THE EFFECT OF AUTHOR AND GOOD TYPE ON PERCEIVED HELPFULNESS OF ONLINE REVIEWS

Master’s Thesis
Aleksanteri Rongonen
Aalto University School of Business
Marketing
Spring 2017
Abstract

This paper contributes to past research by conducting an experimental study which examines perceived review helpfulness in an online context and manipulates both review author type and good type. The two review author types are consumer and professional. The good types are search goods and experience goods. The quality of search goods can be predicted prior purchase while the quality of experience goods cannot.

Only partial evidence was found for the effect of author type on perceived review helpfulness. The results showed that if the review was allegedly written by a professional the review was perceived more credible.

Evidence was found to support prediction of search goods reviews being more helpful than experience good reviews. This finding contributed to the theory by providing evidence to the prediction of search goods being less prone to information asymmetries. Search good reviews had also a stronger effect on purchase intention. Especially the purchase intention based on a single review was higher if a search good was in question.

Keywords  consumer reviews, professional reviews, review helpfulness, economics of information, search goods, experience goods
Tiivistelmä


Vain osittaisia todisteita löydettiin kirjoittajatyypin vaikutuksele arvostelun koettuun hyödyllisyyteen. Tulokset näyttivät, että jos arvostelu oli väitetysti ammattilaisen kirjoittama, arvostelua pidettiin uskottavampaa.

Todisteita löydettiin tukemaan ennustetta, jonka mukaan hakuhyödykehravostelut ovat hyödyllisempiä kuin kokemushyödykehravostelut. Tämä löytö kontribuoi teoriaan tarjoamalla todisteita sille, että hakuhyödykkeet ovat vähemmän alttiita informaatioasymmetriioille. Hakuhyödykehravosteluilla oli myös vahvempi vaikutus ostoaikomukseen. Erityisesti ostoaikomus yhden arvostelun perusteella oli korkeampi, kun kyseessä oli hakuhyödyke.

Avainsanat kuluttaja-arvio, ammattilaisarvio, arvostelun hyödyllisyys, informaatiotaloustiede, hakuhyödykkeet, kokemushyödykkeet
# Table of Contents

List of Tables .................................................................................................................. 3
List of Figures .................................................................................................................. 4
1. Introduction .................................................................................................................. 5
2. Literature Review ....................................................................................................... 6
   2.1. Economics of Information and Theory of Search .................................................. 6
   2.2 Search Goods, Experience Goods and Credence Goods ........................................ 11
      2.2.1 Classification .................................................................................................. 11
      2.2.2 Empirical Studies .......................................................................................... 12
   2.3 Reviews and Sales ................................................................................................... 15
      2.3.1 Consumer Reviews and Sales .......................................................................... 15
      2.3.2 Professional Reviews and Sales ...................................................................... 17
   2.4 Review Helpfulness ............................................................................................... 18
      2.4.1 Valence ........................................................................................................... 18
      2.4.2 Two-sidedness ............................................................................................... 19
      2.4.3 Sentiment ....................................................................................................... 20
      2.4.4 Length ............................................................................................................ 21
      2.4.5 Readability ..................................................................................................... 21
      2.4.6 Factual Information ......................................................................................... 22
      2.4.7 Information about the Author ........................................................................ 22
   2.5 Search Goods and Experience Goods in Review Helpfulness Literature .................. 23
   2.6 Professional and Consumer Reviews ..................................................................... 24
3. Hypotheses .................................................................................................................. 27
4. Methodology ............................................................................................................... 30
   4.1 Survey Structure ................................................................................................... 30
   4.2 Product information and review contents ............................................................. 32
   4.3 Review Evaluation Statements ............................................................................. 35
   4.4 Identification of Careless Answers ..................................................................... 36
5. Results ....................................................................................................................... 36
   5.1 Demographics ...................................................................................................... 36
List of Tables

Table 1. Descriptive information of the answers to manipulation check. .......................................................... 41
Tables 2 and 3. Regression analysis of review helpfulness, source score and diagnosticity score. ......................... 42
Table 4. LSD analysis of differences in review helpfulness between treatment groups. ........................................ 43
Table 5. LSD analysis of differences in experience prediction between treatment groups. .................................. 45
Table 6. LSD analysis of differences in source score between treatment groups. .................................................. 47
Table 7. LSD analysis of differences in diagnosticity score between treatment groups. ..................................... 48
Table 8. LSD analysis of differences in purchase intention score between treatment groups. .............................. 50
Tables 9 and 10. Analyses of the relationship between habit of reading reviews and income. .............................. 52
Table 11. Correlation analysis between habit of reading reviews and review evaluation results. .......................... 52
Table 12. Correlation analysis between product category expertise and review evaluation results. ...................... 53
List of Figures

Figure 1. Age distribution of the respondents ................................................................. 37
Figure 2. Occupation distribution of the respondents ....................................................... 38
Figure 3. Distribution of highest achieved degree of the respondents. ........................... 38
Figure 4. The respondents’ online purchase frequency per year. ...................................... 39
Figure 5. The distribution of answers to statement regarding the habit of reading reviews. .................. 40
Figure 6. Means of review helpfulness. .......................................................... 44
Figure 7. Means of consumer review helpfulness and professional review helpfulness for every product .................. 44
Figure 8. Means of experience prediction. .......................................................... 46
Figure 9. Means of experience prediction. .......................................................... 47
Figure 10. Means of diagnosticity score .................................................................. 49
Figure 11. Means of purchase intention score. ......................................................... 50
1. Introduction

Internet has revolutionized the world during the past years. One of the most important aspects of internet is access to cheap information and its distribution. Online product reviews have made searching for relatively unbiased information about products quite easy and fast. Online product reviews is one of the forms cheap and valuable information has taken. By reading other consumers’ experiences with products and services, consumers can ideally predict the quality of these products and services in order to make a smart purchase decision. Online reviews’ contribution in making the right purchase decision is, however, not a simple one. There is variation in expertise of the authors of the reviews and attributes of the products themselves affect the value of information that can be extracted from the reviews.

In this paper, the role of review author types and product types on review helpfulness will be discussed and studied. The classification of products, or goods, will be based on the paper by Nelson (1970). The two good types are based on the information asymmetries and they are called search goods and experience goods (Nelson, 1970). The good types will be discussed further in the literature review. It is important to note that word “good” will be used interchangeably with “product” in this paper.

There are also two review author types that will be discussed. In an online environment, there are reviews written by consumers which are called consumer reviews. There are also reviews that are written by professional reviewers. These are called “professional reviews” or “expert reviews”.

Online retailers often give option for customers to write product reviews and give so called “helpful votes” to the consumer reviews. These votes are intended to measure helpfulness of the reviews, which is one of the most important topics in this paper. It should also be noted that review “helpfulness” will be used interchangeably with “usefulness”.
The past research has examined the relationship between author types and review helpfulness (D’Astous & Touil, 1999; M. X. Li, Huang, Tan, & Wei, 2013; Sheffet, 2002), and the relationship between good types and review helpfulness (Chen, 2015; Chua & Banerjee, 2016; Pan & Zhang, 2011). However, there has been no experiential study that combines both author types and good types when examining the relationship between the variables and perceived helpfulness. The aim of this paper is to fill this gap by conducting an experiential study which includes both good types and author types with as many controlled variables as possible. The primary research question is “All else constant, what kind of effect does author type have on perceived helpfulness of search good reviews and experience good reviews?” and secondary research question is “All else being constant, what is the relationship between good types and perceived review helpfulness?”. There are also other aspects in online reviews that will be examined in the paper in order to add knowledge to the existing research. Other research questions are “Regarding product reviews, what is the relationship between good type and purchase intention?”, “What is the relationship between income and the habit of reading reviews?” and “What is the relationship between product category expertise and the perceived helpfulness of product reviews?”. The intention is to answer these research questions from the perspective of economics of information.

2. Literature Review

2.1. Economics of Information and Theory of Search

The information in the market is asymmetric and valuable, thus giving agents incentives to engage in information search before making an investment (Stigler, 1961). Product reviews can be seen as a way to decrease the asymmetries between the buyer and the seller. From the economics of information point of view, one of the most interesting questions is how much are the consumers willing to invest in information acquisition. There have been several
models built around information search, describing various aspects of this action, such as the optimum amount of search (Stigler, 1961), allocation of search to different sources of information (Ratchford, Lee, & Talukdar, 2003) and the optimal selection order for sampling alternative solutions (Weitzman, 1979).

Stigler (1961) defines ‘search’ as a search for a favorable price before making a purchase. Thus it should be noted that the author examines search only from the perspective of price, excluding quality of goods from the analysis (Stigler, 1961). However, the same principles are arguably useful in a variety of different situations. Stigler’s (1961) models of search are based on an intuitive assumption that buyers search for a better deal until an increase in expected savings equals cost. Assumption of maximizing the difference between expected costs and utility in different forms is seen throughout information search literature (Moorthy, Ratchford, & Talukdar, 1997; Ratchford et al., 2003; Weitzman, 1979).

The process of search is also often assumed to be linear as e.g. in the case of the search framework by Moorthy et al. (1997) where the consumer searches information one brand at a time, paying the unit cost for every search. When the search is terminated, the alternative with the highest utility found so far is chosen (Moorthy et al., 1997). Although the information search is naturally much more complicated, it is also true that models describing it have to be simple enough to be useful. The assumption of linear information search process is also rather intuitional. If we imagine a consumer searching for a certain product in a physical store or even online, examining one good at a time and terminating the search process when marginal benefit is too low does seem a very plausible scenario.

Some of the models, however, rely more strongly on the rationality of economic actors. One of these models is constructed by Ratchford et al. (2003). The authors model consumer’s time allocation to different sources of information (Ratchford et al., 2003). The model is basically a maximization problem of a production function in which information sources are inputs and the information itself is an output (Ratchford et al., 2003). In their paper, Ratchford et al. (2003) consider internet as one source of information but following the
principles of the model it is expected that online reviews are a popular information source. This is because the cost of finding reviews online is relatively low, which makes the reviews a competitive information source. Of course, this requires an assumption that consumers know that internet can be used effectively to find product reviews.

Another interesting take on the search process is presented by Weitzman (1979) who develops two rules for the optimal search process. In a situation where there are multiple alternatives with unknown reward but with known search costs, the best selection rule is to search next the source with the highest reservation price (Weitzman, 1979). The search should be terminated when the highest sampled reward exceeds the reservation price of all the alternatives that have not been sampled (Weitzman, 1979). Again, these rules apply with certain assumptions and if they are changed, the selection behavior also changes even with the assumption of rational behavior. Some researchers (Moorthy et al., 1997; Nelson, 1970) even assume that in certain scenarios consumers search randomly. This helps in simplifying some models (Nelson, 1970) but might also be relevant in realistic scenarios presented by (Moorthy et al. (1997) where the consumer perceives different potential solutions homogenous prior search. As will be discussed later, Nelson (1970) also argues that search is often guided which effectively means that outside source affects consumer’s search behavior and this can be rationally justified.

The amount of search is probably the most discussed topic in theory of search. This is not surprising since there are many variables that effect the amount resources consumers are willing to spend on information. These variables include consumer’s perceptions of the market (Moorthy et al., 1997), expertise (Moorthy et al., 1997; Punj & Staelin, 1983) and price disparity (Rothschild, 1973; Stigler, 1961).

Moorthy et al. (1997) try to explain the variation in the amount of search by focusing on consumer’s prior brand perceptions in their framework of consumer search process. The authors make a distinction between brand-specific uncertainty and market uncertainty (Moorthy et al., 1997). In other words the consumers have uncertainties about the attributes
of a specific brand but they also have uncertainties about the market holistically, including different brands (Moorthy et al., 1997). As it becomes even clearer later in this paper, the attributes of the market of a certain good affects the search process and thus the distinction between different kinds of uncertainties is important. In other words, the value of information consumer acquires about a product is indirectly affected by other products of the same category or type.

In the paper by Moorthy et al. (1997), four different scenarios are presented with different effects of brand perceptions on search behavior. Consumer doesn’t engage in search at all if he or she perceives one brand to be totally differentiated from other brands, or if both brands and their attributes are perceived to be homogenous (Moorthy et al., 1997). However, if brands are perceived to be similar but the consumer has high uncertainty about what the brands offer, or if both brands and offerings are perceived to be different, the consumer will engage in search since he or she will see value in this action (Moorthy et al., 1997). The explanation provided by the authors about the decision to search or to abstain from it is very believable. However, one could argue that there are no situations where a brand is factually so different from the competition that search becomes useless. Same can be argued about homogeneity.

