senecal & Nantel, 2004). Second, eWOM communication is more accessible and permanent. Much of the textual information presented on the Internet is archived, and is therefore available for an indefinite period of time (Lee et al. , 2008). Through the possibility's of the search machines, people also can easily find the particular information that there are looking for. Third, eWOM communication is far more measurable then traditional WOM (Lee et al. , 2008). The quantity, persistence and the presentation format have made them more observable. According to Chatterjee (2001), eWOM communcation is far more voluminous in quantity compared to WOM communication in the offline world. Analyzing the characteristics, for a large number of eWOM messages, such as the style of the message, number of (sentimental) words used, the position of the messages and the like, is far more easily. A final key difference is that the ability to judge the sender and his message on factors such as credibility is being recurred by the electronic nature of eWOM in most of it's settings.

2.3 Consumer buying decision

The consumer buying decision represents a process of five stages (problem identification, information search, evaluation of alternatives, purchase, post-purchase evaluation) that the purchaser will go trough before he makes the purchase decision (Dibb, S., Simkin, L., Pride, W.P. and Ferrell). Although a detailed understanding of these stages is needed, a number of general observations are also relevant. First, the actual act of purchasing is only one stage in this process, the process begins several stages before the purchase itself. Second, not all decision processes lead to a purchase, at different stages in the process the consumer can drop out. Finally, consumer decisions do not always include all the fives stages of the decision process.

The first stage, problem recognition, occurs when a buyer becomes aware that there is a difference between a actual condition and a desired state. For example, a student who needs to keep a record of colleges and appointments. At the end of the year, when the old diary is finished, he recognizes that a difference exist between the actual condition (an out of date diary) and the desired state (a current diary). Therefore he makes the decision to buy a new one. Sometimes a person has a problem or need but is unaware of it. For example: some consumers are concerned about their weight but may not aware that there is a low-calorie or low-sugar option of their product available. Marketers use advertising, packaging and promotions help trigger such need recognition. After recognizing the problem or need, the consumer searches for information about the product that will solve his problem or satisfaction. This second stage is called the "Information search". For example, after you have decided to buy a new phone, you may search for information about different features, technical options and usability in daily use. They're two main aspects in the search of information. First of all, consumers search for information that might solve the problem in their own memories. If there is not enough information to make the decision, they will look for additional information in an external search. This external search may involve comparing available brands and prices, looking for offers, communicating with colleagues and friends offline or on social media and for this study the most important aspect: reading reviews online. Individual personal contacts are mostly viewed as the most credible sources of information because the consumer trusts them. And as mentioned before, recent studies have shown that internet users trust online reviews posted by unknown consumers more than they trust traditional printed media. Also with the possibilities of the Internet, consumers are having increasingly access to relevant product information due the greater quantities of information. However, studies have shown that if consumers are overloaded with too much information, they make poorer choices. So improving the quality of information may help consumers in the decision process to make better purchase decisions. How consumers use and process the information obtained in online reviews depends on the features of the information itself. In this study we look at different relevant factors of online reviews. The third stage, evaluation of alternatives, occurs when the buyer is evaluating the products. He establishes criteria for comparing the possible alternatives products. These criteria are the features or characteristics that the buyer wants (or does not want). The buyer also assigns a certain level of importance to each criterion that results in that fact that some features are more important than others. Both, the criteria and the level of importance are used to make a ranking of the possible products. By framing the alternatives, marketers can influence the consumers' evaluation. Framing can make certain aspects of the product more important and can facilitate its recall from memory. For example, by emphasizing no-sugar in soft drinks, marketers can encourage the consumer to consider this particular aspect to be important. Framing affects the consumer buying decision of inexperienced buyers more then those of experienced buyers. When the evaluation of alternatives contains one or more products, the consumer is ready to move to the purchase stage. This fourth stage, where the consumer chooses which product to buy, is mainly the outcome of the evaluation of alternatives. Although some other factors such as the product availability and the closeness of alternative store have an impact too. During this stage the buying also picks a seller from where the product will be purchased. Finally the purchase (decision) is made. The final fifth stage is the post-purchase evaluation. After the purchase has taken place, the buyer starts evaluating the product to check whether its actual performance meets his expectations. Most of the criteria used in the evaluating of alternatives stage are revisited during this stage. The outcome will determine whether the consumer is satisfied or dissatisfied and this will influence future behavior. The level of satisfaction a consumer experiences will determine whether they make a complaint, communicate with other possible buyers or purchase the product again.

2.4 Online consumer review

The online consumer review (OCR), one type of eWOM, involves positive or negative statements made by consumers and experts about a product or service. This consumer-created information is helpful for decision- making on purchases because it provides consumers with indirect experiences (Park, Lee, Han, 2007). An online consumer review as a route for social influence plays two roles (informant and recommender)

(Park, Lee, Han, 2007). As an informant role, the online consumer review delivers additional user-oriented information. As a recommender role, it provides a negative or positive signal of the product its popularity (Park, Lee, Han, 2007).

Due to it's information asymmetry setting, the online consumer review is enormous important in the e-commerce context. This due the fact that the online retailer has a lot more information about the product than the consumer has (Chukova, Christozov, Mateev, 1999). Compared to traditional shopping, online consumers can't use all of their senses (e.g. touching, feeling, trying, smelling) to evaluate the product when they are buying online (Park, Lee, & Han, 2007). This forces the consumer to make a buying decision based on the information the retailer provides on his website or elsewhere. Online consumer reviews provide these information-seeking consumers with indirect product experiences. Since the fast and still increasingly adoption of buying products or services online, online consumer reviews have become increasingly more important.

