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Freeware downloads: An empirical investigation into the impact of expert and user reviews on demand for digital goods

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Abstract

Electronic word-of-mouth, or eWOM, on e-commerce platforms has become ubiquitous and has recently generated renewed interest among researchers to explore its impact in the e-marketplace. However, published research to date has yet to study the impact of expert reviews on digital goods and their combined impact with users' reviews. In this paper, we conduct an empirical study of 143 freeware to measure the impact of two distinct types of eWOM, those produced by experts (professional reviewers) and those offered by users (consumers) on the number of downloads. Despite the fundamental difference in motivations of posting a review, our findings suggest that the impacts of both types of eWOM are nearly identical in significance and importance. While we found that the existence of either or both types of reviews impacts consumption (software download), the review valence does not matter. The findings of this research could help e-commerce operators – intermediaries and direct sellers alike – integrate eWOM in the formulation of their e-business models.

Keywords: e-business model, e-marketing, eWOM, electronic word-of-mouth, market signaling, freeware, digital goods

1. Introduction

Research has shown that third-party sources of information such as word of mouth are considered to be more credible by consumers (Liu 2006). In order to make such third-party information readily available to consumers, e-commerce platform operators, such as CNET.com, amazon.com and eBay.com, provide evaluations in the form of online product reviews. These types of reviews are a form of eWOM (Amblee and Bui 2007a; Amblee and Bui 2007b; Bounie et al. 2005; Chevalier and Mayzlin 2003; Duan et al. 2005). eWOM can be of two types, expert and user. Expert reviews are posted by paid evaluators, who provide in-depth and unbiased evaluations of a product. These reviewers are often hired by popular e-commerce vendors or hosting portals, and are expected and perceived to have high standards of integrity. Meanwhile, user reviews are evaluations posted by users or consumers based from their personal experience and viewpoint. Previous research has shown that user reviews tend to be biased towards the extreme positive and negative ends, but provide a layperson's perspective typically lacking in the expert review. In recent years, a steady stream of research into the impact of both types of reviews has emerged.

The impact of eWOM on sales becomes more pronounced when the good being evaluated has a low price and low transaction cost, as is often the case with some types of digital goods. This is even more so when the digital good is available for free, commonly known as freeware. Freeware is made available for a variety of reasons. Economic reasons include establishing a user-base to gain market share, with the goal of converting some users to paying customers – namely corporate users, and leading users to other non-freeware products from the same vendor. Social reasons include self enhancement, or a desire to support an independent freeware culture¹ (Edwards 1998). Although freely available, there are still some non-monetary costs borne by the user, including the time needed to download and install the freeware, as well as the time and energy involved in ensuring that it performs as claimed. Each installed freeware program also consumes limited system resources. Another cost sometimes associated with freeware is the potential existence of damaging spyware within the freeware (Kucera et al. 2005). These non-monetary costs can substantially reduce consumption of freeware. In order to make an informed decision, online consumers try to obtain information about the freeware prior to consumption (or download).

In this paper, we attempt to measure the impact of expert and user reviews on consumption of freeware. To this end, we conduct an empirical study on freeware downloads. The paper is organized as follows. Section 2 provides a brief discussion of eWOM literature, focusing on expert and user online reviews. Section 3 develops the research model and Section 4 presents the results of the empirical study. Section 5 concludes with the discussion and recommendations.