As mentioned earlier, expertise is one of the variables that affect the amount of search. In a model developed by Moorthy et al. (1997) amount of expertise is based on the number of attributes consumer evaluates in a product of a certain category. This effectively means that the benefits of search are higher for consumers with high expertise since they can get more out of a search process (Moorthy et al., 1997). This results in increased the amount of search for the consumer with high expertise (Moorthy et al., 1997). This is similar to a search model presented by Punj and Staelin (1983) where knowledge of product category in general has a negative relationship with the cost of search and positive relationship with in increased amount of search. However, prior knowledge about specific brands has a negative effect on amount of search since there is less need for it (Punj & Staelin, 1983). Thus is it important to
make a distinction in the type of expertise when considering its relationship with the search process.

Moorthy et al. (1997) also point out that due to inability to comprehend differences in attributes, consumer with low level of expertise will find brands to be homogenous. This will affect negatively to the perceived need for search, further strengthening the positive relationship between expertise and amount of search (Moorthy et al., 1997). However, when expertise is very high and uncertainty about the brand attributes are very low, the consumer has actually less need to search compared to consumer with lower level of expertise (Moorthy et al., 1997). This means that the relationship between expertise and amount search is actually curvilinear (Moorthy et al., 1997). Punj and Staelin (1983) also conclude similarly that prior knowledge about attributes of specific products has a negative effect on the need to search. Thus relevant knowledge prior the search affects the amount of search both positively and negatively, depending on the type of knowledge (Punj & Staelin, 1983).

Stigler (1961) claims that product price has also an impact on the amount of search and predicts that there is less variability in price if goods are expensive, since consumers will invest more in search due to higher potential savings. This stabilizes price variation especially in the case of expensive goods because consumers who buy them are well informed of the right price level and the sellers are forced to obey this level in pricing (Stigler, 1961). However, Rothschild, (1973) points out that this is not a strong argument since it would result in a paradox where consumers do not have the need to search at all due to the search done by other consumers. Thus, even though there is no disagreement with Stigler’s conclusion, Rothschild (1973) tries to build another model in order in which market forces determine the equilibrium of price distribution. Regardless of whether a model is equilibrium-based or not, the assumption of positive relationship can have an interesting interpretation in terms of product quality. If dispersion of product quality is high in a certain product category, the expected utility from search should also be relatively high resulting in increased amount of search.
2.2 Search Goods, Experience Goods and Credence Goods

2.2.1 Classification

In his research, Nelson divides goods in two types. The types are experience goods and search goods. The experience goods are products that have to be experienced by consumer after purchase in order to evaluate their quality. Nelson defines experiencing as the process of acquiring information about a good by consuming it. Search goods, on the other hand, are those products of which quality variation can be determined before the purchase by search. Nelson states that acquiring information through experience is often expensive since the product has to be purchased. However, he also argues that search can often be even more expensive since evaluating different brands is difficult and time consuming which raises the expense of search in favor of experience as a cheaper alternative. This also means that price of the good can effectively impact the classification of the good. (Nelson, 1970)

Goods cannot be strictly labeled as experience or search goods and thus it is often more useful to talk about search attributes and experience attributes of a product (Nelson, 1970, 1974; Weathers, Sharma, & Wood, 2007). Nelson uses style of a dress as an example of a search attribute and a taste of tuna fish as an example of experience attribute (Nelson, 1974). As for the examples of search and experience goods as types, furniture falls in the former and tobacco in the latter one (Nelson, 1970, 1974). Another way of describing this is to say furniture is dominated by search attributes because many of the relevant attributes, such as size and material, can be examined prior purchase. The taste of tobacco, on the other hand, is difficult to predict prior purchase.

One could argue that the good types are not objectively defined and Nelson (1970) does acknowledge this. This might also be the reason why the author does not discuss the classification to search goods and experience goods in detail (Nelson, 1970). It is rather easy to critique the classification due to the fact that some variables, which will also be discussed later, might affect whether a good is more of a search good or an experience good. Simply
by changing hypothetical consumer’s preferences we can transform tobacco into a search good. Let us assume that this consumer is buying tobacco for unusual reasons and the shape of the packaging is the only thing he or she cares about. In this case, tobacco becomes a search good.

Weathers et al. (2007) argue that experience or search qualities depend also on the context. In an online store, the qualities do not necessarily fall into the same categories as in a physical store (Weathers et al., 2007). The argument is rather compelling and there are many examples one could come up with to demonstrate this issue. For example, it is easy to find out whether a certain piece of clothing fits the body type of a consumer in a physical store, but it is much more difficult or even impossible in an online environment. Thus clothing can be an experience good online but become a search good in a physical store.

Darby and Karni (1973) extended the Nelson’s classification of goods by including credence qualities in their research. Credence qualities are valuable information, although getting this information is very difficult or costly for the consumer (Darby & Karni, 1973). The authors give automobile repair services as an example of credence qualities as often the consumers lack expertise to assess the quality of the repair (Darby & Karni, 1973).

2.2.2 Empirical Studies

The framework of search/experience/credence goods is rather common in literature discussing advertisement. This is not surprising since the framework is based on information asymmetries, which are very relevant in companies’ communication with the consumers. Nelson (1974) argues that there are significant differences between search goods and experience goods in terms of advertising. Advertisers have more power over consumers when they are promoting experience goods because the potential buyers cannot examine the claims made by companies prior purchasing the good (Nelson, 1974).
Jain and Posavac (2001) experimented with consumer’s evaluation of product search and experience qualities by manipulating the source of the claims describing the qualities. The findings were as expected from the point of view of the search/experience paradigm as the subjects relied more on quality signal when evaluating experience qualities of a product (Jain & Posavac, 2001). In this case the signal was the source of the claim, but as Jain and Posavac (2001) point out, the logic can be potentially applied to other signaling. Framework by Nelson (1970, 1974) suggests that consumers need to deal with less information when considering purchasing products with experience qualities. When reliable information is scarce, one would expect that the consumers are forced to put more weight to quality signals.

In the study by Ford et al. (1990) respondents were found to be more skeptical of advertisement claims that were subjective or represented experience attributes of a product. As Ford et al. (1990) conclude, this is in line with the theory of economics of information. The finding supports Nelson’s (1974) statement that companies have ‘more power’ in advertising when promoting experience goods, which in this case might reflect as skepticism. However, the results of the study by Ford et al. (1990) also revealed that respondents were skeptical of the claims even if the products were low priced. Ford et al. (1990) see this result conflicting with the theory because it predicts that the advertisers should have low incentives to defraud when the price of a good is low.

One of the big questions discussed is what kind of impact the internet has on marketing of different good types. Peterson et al. (1997) argue that internet should work better with search goods due to inability to closely examine experience goods in an online environment. The authors go as far as to say that “Internet-based marketing would seem to be a poor substitute for traditional channels” in a situation where consumer wants to experience a good before purchasing it (Peterson et al., 1997). This view has been challenged by multiple papers which will be discussed next.
Huang at al. (2009) argue that in an online environment, the distinction of search and experience is blurred due to mechanisms that allow consumers to gather information of both good types efficiently. The authors claim that the results of their empirical research, which indicated that the time spent searching for information does not differ based on the type of a good, indicate that consumers’ perceived ability to judge good quality is symmetrical in relation to search/experience good paradigm (P. Huang et al., 2009). The results indeed seem to conflict with Nelson’s (1970) prediction of consumers searching more information when search good are in question. However, this does not by any means imply the whole framework is useless in an online environment because the amount of search, although important, is not the only aspect differentiating the search process between search and experience goods.

The challenges to the SEC framework posed by online environment are also raised by Lisa Klein (1998). Klein (1998) argues that internet makes possible to acquire information of product attributes that was previously costly or even impossible. This might effectively transform experience goods into search goods if search prior purchase becomes less costly than sampling (Klein, 1998). As mention earlier, Weathers et al. (2007) also note that the channel through which the consumer purchases a good might effectively determine the product type in relation to the search/experience paradigm. One should, however, keep in mind that even if internet significantly decreases information asymmetries between prior and post purchase points in time, it does not eliminate them. For instance, the taste of canned tuna fish, which was the original example of an experience attribute presented by Nelson (1970), at a present time cannot be accurately described or transmitted even in an online environment.

Not surprisingly, Huang at al. (2009) admit that although the paradigm does not seem to have a relationship with the amount of search, it is still relevant online because the results indicate that search process does still differ based on the type of the good (P. Huang et al., 2009). If the consumer was purchasing an experience good, he or she viewed less pages but spent more time per page (P. Huang et al., 2009). This might indicate that even though
consumers spent the same amount of time searching for experience goods, they processed less information before buying experience goods. This would fit better with Nelson’s (1970) framework, but without further research this is mere speculation. Interestingly the results of the study conducted by Huang et al. (2009) also showed that the consumers looking for experience goods had a stronger tendency to buy products from the same site they acquired product information.

2.3 Reviews and Sales

In order to understand review helpfulness, it is useful to examine the relationship between reviews and sales. It could be even argued that the impact on sales can be seen as a metric for review usefulness. This is especially true if the professional reviews are considered. It is rather easy to get data about review helpfulness of consumer reviews since there are many websites that give the possibility to cast helpfulness votes for reviews written by users. However, this is not the case with professional reviews as they are not rated this way. Thus by taking a look at the relationship between professional reviews and sales, it is possible to examine what makes these reviews perceived as helpful.

There is also concrete evidence about the relationship between review helpfulness and sales. Lee and Shin (2014) found in their study that reading high-quality reviews had a more positive effect on purchase intention than low-quality reviews. Similar findings were made by Jiménez and Mendoza as the results of their study showed that especially reviews that were perceived credible had a positive relationship with purchase intention (Jiménez & Mendoza, 2013).

2.3.1 Consumer Reviews and Sales

For the large part the effect of reviews on consumer behavior is rather predictable. For example Pang and Qiu (2016) suggest in their research that reading reviews may have an impact on product attitude. The relationship is however not always intuitive. Some research
suggests that mere amount of online consumer reviews can increase sales (Xie, Chen, & Wu, 2016). In other words it does seem that reviews can have a significant impact on word of mouth. The positive effect of increased awareness was also found in research by Zhu and Zhang (2010) where amount of reviews had a stronger impact on sales for less popular products.

Naturally, in addition to the amount of reviews there are number of other factors that influence the relationship between reviews and sales. For example, the relationship between valence and the impact on sales is found in many studies (Berger, Sorensen, & Rasmussen, 2010; Hu, Liu, & Zhang, 2008; Zhu & Zhang, 2010). Rather intuitively, positive reviews with relatively high scores have a positive impact on sales (Zhu & Zhang, 2010). When Zhu and Zhang (2010), studied relationship between sales and consumer reviews, the result of the study implied that variation in review scores has also an impact on sales. The results implied that the relationship between variation in rating and sales is negative. Similar results are provided by Wang et al. (2015) as the authors found in their study that high variance in consumer reviews has a negative impact on sales.

Information about the authors of consumer reviews also seems to have an impact on the reviews and sales (Forman, Ghose, & Batia, 2008). When Forman et al. (2008) studied consumer reviews and disclosure of information about the reviewers. Relationship between disclosure of the identity-descriptive information and sales was positive, suggesting consumers are interested about the reviewer information and this also impact the behavior (Forman et al., 2008). Hu et al. (2008) also found out in their research that information about the reviewer in the context of consumer reviews affects the effectiveness of the review. Quality of the reviewer, or in other words his/her score based on the level of helpfulness of past written reviews, and the amount of reviews written in the past by the reviewer had a positive relationship with sales (Hu et al., 2008).
2.3.2 Professional Reviews and Sales

When studying the relationship between film critic reviews and box office performance, Boatwright et al. (2007) concluded that there is positive correlation between critic reviews and early box office sales, which in marketing literature terms means that the critics are influencers. The authors’ model provided no evidence that would suggest that the critics are predictors, or in other words that their opinions correlate with the overall box office sales (Boatwright et al., 2007). Eliashberg and Shugan (1997), on the other hand, provided quite opposite results in their study of film critics’ impact on sales. There was no significant relationship found between box office sales and critic reviews during the first four weeks after publishing of the reviews (Eliashberg & Shugan, 1997). Correlation between the reviews and total box office performance, however, was found (Eliashberg & Shugan, 1997).

The impact of reviews’ positive effect on awareness seems to present also in the context of professional reviews as Qiu and Leszczyc (2016) concluded that the products of relatively weak brands are sent to professional reviewers more often than the products representing strong brands. By sending a product for a review weak brands get the much needed awareness (Qiu & Leszczyc, 2016). It could be argued that professional reviews have actually even greater effect on awareness because on average they have more readers per review. In some cases even negative reviews can have a positive impact on sales as Berger et al. (2010) found out in their research. This may happen when a product with low awareness among consumers gets publicity through reviews (Berger et al., 2010).