2.5 Online consumer reviews factors.

With respect to the online consumer review, the "integrative framework of the impact of eWOM communication" by Cheung and Thadani (2012) seems to be relevant and the most helpful to explain the different factors of online consumer reviews that have an impact on the buying decision. The underlying assumption of this theoretical framework is that social communication is "the process by which an individual (the communicator) transmits stimuli (usually verbal symbols) to modify the behaviour of other individuals (communicates)" (Hovland, 1948). The integrative framework provides a systematic overview of elements influencing eWOM and its outcome. It is composed of four major elements: receiver, stimuli, communicator, and the response. The receiver is the individual who responds to the message. The actual impact of the message may vary from person to person since none of each receiver is the same. The stimulus refers to the transmitted message by the communicator and has an impact on the response. The framework identifies argument quality, volume, valence and timeliness as important stimuli (factors) that are associated with the response. The communicator refers to the person who transmits the message and the source credibility of the communicator seems to be the most important factor.

2.5.1 Argument quality

Argument quality refers to "the strength or plausibility of persuasive argumentation" (Eagly, Chaicken, 1993). The quality of each online consumer review is different because each review is based on the consumers' subjective feeling. According to Park, Lee & Han (2007) the quality of online consumer reviews is an important element that affects the consumer cognitive information processing. High quality reviews are more logical and persuasive. According to the perceived quality theory, the more an online review appears to be detailed and complete, accurate, based on facts, and relevant to consumer needs, the more consumers will find such information to be helpful in deciding whether to buy the item. This leads to our following hypothesis:

H1: The quality of online consumer reviews has a significant effect on the consumer buying decision.

2.5.2 Volume

The volume of online consumer reviews of a product represents the product's popularity because it is related to the sales volume of the product. The more reviews there are, the more important and popular a product is. It is likely to lead consumers to rationalize their buying decision by "Many other people also bought the product" (Park, Lee, Han, 2007). Also a high volume of reviews leads to more (useful) information used for making the judgement whether to buy because there is a greater likelihood that consumers will find the type of information they are seeking for. Accordingly, we hypothesise as follow:

H2: The quantity of online consumer reviews has a significant effect on the consumer buying decision.

2.5.3 Valence

Valence refers to the way an online review is framed (e.g. negatively framed or positively framed). A positively framed online review will highlights the strengths of a product or service and encourage other consumers to buy a product or service whether negative online reviews reveals the weaknesses and negative features of a product or service and thus discourages people to adopt hem (Lee, Youn, 2009). Accordingly this leads to the hypothesis:

H3: The valence of online consumer reviews has a significant effect on the consumer buying decision.

2.5.4 Timeliness

The timeliness concerns whether the messages are current, up-to-date and timely. Products appearance change according to feedback of consumers, due technical progress and new techniques. According to Madu and Madu (2002) a website cannot deliver expected information to the users if the website is not up to date and updated consistently. Also when online reviews are not recent, consumer may think that the information is out-of-date and therefore unreliable for making buying decisions (McKinney, Yoon, Zahedi, 2002). Hence the following hypothesis is formulated:

H4: The timeliness of online consumer reviews has a significant effect on the consumer buying decision.

2.5.5 Source credibility

Source credibility refers to "a message receiver's perception of the credibility of a message source, reflecting nothing about the message itself" (Chaicken, 1980). Unknown individuals usually share their experiences and opinions outside their personal social network with a large en geographically dispersed group of strangers. Therefore Park, Lee & Han (2007) argued that it may have less credibility than traditional messages and also that receivers may have difficulties in determining the source credibility of the messages. This is leading to our last hypothesis:

H5: The source credibility of online consumer reviews has a significant effect on the consumer buying decision.

2.6 Research model

Based on the factors derived from the "integrative framework of the impact of eWOM communication" a conceptual research model was built. The model represents the starting point for our questionnaire. It assumed that all factors have an impact on the consumers buying decision.

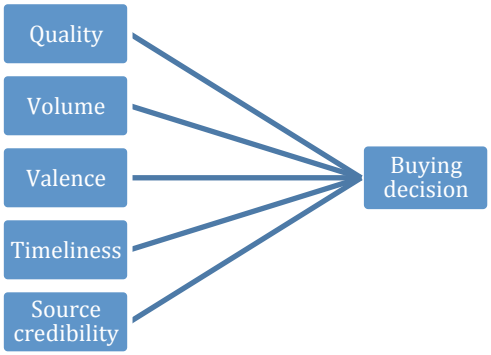

Figure 1: Conceptual research model

3. METHODOLOGY

In this research, an extensively literature research and the data from an pilot questionnaire must provide an answer to the research question "What are the relevant factors in online reviews that have an impact on the consumer buying decision?". First attention is drawn to the sample and data collection of this research. Secondly, the measurements and methods are explained before the data analysis was conducted. Finally, the results of the questionnaire will be presented in the next chapter.

3.1 Sample and Data collection

Data was collected during a period seven days beginning June 2015. This short period of time is related to the limited timeframe. The given questionnaire, conducted in the online research tool Qualtrics, has been distributed by different media platforms such as, Facebook, Twitter, Whatsapp and send by e-mail to contacts of the researcher and to the newsletter subscribers of Carnavalskleding.nl (which is a online store owned by the author of this study). The respondents were able to decide if they would participate in the questionnaire or not. As reward for completing the questionnaire, the newsletter subscribers of Carnavalskleding.nl were provided with a 10% discount on their next purchase on Carnavalskleding.nl to stimulate the number of respondents in a short period of time and due the fact that they have no connection with the author. Finally, a number of 244 respondents were identified. The respondents provided a representative profile of men en women in the Netherlands all begin comfortable with spending time and buying products online. Based on the distribution channel and respondents, a convenience sample was used.

The questionnaire consisted out of three parts: Part (1) the general introduction to identify general characteristics which contains questions with regards to the demographic aspects, the daily time spending online, the amount and products of buying online. Part (2) the question if the participant ever used online reviews in their buying decision. If the answer on this question was yes, several questions about the impact of relevant factors of online reviews on the buying decision were asked. Part (3) a general thank you page and if the participant was a subscriber of the mailing list of carnavalskleding.nl, a discount code was given. Questions in the questionnaire were formatted as dichotomous questions (e.g. gender), multiple-choice questions (e.g. age, time spending online, amount of yearly purchases online, type of products buying online) and rating scale questions (impact of the relevant review factors on the buying decision).