2. Measuring the Impact of eWOM

2.1 Electronic Word-of-mouth (eWOM)

For this research, eWOM is defined as a positive or negative statement made by customers about a product, made available to a multitude of people and organizations through the electronic medium of the Internet (Hennig-Thurau et al. 2004). While traditional or offline WOM is exchanged through oral communication in real time and in limited geographical space, eWOM is propagated electronically via the internet with a disconnect in time and space (Weinberg and Davis 2005). Reviews and ratings are a popular form of WOM articulated online and posted directly on e-commerce sites. Reviews consist of text that describes the product being evaluated, and ratings consist of a numerical score that evaluates the product. Ratings commonly range from a score of 0 to 5, although this varies across e-marketplaces. Over the past few years, there has been an emerging body of literature on the impact of these types of eWOM on sales. Indeed, eWOM has become a major source of purchasing decisions for increasingly web-savvy consumers (Amblee and Bui 2007b; Bounie et al. 2005; Chevalier and Mayzlin 2003; Duan et al. 2005; Godes and Mayzlin

¹ An increasingly important market for freeware is the market for open source software.

2004; Liu 2006). Online environments are highly suitable for research on word-of-mouth, and prior research has found that WOM can be critical to the foundation of demand for a product (Eliashberg et al. 2005). Researchers most commonly use two measures of eWOM. The first is *volume* which refers to the actual number of reviews or ratings. The second is *valence* which refers to contents of the reviews (e.g., positive, negative or neutral) or ratings (e.g., one to five stars). eWOM can be expressed as expert or user reviews.

2.2 Critics – The Role of Expert Reviews

Prior empirical research into the impact of expert reviews on consumption is limited to printed word-of-mouth such as movie-critic's reviews and book reviews in leading newspapers. Eliashberg and Shugan (1997) studied the impact of the role of movie-critics on box office success, and found that critics (who are experts) can have two possible effects, these being caused by their being influencers or predictors of sales. The predictor and influencer effects refer the ability of a review to influence consumers' decisions and the ability of a review to predict consumers' decisions, respectively. Their study found no significant influential impact of critical reviews on box office sales for the following month. They did, however, find a significant correlation between critical reviews and eventual box office performance, supporting the hypothesis that critics/experts are predictors of success or failure. Reinstein and Snyder (2005) also researched the influencer and predictor effects of expert reviews, and contrary to Eliashberg and Shugan (1997), found that after removing spurious correlations, a small influencer effect was present. In another study on the impact of expert reviews, Sorensen and Rasmussen (2004) found that the saying "any publicity is good publicity" is partially true when it comes to expert book reviews and their impact on sales. They attribute this phenomenon to the fact that expert book reviews play the role of announcers of the book's existence, as well as to inform consumers about the product's content and characteristics. They also note that when product quality is unknown prior to consumption, product reviews by experts or other consumers play an important role in shaping demand. The practice of online expert reviews has become prevalent in major successful Internet portals – such as amazon.com, CNET.com, Edmunds.com. Compared to offline or printed expert reviews, online expert reviews have two distinct characteristics. First, online expert reviews are more permanent, as online reviews are often posted indefinitely, as opposed to the daily newspaper, which is discarded relatively soon. Second, online expert reviews often have spatial proximity to the goods being evaluated, since both are available online. Dellarocas et al. (2005) studied the impact of movie critics (experts) listed on Yahoo Movies, a popular online portal, - although most of these critics are not true online experts, as their offline reviews are just posted online. Despite this apparent significance of eWOM in e-commerce, we are unaware of any research studying the impact of online expert reviews on sales of digital goods such as freeware. We propose the following hypotheses to measure the impact of expert reviews on consumption of digital goods.

H1a: Digital goods reviewed by experts will be consumed more than digital goods not reviewed by experts.

H1b: Digital goods with more positive expert reviews will be consumed more than digital goods with less positive expert reviews.

