Online Reviews and Buying Decisions: A Demographic and Psychographic Analysis

Arthi Venkatakrishnan, Raj Devasagayam

To Link this Article: http://dx.doi.org/10.6007/IJARBSS/v12-i5/13227
DOI:10.6007/IJARBSS/v12-i5/13227

Received: 05 March 2022, Revised: 29 March 2022, Accepted: 21 April 2022

Published Online: 01 May 2022

In-Text Citation: (Venkatakrishnan & Devasagayam, 2022)
To Cite this Article: Venkatakrishnan, A., & Devasagayam, R. (2022). Online Reviews and Buying Decisions: A Demographic and Psychographic Analysis. International Journal of Academic Research in Business and Social Sciences, 12(5), 97–117.

Copyright: © 2022 The Author(s)
Published by Human Resource Management Academic Research Society (www.hrmars.com)
This article is published under the Creative Commons Attribution (CC BY 4.0) license. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this license may be seen at: http://creativecommons.org/licenses/by/4.0/legalcode

Vol. 12, No. 5, 2022, Pg. 97 – 117

http://hrmars.com/index.php/pages/detail/IJARBSS

Full Terms & Conditions of access and use can be found at http://hrmars.com/index.php/pages/detail/publication-ethics
Online Reviews and Buying Decisions: A Demographic and Psychographic Analysis

Arthi Venkatakrishnan, Raj Devasagayam
The Leon Hess Business School Monmouth University, 211 Bey Hall, 400 Cedar Avenue
West Long Branch, NJ 07764, USA
Email: raj@monmouth.edu

Abstract
This research examines buyer perceptions of product reviews while shopping online. Adaptations of the Consumer Self-Confidence Scale and personality inventories were used to address our research objectives in an online setting. Primary data was obtained using an online data collection instrument. Using a convenience-based random sampling methodology email, social media, and texting, were used to generate participation and yielded 207 participants. The survey collected both demographic and psychographic data, followed by responses on the use of online reviews in reaching online purchase decisions, and frequency of purchase in various product categories. Based on our data we draw several conclusions of interest to both, marketing scholars and practitioners. Our findings will allow online companies to gain insight into how consumers factor in reviews posted by others in making online purchase decisions and consequently design effective marketing strategies to serve their customers. The paper concludes with avenues for future research in the area.

Keywords: Online Reviews, Personality Types, Buying Behavior, Product Categories, Purchase Decision.

Introduction
In a growing digital world, consumer culture has shifted towards online shopping to promote more targeted practices of product purchasing. Following this uprise in online consumerism, companies have naturally adapted sales and marketing efforts to various online platforms, the most prevalent being the all-too-familiar Amazon.com. Since 2020, the pandemic has further increased our reliance on online shopping, transforming online reviews to serve as the new word-of-mouth marketing. For instance, in a study of the awareness effects of reviews on box office sales, Duan et al (2008) found that the volume of reviews was positively correlated with box office sales. Traditionally, these reviews can include a “star” rating for a product or a written review from other consumers, manufacturers, and experts. In addition to Amazon and Zappos, social media sites such as Facebook, Twitter, or Yelp all serve as popular sources for online reviews.

Our research seeks to assess the significance of online reviews in consumer buying decisions. These findings will help determine the real need for companies to provide reviews based on their utility to customers— if the reviews play a negligible role in the consumer
experience, companies should refrain from providing them in the interest of time (and other resources). To what extent do consumer/manufacturer reviews influence consumer decision to buy a product? What influence does the personality of the consumer have upon the efficacy of such reviews in purchase decisions? Is this influence uniform across all product categories? This paper addresses such research questions to add to the extant body of knowledge in this area.

In the following section, we discuss past research in the area that is relevant to our research questions. The subsequent sections detail the conceptual model used to analyze different aspects of consumer characteristics and behaviors, measurement scales used in our study, the design of our data collection instrument, and the sample profile (n=207). Lastly, we conclude this paper with a discussion of our findings and their managerial implications.

Prior Research

Past research in the area indicates that it is important for consumers to receive real-life experiences of products from their friends, families, and peers which help them make intelligent decisions about the product or service they are purchasing. However, many reviews, both in content and frequency, may cause information overload. Furthermore, the usefulness of consumer reviews is generally assessed, and rankings are assigned by websites based on the helpfulness voting of the review by the consumers. The simple question of “Was this review helpful to you?” is estimated to bring in about $2.7 billion in additional revenue to Amazon.com. Consequently, consumer decision-making is mostly influenced by the helpfulness question votes and is skewed without considering when the review was posted and what the context was.