3.2 Measurements and Methods

To operationalize all suggested relevant factors in online reviews a Likert response scale with a 5-point format has been applied ranging from "not influenced" to "strongly influenced". Indicators, adapted from existing scales derived from previous studies, have measured each factor. To minimize the impact of order bias, the sequence of the items per factor were randomized.

The impact of quality was measured on a subscale involving five items (objectivity of reviews, understandability of reviews, credibility of reviews, clearness of reviews, sufficient reasons supporting the opinions) adapter from Park, Lee, Han (2007). The impact of volume was measured on a subscale involving two items (number of reviews and the quantity of information in reviews) adapter from Park, Lee, Han (2007). The impact of valence was measured on a subscale involving two items (overall tendency of evaluation, evaluation suggestion) adapter from Christodoulides, Michaelidou, Argyriou (2012). The impact of source credibility was measured on a subscale involving three items (reviewers' credibility, reviewers' reliability, reviewers' expertise) adapter from Cheung, Lee, Rabjohn (2008). And finally, based on a subscale involving three items (latest degree of information, recency of reviews, degree of timeliness of reviews, continuously updated) adapter from McKinney, Yoon, Zahedi (2002), the impact of timeliness was measured.

3.3 Data Analysis

Before analyzing the data of the questionnaire, the collected data in Qualtrics was exported to an IBM SPSS format. First the invalid data, due not completed questionnaires, were identified and removed from the database. To provide a clear overview of the demographic aspects, the daily time spending online, the amount products buying online and the type of products buying online, frequency tables about the questions in the general introduction of the questionnaire were created. Second the respondents who never used an online review were eliminated from the sample because they did not participate in Part 2 of the question. The results this, and the result of removing invalid data lead to a total sample of 175 useful respondents. An exploratory factor analysis (EFA) was run to identify the amount of latent factors. Thus, the estimate factors which influence the response on the observed variables with the goal to summarize underlying correlational structures for our dataset (Gorsuch, 1997). Subsequently, the number of factors of our data set (the factors of online reviews that influence the buying process) has been identified and also each factor's underlying set of variables. Based on the Kayser-Meyer Olkin (KMO) and the Bartlett's test, the validity of the model has been tested (Barlett, 1950; Kaiser, 1970). The KMO value should be at least 0.5 to be appropriate and the Barlett's test should be significant at the 0.05 level. This means that correlation matrix is not an identity matrix and indicates the null hypothesis is rejected. The Cronbach's alpha test was applied to indicate the reliability of the extracted factors (Cronbach, 1951). The internal consistency of each factor is acceptable when Cronbach's Alpha is above 0.7. This indicated that the items are correlated to each other and that they measure the same factor. By analyzing the factor loadings the consistency of each factor structure has been examined. Therefore the variables need to have a factor loading of >0.5 for the factor they allowed (Hair, Anderson, Tatham, Black, 1999).

4. RESULTS

This section presents the result of the questionnaire addressing the research question. The aim of this study was to identify which factors, derived from the literature resulting in the pilot questionnaire, are practical applicable and which consumer characteristics have an influence on these factors.

4.1 General descriptive

The first part of the questionnaire contains the general descriptive data for the research that provides some valuable information about the sample. As mentioned before, a total of 244 respondents have been participated and with the elimination of the respondents who did not complete the questionnaire (40 respondents), we have a total sample of 204 respondents. The distribution of gender was exactly balanced, as 50% are male and 50% female. 65,7% of the respondents is 30 years or younger and most of them are between 20-30 years old (48%). When analyzing the online usage, 29,4% spent less then one hour a day online, 37,7% spent between one and two hour and 32,8% spent more than two hour online. 111 of our respondents answered that they mostly buy clothes online. This results in the fact that this result is consistent for more then 50% of our questionnaire sample. Everyone purchased one or more items online, with most of them even buy more then ten items yearly. Out of all our respondents, only 14,2% never used an online review (29 respondents). So for our factor analysis, we have a total sample of 175 useful respondents (see table 1 & appendix 7.2).

4.2 Factor analysis

To study the existence of similarities of online review factors between what suggested by the literature and how it's in reality, a factor analysis was conducted. The factor analysis was performed two times because the first time one of the items was removed due the low factor loading. Therefore the analysis has been repeated without that item to check if the factor loading differs. The item that has been removed was "The evaluation compared to similar alternatives" with a factor loading of only 0.452.

As a first result of the EFA analysis, the KMO test has a value of 0,799 that is higher than the needed 0.5 and can be classified as meritorious. The Barlett's test shows that it was significant (0,000, appendix 7.3). This is leading to the validity of the factorial analysis model (Bartlett, 1954; Kaiser, 1970) and allows proceeding running factor analysis. A varimax rotation was used on factors with eigenvalues above 1.0, resulting in minimizing the number of items having high loadings on a particular factor. As a result, five factors were recognized and accounts for 71.793% of the variance.

Factor 1: Quality
Objectivity of online reviews, understandability of online reviews, credibility of online reviews, clearness of online reviews, sufficient reasons supporting the opinions.
Factor 2: Source credibility
Reviewer's credibility, reviewers' reliability and reviewers' expertise.
Factor 3: Timeliness
Latest degree of information in online reviews, recency of online reviews, degree of timeliness of online reviews
Factor 4: Valence
A positive online review, a negative online review
Factor 5: Volume
The amount of online reviews, quantity of information in online reviews.