2.3 Role of User Reviews

Research has shown that consumers are motivated to read and write eWOM for decision making and social benefits, and this undoubtedly affects their purchasing decision (Hennig-Thurau and Walsh 2003). However, very little is known as to how certain types of consumer generated eWOM, such as online text reviews or numerical ratings, affect the purchasing decision, and by how much. Although the impact of online reviews and ratings on sales has been studied, the findings have not been conclusive. With regards to the impact of product ratings on sales, many of the published findings seem to be conflicting with one another. For example, some studies have found that the product rating, also known as the valence of eWOM, is able to significantly predict sales (Chevalier and Mayzlin 2003), while others concluded that the product rating has no predictive powers (Duan et al. 2005; Liu 2006). The volume of eWOM, however, has been consistently shown to be a reliable predictor of sales (Ambler and Bui 2007b; Duan et al. 2005; Godes

and Mayzlin 2004; Liu 2006). Studies to date have focused on the impact of consumer generated eWOM on sales of experience goods such as movies, videogames and books. Given the proven significance of user generated eWOM on sales of digital goods, we include them in our study.

H2a: Digital goods reviewed by users will be consumed more than digital goods not reviewed by users.

H2b: Digital goods with more positive user reviews will be consumed more than digital goods with less positive user reviews.

2.4 Critic and User Reviews – The Compounded Effect

As the Internet provides a convenient platform for posting reviews, an increasing number of goods and services benefit from reviews of both experts and consumers. In the hypotheses introduced previously, we seek to assess the impacts of reviews from experts and users separately. Motivation for posting reviews differs fundamentally for the two groups of reviewers. With regards to users, research has shown that consumers engage in word-of-mouth when expectations are either not met or exceeded. This emotional social phenomenon is known as dissonance reduction (Hennig-Thurau et al. 2004). Li and Hitt (2004) note several other major limitations of online user reviews, including the manipulation of reviews by firms and the self-selection problem, which can arise if the preferences or quality perception of the reviewers differ significantly from the general population, regardless of the truthfulness of the reviews. On the other hand, experts write for a business reason, following professional guidelines for reporting, attempting to avoid emotional and biased statements. Since experts write for a wider audience, and have arguably considerable experience with quality judgment, the impact of the self-selection problem is expected to diminish considerably. For example, Dellarocas et al. (2005) studied the impact of both movie-critics and user reviews, and found that user reviews were twice as powerful in predicting box-office revenues as reviews by movie-critics. Since the two types of reviews express two different vantage viewpoints, we seek to explore the compounded effect of both review types on the consumer's decision to select and download freeware. We propose the following model (Figure 1) and proceed to test it empirically.

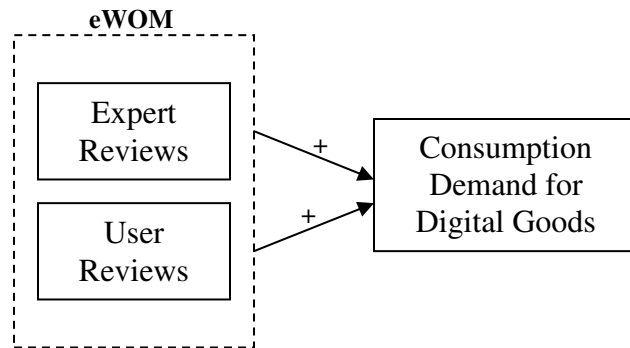


Figure 1: Modeling the impact of eWOM on consumption of digital goods

H3a: Since the motivational bases for posting expert and user reviews are different, when both expert and user reviews exist, there will be minimal correlation between the valence of the two types of reviews

H3b: Digital goods with both expert and user reviews will have more total consumption than digital goods without both types of reviews.

3. An Empirical Study: The Impact of Expert and User Reviews on Freeware Downloads on CNET.com

The research design aims to measure the impact of eWOM in the form of expert and user reviews, on sales of digital goods. In this section, we explain the research setting and data collection approach. We also detailed the research design and report the findings of our empirical study.

3.1 Research Setting and Measurements

We looked into the “Digital Photo Tools” sub-section under the “Digital Photography” section from Download.com, a software download site that is part of the popular CNET.com software portal. According to IDC, a research firm in Framingham, Massachusetts, there were 103 million digital cameras sold in 2006, beating the previous record of 94 million in 2005. More notably, this market is being supplemented by the spectacular demand of cells phones with built-in digital cameras. 381 million were sold in 2006. The demand for software tools to edit digital photos is obvious. To control for factors that might distract us for measuring the effects of eWOM, we filtered out non-freeware and obtained a list of 143 freeware digital photo tools available for immediate download. This represented the total population of freeware tools for digital photo tools on the popular portal.