When Cox and Kaimann (2015) studied the relationship between video game reviews and sales, they examined both critic reviews and consumer reviews. The results indicated that critic reviews not only predicted sales but also influenced them (Cox & Kaimann, 2015). This was not the case with consumer reviews as variable for consumer review valence was not statistically significant in regression analysis (Cox & Kaimann, 2015). This would imply that critics have a greater influence through reviews than other consumers. However, as the studies about review helpfulness will be discussed, the truth is much more complicated.
2.4 Review Helpfulness

M. X. Li et al. (2013) criticize other papers on review helpfulness for not clearly defining what does “helpfulness” actually means. In their paper, Li et al. (2013) themselves define helpfulness as “the extent to which consumers perceive the product review as being capable of facilitating judgment or purchase decisions.” This is a sound definition and it will be used in this paper. However, it could be argued that a clear definition for helpfulness is not always needed because consumers are often not given any definitions prior to casting the helpfulness vote. Thus, when examining different variables’ effects on helpfulness by using e.g. online retailer data one should acknowledge that the votes were cast with multiple definitions of “helpfulness”.

2.4.1 Valence

Research by Pan and Zhang (2011) suggests that valence affects the perceived usefulness of reviews. Analysis revealed that products that were rated higher had a higher probability of being perceived as useful, implying a positivity bias (Pan & Zhang, 2011). Similarly, Huang et al. (2015) found that positive consumers were generally perceived to be more helpful. However, research by Casaló et al. (2015) suggests that actually negative reviews are more probably found useful and this effect was stronger when consumers are risk averse. It should be noted, however, that Pan and Zhang (2011) analyzed reviews of multiple product categories whereas Casaló et al. (2015) studied hotel reviews only. The finding of positivity bias by Pan and Zhang (2011) is also challenged in the research by Kuan et al. (2015) where, again, a negative relationship was found between positive valence and helpfulness.

Research by Kim and Lee (2015) suggests that the probability of negative (or positive) reviews being more useful depends on the consumer. The results showed that “promotion oriented” consumers, which have a tendency of focusing on gains, find positive reviews more often helpful than negative ones (Kim & Lee, 2015). The results were opposite for “prevention-focused” consumers which are relatively risk averse i.e. negative reviews were
perceived to be more useful (Kim & Lee, 2015). This might explain the opposite finding discussed previously. There might be a large amount of variables affecting the relationship between valence and perceived helpfulness. Pan and Zhang (2011) also noticed that product type affected the strength of the relationship.

2.4.2 Two-sidedness

Chen (2015) studied the impact of “two-sidedness” on consumer review helpfulness. Two-sided reviews were defined as reviews that present both positive and negative aspects of the product (Chen, 2015). The results suggested that that when the reviewer is experienced and the review is evaluating a search good, two-sided reviews are considerably more helpful (Chen, 2015). Similar subject was also discussed by Forman et al. (2008) as the authors examined the relationship between review equivocality, helpfulness and reviewer identity disclosure. Equivocal reviews were defined as reviews with three stars out of five and the results indicated a negative relationship between helpfulness and equivocal reviews (Forman et al., 2008) which can be interpreted to be conflicting with those of (Chen, 2015). Interestingly, the results of the study by Forman et al. (2008) also indicated that the previously mentioned positive relationship between identity disclosure and helpfulness was stronger when the review was equivocal. The authors believe this is a result of consumers relying more on identity descriptive information when the valence of the review is not clear (Forman et al., 2008).

Although the results of studies by Forman et al. (2008) and Chen (2015) might seem opposite, there is no clear evidence suggesting this. Equivocality was based on review score whereas the two-sidedness reflected the use of arguments in text. Two-sidedness in terms of arguments is not dependent on the score of the review although there most probably is correlation between these attributes. Also, the results of the study conducted by Kuan et al. (2015) showed a negative relationship between “review extremity” and helpfulness. The extremity was measured with the difference between review score and average consumer
review score for the same product (Kuan et al., 2015). In other words the findings by Forman et al. (2008) are challenged.

Two-sided reviews might be perceived more helpful because they possibly provide more and seemingly less biased information about a product. However, if the review score is in the middle on a five star scale, it might be difficult to determine whether the product is right for the consumer. It is also worth mentioning that in the study conducted by Chen (2015) the effect of two-sidedness on review helpfulness was negative in some situations, although it was drastically smaller.

2.4.3 Sentiment

Agnihotri and Bhattacharya (2016) found that on average consumer reviews’ sentiment predicted higher perceived helpfulness. Sentiment was measured by analyzing the intensity of use of emotional words in the reviews (Agnihotri & Bhattacharya, 2016). The results showed that for the most part sentiment had a positive effect on review helpfulness (Agnihotri & Bhattacharya, 2016). This can be seen as evidence for the hypothesis of Forman et al. (2008) about the negative effect of equivocality on helpfulness. However, it is also important to note that after a certain point sentiment had a negative impact on perceived helpfulness, making the relationship curvilinear (Agnihotri & Bhattacharya, 2016). Agnihotri and Bhattacharya (2016) think this is might be due consumers’ fear of fabricated reviews, a concern that was also analyzed by Lee and Ma (2012) when identifying perceived benefits and costs associated with reviews. Doubt about authenticity of reviews was found to be a significant factor in causing perceived “costs” of online consumer reviews (H. Lee & Ma, 2012).

The results of the study by Li and Zhan (2011) suggested that the effect of emotional expressions in a review depends on valence. Consumers did not appreciate reviews with strong negative content but the situation was opposite in terms of strong positive content (J. Li & Zhan, 2011) supporting the hypothesized positivity bias by Pan and Zhang (2011). As for
the negative effect of extreme sentiment on helpfulness found by Agnihotri and Bhattacharya (2016), Li and Zhan (2011) also make supportive and interesting discovery of a negative relationship between use of exclamation marks and helpfulness.

2.4.4 Length

Pan and Zhang found a positive relationship between review helpfulness and length measured in the number of characters (Pan & Zhang, 2011) Similarly, Kuan et al. (2015) and Huang et al. (2015) found in their studies that amount of words in a review has a positive relationship with helpfulness. The results of the study conducted by Huang et al. (2015) however show that after a certain point there is no significant relationship between review length and perceived helpfulness. In the study this threshold was 144 words (A. H. Huang et al., 2015). The positive relationship between length and helpfulness implies that to at least some point, readers receive more valuable information from a relatively long review that exceeds the cost of reading the review.

2.4.5 Readability

Intuitively one might think that readability has a positive relationship with helpfulness because the information can be processed more easily. However, the results of study conducted by Kuan et al. (2015) showed a negative relationship between readability and helpfulness. This was the case for all three readability measures that was used in the study: Flesch Reading Ease Score, syllables per word and words per sentence (Kuan et al., 2015). The authors speculate that high average readability among the samples is the reason behind this potentially counterintuitive result (Kuan et al., 2015). Because the consumer reviews were rather linguistically simple in general, richer content often outweighed the negative aspects of less readable text (Kuan et al., 2015). Li and Zhan (2011) also measured readability by measuring amount of words in paragraph and sentences and negative relationships with review helpfulness were found for both of the metrics.
More intuitive results are provided by Agnihotri and Bhattacharya (2016) as in their research the relationship between readability and review helpfulness was mostly positive. More specifically, the discovered relationship was curvilinear because level of helpfulness started to decrease when reviews had very high level of readability (Agnihotri & Bhattacharya, 2016). Like Kuan et al. (2015), Agnihotri and Bhattacharya (2016) also used Flesch Reading Ease in order to approximate the level of readability. Unfortunately the average readability level is not revealed in the latter study, but one could argue that a more positive relationship between readability and helpfulness was due more complicated products used in analysis. Agnihotri and Bhattacharya (2016) analyzed reviews of a tablet computer, a printer, wireless headphones and a DSLR camera, whereas the analysis by Kuan et al. (2015) was based on reviews of DVDs and books.

2.4.6 Factual Information

When Kim and Lee (2015) presented alternative versions of the same consumer review of a digital camera, a review with factual claims was perceived to be more helpful than a review with evaluative claims. Former review type had more objective information written about the product, whereas the latter one included more subjective descriptions of product attributes (Kim & Lee, 2015). M. X. Li et al. (2013) made similar findings although the authors used words “concrete” and “abstract” in order to describe the level of subjectivity of review content. The results showed that concrete reviews were more helpful and this effect was stronger with consumer-written reviews than with those written by professionals (M. X. Li et al., 2013). One should note that M. X. Li et al. (2013) used reviews of technical products which are search attribute dominant just like the digital camera used by Kim and Lee (2015) arguably is. The results might have been different for experience goods.

2.4.7 Information about the Author

Previously mentioned research by Forman et al. (2008) also showed that disclosure of identity-descriptive information had a positive relationship with perceived helpfulness. The
disclosed information in the study included the name of the reviewer or geographical location (Forman et al., 2008). Forman et al. (2008) hypothesize that by receiving information about the author of a review, consumers might identify themselves with the author and thus give more weight to the review.

2.5 Search Goods and Experience Goods in Review Helpfulness Literature

Previously mentioned Chen (2015) studied helpfulness of two-sided reviews for search goods. Two-sided reviews increased helpfulness of search good reviews if the reviewer was experienced (Chen, 2015). For the experience goods, one sided reviews were more helpful if again the reviewer was experienced (Chen, 2015). Such effects were not found when the writers were novices (Chen, 2015). The results might imply that consumers are looking for different thing is the reviews depending on the product type. It is possible that those who are intending to buy a search good want objective information whereas when looking for information about an experience good, objectivity is not as appreciated due to subjectivity of the good itself.

The results of a study conducted by Mudambi and Schuff (2010) suggest that in the case of experience goods, extreme reviews in terms of rating are perceived to be less helpful than more moderate ones. Interestingly this relationship between extremity and helpfulness was not found for search goods (Mudambi & Schuff, 2010). The result is rather interesting when compared to the findings of Chen (2015) because extremity can be seen reflecting one-sidedness. Of course, it might be that consumer looking information about experience goods appreciate one-sided but no extreme reviews but it does seem there is something important missing from the equation.

Whereas in most studies the product types are divided to search and experience goods, Pan and Zhang (2011) divided products into utilitarian and experiential products. Utilitarian products are bought due to their functions and experiential products for their hedonic properties (Pan & Zhang, 2011). It seems utilitarian products are quite similar to search
goods and experiential products are much like experience goods. The results showed that the reviews of utilitarian products are perceived more helpful than the reviews of experiential products (Pan & Zhang, 2011). From the economics of information point of view, there is an intuitional explanation for the result. Because the relevant information about utilitarian product, or search good, is more often objective the reader will receive on average more valuable information when compared to the reviews of experiential products.

Research by Pan and Zhang (2011) also revealed that length of the review had a positive relationship with helpfulness and the effect was stronger with utilitarian products (Pan & Zhang, 2011). This, again, can be explained with the help of principles in economics of information. Because the content in utilitarian (search) products is more valuable on average, providing more of that information in the same review increases the helpfulness proportionally more than in the case of experiential (experience) products.

As previously mentioned, there might be a positivity bias in reviews. Research by Chua and Banerjee (2016) suggests this is true for both product types. The authors included three different search and experience products in consumer review helpfulness study and the results showed that positively reviewed products had a higher chance to perceived as useful (Chua & Banerjee, 2016). The bias was stronger with experience products, but the difference was rather modest (Chua & Banerjee, 2016).

2.6 Professional and Consumer Reviews

Casaló et al. (2015) discovered that there are differences in perceived review usefulness even when level of expertise of only non-professional consumer reviewers is manipulated. Similarly, Huang et al. (2015) found in their study a significant positive relationship between perceived helpfulness and cumulative helpfulness ratio of reviewers, which might signal the expertise of the reviewer. It should be noted however, that this finding considered only the best ranking reviewers (Huang et al., 2015). In the study conducted by Casaló et al. (2015), the reviewer was presented as either experienced reviewer or a person who has written
his/her first review. Only risk averse respondents were chosen for this study and the results revealed that these consumers found reviews written by an “expert” more useful than those written by a novice (Casaló et al., 2015). This effect was greater when the object of the review, in this case hotel, was not representing a known brand (Casaló et al., 2015).

Although the findings by Casaló et al. (2015) might seem to imply that reviews written by experts are valued more, the evidence provided by Sheffet (2002) tells a different story. Sheffet (2002) studied how consumers react to disclosure of availability of test results in advertisement. The subjects of an experiment were shown advertisements with claims that reflected credence qualities of the advertised product (Sheffet, 2002). Surprisingly, consumers often did not view these claims more favorably when they were disclosed as tested by the Federal Trade Commission (Sheffet, 2002). In other words simply by stating that a piece of information is provided by a reputable source does not guarantee they are given more weight by consumers.

D’Astous and Touil (1999) found in their study that consensus among movie critics had a rather strong impact on how consumers evaluate movies before making a decision to watch them. The results showed that if multiple critics give similar evaluation scores to a movie, the respondents are more likely to evaluate the movie accordingly (D’Astous & Touil, 1999). This might imply that consumers value the expertise of professional movie critics. However, research by Tsao (2014) suggests that consumers rely more on consumer reviews than professional reviews in the context of movies. The results suggested that consumer reviews have an impact on intention to watch a movie but this not the case with critic ratings (Tsao, 2014). In other words reviews written by non-professionals seem to given more weight. Here, it is important to note that movies can be classified as experience products. It might be that with heavily subjective products consumers tend to relate to fellow non-professional consumers.