The consistency of all factor structure is validated as each item has a factor loading of >0.5 to the factor it is related to (Hair, Anderson, Tatham, Black, 1999). Based on these above results of the EFA analysis that indicates that all five factors have an impact on the consumer buying decision, all our five hypotheses could be accepted. (see appendix 7.3)

	Frequency	Percentage
Gender		
Male	102	50%
Female	102	50%
Age		
< 20 year	36	17,6%
21 – 30 year	98	48%
31 – 40 year	17	8,3%
41 – 50 year	25	12,3%
> 51 year	28	13,7%
Daily time spending online		
< 10 min	1	0,5%
10 – 30 min	17	8,3%
30 – 60 min	42	20,6%
1 – 2 hour	77	37,7%
> 3 hour	67	32,8%
Yearly amount of purchases online		
0 purchase	0	0%
1 – 2 purchases	13	6,4%
3 – 4 purchases	23	11,3%
5 – 10 purchases	76	37,3%
> 10 purchase	92	45,1%
Sort of purchase		
Clothes	111	54,4%
Grocery	2	1%
Electronics	35	17,2%
Games	7	3,4%
Vacations	15	7,4%
Other	34	16,7%
Use of online review		
Yes	175	85,8%
No	29	14,2%
N=204		

Table 1: Frequencies table of general data

4.3 Influence of each factor

In order to overview the magnitude of the factors that influence the consumer buying process, the table below (table 2) was conducted. The factor means represents the mean of the measured items that belongs to the factor.

As one can see the factor valence has the biggest impact with a mean of 4,0457 with a minimum of two (that indicates that this factors had an influence on every respondent) and a maximum of five. On the other hand, the factor volume has the fewest influence with a mean of 3,2971.

	Mean	SD	Minimum	Maximum
Factors				
Quality	3,8926	0,66532	1,40	5
Volume	3,2971	0,76395	1	5
Valence	4,0457	0,65712	2	5
Timeliness	3,7181	0,69427	1	5
Source credibility	3,6571	0,78656	1	5

Table 2: Influence of each factor

4.4 Consumer characteristics analysis

As the final step in our analysis, the influence of the different consumer characteristics that might have an impact on the factors were analyzed due the authors personal interest and to give a better practically recommendation. The output of these analyses is presented in Appendix 7.5 and a summary of the most important findings is given below.

4.4.1.1 Gender

Significant difference between men and women were found in the mean scores on the factors quality (sig. 0,011) and source credibility (sig. 0,001). Man shown a higher mean than women in the factor quality (4,0207 vs. 3,7659) and also in source credibility (3,8582 vs. 3,4583). So both factors have a bigger influence on the buying decision of men, then women. Although not absolute significant (sig. 0,051), it's worth to mention that Valence has a bigger influence on the women's' (4,1420) buying decision then men's (3,9483).

4.4.1.2 Age

No significant difference between the age group of the respondents and the factors were found. The closest to significant factors were timeliness (sig 0,122) with a difference in means between the groups 21 – 30 year old (3.6124) and 51> years old (4,0128), and valence (sig. 0,103) were the biggest difference in means was found between the groups <20 years old (3,8333) and 31 – 40 years old (4,3333).

4.4.1.3 Daily time spending online

No significant difference between the online experience of the respondents and the factors were found. The closest to significant factors were quality (sig. 0,198) and valence (sig. 0,171). The factor quality shows the lowest mean for the group 10-30 (3,6333) and the highest for the group >3 hours (4,0172). For the factor valence the highest mean was measured in the group 30-60min (4,2286) while the lowest mean was found in the group 10-30min (3,6111).

4.4.1.4 Yearly amount of purchases online

And again, no significant difference between the yearly purchases online of the respondents and the factors were found. The closest to significant factors was quality (sig. 0,158) with the lowest mean in the 3-4 purchases group (3,6286) and the highest in the 1-2 purchases group (4,0800).

4.4.1.5 Sort of purchase

Between sort of purchase and the quality of reviews, a significant difference was found (sig 0.039). Grocery shows the lowest mean (2,700) while vacations scores the highest (4,1000).

5. CONCLUSION, DISCUSSION AND LIMITATIONS

The aim of this paper was to highlight the importance of the online consumer review for organizations as well as to test the conducted pilot questionnaire investigation the different factors of online reviews influences the consumer buying decision. It contributes to the existing literature by identifying and determining the magnitude of the different factors on the consumer decision process and by making valuable suggestions on how the pilot questionnaire should be constructed and can be improved in order to support future studies.

The Internet and the possibilities of Web 2.0 have a huge impact on the eWOM communication between consumers. Today's consumers share there their information and opinions about products and services and due the facts that most of this information is archived, it is available for everyone for an indefinite period of time. The OCR, one type of eWOM, involves positive or negative statements made by consumers and experts about a product or service. It also provides consumers with indirect experience. In online shopping the consumer cannot use all of their senses (e.g. smelling, touching, trying, testing). Therefore, it helps Internet consumers to make buying decisions based on the information which is provided in online reviews. The literature review shows that they're a several factors of online reviews that might play a role in the consumer buying decision. Based on this, the five most important factors have been tested with a pilot questionnaire on the Dutch Internet consumer. While analyzing this questionnaire, it was found that the suggested factors quality, volume, valence, source credibility and timeliness have indeed an impact on the consumer buying decision. Thus all five hypotheses can be accepted. Our findings are consistent with the suggested framework by Cheung and Thadani (2012). The factor that has the highest influence was the valence of reviews, while the volume of reviews has the lowest impact on the consumer buying decision. Furthermore, some differences in the amount of influence were found based on the consumer characteristics. For example, men were more influenced by the factor quality and source credibility than women. A full overview of these findings can be found in appendix 7.5.

The result of this survey also shows organizations that a huge amount (85,8%) of Dutch online consumers make use of online reviews in their purchase decision. It also shows that there is a difference in the influence of each factor. By effectively using online reviews, organization can have an influence on the buying decision of consumers. For example, organizations can reward satisfied consumers who write a positive review with high quality because these have the most influence on other consumers. For another example: organizations who only sell products for either men or woman can highlight specific factors that have the biggest influence on the buying decision of either

gender. Our study shows that there is a difference between the factors that influence the buying decision based on the consumer characteristic.