In setting up the research, we considered several important factors that could bias a study of the two types of eWOM. First, the digital goods and services being evaluated may provide different features, or services, which will bias the study. Second, purchasing price is a fundamental determinant of demand, and the numerous and complex combinations of pricing formats and pricing levels can also bias a study of the impact of eWOM. We need to account for the comparability of the goods being studied, both in product features and pricing range. Therefore, we need to first control for these biases in our empirical study. In order to account for the first bias, we focus on digital goods that provide a single task or service, that of managing digital photographs. As discussed earlier, digital photography has gained popularity exponentially, and the transition from film to bytes is almost total for consumers. Digital photography has also been used previously as the research setting for analyzing the impact of eWOM (Pollach 2006). By focusing on digital photo tools, we hope to significantly diminish and control for the impact of the different features or services provided by digital goods. By focusing exclusively on freeware, the impact of price is removed, and the second bias is eliminated.

To measure the impact of expert and user reviews on consumption of freeware, we used the following direct measures:

Total Downloads as Consumption:

For freeware, total revenues directly related to sales (freeware downloads) will be zero with the absence of price. Since no monetary amounts are exchanged in the consumption of freeware, we measure consumption by the number of downloads with the expectations that that the user has a genuine need for the software and will likely use it. With software, users tend to immediately install after download, often choosing to “run the file” automatically after download. The time between download and consumption for freeware is very short, as downloading programs allows for instant gratification.

Editor Rating as Expert Review Valence:

On CNET.com, some of the software available for download is reviewed by CNET’s in-house team of editors. However, only less than 10% of software available on CNET.com is reviewed by an editor, as these “editor resources” are limited by the capacity of the editorial staff. The expert reviews are usually posted early and do not change for the same software. On CNET.com, there is only one editor’s review posted per software. In our study, the CNET Editor’s Review is the expert review. As defined earlier, the rating of the Editor Review (number of stars), is the valence.

User Rating as User Review Valence:

Users are allowed to post reviews for software on CNET.com. Users may choose to provide just a numerical rating by using a 5-star scale to rate the software, or enhance the numerical rating through a text review based on pros and cons. These ratings are then averaged out to give the “User Rating” for that software. In our study, the User Rating is the measure of user review(s), and its star rating is the valence.

3.2 Data Collection

We collected the entire population of “Digital Photo Tools” (N=143) on the CNET.com portal. Therefore, we did not have to address the sampling issue. For each freeware, we collected data that include the editor’s review (expert review), average user rating (user reviews), the date of first availability, and the total number of downloads. All reviews are easily accessed with no compelling hint as to what type of review should be seen first. For this research, we assume that there is no sequential impact of the selection process driven by the ordering of the eWOM display².

4. Results

This section reports the results of our empirical study. Table 1 contains the summary statistics for all variables in the study. The correlation matrix and linear regression results are reported in Tables 2 and 3 respectively.

4.1 Descriptive Statistics

Table 1 Summary Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
EditorReview	16	3	5	4.13	.619
UserReview	28	2.0	4.5	3.500	.8051
TotalDownloads	143	0	487534	18516.83	57025.337

Legend:

EditorReview	This is the valence of the Editor Review (expert review). It ranges from 1 to 5 stars.
UserReview	This is the valence of the User Rating (user review). It ranges from 1 to 5 stars.
Critiqued	Categorical variable, 1 if freeware has an Editor Review, 0 if not.
Reviewed	Categorical variable, 1 if freeware has User Rating, 0 if not
TotalDownloads	Total number of downloads of a freeware