There were also other interesting findings in the study conducted by D’Astous and Touil (1999). When critics evaluated a movie positively, critics’ reputation did not have an effect
on consumers’ evaluation of the movie, but the reputation did to make a difference if critics’
evaluation was negative (D’Astous & Touil, 1999). This implies that information provided by
a reputable review author is valued differently according to the opinion of the author. This
might be a result of the positivity bias suggested by (Pan & Zhang, 2011). When the review is
positive, the consumers are less picky about the review author.

Previously mentioned Wang et al. studied the relationship between variance in reviews and
sales. The authors considered both professional and consumer reviews. As mentioned
previously, the results showed a negative relationship between consumer review variance
and sales. However, the results also revealed that when variance of both consumer and
professional reviews was high, sales actually increased. The authors’ explanation for this
phenomenon is that some products with both strong positive and negative attributes
generate variation in reviews, but also provide a sufficient value proposition for those
consumers that value the positive attributes and do not care about the negative ones.
Additionally Wang et al. suggest that high variance in reviews causes a “feeling of
uniqueness” which increases sales. (Wang et al., 2015)

One of the best studies comparing helpfulness between expert and consumer reviews was
conducted by M. X. Li et al. (2013). In an experiment the participants were showed reviews
allegedly written by an expert or a non-professional consumer (M. X. Li et al., 2013). The
results showed that the participants perceived consumer reviews more helpful than those
written by an expert (M. X. Li et al., 2013). However, the products that were used in the
experiment, a phone and a laptop, are quite similar in terms of search/experience good
paradigm. The results are implying that for the search goods, consumers find consumer-
written reviews more helpful. If we also consider the finding by Tsao (2014) it seems like for
both search goods and experience goods the consumers tend to value consumer reviews
more than the reviews written by a professional.
3. Hypotheses

As mentioned previously, multiple papers have discussed the issue of a blurred line between search and experience goods in an era where information about goods is available for consumers at a very low cost. However, there will be always a distinction between search and experience goods due to subjective attributes of the products. The subjective quality of these attributes can only be determined by consuming the good. Thus, goods which are dominated by these highly subjective attributes can be considered experience goods even if we assume that the cost of acquiring information about any good is extremely low. In other words, as the cost of information decreases, the subjective attributes of goods move closer to become a synonym for experience attributes. Of course, even if there is cheap information available about a product, there are still situations in which the product is rather experienced by consumers in order to determine the quality. As Nelson (1970) predicted, this should be more common when the price of the good is low.

However, if we assume that a good has a significant cost and there is information available about the quality of goods, goods dominated with subjective attributes are also dominated with experience attributes. This relationship is important when considering the effect the author of review has on perceived helpfulness. In a case of an experience product, one cannot assume that review written by an expert is expected to reflect better the experience of the consumer. Wang et al. (2015) discussed in their paper about differences in tastes between consumers that occasionally consume a certain category good and the professionals reviewers. If this is the case, consumers can be expected to gain more value form consumer reviews. This is because when an experience product review is written by a non-professional, an average consumer can expect that this review is a better predicts his/her own experience.

In the case of search goods the results should be at least to some extent different. Search goods are dominated by attributes that can be objectively verified. For these attributes, the professional reviewers can be expected to gain some advantage due to the signaling effect.
If the writer of the review is a professional, the consumer can expect that the author spends much time with the products of a certain category and has relatively much relevant knowledge. However, the past research, such as the results of the study conducted by M. X. Li et al. (2013), suggests this signaling effect does not outweigh the bias towards consumer written reviews. It should be acknowledged that there is no product that is purely a search good, and it seems that even with the products at this end of the spectrum the consumers tend to “side” with fellow consumers. However, because there are relatively few subjective experience attributes in search goods, the difference in perceived helpfulness should be smaller when compared to experience good reviews. These conclusions lead to the following hypotheses:

**H1a:** Consumer reviews of experience goods are perceived more helpful than professional reviews of experience goods.

**H1b:** Consumer reviews of search goods are perceived more helpful than professional reviews of search goods.

**H2:** The difference between perceived helpfulness of consumer reviews and helpfulness of professional reviews is greater for experience good reviews than it is for search good reviews.

Due to the nature of the product types, search good reviews contain more objective information about the product when compared to experience goods reviews. This information tends to be also more valuable for search goods than experience goods. As discussed earlier, nowadays the experience goods fall in this very category due to dominance of subjective attributes. These same attributes are also the reason why consumers buy these goods since otherwise the attributes would not be relevant. This leads to a situation where search good reviews have relatively high amount of valuable objective information, whereas experience good reviews have relatively high amount of important information that has to
be interpreted and doesn’t predict the product experience as accurately. Hence, it is expected that search good reviews are more helpful than experience good reviews.

**H3:** Search good reviews are perceived more helpful than experience good reviews.

Both theory and empirical research, such as the study conducted by Lee and Shin (2014) imply that there should be a positive relationship between review helpfulness and purchase intention. Because search good reviews are expected to be perceived more helpful than experience good reviews, it is expected that search goods reviews have a stronger impact on purchase intension.

**H4:** The effect of reviews on purchase intention is stronger for search goods than it is for experience goods.

Stigler (1961) theorized that consumers would engage more in search if the goods are expensive due to higher risk. This would suggest that consumers with lower income would search more than those with higher income. Low income consumers have less money to spend and this creates a larger incentive to invest in search prior purchase. Thus, the following hypothesis is developed:

**H5:** There is a negative relationship between income and a habit of reading reviews.

According to the papers (Moorthy et al., 1997; Punj & Staelin, 1983) discussed earlier, those consumers that have more knowledge about a certain product category also get more value from the reviews of products of the category. Thus it is expected that there is correlation between product category expertise and perceived review helpfulness.

**H6:** There is a positive relationship between product category expertise and perceived review helpfulness.
4. Methodology

The study was based on positivist research philosophy. In order to find out what happens when only the author type is changed and everything else is kept constant, quantitative data is needed in order to acquire meaningful new knowledge. Thus, an online survey was conducted in order to get quantitative data for the study. The link to the survey was spread mainly through a social media channel Facebook. In other words a convenience sample was used. Qualtrics was used to create the survey and SPSS to analyze the results.

4.1 Survey Structure

For all the respondents, questions about demographics were presented. These included gender, year of birth, gross household income, amount of members in the household, occupation and highest achieved degree. In addition, the respondents were asked about the frequency of their online purchase and their habit of reading reviews before purchasing something online. The exact question for the purchase frequency was “How many times, on average, do you purchase products online?” As for the habit of reading reviews, the respondents were asked to evaluate statement “I often read product reviews before I purchase something online.” on Likert scale from 1 to 7, 1 standing for “fully disagree” and 7 standing for “completely agree”. Same scale was used for all statement evaluations in the survey.

After the respondents revealed the aforementioned information about themselves, they were provided with information concerning the forthcoming reviews. The respondents were told that people with different backgrounds were asked to write a review of about one hundred words about some product and that two of these reviews will be shown to the respondent. This information was completely fabricated as the review texts were all written carefully to be as similar to one another as possible and they were all written by the same person, the author of this paper. The review texts will discussed later in more detail.
Fabricated information about the review authors with different backgrounds writing one hundred word texts was given to the respondents in order to eliminate the potential suspicion regarding the length of the review. Because professional reviews are on average much longer than consumer reviews, short reviews might have seen odd to the respondents if they were told that the reviews are written by a professional. By providing an explanation for the fixed length of texts, review length was also automatically standardized.

Ultimately, 2 x 2 factorial experiment was designed and the respondents were divided randomly to four different treatment groups. Every treatment group was shown instructions that oriented them for the forthcoming task. The respondents were asked to imagine themselves in a situation where they intend to buy a certain product. For half of the respondents the product was a home kettle and for the other half, a novel. Home kettle acted as a search product whereas novel represented an experience product. The respondents were further asked to imagine that they have searched information online and found the product described below. In addition, the respondents were instructed to imagine that they have found a review of the product. Below the instructions, the respondents saw a photograph of the product, information about the product and finally the review.

Two different author types were the basis for the other division in the experiment. Half of the respondents were told that writing product reviews of a given category was part of review author’s work description and the other half were told that the text is a user review of an online retailer. After the respondents had read the review text, on the next page they were asked to evaluate helpfulness of the review on a Likert scale from 1 to 7, or from “totally useless” to “very useful”. Next, the respondents evaluated seven statements regarding the review, which will be discussed later in more detail.

For both of the products represented to the respondents, a manipulation check was conducted regarding the typology of the search/experience paradigm. The respondents were asked to evaluate statement “I am able to make an accurate prediction of product quality before the purchase, when product category in question is home kettles.” Naturally,
for the respondents in the treatment groups with experience products, “novels” replaced the product category in the end of the statement. For search goods, the values of the evaluation of this statement will be expected to be higher than the values for experience goods. In addition, the respondents were asked to evaluate statement “I feel like I know much about the product category of home kettles” with, again, alternative product category for the respondents in the treatment groups with experience goods. This was designed to measure category knowledge of the respondents.

In addition to the first treatment group, the respondents were again randomly assigned to a second treatment groups, composing a similar 2 x 2 experiment. Again, the groups had different product and review author types. For the second experiment, a fan represented a search product and a movie was used as an experience product. Similarly to the previous experiment, the respondent evaluated usefulness of the review and the aforementioned statements. Because of this survey structure, the effective sample size was doubled for some of the analyses of the results.

4.2 Product information and review contents

Weathers et al. (2007) found in their study that in the context of online retailer, providing a product picture of experience good significantly reduced consumers’ perceived uncertainty related to the product. This, however, was not the case with a search good (Weathers et al., 2007). Casaló et al. also concluded that perceived usefulness of reviews can be increased with pictures (2015). Due to these findings, pictures of products were decided to be included in the study. By adding pictures of the products, variation in perceived helpfulness can be better explained by the variables of interest, such as author and product type. Pictures also create a more believable online purchase scenario.

Due to the same reasons, some product information was provided for the respondents. For each of the products, five product details were revealed, such as the power of the fan and the length of the movie. Most of product information varied between the different product
with the exception of price. Price of the products was standardized to be 24.90 euros in every case. This was done because price can have an impact on search behavior (Stigler, 1961). The price impacted the selection of products for the study. Not only the price was similar for every product but the price of 24.90 also roughly represented an ordinary price for the representatives of each product category.

Typical price range of the product categories was, of course, not the only basis on which the products were picked for the study as one of the most important tasks was to measure the impact of product type. The items were picked to be on the far sides of the spectrum in terms of search/experience paradigm. The search goods picked for the survey were a home kettle and a fan. In terms of the paradigm, these products are quite similar to cameras, a good that Nelson (1970) used as a search good. Like with a camera, the quality of a home kettle and a fan can be determined rather accurately by looking at the specifications. The experience goods picked for the experience were a novel and a movie. Nelson (1970) describes tuna fish as an experience good because consumer cannot acquire the taste of the product prior purchase. Similarly, the subjective experience of reading a novel or watching a movie is difficult to predict before the consumption of the actual product.

Nelson (1970) also predicted that there should be more guidance the lower the purchase frequency is. Thus for durable goods, advice will be used more (Nelson, 1970). This might affect the helpfulness of reviews. Hence all of the products selected for the survey are durable. All of the information about the goods that can be considered as a brand, such as manufacturer or the author of a novel, was fabricated. This was done because the results of a study by Casaló et al. (2015) implied that consumers find reviews more useful if the object of the review represents a well-known brand. With the absence of brands, the could not be these kinds of effects.

The product review texts were standardized in relation to many attributes that have had an impact on perceived helpfulness in the past research. One of these is review length due to its positive relationship with perceived helpfulness (Pan & Zhang, 2011). The shortest review
text had 829 characters while the longest text was 846 characters in length. As discussed earlier, readability can also affect helpfulness (Agnihotri & Bhattacharya, 2016; Kuan et al., 2015) and due to this reason the readability was also standardized. Flesch readability score could not be used as it does not work with Finnish, the language in which the reviews were written. However, a simple measure of words per sentence can be used to evaluate readability as it is one of the major components in Flesch readability score (Agnihotri & Bhattacharya, 2016). In these terms, the least readable review had 10.6 words per sentence while the most readable review had 9.8. All of the review texts were also divided to three paragraphs in order to make them look as equally readable as possible.

Additionally, the content of the reviews was made similar. Because emotional content can have an impact on perceived credibility (J. Li & Zhan, 2011) and perceived helpfulness (Agnihotri & Bhattacharya, 2016), no strong words, like “excellent” were used in the review texts. Furthermore, each of the reviews included an argument which opposed the overall message of the review. This due to the findings by Chen (2015) about two-sided arguments in reviews. All the reviews were written in a professional style found in real reviews written by professional reviewers. Finally, the rating of the product was also standardized as it may impact on review helpfulness (Kuan et al., 2015). Each review ended with a 5-star rating of 4 stars.