There are a few limitation of this study that will be explained to stimulate and improve future research in this research area. First of all, the sampling method of the distributed questionnaire can be identified as a limitation. Due the limited time, the questionnaire was distributed to friends, acquaintance and customers of the researcher. There were no random samplings, which resulted in a sample where the majority of the respondents were between 21 and 30 years and all have the Dutch nationality. Also, the considerable low sample size prohibited a good generalization of the founded results for an entire population which is significantly lower then the total potential market of consumers who buy online and use online reviews.

A second limitation can found be found in the fact that factors of online consumer reviews are solely based on the finding of the literature review. Other factors of online consumer reviews that might have an influence on the consumer decision have not been tested, for example sidedness that contains the ratio of positive/negative message (Cheung, Luo, Sia, Chen, 2009). Also there are other consumer characteristics that haven't been tested but might have an impact on the buying decision too (e.g. lifestyle, prior knowledge, brand attitude, motivation).

Since our questionnaire was limited to identify and determining the magnitude of the factors of online reviews that influence the consumer buying decision, it did not consider which stage of the buying process was in influences the most. It also did not consider from which platform reviews were consulted and which platform (Park, Lee, 2009) have the most influence.

Furthermore the questionnaire was limited to participants who used an online review in their purchase decision. Therefore it fails to discover why consumers do not use online reviews. Despite this small amount of participants that not uses online reviews (14,2%), the motives of them could be interesting for practical use or future research.

Therefore future research should:
1. Be focused on a larger scale with a random sample of participants to achieve a better generalizability.
2. Expanded with more consumer characteristics that might have an impact on the buying decision.
3. Identify from which platform reviews are consulted and which platform has the most influence.
4. Analyze in which stage of the consumer buying process the online review is the most useful and where it has the most influence.
5. Find out the motives of participant that not used online reviews.

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7. APPENDIX

7.1 Questionnaire

Part 1: General introduction

1. Gender
   a: Men
   b: Women
2. Age
   a: <20
   b: 21-30
   c: 31-40
   d: 41-50
   e: 51>
3. Daily time spending online
   a: < 10 min
   b: 10 – 30 min
   c: 30 – 60 min
   d: 1 – 2 hour
   e: > 3 hour
4. Yearly amount of purchases online
   a: 1 - 2 purchases
   b: 3 - 4 purchases
   c: 5 – 10 purchase
   d: > 10 purchases
5. Sort of purchases online
   a: Clothes
   b: Grocery
   c: Electronics
   d: Games
   e: Vacations
   f: Other…….

Part 2: Impact of relevant factors

6. Did you ever use online reviews in your buying decision?
   a: Yes
   b: No

Quality

7. Objectivity of reviews
8. Understandability of reviews
9. Credibility of reviews
10. Clearness of reviews
11. Sufficient reasons supporting the opinions

Volume

12. Number of reviews
13. Quantity of information in reviews

Valance

14. Positive reviews
15. Negative reviews
16. Evaluation suggestion

Source credibility

17. Reviewers' credibility
18. Reviewers' reliability
19. Reviewers' expertise

Timeliness

20. Latest degree of information
21. Recency of reviews
22. Degree of timeliness

7.2 General descriptives

Table 3: Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Men	102	50,0	50,0	50,0
Women	102	50,0	50,0	100,0
Total	204	100,0	100,0	

Table 4: Age

	Frequency	Percent	Valid Percent	Cumulative Percent
< 20	36	17,6	17,6	17,6
21 - 30	98	48,0	48,0	65,7
31 - 40	17	8,3	8,3	74,0
41 - 50	25	12,3	12,3	86,3
51 >	28	13,7	13,7	100,0
Total	204	100,0	100,0	

Table 5: Daily time spending online

	Frequency	Percent	Valid Percent	Cumulative Percent
< 10 min	1	,5	,5	,5
10 - 30 min	17	8,3	8,3	8,8
30 - 60 min	42	20,6	20,6	29,4
1 - 2 hour	77	37,7	37,7	67,2
> 3 hour	67	32,8	32,8	100,0
Total	204	100,0	100,0	

Table 6: Yearly amount of purchases online

	Frequency	Percent	Valid Percent	Cumulative Percent
1 - 2 purchases	13	6,4	6,4	6,4
3 - 4 purchases	23	11,3	11,3	17,6
5 - 10 purchases	76	37,3	37,3	54,9
> 10 purchases	92	45,1	45,1	100,0
Total	204	100,0	100,0	

Table 7: Sort of purchase

	Frequency	Percent	Valid Percent	Cumulative Percent
Clothes	111	54,4	54,4	54,4
Grocery	2	1,0	1,0	55,4
Electronics	35	17,2	17,2	72,5
Games	7	3,4	3,4	76,0
Vacations	15	7,4	7,4	83,3
Other	34	16,7	16,7	100,0
Total	204	100,0	100,0	

Table 8: Use of online review

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	175	85,8	85,8	85,8
No	29	14,2	14,2	100,0
Total	204	100,0	100,0	

7.3 EFA analysis

Table 9: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,799
Bartlett's Test of Sphericity	Approx. Chi-Square	1075,105
	df	105
	Sig.	,000

Table 10: Factor loadings of EFA

	Factors				
	1	2	3	4	5
Objectivity of reviews	,696	,372	,013	,098	-,104
Understandability of reviews	,759	,046	,128	,182	,091
Credibility of reviews	,807	,247	-,027	,097	-,012
Clearness of reviews	,772	,225	,178	,127	,017
Sufficient reasons supporting the opinion	,790	,060	-,004	,050	,060
Number of reviews	,152	,113	,209	,003	,718
Quantity of information in reviews	-,087	,005	-,071	,059	,813
Positive online review	,120	,107	,087	,879	,029
Negative online review	,245	,043	,108	,831	,043
Reviewers' credibility	,250	,852	,087	,081	,076
Reviewers' reliability	,224	,818	,134	,071	,118
Reviewers' expertise	,156	,861	,091	,034	-,021

Latest degree of information	,127	,070	,803	,124	,061
Recency of reveiws	-,010	,136	,857	,054	,076
Degree of timeliness	,067	,072	,891	,038	-,001