Of the 143 freeware available for immediate download under “Digital Photo Tools”, 111 freeware (77.6%) did not have reviews of any kind. These un-reviewed freeware tools fared poorly in popularity, with an average of 3,697 total downloads for each freeware tool. The remaining 32 freeware, which had editor or user reviews, the average total number of downloads increases to 69,920, a multiple factor of nearly 19. Of the 28 freeware with user reviews and no expert reviews, the average total downloads was 76,736, which is a multiple factor of 21 (compared to those freeware with no reviews of any type). Sixteen (16) freeware had editor reviews only, and they had an average total download of 100,474, which is a multiple factor of 27. Finally, 12 freeware had both editor and user reviews, and these freeware had an average total download of 126,330, which is a multiple factor of 34. Clearly, there appears a noticeable relationship between reviews and total freeware downloads, which we will explore.

² The listing of freeware on Download.com changes frequently over time with new freeware being added and other being removed. Our data was collected on February 19th, 2007.

Table 2: Correlation Matrix

	Critic Review	Critiqued	User Review	Reviewed
Critiqued ⁽¹⁾	.(a) 16			
User Review	-.103 N=12	-.320 N=28		
Reviewed ⁽²⁾	.361 N=16	.496(**) N=143	.(a) N=28	
Total	.328	.512(**)	.062	.505(**)
Downloads	N=16	N=143	N=28	N=143

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

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

⁽¹⁾ Critiqued: Categorical variable, 1 if freeware has an Editor Review, 0 if not

⁽²⁾ Reviewed: Categorical variable, 1 if freeware has a User Review, 0 if not

4.2 Hypothesis Testing

Hypothesis 1a: *Digital goods reviewed by experts will be consumed in greater numbers than digital goods not reviewed by experts.*

We performed a t-test to compare the group means of the total downloads of freeware reviewed by editors and freeware *not* reviewed by editors. The difference between the group means was significant at the 0.05 level. 127 freeware tools did not have editor's reviews, and this group had an average of 8,191 downloads. Only 16 freeware tools had editor's reviews, and this group had an average of 100,474 downloads. The mean difference between the groups was 92,283 downloads. The results show that there is an enormous difference in the popularity of freeware with editor reviews versus freeware without editor reviews. In fact, a freeware tool with an editor review is more than 12 times as popular as a freeware tool without the editor review. The Box and Whisker plot in Figure 2 visually shows the difference in total downloads between freeware with an Editor Review and freeware without an Editor Review.

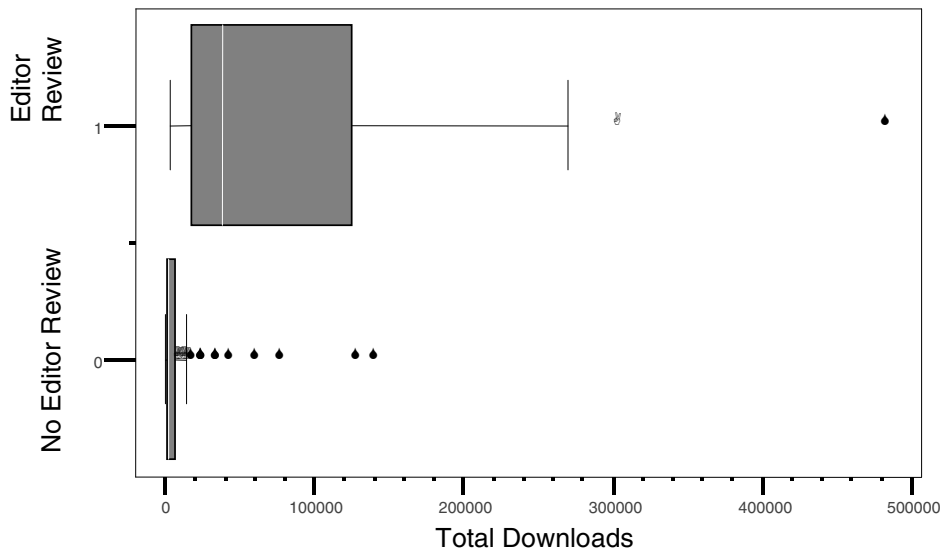


Figure 2: Total Downloads for Freeware with Editor Review vs. Freeware without Editor Review (The circle represents an outlier, and the asterisk represents an extreme value.)