The contents of reviews could not be standardized in relation to factual and non-factual information. Even if the study by Kim and Lee (2015) suggested that this has an effect on helpfulness, the fact is that experience good reviews cannot include much factual information and be believable at the same time. Because these goods are dominated by subjective attributes, non-factual statements are used much more often than factual statements. This might also be the reason why Kim and Lee (2015) used only search goods in their research because these reviews are much more flexible in this aspect.
4.3 Review Evaluation Statements

As mentioned earlier, after the respondents had read a review, they were asked to evaluate multiple statements concerning the review. M. X. Li et al. (2013) use a model in which there are three components in review helpfulness and four of the statements used in the survey were inspired by their paper. The components are perceived source credibility, content diagnosticity and vicarious expression (M. X. Li et al., 2013). The first of the two components were measured in the experiment but the third, vicarious expression was left out. The decision was made due to complicated statements used to measure this component and its low contribution to this paper. The component is based on social learning theory and it reflects the motivations of the author to write a review as well as the readers ability to understand the point of view of the review author (M. X. Li et al., 2013). In this paper, the intention is to concentrate on source of the review and the review content.

Perceived source credibility reflects the trustworthiness of the author whereas perceived content diagnosticity refers to the valuable information received by the reader (M. X. Li et al., 2013). For the component of source credibility, the respondents were asked to evaluate statements “The author of the review seems trustworthy to me” and “The author of the review seems well-informed to me”. The average of these evaluations consist source score in the analysis part of this paper. For the component of content diagnosticity, statements “The review help me to familiarize myself with the product” and “The review helped me to assess quality of the product”. The average of these evaluations formed diagnosticity score.

In addition, the respondents were asked to evaluate statements “the review has a significant impact on my purchase decision” and “I can imagine purchasing this product based on this review”. The average of the evaluation of these two statements formed purchase intention score.

The respondents also evaluated statement “I feel like the author’s experience with the product predicts well my own experience with the product”. This statement was included in
order to gather evidence for the speculation that consumers tend to believe the experiences of fellow non-professional consumers better predicts their own experience than in the case of a professional reviewer.

4.4 Identification of Careless Answers

Throughout the survey three questions intended to help spot careless answers were hidden among other questions for every respondent. Two of these asked readers to do a simple mathematical computation, for example the sum of numbers 0 and 3. In the very end of the survey, the third question asked the respondents to pick a product of which they have read a review about in the survey. At this point the respondents had no option to go back and check the products. A list of options was presented and the right answer was “None of the above” in the very end of the list.

5. Results

271 answers were received from the survey, of which 22 were discarded due to carelessness spotted with the help of the aforementioned questions. This resulted with a sample size of 249. However, due to the methodology described earlier, the effective sample size for some analyses was twice as large.

5.1 Demographics

As a convenience sample was used, it is important to examine demographical information about the sample. Interestingly, the 68.7 % of the respondents were female and only 31.3 % were male. Age distribution can be seen in Figure 1. It should be noted that the age distribution is estimation as the respondents were asked to give the year of birth in order to determine their age. This detail does not however have a meaningful impact the age distribution seen in the figure. The age group of 26-30 years old is very well represented and
the frequencies of other age groups are significantly lower. In other words the sample has a bias towards a rather young generation.

![Age Distribution](image)

Figure 1. Age distribution of the respondents.

Other interesting aspects about the sample can be seen when examining the occupation distribution and the highest achieved degrees. When considering the age distribution it is not surprising that there are many students in the sample. Also, the Figure 3 might thus be somewhat deceiving because at least some of the students will achieve a new higher degree as their studies come to the end.
Figure 2. Occupation distribution of the respondents.

Figure 3. Distribution of highest achieved degree of the respondents.
The respondents were also asked what the household income is and how many people are in the household. This way income per capita in the household could be estimated. The respondents were asked to pick from a set of income groups. For each group, an average was calculated. For example, the income group of 2000-2999 euros per month was set to be 2499.5 euros per month. The highest income group of “over 10 000 euros” was left out of these calculations as the absence of upper limit did not allow approximating a meaningful number to represent the income group. After the household income averages were calculated, they were divided by the number of household members and the result was the estimation of household income per capita.

![Online Purchase Frequency Per Year](image)

Figure 4. The respondents’ online purchase frequency per year.

Results regarding the habit of reading reviews can be seen it Figure 5. Majority of the respondents seems to read reviews often before purchasing something online.
5.2 Manipulation Check

The manipulation check was not entirely successful. The results were as expected when product categories of fans, home kettles and novels are considered. This was not the case with movies however. The results for ability of predicting product quality prior purchase were similar for fans and home kettles with means of 3.84 and 3.90, respectively. As expected, the mean for novels is significantly below these with an average of 3.39. T-test showed that this mean is significantly different (p > 0.05) from the means of both fans and home kettles. Unexpectedly the mean for movies is highest in all the categories with a mean of 3.99. The results of manipulation check can be seen in Table 1.

Figure 5. The distribution of answers to statement regarding the habit of reading reviews.
Table 1.
Descriptive information of the answers to manipulation check.

<table>
<thead>
<tr>
<th>Ability of Predicting Product Quality Prior Purchase: Fans</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability of Predicting Product Quality Prior Purchase: Home Kettles</td>
<td>122</td>
<td>3.9016</td>
<td>1.4166</td>
</tr>
<tr>
<td>Ability of Predicting Product Quality Prior Purchase: Novels</td>
<td>127</td>
<td>3.3858</td>
<td>1.4856</td>
</tr>
<tr>
<td>Ability of Predicting Product Quality Prior Purchase: Movies</td>
<td>126</td>
<td>3.9921</td>
<td>1.53100</td>
</tr>
</tbody>
</table>

5.3 Components of Review Helpfulness

As mentioned earlier, source score consists of answers to two different questions. There was strong correlation between the answers. Pearson correlation coefficient for trustworthiness and expertise was 0.689 with means of 4.829 (std. 1.308) and 4.823 (std. 1.305), respectively. A strong correlation was also found between familiarizing the reader with a product and the reader’s ability to evaluate product quality, which form the diagnosticity score. Pearson correlation coefficient was 0.608 with means of 5.050 (std. 1.253) and 4.645 (std. 1.340), respectively.

The correlation between review’s impact on purchase decision and purchasing based on the review was not as strong with Pearson correlation coefficient of 0.498. All of the correlations were statistically significant with p-values being below 0.01. The means for review’s impact on purchase decision and purchasing based on the review were 4.359 (std. 1.580) and 3.950 (std. 1.724), respectively. These two variables will be forming the purchase intention score regardless since for the most part, they behave similarly in relation to other variables. There are, however, some interesting findings related to the variables in question and it will be discussed later in the paper.

Because source score and diagnosticity score are expected to have a positive relationship with perceived review helpfulness, a simple linear regression model was constructed in order to see whether this actually is the case. The results for the regression analysis can be seen in Table 2 and Table 3. With review helpfulness being dependent variable the betas for
independent variables source score and diagnosticity score are 0.400 and 0.460, respectively. R squared is rather low (0.532), leaving much space for other aspects room to influence the perceived helpfulness.

Tables 2 and 3.
Regression analysis of review helpfulness, source score and diagnosticity score.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>0.741</td>
<td>0.180</td>
<td>4.127</td>
<td>0.000</td>
</tr>
<tr>
<td>Source Score</td>
<td>0.400</td>
<td>0.044</td>
<td>0.377</td>
<td>9.074</td>
</tr>
<tr>
<td>Diagnosticity Score</td>
<td>0.460</td>
<td>0.046</td>
<td>0.420</td>
<td>10.092</td>
</tr>
</tbody>
</table>

| R | 0.729 |
| R Square | 0.532 |
| Adjusted R Square | 0.53 |
| Std. Error of the Estimate | 0.872 |

5.4 Results of Review Evaluations

Review helpfulness, experience prediction, source score, diagnosticity score and purchase intention score were analyzed using MANOVA. Each of the samples was effectively included in the analysis twice, because each respondent evaluated two different reviews. Samples were categorized by the four treatment groups. The groups will be referred to using two letter combinations in order to enhance readability. SP will stand for a search product review written by a professional, SC will stand for a search product consumer review, EP will stand for an experience product review written by a professional and EC will stand for an experience product consumer review.
A statistically significant difference was found in the review related evaluations in different treatment groups, $F(15, 1353.08) = 5.70, p < 0.0005$; Wilk's $\Lambda = 0.84$, partial $\eta^2 = .06$. Everything was also statistically significant in tests of between-subjects effects and the results can be seen in Appendix 1.

Next, the results for every variable shown and statistical significance evaluated with LSD.

**5.4.1 Review Helpfulness**

In the case of review helpfulness variable, there was no statistically significant differences between the two author types for both search and experience goods. There was, however, a significant difference between good types and this is the case for both professionally written reviews and consumer reviews. As predicted, experience good reviews were perceived less helpful than search good reviews.

<table>
<thead>
<tr>
<th>Multiple Comparisons</th>
<th>Dependent Variable</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Lower Bound</td>
<td>Upper Bound</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Review Helpfulness</td>
<td>LSD SP SC</td>
<td>-.0767</td>
<td>.1606</td>
<td>.6333</td>
<td>-.3922</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-.3452*</td>
<td>.1603</td>
<td>.0317</td>
<td>.0303</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.4534**</td>
<td>.1600</td>
<td>.0048</td>
<td>.1391</td>
</tr>
<tr>
<td></td>
<td>SP SC</td>
<td>.0767</td>
<td>.1606</td>
<td>.6333</td>
<td>-.2388</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4219**</td>
<td>.1586</td>
<td>.0081</td>
<td>.1102</td>
</tr>
<tr>
<td></td>
<td>SC EP</td>
<td>.5301**</td>
<td>.1583</td>
<td>.0009</td>
<td>.2190</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-.3452*</td>
<td>.1603</td>
<td>.0317</td>
<td>-.6601</td>
</tr>
<tr>
<td></td>
<td>EP SC</td>
<td>-.4219**</td>
<td>.1586</td>
<td>.0081</td>
<td>-.7336</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.1082</td>
<td>.1580</td>
<td>.4939</td>
<td>-.2022</td>
</tr>
<tr>
<td></td>
<td>SC EC</td>
<td>-.5301*</td>
<td>.1583</td>
<td>.0009</td>
<td>-.8411</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.1082</td>
<td>.1580</td>
<td>.4939</td>
<td>-.4186</td>
</tr>
</tbody>
</table>

*p < 0.05
**p < 0.01
When examining the means of review helpfulness for every product, it can be seen that the average helpfulness is not systematically higher for either of author types. This is true for both search and experience goods. More details can be seen in Figure 7.
5.4.2 Experience Prediction

Results for experience prediction are similar to the results for review helpfulness. There is no significant difference between author types and there is a significant difference between good types. Experience goods are, as expected, ranked lower in terms of the feeling that the reviewer’s experience predicts the experience of the reader.

Table 5.
LSD analysis of differences in experience prediction between treatment groups.

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Multiple Comparisons</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
</tr>
<tr>
<td>Experience</td>
<td>LSD</td>
<td>SP</td>
<td>SC</td>
<td>.0173</td>
<td>.1672</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EP</td>
<td>.8651**</td>
<td></td>
<td>.0000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EC</td>
<td>.9199**</td>
<td></td>
<td>.0000</td>
</tr>
<tr>
<td>Prediction</td>
<td>SC</td>
<td>SP</td>
<td>-.0173</td>
<td>.1672</td>
<td>.9175</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EP</td>
<td>.8477**</td>
<td></td>
<td>.0000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EC</td>
<td>.9026**</td>
<td></td>
<td>.0000</td>
</tr>
<tr>
<td></td>
<td>EP</td>
<td>SP</td>
<td>-.8651**</td>
<td>.1669</td>
<td>.0000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SC</td>
<td>-.8477**</td>
<td>.1651</td>
<td>.0000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EC</td>
<td>.0549</td>
<td>.1645</td>
<td>.7388</td>
</tr>
<tr>
<td></td>
<td>EC</td>
<td>SP</td>
<td>-.9199**</td>
<td>.1665</td>
<td>.0000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SC</td>
<td>-.9026**</td>
<td>.1648</td>
<td>.0000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EP</td>
<td>-.0549</td>
<td>.1645</td>
<td>.7388</td>
</tr>
</tbody>
</table>

*p < 0.05
**p < 0.01
5.4.3 Source Score

In the case of source score results, a statistically significant difference can be seen between author types. In the case of experience goods, consumer reviews were given significantly lower scores than for the professional reviews. The difference is quite similar for the search goods, but the difference is not statistically significant with a relatively low p-value of 0.07. Again, there was a significant difference between good types for both professional and consumer reviews.
Table 6.
LSD analysis of differences in source score between treatment groups.