7.4 Mean online review factors

Table 11

	N	Minimum	Maximum	Mean	Std. Deviation
Quality	175	1,40	5,00	3,8926	,66532
Volume	175	1,00	5,00	3,2971	,76395
Valence	175	2,00	5,00	4,0457	,65712
Source Credibility	175	1,00	5,00	3,6571	,78656
Timeliness	175	1,00	5,00	3,7181	,69427
Valid N (listwise)	175				

7.5 Consumer characteristics

Table 12.1 Gender v.s. Factors (descriptives)

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Quality	Men	87	4,0207	,64989	,06968
	Women	88	3,7659	,65966	,07032
Volume	Men	87	3,3103	,74803	,08020
	Women	88	3,2841	,78343	,08351
Source Credibility	Men	87	3,8582	,80315	,08611
	Women	88	3,4583	,72064	,07682
Timeliness	Men	87	3,6705	,70343	,07542
	Women	88	3,7652	,68585	,07311
Valence	Men	87	3,9483	,70725	,07583
	Women	88	4,1420	,59185	,06309

Table 12.2 Gender v.s. Factors (independent samples test)

		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
Quality	Equal variances assumed	,010	,921	2,574	173	,011	,25478
	Equal variances not assumed			2,574	172,998	,011	,25478
Volume	Equal variances assumed	,163	,687	,227	173	,821	,02625
	Equal variances not assumed			,227	172,792	,821	,02625
Source Credibility	Equal variances assumed	,015	,903	3,468	173	,001	,39990
	Equal variances not assumed			3,466	170,568	,001	,39990
Timeliness	Equal variances assumed	,455	,501	-,901	173	,369	-,09465
	Equal variances not assumed			-,901	172,766	,369	-,09465
Valence	Equal variances assumed	,238	,626	-1,966	173	,051	-,19377
	Equal variances not assumed			-1,964	167,119	,051	-,19377

Table 12.3 Gender v.s. Factors (independent samples test)

		t-test for Equality of Means		
		Std. Error Difference	95% Confidence Interval of the Difference	
			Lower	Upper
Quality	Equal variances assumed	,09900	,05938	,45019
	Equal variances not assumed	,09899	,05939	,45017
Volume	Equal variances assumed	,11582	-,20234	,25485

	Equal variances not assumed	,11578	-,20228	,25479
Source Credibility	Equal variances assumed	,11532	,17229	,62752
	Equal variances not assumed	,11539	,17212	,62769
Timeliness	Equal variances assumed	,10502	-,30194	,11264
	Equal variances not assumed	,10504	-,30198	,11267
Valence	Equal variances assumed	,09854	-,38827	,00073
	Equal variances not assumed	,09864	-,38851	,00097

Table 13.1 Age vs Factors (descriptives)

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum
						Lower Bound	Upper Bound	
Quality	< 20	27	3,8593	,69018	,13283	3,5862	4,1323	2,00
	21 - 30	86	3,9047	,67752	,07306	3,7594	4,0499	1,40
	31 - 40	15	3,9333	,43205	,11155	3,6941	4,1726	3,20
	41 - 50	21	3,9905	,76020	,16589	3,6444	4,3365	2,80
	51 >	26	3,7846	,65951	,12934	3,5182	4,0510	2,40
	Total	175	3,8926	,66532	,05029	3,7933	3,9918	1,40
Volume	< 20	27	3,3148	,72255	,13905	3,0290	3,6006	2,00
	21 - 30	86	3,3023	,69570	,07502	3,1532	3,4515	1,00
	31 - 40	15	3,3667	,76687	,19801	2,9420	3,7913	2,00
	41 - 50	21	3,1667	1,02875	,22449	2,6984	3,6349	1,00
	51 >	26	3,3269	,82392	,16158	2,9941	3,6597	1,00

	Total	175	3,2971	,76395	,05775	3,1832	3,4111	1,00
Source Credibility	< 20	27	3,8765	,64150	,12346	3,6228	4,1303	2,00
	21 - 30	86	3,5891	,78661	,08482	3,4205	3,7578	1,00
	31 - 40	15	3,3778	1,02250	,26401	2,8115	3,9440	1,00
	41 - 50	21	3,6667	,86281	,18828	3,2739	4,0594	1,67
	51 >	26	3,8077	,67444	,13227	3,5353	4,0801	3,00
	Total	175	3,6571	,78656	,05946	3,5398	3,7745	1,00
Timeliness	< 20	27	3,8025	,64886	,12487	3,5458	4,0591	2,00
	21 - 30	86	3,6124	,68191	,07353	3,4662	3,7586	1,67
	31 - 40	15	3,6444	,68390	,17658	3,2657	4,0232	2,67
	41 - 50	21	3,7302	,93464	,20395	3,3047	4,1556	1,00
	51 >	26	4,0128	,48516	,09515	3,8169	4,2088	3,00
	Total	175	3,7181	,69427	,05248	3,6145	3,8217	1,00
Valence	< 20	27	3,8333	,75955	,14618	3,5329	4,1338	2,00
	21 - 30	86	4,0291	,59088	,06372	3,9024	4,1558	2,00
	31 - 40	15	4,3333	,52327	,13511	4,0436	4,6231	3,50
	41 - 50	21	4,2381	,68226	,14888	3,9275	4,5487	3,00
	51 >	26	4,0000	,74833	,14676	3,6977	4,3023	3,00
	Total	175	4,0457	,65712	,04967	3,9477	4,1438	2,00

Table 13.2 Age vs Factors (test of Homogeneity of Variances)

	Levene Statistic	df1	df2	Sig.
Quality	1,532	4	170	,195
Volume	,781	4	170	,539
Source Credibility	,985	4	170	,417

Timeliness	2,578	4	170	,039
Valence	2,659	4	170	,035

Table 13.3 Age vs Factors (ANOVA)