Hypothesis 1b: Digital goods with higher editor reviews will be consumed in greater numbers than digital goods with lower editor reviews.

The regression results (Table 3) do not show support for the hypothesis that freeware with better (or higher valence) editor's reviews will be downloaded more often than freeware with lower editor's reviews. This may be due to a variety of factors, one of which is the lack of variability within the editor's reviews. This finding is in accordance with similar findings by other researchers that the valence of the review does not make a difference (Ambler and Bui 2007b; Duan et al. 2005; Liu 2006), - although it's mere existence does make a difference. Also, prior research looked into the valence of user reviews. Here, as a unique contribution, we looked at the valence of expert reviews, and this result contributes by extending the finding of non-significance of valence to expert reviews.

Hypothesis 2a: Digital goods reviewed by users will be consumed in greater numbers than digital goods not reviewed by users.

We performed another t-test to compare the group means of the total downloads of freeware reviewed by users and freeware not reviewed by users. The difference between the group means was significant at the 0.05 level. 115 freeware tools did not have user reviews, and this group had an average of 4,365 downloads. Only 28 freeware tools had user reviews, and this group had an average of 74,636 downloads. The mean difference between the groups was 72,270 downloads. As with the editor's reviews, the results show that there is also a large difference in the popularity of freeware with user reviews versus freeware without user reviews. While an editor's review makes more of a difference than user reviews in absolute terms (100,474 vs. 74,636), a freeware tool with a user reviews is more than 17 times as popular as a freeware tool without the user review (as opposed to 12 times for an editor's review). The Box and Whisker plot in Figure 3 visually shows the difference in total downloads between freeware with a User Review and freeware without a User Review.

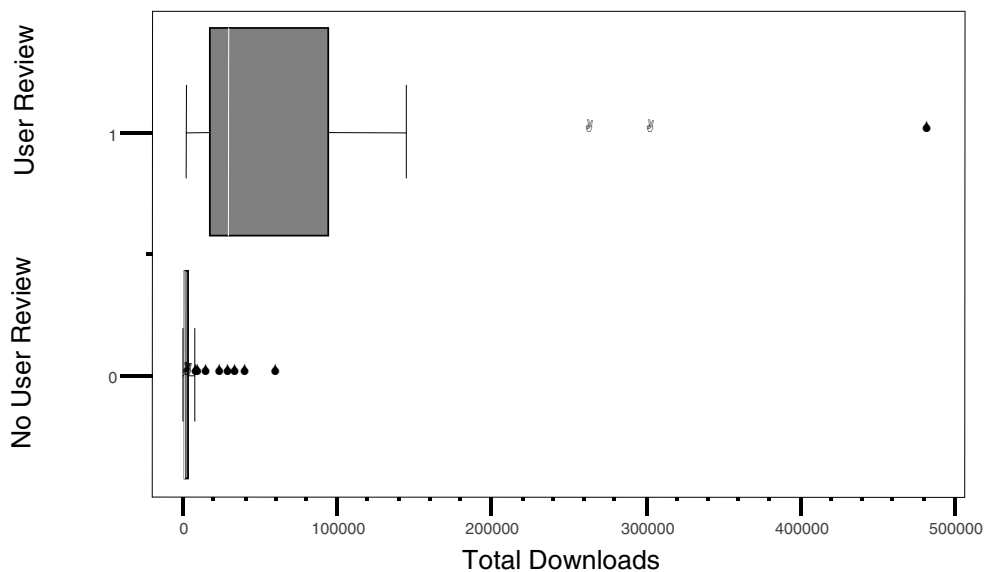


Figure 3: Total Downloads for Freeware with User Reviews vs. Freeware with no User Reviews