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source Score</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LSD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SC</td>
<td>-.2705</td>
<td>.1504</td>
<td>.0727</td>
<td>-.5660</td>
</tr>
<tr>
<td>EP</td>
<td>.3371*</td>
<td>.1501</td>
<td>.0252</td>
<td>.6320</td>
</tr>
<tr>
<td>EC</td>
<td>.7176**</td>
<td>.1498</td>
<td>.0000</td>
<td>1.0120</td>
</tr>
<tr>
<td>SC</td>
<td>-.2705</td>
<td>.1504</td>
<td>.0727</td>
<td>-.5660</td>
</tr>
<tr>
<td>EP</td>
<td>.0666</td>
<td>.1486</td>
<td>.6541</td>
<td>-.2253</td>
</tr>
<tr>
<td>EC</td>
<td>.4471**</td>
<td>.1483</td>
<td>.0027</td>
<td>.7384</td>
</tr>
<tr>
<td>EP</td>
<td>-.3371*</td>
<td>.1501</td>
<td>.0252</td>
<td>-.6320</td>
</tr>
<tr>
<td>SC</td>
<td>-.0666</td>
<td>.1486</td>
<td>.6541</td>
<td>-.3585</td>
</tr>
<tr>
<td>EC</td>
<td>.3805*</td>
<td>.1480</td>
<td>.0104</td>
<td>.6713</td>
</tr>
<tr>
<td>EC</td>
<td>-.7176**</td>
<td>.1498</td>
<td>.0000</td>
<td>-.4233</td>
</tr>
<tr>
<td>SC</td>
<td>-.4471**</td>
<td>.1483</td>
<td>.0027</td>
<td>-.1558</td>
</tr>
<tr>
<td>EP</td>
<td>-.3805**</td>
<td>.1480</td>
<td>.0104</td>
<td>-.0898</td>
</tr>
</tbody>
</table>

*p < 0.05  **p < 0.01

Figure 9. Means of experience prediction.
5.4.4 Diagnosticity Score

The results for the diagnosticity scores are quite interesting. In terms of good types, there is a significant difference when consumer reviews are in question but this is not the case between the professional reviews. In the case of consumer reviews, diagnosticity scores were significantly lower for experience goods when compared to search goods.

Table 7.
LSD analysis of differences in diagnosticity score between treatment groups.

<table>
<thead>
<tr>
<th>Multiple Comparisons</th>
<th>Dependent Variable</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound Upper Bound</td>
</tr>
<tr>
<td>Diagnosticity Score</td>
<td>LSD</td>
<td>SP SC</td>
<td>-.1777</td>
<td>.1464</td>
<td>.2254</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EP SC</td>
<td>.2163</td>
<td>.1461</td>
<td>.1394</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EC SC</td>
<td>.3953**</td>
<td>.1458</td>
<td>.0069</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SP EP</td>
<td>.1777</td>
<td>.1464</td>
<td>.2254</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EP EP</td>
<td>.3939**</td>
<td>.1446</td>
<td>.0067</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EC EP</td>
<td>.5730**</td>
<td>.1443</td>
<td>.0001</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SP EC</td>
<td>-.2163</td>
<td>.1461</td>
<td>.1394</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EP SC</td>
<td>-.3939**</td>
<td>.1446</td>
<td>.0067</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EC SC</td>
<td>-.5730**</td>
<td>.1443</td>
<td>.0001</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EP EC</td>
<td>-.1791</td>
<td>.1440</td>
<td>.2142</td>
</tr>
</tbody>
</table>

*p < 0.05
**p < 0.01
Figure 10. Means of diagnosticity score.

5.4.5 Purchase Intention Score

With the results for purchase intention, we see a familiar pattern where the differences between author types are not significant and the values for experience goods are significantly lower than those of search goods. This can be seen in Table 8.
Table 8.
LSD analysis of differences in purchase intention score between treatment groups.

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
</tr>
<tr>
<td>Purchase Intention Score</td>
<td>LSD</td>
<td>SP</td>
<td>SC</td>
<td>-0.1345</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EP</td>
<td>.4891**</td>
<td>0.1771</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EC</td>
<td>.7485**</td>
<td>0.1768</td>
</tr>
<tr>
<td></td>
<td>SC</td>
<td>SP</td>
<td>.1345</td>
<td>0.1775</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EP</td>
<td>.6236**</td>
<td>0.1753</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EC</td>
<td>.8830**</td>
<td>0.1750</td>
</tr>
<tr>
<td></td>
<td>EP</td>
<td>SP</td>
<td>-.4891**</td>
<td>0.1771</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SC</td>
<td>-.6236**</td>
<td>0.1753</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EC</td>
<td>.2594</td>
<td>0.1746</td>
</tr>
<tr>
<td></td>
<td>EC</td>
<td>SP</td>
<td>-.7485**</td>
<td>0.1768</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SC</td>
<td>-.8830**</td>
<td>0.1750</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EP</td>
<td>-.2594</td>
<td>0.1746</td>
</tr>
</tbody>
</table>

*p < 0.05
**p < 0.01

Figure 11. Means of purchase intention score.
Other relevant and interesting aspects were found when the purchase intention was examined more closely. Pearson correlation coefficient between purchase intention components changes drastically depending on which samples are included in the analysis. If only samples from search product reviews are included, the correlation coefficient between impact on purchase decision and purchasing based on the review is 0.640 (p < 0.01). The means for the variables are 4.486 (std. 1.535) and 4.527 (std. 1.683), respectively. These means are very close to each other but this is not the case when only experience product samples are included. For the experience product samples, the means for the variables are 4.237 (std. 1.616) and 3.399 (std. 1.579), respectively. The correlation coefficient in this case is only 0.367 (p < 0.01). In other words for search goods purchasing based on a single review seems to be more common than in the case of experience goods.

5.5 Habit of Reading Reviews and Income

There was no evidence found to support the hypothesis of lower income consumers reading more reviews than the consumers with higher income. When estimated income per capita and the habit of reading were examined in relation to one another, there was no statistically significant relationship between these variables. P-value was, however, relatively low (p=0.102). If the null hypothesis was not to be accepted, the relationship would not support the hypothesis regardless since the correlation coefficient was positive between the variables. This effectively would have suggested that consumers with high income would actually read more reviews than those with lower income. We can see this also in the Table 10 where samples were divided into four groups according to estimated income per capita.
Tables 9 and 10.
Analyses of the relationship between habit of reading reviews and income.

<table>
<thead>
<tr>
<th>Estimated Income Per Capita</th>
<th>Habit of Reading Reviews</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bottom 25 %</td>
<td>5.3966</td>
<td>58</td>
<td>1.54397</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-50 %</td>
<td>5.3621</td>
<td>58</td>
<td>1.49500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50-75 %</td>
<td>5.5385</td>
<td>52</td>
<td>1.36427</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Top 25 %</td>
<td>5.5000</td>
<td>64</td>
<td>1.28483</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When examining the correlation between the habit of reading reviews and the review evaluation variable was examined, some significant relationships were found. For this analysis, means of variables were calculated for every respondent since every respondent evaluated two different reviews. The significant correlations are rather intuitive. There is a rather strong correlation with review helpfulness with Pearson correlation coefficient of 0.227. Weaker significant correlations were found for diagnosticity and purchase intention score with correlation coefficients of 0.190 and 0.166, respectively.

Table 11.
Correlation analysis between habit of reading reviews and review evaluation results.

<table>
<thead>
<tr>
<th>Habit of Reading Reviews</th>
<th>Average Review Helpfulness</th>
<th>Average Experience Prediction Score</th>
<th>Average Source Score</th>
<th>Average Diagnosticity Score</th>
<th>Average Purchase Intention Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>.227**</td>
<td>.034</td>
<td>.123</td>
<td>.190**</td>
<td>.166**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.589</td>
<td>.053</td>
<td>.003</td>
<td>.009</td>
</tr>
<tr>
<td>N</td>
<td>249</td>
<td>249</td>
<td>249</td>
<td>249</td>
<td>249</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed).
5.6 Product Category Expertise

There was only one significant correlation found when comparing respondents’ knowledge of product category and the review evaluation variables. The significant correlation was present when only search product samples were taken into the analysis. Pearson correlation (0.172) coefficient is quite high. The results can be seen in table 12.

Table 12.
Correlation analysis between product category expertise and review evaluation results.

<table>
<thead>
<tr>
<th>Knowledge, search goods only</th>
<th>Review Helpfulness</th>
<th>Source Score</th>
<th>Diagnostivity Score</th>
<th>Purchase Intention Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>.107</td>
<td>.105</td>
<td>.172**</td>
<td>.118</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.093</td>
<td>.100</td>
<td>.007</td>
<td>.066</td>
</tr>
<tr>
<td>N</td>
<td>245</td>
<td>245</td>
<td>245</td>
<td>245</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Knowledge, experience goods only</th>
<th>Review Helpfulness</th>
<th>Source Score</th>
<th>Diagnostivity Score</th>
<th>Purchase Intention Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>.042</td>
<td>-.002</td>
<td>.109</td>
<td>.077</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.508</td>
<td>.981</td>
<td>.082</td>
<td>.224</td>
</tr>
<tr>
<td>N</td>
<td>253</td>
<td>253</td>
<td>253</td>
<td>253</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Knowledge, all samples</th>
<th>Review Helpfulness</th>
<th>Source Score</th>
<th>Diagnostivity Score</th>
<th>Purchase Intention Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>.021</td>
<td>.000</td>
<td>.084</td>
<td>.022</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.635</td>
<td>.995</td>
<td>.063</td>
<td>.621</td>
</tr>
<tr>
<td>N</td>
<td>498</td>
<td>498</td>
<td>498</td>
<td>498</td>
</tr>
</tbody>
</table>

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

6. Discussion

The prediction of reviews being a competitive information source, which was based on the article by Ratchford et al. (2003), seems to be a correct one. Data about the habit of reading reviews implies that reading reviews prior purchase is rather common. Of course, one should keep in mind that the sample does not represent well the whole population as it was quite well seen in the demographic information about the sample.

The unexpected result of the manipulation check did not affect further analysis for several reasons. Movies are considered experience goods in other papers, such as the article by
Boatwright et al. (2007), and in terms of information asymmetry they are similar to novels since the good has to be consumed in order to get highly subjective information about the quality. Rather than concluding movies as a search product, it is more logical to assume there is something wrong with the manipulation check itself. It is possible that the context might have influenced the results. The treatment group that read the review about the movie was given information about the movie format. It was specified in product information that the product included both DVD and Blu-ray versions of the movie. Blu-ray format has much higher video resolution and other technically superior aspects than the older DVD format. Because the format had been brought up in the product information, it might be that some of the respondents had emphasized the technical aspects of the product when answering the questions. The technical aspects can indeed be seen as a search attribute. However, as it was seen in other results, movies are much closer to novels in search/experience paradigm than they are to fans and home kettles.

Only partial evidence was found to support H1a, H1b and H2. The results showed no significant differences between author types when the respondents evaluated the helpfulness of the reviews. The same was true for respondents’ evaluation about review author’s experience predicting the experience of the respondents. There was no evidence to suggest the respondents felt a review written by a fellow consumer would predict the experience better as it was hypothesized earlier. However, there was significant difference in content diagnosticity between good types only when consumer reviews were considered. If it is assumed that review diagnosticity reflects helpfulness, this can be seen as partial evidence for H2. The assumption is well based since regression analysis revealed significant positive relationship between content diagnosticity and review helpfulness.

There was also a significant positive relationship between source credibility and review helpfulness. The LSD results for source credibility and the treatment groups unexpectedly revealed that in the case of experience goods, the professional reviews were perceived more helpful than consumer reviews. This is partial evidence against H1a.
Strong support was found for H3 as search good reviews were perceived significantly more helpful than their counterpart and they received significantly higher source credibility, content diagnosticity and purchase intention. The results support the prediction derived from the theory. More valuable information can be extracted when the content is relatively objective.

The statistically significant results for the purchase intention also provide evidence to support H4. The results also implied that consumers are significantly more likely to purchase a search good than an experience good based on a single review. The results contribute to the past research about the relationship between reviews and purchase intention.

No evidence was found to support H5. To be more specific, if the positive correlation between income and the habit of reading reviews would have been statistically significant (p-value was only 0.10) there would be evidence against the hypothesis. It might be that some other aspects related to higher income have a greater contribution to the habit of reading reviews. For example, consumers with high income might experience reading reviews less bothersome on average. However, as there was no statistically significant relationship found, speculating the issue further is in this case rather fruitless.

The evidence supporting H6 was rather slim. There was only significant positive relationship found between product category expertise and diagnosticity when only search goods were considered. This does suggest that knowledge about the product category helps in extracting valuable information from search reviews. However, this is not the case with experience reviews and there was no statistically significant relationship found directly between product category expertise and review helpfulness.