		Sum of Squares	df	Mean Square	F	Sig.
Quality	Between Groups	,572	4	,143	,318	,866
	Within Groups	76,449	170	,450		
	Total	77,020	174			
Volume	Between Groups	,464	4	,116	,195	,941
	Within Groups	101,085	170	,595		
	Total	101,549	174			
Source Credibility	Between Groups	3,459	4	,865	1,411	,232
	Within Groups	104,192	170	,613		
	Total	107,651	174			
Timeliness	Between Groups	3,496	4	,874	1,848	,122
	Within Groups	80,375	170	,473		
	Total	83,870	174			
Valence	Between Groups	3,314	4	,829	1,961	,103
	Within Groups	71,820	170	,422		
	Total	75,134	174			

Table 14.1 Daily time spending online vs. factors (descriptives)

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Quality	< 10 min	1	3,0000	.	.	.	.
	10 - 30 min	12	3,6333	,45793	,13219	3,3424	3,9243
	30 - 60 min	35	3,8286	,82767	,13990	3,5443	4,1129
	1 - 2 hour	69	3,8783	,70228	,08454	3,7096	4,0470

	> 3 hour	58	4,0172	,51678	,06786	3,8814	4,1531
	Total	175	3,8926	,66532	,05029	3,7933	3,9918
Volume	< 10 min	1	3,0000	.	.	.	.
	10 - 30 min	12	3,5417	,65569	,18928	3,1251	3,9583
	30 - 60 min	35	3,2143	,84266	,14244	2,9248	3,5038
	1 - 2 hour	69	3,2319	,77450	,09324	3,0458	3,4179
	> 3 hour	58	3,3793	,72735	,09551	3,1881	3,5706
	Total	175	3,2971	,76395	,05775	3,1832	3,4111
Source Credibility	< 10 min	1	3,3333	.	.	.	.
	10 - 30 min	12	3,6111	,54742	,15803	3,2633	3,9589
	30 - 60 min	35	3,6095	,85362	,14429	3,3163	3,9028
	1 - 2 hour	69	3,7101	,73189	,08811	3,5343	3,8860
	> 3 hour	58	3,6379	,86582	,11369	3,4103	3,8656
	Total	175	3,6571	,78656	,05946	3,5398	3,7745
Timeliness	< 10 min	1	4,0000	.	.	.	.
	10 - 30 min	12	3,6111	,80193	,23150	3,1016	4,1206
	30 - 60 min	35	3,7905	,64719	,10940	3,5682	4,0128
	1 - 2 hour	69	3,7246	,76687	,09232	3,5404	3,9089
	> 3 hour	58	3,6839	,62258	,08175	3,5202	3,8476
	Total	175	3,7181	,69427	,05248	3,6145	3,8217
Valence	< 10 min	1	4,0000	.	.	.	.
	10 - 30 min	12	3,7083	,58225	,16808	3,3384	4,0783
	30 - 60 min	35	4,2286	,62241	,10521	4,0148	4,4424
	1 - 2 hour	69	3,9928	,70446	,08481	3,8235	4,1620
	> 3 hour	58	4,0690	,61735	,08106	3,9066	4,2313
	Total	175	4,0457	,65712	,04967	3,9477	4,1438

Table 14.2 Daily time spending online vs. factors (test of Homogeneity of Variances)

	Levene Statistic	df1	df2	Sig.
Quality	3,106[a]	3	170	,028
Volume	,409[b]	3	170	,747
Source Credibility	1,179[c]	3	170	,319
Timeliness	1,168[d]	3	170	,324
Valence	,177[e]	3	170	,912

Table 14.3 Daily time spending online vs. factors (ANOVA)

		Sum of Squares	df	Mean Square	F	Sig.
Quality	Between Groups	2,662	4	,666	1,522	,198
	Within Groups	74,358	170	,437		
	Total	77,020	174			
Volume	Between Groups	1,732	4	,433	,737	,568
	Within Groups	99,817	170	,587		
	Total	101,549	174			
Source Credibility	Between Groups	,425	4	,106	,168	,954
	Within Groups	107,226	170	,631		
	Total	107,651	174			
Timeliness	Between Groups	,471	4	,118	,240	,915
	Within Groups	83,400	170	,491		
	Total	83,870	174			
Valence	Between Groups	2,763	4	,691	1,623	,171
	Within Groups	72,371	170	,426		
	Total	75,134	174			

Table 15.1 Yearly purchases online vs. factors (descriptives)

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Quality	1 - 2 purchases	10	4,0800	,75542	,23889	3,5396	4,6204
	3 - 4 purchases	21	3,6286	,59088	,12894	3,3596	3,8975
	5 - 10 purchases	62	3,8581	,69034	,08767	3,6828	4,0334
	> 10 purchases	82	3,9634	,64339	,07105	3,8220	4,1048
	Total	175	3,8926	,66532	,05029	3,7933	3,9918
Volume	1 - 2 purchases	10	3,3500	,57975	,18333	2,9353	3,7647
	3 - 4 purchases	21	3,4524	,56800	,12395	3,1938	3,7109
	5 - 10 purchases	62	3,1935	,73749	,09366	3,0063	3,3808
	> 10 purchases	82	3,3293	,84335	,09313	3,1440	3,5146
	Total	175	3,2971	,76395	,05775	3,1832	3,4111
Source Credibility	1 - 2 purchases	10	3,8667	,65168	,20608	3,4005	4,3329
	3 - 4 purchases	21	3,5714	,69236	,15109	3,2563	3,8866
	5 - 10 purchases	62	3,6559	,80970	,10283	3,4503	3,8615
	> 10 purchases	82	3,6545	,81388	,08988	3,4756	3,8333
	Total	175	3,6571	,78656	,05946	3,5398	3,7745
Timeliness	1 - 2 purchases	10	3,8667	,52587	,16630	3,4905	4,2429
	3 - 4 purchases	21	3,6984	,56671	,12367	3,4404	3,9564
	5 - 10 purchases	62	3,7151	,77963	,09901	3,5171	3,9130
	> 10 purchases	82	3,7073	,68170	,07528	3,5575	3,8571
	Total	175	3,7181	,69427	,05248	3,6145	3,8217
Valence	1 - 2 purchases	10	4,3500	,70907	,22423	3,8428	4,8572
	3 - 4 purchases	21	4,0000	,44721	,09759	3,7964	4,2036
	5 - 10 purchases	62	3,9677	,71787	,09117	3,7854	4,1500
	> 10 purchases	82	4,0793	,64535	,07127	3,9375	4,2211
	Total	175	4,0457	,65712	,04967	3,9477	4,1438