Table 3: Regression Results (Total Downloads)

	H 1b	H 2b	H 3b
Constant	-202478	46659.09	2189.98
Editor's Review	73443.01		
Average User Review		8565.06	
Editor Review Exists			62556.22**
User Review Exists			47636.57**
Model Fit F-value	1.629	0.100	36.96**
Adjusted R-square	0.044	-0.034	0.336
N	16	28	143

* p<0.05

** p<0.01

Hypothesis 2b: Digital goods with higher user reviews will be consumed in greater numbers than digital goods with lower user reviews.

The results (Table 3) do not show support for the hypothesis that freeware with better user reviews (higher valence) will be downloaded more often than freeware with lower user reviews (lower valence). Unlike with the editor reviews, there is considerable variability within the user reviews, with reviews ranging from 2 stars to 4.5 stars. One likely reason is that several freeware tools with poor user reviews had positive editor reviews. Again, as with the editor review, this finding validates prior eWOM research findings that the valence of reviews does not matter. We now test for the impact of both types of reviews on total downloads.

Hypothesis 3a: Since the motivational bases for posting expert and user reviews is different, when both expert and user reviews exist, there will be minimal correlation between the valence of the two types of reviews

There is no significant correlation between the editor review and user reviews for freeware (Table 2). The correlation coefficient is -.103 and has a p-value of 0.751. While one could explain away this lack of correlation by the small number of freeware with both editor and user reviews (12 out of 143), a visual inspection of the reviews for the 12 freeware tools showed no convergence between the editor and user reviews even in a single instance. This is in contrast to a high correlation of 0.59 between critics and user reviews on Yahoo Movies (Dellarocas et al. 2005). Editor reviews for freeware are more generous than the average user review, which is in contrast to the motion picture industry, where professional-critic reviews tend to be harsher than user reviews. The average editor review (when both review types exist) is 4.25, while the average user review is 3.21. An explanation for the higher average editor review is that the limited nature of the editor's resources may mean that only freeware from established or reputable providers or vendors may be reviewed, leading to a higher evaluation. However, this would still not account for the discrepancy in the editor and user reviews of the same freeware.

Hypothesis 3b: Freeware with both expert and user reviews will have more total downloads than freeware without both types of reviews.

The regression results (Table 3) provide strong support for the hypothesis that freeware with both expert/editor and user reviews will have more total downloads than freeware without both types of reviews. The model fit F-value is 36.96, and the adjusted R-square is 0.336. The parameter estimate for the "existence of an editor review" can be interpreted to say that the existence of the editor review increases total freeware consumption by 62,557 downloads. The parameter estimate for the "existence of user review(s)" implies that the existence of user review(s) increases total freeware consumption by 47,636 downloads. The standardized beta coefficient is 0.347 for the editor review and 0.333 for the user review, which are nearly identical, meaning that the impact of the two types of reviews is equally powerful. This is an important finding, as it quantifies the impact of both types of reviews simultaneously. It is also different from the finding that online user reviews are able to better predict future sales than experts in the movie industry (Dellarocas et al. 2005). We will delve into this further in the discussion.

5. Conclusion

Our empirical study provides some interesting and unique results on the impact of expert and user reviews on freeware downloads, summarized in Table 4. We found that freeware with expert/editor reviews have over 90,000 more downloads than freeware without expert reviews. However, the valence of the editor review did not matter, which validates prior eWOM research. As expected, when uncertainty related to a product is high, the expert review has a tremendous impact on consumer's selection decision. While we do not claim causality from the results, there is considerable evidence towards that end. An editor review is posted in the early stages of the introduction of a freeware tool, and does not change over time, as with aggregate user reviews. This provides a direction for causality, although the strong correlation between the editor review and total downloads is likely due to both prediction and influence/causal effects of the editor review. Clearly, consumers/users are paying attention to expert reviews.