7. Conclusion

This was the first experiential research that examined the relationship between review author type and good type is relation to online review helpfulness. Unfortunately, a the
effect of author type was not significant. Although many of the hypotheses were not supported, the results of the study show that purchase intention after reading a product review is indeed greater for search goods than it is for experience goods. The search product reviews were also perceived more helpful than experience product reviews. In other words product type seems to have a significant role in consumers’ search process in online context.

The findings have many managerial implications. In the light of the evidence gathered in this research, it is important to provide multiple reviews for consumers in online retail context. This is especially true for experience goods. It was also shown that there is no drastic difference in perceived helpfulness when review author type is switched. In other words it seems consumer reviews are perceived roughly as helpful as professional reviews and there is no strong need to add professional reviews on online retailers’ product pages. Also, especially if an online retailer is selling mainly search goods, it is also advisable to provide product reviews for potential buyers. The implications, of course, do not concern online retailers only. Product manufacturers, for example, can also benefit from reviews by adding them to their websites. In addition, the results indicate that it is more important to provide multiple reviews to potential buyers when experience goods are in question.

Naturally there is no research without the limitations. Some of the relationships were barely statistically significant. With larger sample size, some of the hypotheses could have been confirmed. Also including more different search products and experience products might give deeper insight to the relationships. It would be interesting to see what the results would have been like for goods that are not clearly dominated by either search attributes and experience attributes.

The study consecrated on search goods and experience goods only, and credence goods were left out. Future research could also include this good type in experiential studies. Especially significant differences between experience good reviews and credence good reviews would be interesting since these good types are alike in many aspects.
References


Appendix 1. MANOVA of Review Evaluation Statements.

<table>
<thead>
<tr>
<th>Multivariate Tests&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Value</th>
<th>F</th>
<th>Hypothesis df</th>
<th>Error df</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
<th>Noncent. Parameter</th>
<th>Observed Power&lt;sup&gt;d&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intercept</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pillai's Trace</td>
<td>.957</td>
<td>2163.527&lt;sup&gt;b&lt;/sup&gt;</td>
<td>5.000</td>
<td>490.000</td>
<td>0.000</td>
<td>.957</td>
<td>10817.634</td>
<td>1.000</td>
</tr>
<tr>
<td>Wilks' Lambda</td>
<td>.043</td>
<td>2163.527&lt;sup&gt;b&lt;/sup&gt;</td>
<td>5.000</td>
<td>490.000</td>
<td>0.000</td>
<td>.957</td>
<td>10817.634</td>
<td>1.000</td>
</tr>
<tr>
<td>Hotelling's Trace</td>
<td>22.077</td>
<td>2163.527&lt;sup&gt;b&lt;/sup&gt;</td>
<td>5.000</td>
<td>490.000</td>
<td>0.000</td>
<td>.957</td>
<td>10817.634</td>
<td>1.000</td>
</tr>
<tr>
<td>Roy's Largest Root</td>
<td>22.077</td>
<td>2163.527&lt;sup&gt;b&lt;/sup&gt;</td>
<td>5.000</td>
<td>490.000</td>
<td>0.000</td>
<td>.957</td>
<td>10817.634</td>
<td>1.000</td>
</tr>
<tr>
<td><strong>Treatment group type</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pillai's Trace</td>
<td>.162</td>
<td>5.602</td>
<td>15.000</td>
<td>1476.000</td>
<td>.000</td>
<td>.054</td>
<td>84.026</td>
<td>1.000</td>
</tr>
<tr>
<td>Wilks' Lambda</td>
<td>.844</td>
<td>5.701</td>
<td>15.000</td>
<td>1353.076</td>
<td>.000</td>
<td>.055</td>
<td>78.491</td>
<td>1.000</td>
</tr>
<tr>
<td>Hotelling's Trace</td>
<td>.177</td>
<td>5.777</td>
<td>15.000</td>
<td>1466.000</td>
<td>.000</td>
<td>.056</td>
<td>86.653</td>
<td>1.000</td>
</tr>
<tr>
<td>Roy's Largest Root</td>
<td>.125</td>
<td>12,344&lt;sup&gt;c&lt;/sup&gt;</td>
<td>5.000</td>
<td>492.000</td>
<td>.000</td>
<td>.111</td>
<td>61.721</td>
<td>1.000</td>
</tr>
</tbody>
</table>

a. Design: Intercept + Treatment group type
b. Exact statistic
c. The statistic is an upper bound on F that yields a lower bound on the significance level.
d. Computed using alpha = .05

<table>
<thead>
<tr>
<th>Tests of Between-Subjects Effects</th>
<th>Corrected Model</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
<th>Noncent. Parameter</th>
<th>Observed Power&lt;sup&gt;d&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review helpfulness</td>
<td>25,050&lt;sup&gt;a&lt;/sup&gt;</td>
<td>3</td>
<td>8.350</td>
<td>5.289</td>
<td>.001</td>
<td>.031</td>
<td>15.866</td>
<td>.930</td>
<td></td>
</tr>
<tr>
<td>Experience prediction</td>
<td>97,426&lt;sup&gt;b&lt;/sup&gt;</td>
<td>3</td>
<td>32.475</td>
<td>18.978</td>
<td>.000</td>
<td>.103</td>
<td>56.933</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>Source score</td>
<td>32,579&lt;sup&gt;c&lt;/sup&gt;</td>
<td>3</td>
<td>10.860</td>
<td>7.841</td>
<td>.000</td>
<td>.045</td>
<td>23.524</td>
<td>.990</td>
<td></td>
</tr>
<tr>
<td>Diagnosticity score</td>
<td>23,559&lt;sup&gt;d&lt;/sup&gt;</td>
<td>3</td>
<td>7.853</td>
<td>5.988</td>
<td>.001</td>
<td>.035</td>
<td>17.964</td>
<td>.957</td>
<td></td>
</tr>
<tr>
<td>Purchase intention score</td>
<td>64,271&lt;sup&gt;e&lt;/sup&gt;</td>
<td>3</td>
<td>21.424</td>
<td>11.111</td>
<td>.000</td>
<td>.063</td>
<td>33.333</td>
<td>.999</td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>Review helpfulness</td>
<td>Experience prediction</td>
<td>Source score</td>
<td>Diagnosticity score</td>
<td>Purchase intention score</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>-------------------</td>
<td>-----------------------</td>
<td>--------------</td>
<td>---------------------</td>
<td>-------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>11965.11</td>
<td>11965.11</td>
<td>7578.58</td>
<td>7578.58</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>8</td>
<td>7</td>
<td>7</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experience prediction</td>
<td>9561.236</td>
<td>9561.236</td>
<td>5587.29</td>
<td>5587.29</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source score</td>
<td>11617.99</td>
<td>11617.99</td>
<td>8388.97</td>
<td>8388.97</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diagnosticity score</td>
<td>11707.87</td>
<td>11707.87</td>
<td>8927.61</td>
<td>8927.61</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase intention score</td>
<td>8621.209</td>
<td>8621.209</td>
<td>4471.20</td>
<td>4471.20</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment group type</td>
<td>Review helpfulness</td>
<td>Experience prediction</td>
<td>Source score</td>
<td>Diagnosticity score</td>
<td>Purchase intention score</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment group type</td>
<td>25.050</td>
<td>3</td>
<td>8.350</td>
<td>5.289</td>
<td>.001</td>
<td>.031</td>
<td>15.866</td>
<td>.930</td>
<td></td>
</tr>
<tr>
<td>Experience prediction</td>
<td>97.426</td>
<td>3</td>
<td>32.475</td>
<td>18.978</td>
<td>.000</td>
<td>.103</td>
<td>56.933</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>Source score</td>
<td>32.579</td>
<td>3</td>
<td>10.860</td>
<td>7.841</td>
<td>.000</td>
<td>.045</td>
<td>23.524</td>
<td>.990</td>
<td></td>
</tr>
<tr>
<td>Diagnosticity score</td>
<td>23.559</td>
<td>3</td>
<td>7.853</td>
<td>5.988</td>
<td>.001</td>
<td>.035</td>
<td>17.964</td>
<td>.957</td>
<td></td>
</tr>
<tr>
<td>Purchase intention score</td>
<td>64.271</td>
<td>3</td>
<td>21.424</td>
<td>11.111</td>
<td>.000</td>
<td>.063</td>
<td>33.333</td>
<td>.999</td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>Review helpfulness</td>
<td>Experience prediction</td>
<td>Source score</td>
<td>Diagnosticity score</td>
<td>Purchase intention score</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>779.930</td>
<td>49</td>
<td>1.579</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experience prediction</td>
<td>845.355</td>
<td>49</td>
<td>1.711</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source score</td>
<td>684.146</td>
<td>49</td>
<td>1.385</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diagnosticity score</td>
<td>647.843</td>
<td>49</td>
<td>1.311</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase intention score</td>
<td>952.512</td>
<td>49</td>
<td>1.928</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Review helpfulness</td>
<td>Experience prediction</td>
<td>Source score</td>
<td>Diagnosticity score</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>12760.00</td>
<td>0</td>
<td>49</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experience prediction</td>
<td>10477.00</td>
<td>0</td>
<td>49</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source score</td>
<td>12316.75</td>
<td>0</td>
<td>49</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diagnosticity score</td>
<td>12373.00</td>
<td>0</td>
<td>49</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>Review helpfulness</td>
<td>Experience prediction</td>
<td>Source score</td>
<td>Diagnosticity score</td>
<td>Purchase intention score</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>-------------------</td>
<td>-----------------------</td>
<td>--------------</td>
<td>---------------------</td>
<td>-------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase intention score</td>
<td>9621.000</td>
<td>49 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>804.980</td>
<td>49 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experience prediction</td>
<td>942.781</td>
<td>49 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source score</td>
<td>716.725</td>
<td>49 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diagnosticity score</td>
<td>671.402</td>
<td>49 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase intention score</td>
<td>1016.783</td>
<td>49 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. R Squared = .031 (Adjusted R Squared = .025)
b. R Squared = .103 (Adjusted R Squared = .098)
c. R Squared = .045 (Adjusted R Squared = .040)
d. R Squared = .035 (Adjusted R Squared = .029)
e. R Squared = .063 (Adjusted R Squared = .058)
f. Computed using alpha = .05
Appendix 2. The Original Survey Content.

The original survey can on the next pages. All the relevant content is in the text and translated to English.
Demografia

Sukupuoli

- Mies
- Nainen

Syntymävuosi

Korkein suoritettu koulutusaste

- Ei ammattikoulutusta
- Keskiasteen ammattitutkinto (esim. ammattikoulu, teknillinen opisto)
- Ammattikorkeakoulu
- Alempi korkea-aste (esim. kauppatieteiden kandidaatti)
- Ylempi korkea-aste (esim. maisteri, diplomi-insinööri)
- Tutkijakoulutus (lisensiaatti, tohtori)
Ammattiryhmä, johon katsot kuuluvasi

- Johtavassa asemassa toisen palveluksessa
- Ylempi toimihenkilö
- Allempi toimihenkilö
- Työntekijä
- Yrittäjä tai yksityinen ammatinharkoittaja
- Maatalousyrittäjä
- Opiskelija
- Eläkeläinen
- Kotiäiti tai -isä
- Työtön
- Muu

Kotitaloutesi yhteenlasketut kuukausitulot veroja vähentämättä

- Alle 1000 euroa
- 1000-1999 euroa
- 2000-2999 euroa
- 3000-4999 euroa
- 5000-7499 euroa
- 7500-10000 euroa
- Yli 10 000 euroa

Taloudessasi asuvien henkilöiden lukumäärä


Kuinka monta kertaa vuodessa ostat keskimäärin tuotteita internetissä?


Arvioi seuraavaa väittämää

<table>
<thead>
<tr>
<th>Täysin eri mieltä</th>
<th>Täysin samaa mieltä</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3</td>
<td>4 5 6 7</td>
</tr>
</tbody>
</table>

Luen usein
tuotearvioita ennen
kuin ostan jotain
internetissä.

Tutkimusta varten ihmisiä erilaisten taustojen kanssa on pyydetty kirjoittamaan lyhyt, noin 100 sanan pituinen arvostelu jostakin tuotteesta. Arvostelut on kirjoitettu sillä oletuksella, ettei lukija tunne tuotetta annalta. Tulet näkemään näistä arvioista kaksi. Saat myös lyhyet ohjeistukset ennen arvioiden lukemista. Ohjeistustekstit on lihavoitu - lue ne huolellisesti.

SP1

Kuvittele olevasi tilanteessa, jossa aiot ostaa itsellesi vedenkeitittimen. Etsit tietoa internetistä ja sinulle tulee eteen allaoleva tuote sekä arvostelu:

![Kettle](https://example.com/kettle.png)
**Merkki:** Nai-Tec  
**Teho:** 2000 W  
**Tilavuus:** 1,5 l  
Ruostumatonta terästä  
**Hinta:** 24,90 €

**Tietoa arvostelun kirjoittajasta:**  
Kodinelektroniikka-arvioiden kirjoittaminen kuuluu henkilön ammattikuvaan.

**Arvostelu:**


Ymmärrettävästi tämän hintaluokan keittimestä tietty hienoudet, kuten ajastin tai lämpötilavalinnat, jäävät puuttumaan. Kyseessä on kuitenkin laadukas vedenkeitin, joka sopii mainiosti peruskäyttöön.