Table 15.2 Yearly purchases online vs. factors (test of Homogeneity of Variances)

	Levene Statistic	df1	df2	Sig.
Quality	,251	3	171	,860
Volume	,779	3	171	,507
Source Credibility	,293	3	171	,831
Timeliness	,783	3	171	,505
Valence	1,789	3	171	,151

Table 15.3 Yearly purchases online vs. factors (ANOVA)

		Sum of Squares	df	Mean Square	F	Sig.
Quality	Between Groups	2,300	3	,767	1,755	,158
	Within Groups	74,720	171	,437		
	Total	77,020	174			
Volume	Between Groups	1,284	3	,428	,730	,535
	Within Groups	100,265	171	,586		
	Total	101,549	174			
Source Credibility	Between Groups	,594	3	,198	,316	,814
	Within Groups	107,057	171	,626		
	Total	107,651	174			
Timeliness	Between Groups	,239	3	,080	,163	,921
	Within Groups	83,632	171	,489		
	Total	83,870	174			
Valence	Between Groups	1,439	3	,480	1,113	,345
	Within Groups	73,695	171	,431		
	Total	75,134	174			

Table 16.1 Sort of purchase vs. factors (descriptives)

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	Minimum

						Lower Bound	Upper Bound	
Quality	Clothes	94	3,8106	,68052	,07019	3,6713	3,9500	1,40
	Grocery	2	2,7000	,42426	,30000	-1,1119	6,5119	2,40
	Electronics	32	4,0688	,66159	,11695	3,8302	4,3073	2,40
	Games	6	3,9000	,61644	,25166	3,2531	4,5469	3,40
	Vacations	12	4,1000	,56889	,16422	3,7385	4,4615	3,20
	Other	29	3,9586	,58646	,10890	3,7355	4,1817	2,80
	Total	175	3,8926	,66532	,05029	3,7933	3,9918	1,40
Volume	Clothes	94	3,2447	,77162	,07959	3,0866	3,4027	1,00
	Grocery	2	3,0000	,00000	,00000	3,0000	3,0000	3,00
	Electronics	32	3,3906	,70407	,12446	3,1368	3,6445	2,00
	Games	6	3,3333	,87560	,35746	2,4145	4,2522	2,00
	Vacations	12	3,6667	,71774	,20719	3,2106	4,1227	2,00
	Other	29	3,2241	,81926	,15213	2,9125	3,5358	1,00
	Total	175	3,2971	,76395	,05775	3,1832	3,4111	1,00
Source Credibility	Clothes	94	3,5816	,77742	,08019	3,4223	3,7408	1,00
	Grocery	2	3,3333	,94281	,66667	-5,1375	11,8041	2,67
	Electronics	32	3,7292	,80517	,14234	3,4389	4,0195	1,00
	Games	6	3,7778	,40369	,16480	3,3541	4,2014	3,33
	Vacations	12	4,0278	,70293	,20292	3,5812	4,4744	3,00
	Other	29	3,6667	,87741	,16293	3,3329	4,0004	1,00
	Total	175	3,6571	,78656	,05946	3,5398	3,7745	1,00
Timeliness	Clothes	94	3,7128	,65144	,06719	3,5793	3,8462	2,00
	Grocery	2	4,0000	,00000	,00000	4,0000	4,0000	4,00
	Electronics	32	3,7917	,61493	,10870	3,5700	4,0134	2,00
	Games	6	3,7222	,44305	,18088	3,2573	4,1872	3,00
	Vacations	12	3,8889	,97787	,28229	3,2676	4,5102	2,00
	Other	29	3,5632	,84093	,15616	3,2433	3,8831	1,00
	Total	175	3,7181	,69427	,05248	3,6145	3,8217	1,00
Valence	Clothes	94	4,0106	,66792	,06889	3,8738	4,1474	2,00
	Grocery	2	3,0000	,00000	,00000	3,0000	3,0000	3,00

	Electronics	32	4,2031	,65819	,11635	3,9658	4,4404	3,00
	Games	6	3,9167	,58452	,23863	3,3032	4,5301	3,50
	Vacations	12	3,9583	,78214	,22578	3,4614	4,4553	2,50
	Other	29	4,1207	,54536	,10127	3,9132	4,3281	3,00
	Total	175	4,0457	,65712	,04967	3,9477	4,1438	2,00

Table 16.2 Sort of purchase vs. factors (test of Homogeneity of Variances)

	Levene Statistic	df1	df2	Sig.
Quality	,295	5	169	,915
Volume	,858	5	169	,511
Source Credibility	,617	5	169	,687
Timeliness	1,451	5	169	,209
Valence	,852	5	169	,515

Table 16.3 Sort of purchase vs. factors (ANOVA)

		Sum of Squares	df	Mean Square	F	Sig.
Quality	Between Groups	5,112	5	1,022	2,403	,039
	Within Groups	71,908	169	,425		
	Total	77,020	174			
Volume	Between Groups	2,516	5	,503	,859	,510
	Within Groups	99,033	169	,586		
	Total	101,549	174			
Source Credibility	Between Groups	2,651	5	,530	,853	,514
	Within Groups	105,000	169	,621		
	Total	107,651	174			
Timeliness	Between Groups	1,381	5	,276	,566	,726
	Within Groups	82,490	169	,488		
	Total	83,870	174			
Valence	Between Groups	3,450	5	,690	1,627	,155

Within Groups	71,684	169	,424		
Total	75,134	174			