Table 4: Summary of Findings

HYPOTHESIS		FINDINGS
H1a	Digital goods reviewed by experts will be consumed in greater numbers than digital goods not reviewed by experts.	SUPPORTED
H1b	Digital goods with higher expert reviews will be consumed in greater numbers than digital goods with lower expert reviews.	NOT SUPPORTED
H2a	Digital goods reviewed by users will be consumer in greater numbers than digital goods not reviewed by users.	SUPPORTED
H2b	Digital goods with higher user reviews will be consumed in greater numbers than digital goods with lower user reviews.	NOT SUPPORTED
H3a	When both expert and user reviews exist, there will be minimal correlation between the valence of the two types of reviews	SUPPORTED
H3b	Digital goods with both expert and user reviews will have more total consumption than digital goods without both types of reviews.	SUPPORTED

We also found that user reviews impact the total number of downloads for freeware. Freeware with user reviews have over 72,000 more downloads than freeware without user reviews, which is significant, although not as strong as for the editor review. On the other hand, more freeware tools have user reviews than editor reviews. While the making a case for causality is quite credible, it is not as clear as with the editor review. This is primarily due to the fact that while the editor review is posted early and remains unchanged, the user rating is an aggregate of all user reviews, which are added throughout the listing period of a freeware good. The user rating is dynamic and incremental, in that its valence and volume are subject to change over time. However, while the existence of the user rating makes a difference to the total number of freeware downloads, the valence itself does not seem to matter, akin to findings on the editor review.

When both editor/expert and user reviews are available, we found that both types of reviews impact total downloads, and that both types of reviews impacted freeware downloads *equally*. This is in contrast to findings by Dellarocas et al. (2005) that the impact of user reviews are *twice* that of expert reviews, although their study focused on box-office revenues. Unlike our study where reading eWOM and consumption (through download) occur on the same platform/location, reading movie eWOM and consumption (by going to the cinema) occur at different locations. It is possible that expert and user reviews impact different types of goods and e-business models in different ways, and would make for interesting future research. We limit the results of this study to freeware. We found that freeware with both types of reviews have over 117,000 more downloads than freeware tools that do not have both types of reviews. Both types of reviews are made available next to one another on a simple interface and thus are likely incorporated simultaneously into the decision-making process. Again, while we do not make the direct claim to causality, the circumstantial evidence is quite strong. Finally, we note that although the two review types arise from different cognitive and business motivations and provide two different

perspectives, the distinction between expert and user reviews is not always so rigid, and on certain e-commerce platforms, the distinction between the review types can blur. For example, Pollach (2006) notes that on ReviewCentre.com, user reviews for products that are considered to be particularly useful by other users are given the official status of "Expert Review".

Based on our findings that the interplay between both types of reviews impacts freeware downloads positively, we recommend that e-commerce platforms follow the CNET.com practice (as well as that of other leading intermediaries,) of listing both types of reviews in an easily accessible format. We also recommend that e-commerce platform operators that do not yet provide expert reviews do so in the future. E-commerce platforms with expert reviews will help consumers make more informed decisions. Better decisions are expected to lead to a more satisfactory consumer experience and will likely result in repeat customer visits. In turn, satisfied consumers might be inclined to write reviews. We further recommend that e-commerce platforms and direct sellers expand the practice of making user reviews available to aid in the decision-making process. Since we found that the valence of the user rating does not impact downloads, but its mere presence does, we recommend that e-commerce platform operators provide several levels of user ratings, including ones for functionality, ease of use, ability to perform as advertised and hidden costs such as spyware and system resource consumption, so as to give the review more structure and variability, and less bias. This may turn the valence into an important factor in the decision process. All in all, this should help users partially overcome the self-selection bias and make download decisions better suited to their own preferences.

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