![5 stars](https://qualtrics.com/ControlPanel/Ajax.php?action=GetSurveyPrint...)

**SC1**

**Kuvittele olevasi tilanteessa, jossa aiot ostaa itsellesi vedenkeittimen.**
Etsit tietoa internetistä ja sinulle tulee eteen allaoleva tuote sekä verkkokaupan käyttäjäarvio:

![Image of a kettle]

**Merkki:** Nai-Tec  
**Teho:** 2000 W  
**Tilavuus:** 1,5 l  
Ruostumatonta terästä  
**Hinta:** 24,90 €

**Käyttäjäarvio:**


Ymmärrettävästi tämän hintaluokan keittimestä tietty hienoudet, kuten ajastin tai lämpötilavalinnat, jäävät puuttumaan. Kyseessä on kuitenkin laadukas vedenkeitin, joka sopii mainiosti peruskäyttöön.

⭐⭐⭐⭐⭐

EP1

Kuvittele olevasi tilanteessa, jossa aiot ostaa itsellesi romaanin. Etsit tietoa internetistä ja sinulle tulee eteen allaoleva tuote sekä arvostelu:

![Katoava Horisontti by Jacob Moss](image)

Teoksen nimi: Katoava Horisontti
Kirjailija: Jacob Moss
Sivumäärä: 231
Sidottu, kovakantinen
Hinta: 24,90 €

Tietoa arvostelun kirjoittajasta:
Kirja-arvioiden kirjoittaminen kuuluu henkilön ammattikuvaan.
Arvostelu:

Hiljattain vaimostaan eronnut Jack kokee vielä pahemman takaiskun, kun saa tietää sairastavansa syöpää. Masentuneena ja pelonsekaisena hän aloittaa purjehdusmatkan ilman päämäärää. Tästä alkaa kertomus, jossa jännitys ja filosofinen pohdinta ovat tärkeissä rooleissa.


Tarina etenee liiankin maltillisesti romaanin alkupuolella, mutta kun tapahtumaketju pääsee lopulta vauhtiin, on kirjaa vaikeaa laskea alas. Katoava horisontti tarjoaa kokonaisuudessaan mielenkiintoisen lukukokemuksen, jota tulee pohdittua useamman viikon ajan.

⭐⭐⭐⭐

EC1

Kuvittele olevasi tilanteessa, jossa aiot ostaa itsellesi romaanin. Etsit tietoa internetistä ja sinulle tulee eteen allaoleva tuote sekä verkkokaupan käyttäjäarvio:
Hiljattain vaimostaan eronnut Jack kokee vielä pahemman takaiskun, kun saa tietää sairastavansa syöpää. Masentuneena ja pelonsekaisena hän aloittaa purjehdusmatkan ilman päämäärää. Tästä alkaa kertomus, jossa jännitys ja filosofinen pohdinta ovat tärkeissä rooleissa.


Tarina etenee liiankin maltillisesti romanin alkupuolella, mutta kun tapahtumaketju päasee lopulta vauhtiin, on kirjaa vaikeaa laskea alas. Katoava horisontti tarjoaa kokonaisuudessaan mielenkiintoisen lukukokemuksen, jota tulee pohdittua useamman viikon ajan.
Arvostelukysymykset 1

Arvioi arvostelun hyödyllisyyttä

| Täysin hyödytön | 1 | 2 | 3 | 4 | Erittäin hyödyllinen | 5 | 6 | 7 |
Arvioidaan seuraavia väittämiä

<table>
<thead>
<tr>
<th>Täysin eri mieltä</th>
<th>Täysin samaa mieltä</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Arvostelun kirjoittaja vaikuttaa minusta luotettavaltta.

Arvostelun kirjoittaja vaikuttaa minusta asiantuntevalta.

Tunnen, että arvostelun kirjoittajan kokemus tuotteen kanssa ennustaa hyvin omia kokemustani tuotteen kanssa.

Arvostelu auttoi minua tutustumaan tuotteeseen.

Arvostelu auttoi minua arvioimaan tuotteen laatua.

Arvostelulla on merkittävä vaikutus ostopäättökseeni.

Voin kuvitella ostavani tuotteen tämän arvostelun perusteella.

Kuinka paljon on 0+3?

Tuotekategoriakysymykset - vedenkeitin
Arvioi seuraavia väittämiä

<table>
<thead>
<tr>
<th>Täysin eri mieltä</th>
<th>Täysin samaa mieltä</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Pystyn tekemään tarkan arvion tuotteen laadusta jo ennen ostamista, kun kyseessä oleva tuotekategoria on vedenkeittimet.

Tunnen tietäväni paljon tuotekategoriasta vedenkeittimet.

Tuotekategoriakysymykset - romaani

Arvioi seuraavia väittämiä

<table>
<thead>
<tr>
<th>Täysin eri mieltä</th>
<th>Täysin samaa mieltä</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Pystyn tekemään tarkan arvion tuotteen laadusta jo ennen ostamista, kun kyseessä oleva tuotekategoria on romaanit.

Tunnen tietäväni paljon tuotekategoriasta romaanit.

SP2

Kuvittele olevasi tilanteessa, jossa aiot ostaa itsellesi tuulettimen. Etsit
Tietoa internetistä ja sinulle tulee eteen allaoleva tuote sekä arvostelu:

![Pöytätuulettimessa](image)

**Merkki:** Susaq  
**Teho:** 25 W  
**Melutaso:** 52,1 dBA  
**Korkeus:** 41 cm  
**Hinta:** 24,90 €

Tietoa arvostelun kirjoittajasta:  
Kodinelektroniikka-arvioiden kirjoittaminen kuuluu henkilön ammattikuvaan.

**Arvostelu:**

Pöytätuulettimen koko ja muoto ovat hyvin tavanomaisia. Tuuletin mahtuu hyvin esimerkiksi työpöydälle ja säädettävän kulman ansiosta sen voi asettaa lattiallekin puhaltamaan yläviistoon. Tehoa on riittävästi ja tuulettimen nopeudelle on kolme eri asetusta. Nopeimmallakaan asetuksella melu ei kasva häiritsevän korkeaksi.

Kaukosäädintä ei ole, eikä tämän hintaluokan laitteelta sitä voi odottaakaan. Pituutta ei voi myöskään säätää, mutta kallistamalla kulma tätä voi helposti kompensoida. Tuuletin on kokonaisuudessaan laadukas ja sisältää kaikki ominaisuuudet, mitä tavallinen käyttäjä tarvitsee.

SC2

Kuvittele olevasi tilanteessa, jossa aiot ostaa itsellesi tuulettimen. Etsit tietoa internetistä ja sinulle tulee eteen allaoleva tuote sekä verkkokaupan käyttäjäarvio:

Merkki: Susaq
Teho: 25 W
Melutaso: 52,1 dBA
Korkeus: 41 cm
Hinta: 24,90 €

Käyttäjäarvio:
Pöytätuulettimen koko ja muoto ovat hyvin tavanomaisia. Tuuletin mahtuu hyvin esimerkiksi työpöydälle ja säädetävän kulman ansiosta sen voi asettaa lattiallekin puhaltamaan yläviistoon. Tehoa on riittävästi ja tuulettimen nopeudelle on kolme eri asetusta. Nopeimmallakaan asetuksella melu ei kasva häiritsevän korkeaksi.


Kaukosäädintä ei ole, eikä tämän hintaluokan laitteelta sitä voi odottaakaan. Pituutta ei voi myöskään säättää, mutta kallistamalla kulmaa tästä voi helposti kompensoida. Tuuletin on kokonaisuudessaan laadukas ja sisältää kaikki ominaisuuudet, mitä tavallinen käyttäjä tarvitsee.

⭐⭐⭐⭐⭐

EP2

Kuvittele olevasi tilanteessa, jossa aiot ostaa itsellesi elokuvan. Etsit tietoa internetistä ja sinulle tulee eteen allaoleva tuote sekä arvostelu:
**Elokuvan nimi:** Lyhyt kevät (Korotkaya vesna)

**Kesto:** 146 min

**Formaatti:** Blu-ray + DVD

**Tuotantovuosi:** 1993

**Hinta:** 24,90 €

---

**Tietoa arvostelun kirjoittajasta:**

Elokuva-arvioiden kirjoittaminen kuuluu henkilön ammattikuvaan.

---

**Arvostelu:**


Dmitry Ivanov onnistuu luomaan kiehtovan kontrastin äidin ja lapsen maailmojen välille. Tatjana näkee arkipäiväisissä tapahtumissa uhkakuvia, kun taas Petja löytää iloa yllättävistäkin asioista. Vaikka Tatjana on asunut koko elämänsä Neuvostoliiton Leningradissa, Petja vie tätä lapsuuttaan Venäjällä Pietarissa.

Kuvanlaatu paranee vain marginaalisesti siirryttäessä DVD-formaatista
teräväpiirtoversioon. Levyt eivät myöskään sisältä bonusmateriaalia. Elokua itsessään on kuitenkin taidokkaasti ohjattu ja sitä voi suositella kaikille elokuvien ystäville.

⭐⭐⭐⭐⭐

EC2

Kuvittele olevasi tilanteessa, jossa aiot ostaa itsellesi elokuvan. Etsit tietoa internetistä ja sinulle tulee eteen allaoleva tuote sekä verkkokaupan käyttäjäarvio:

Elokuvan nimi: Lyhyt kevät (Korotkaya vesna)
Kesto: 146 min
Formaatti: Blu-ray + DVD
Tuotantovuosi: 1993
Hinta: 24,90 €

Käyttäjäarvio:

Lyhyt kevät sijoittuu kiehtovaan ajanjaksoon Venäjän historiassa, jota Dmitry

Dmitry Ivanov onnistuu luomaan kiehtovan kontrastin äidin ja lapsen maailmojen välille. Tatjana näkee arkipäiväisissä tapahtumissa uhkakuvia, kun taas Petja löytää iloa yllättävistäkin asioista. Vaikka Tatjana on asunut koko elämänsä Neuvostoliiton Leningradissa, Petja viettää lapsuuttaan Venäjällä Pietarissa.

Kuvanlaatu paranee vain marginaalisesti siirryttäessä DVD-formaatista teräväpiirtoversioon. Levyt eivät myöskään sisällä bonusmateriaalia. Elokuva itsessään on kuitenkin taidokkaasti ohjattu ja sitä voi suositella kaikille elokuvien ystäville.

🌟🌟🌟🌟🌟

Arvostelukysymykset2

Arvioi arvostelun hyödyllisyyttä

<table>
<thead>
<tr>
<th>Täysin hyödytön</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Erittäin hyödyllinen</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
</table>
Arvioi seuraavia väittämiä

<table>
<thead>
<tr>
<th>Täysin eri mieltä</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Täysin samaa mieltä</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
</table>

Arvostelun kirjoittaja vaikuttaa minusta luotettavalta.

Arvostelun kirjoittaja vaikuttaa minusta asiantuntevalta.

Tunnen, että arvostelun kirjoittajan kokemus tuotteen kanssa ennustaa hyvin omaa kokemustani tuotteen kanssa.

Arvostelu auttoi minua tutustumaan tuotteeseen.

Arvostelu auttoi minua arvioimaan tuotteen laatua.

Arvostelulla on merkittävä vaikutus ostopäätökseeni.

Voin kuvitella ostavani tuotteen tämän arvostelun perusteella.

Kuinka paljon on 3+3?

Tuotekategoriakysymykset - tuuletin
Arvioi seuraavia väittämiä

<table>
<thead>
<tr>
<th>Täysin eri mieltä</th>
<th>Täysin samaa mieltä</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

Pystyn tekemään tarkan arvion tuotteen laadusta jo ennen ostamista, kun kyseessä oleva tuotekategoria on tuulettimet.

Tunnen tietävänä paljon tuotekategoriasta tuulettimet.

Tuotekategoriakysymykset - elokuva

Arvioi seuraavia väittämiä

<table>
<thead>
<tr>
<th>Täysin eri mieltä</th>
<th>Täysin samaa mieltä</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

Pystyn tekemään tarkan arvion tuotteen laadusta jo ennen ostamista, kun kyseessä oleva tuotekategoria on elokuvat.

Tunnen tietävänä paljon tuotekategoriasta elokuvat.

Tarkistuskysymys
Tässä kyselyssä minulle on tullut vastaan seuraavan tuotteen arvostelu:

- Jääkaappi
- Mikroaaltouuni
- Viini
- Tietokone
- Nojatuoli
- Ei mikään ylläolevista

Powered by Qualtrics