Zhu and Zhang (2010) found that online reviews tend to have a greater impact on more obscure products than well-known brands. Furthermore, Chatterjee (2001) presented the complementary finding that well-known brands were also more resistant to negative eWOM. A recent study by brightlocal.com suggests that 87% of buyers read 10 or fewer reviews before trusting a business (Murphy, 2020). In that article, products were grouped into two categories: search product and experience product. A search product is one that customers can easily acquire information about concerning its quality before interacting with the product directly and where it does not require much customer involvement to evaluate the key quality attributes of the product. An experienced product is one that customers must interact directly with to acquire information about its quality. Customer involvement is required to evaluate the level of quality as key attributes are subjective or difficult to compare (Murphy, 2020).

Siering and Muntermann (2013) revealed a very unique property of reviews, indicating that reviews with information related to the quality of product received more helpfulness votes. They indicate the review length in terms of word count may have a threshold in its effects on review helpfulness. Beyond such a threshold, its effect diminishes significantly. Moreover, Liu and Park (2008); Otterbacher (2009) proposed a model for predicting the helpfulness of reviews using various features. The three most important factors named and used for such prediction were the reviewer’s expertise, the writing style of the reviewer, and the timeliness of the reviews (Singh et al., 2016). An interesting insight from Reich and Maggio (2020) was that consumers are more likely to trust the expertise of mistaken reviews as opposed to those having made a successful purchase in the same domain. In this context,
mistaken reviews were seen as reviews from customers who were unsatisfied, or otherwise unsuccessful, with their purchase. Lastly, a study Park (2012) assessing consumer information processing from online reviews revealed that reviews containing reviewers’ consumption stories, compared to those containing reviewer information, were deemed more to affect the consumer perception of the review as more positive and helpful.

An influential study in this stream of research is the work done by (Floyd et al., 2014). In their research, they used a meta-analysis to study the consequences of online product reviews. Specifically, Floyd et al (2014), “examined the effect of online product reviews on retailer sales and delineated important moderators related to characteristics of the reviews and the products being evaluated that enhance or mitigate these effects.” Floyd et al (2014) studied relevant articles with overall WOM effects such as de Matos and Rossi (2008), and then included only those papers that explored eWOM (not traditional WOM) in their meta-analysis. Additionally, their meta-analysis analysis searched for unpublished studies, working papers, conference papers, and dissertations examining eWOM to avoid publication bias that could reduce measurement variability in the meta-analysis. Finally, employing an ancestry approach, they examined the references of studies identified in the preceding searches and key conceptual articles (Floyd et al., 2014). Ultimately in this research study, they included measures directly related to sales, proxy measures of sales, and measures of relative sales. They stated that “As a result of consumer reviews, 65% of potential consumers selected a brand that had not been in their original consideration set.”

**Study Objectives**

- To build on extant literature.
- To consider customer characteristics while determining the effectiveness of online reviews.
- To develop insight into the resultant strategic marketing imperatives.
- To address gaps in the study of online review effectiveness, including the reliance and trust that the buyer places on online reviews, the number of reviews, and the source of such reviews (customers, manufacturers, experts).

The established Consumer Self-Confidence Scale from Bearden et al. (2011) is used in the online review context and provides insights into the variables of interest to our research questions. We also include observations on product categories and social media. Based on prior literature the following conceptual model emerges <Figure 1>.
Upon review of past research and our conceptual model, the following hypotheses are postulated:

1. Consumer psychographics and demographics have an impact on consumer perception of the **effectiveness** of online reviews
2. Consumer psychographics and demographics have an impact on the **reliance** on manufacturer versus consumer online reviews in making purchase decisions.
3. Consumer psychographics and demographics have an impact on the **number** of online reviews used to influence the purchase decision.
4. Consumer psychographics and demographics have an impact on **trust** invested by consumers in online reviews.
5. Consumer psychographics and demographics have an impact on consumer post-purchase perceptions of online purchase decisions made using online reviews.

**Scales and Validation**

To empirically test our hypotheses, we adapted well-established scales in marketing research including personality inventories from Gosling et al (2003) and the Consumer Confidence Scale from (Bearden et al., 2001). These scales are well-recognized scales that have been found valid and reliable in several settings. Our adaptation was based on several rounds of pretests with sample representatives that were then excluded from the final sample of 207 reported below. The respondents in pretests helped us adapt the scales for brevity, convenience, online data collection method, and our study context of online buying behaviors. Based on our research questions, we added a few questions to our survey in addition to these theoretical scales. For instance, we had questions related to general shopping attributes, product types, and consumers' sources of information sought to arrive at the buying decision. As far as possible we used a 7-point Likert-type scale with negative anchors (strongly disagree, least important, never) on the left and positive anchors (strongly
agree, most important, always) on the right. During pretests we were cautioned that validity checks with some items being reverse scaled were considered annoying and time-consuming, in both cases the pretests revealed a tendency to abandon the survey. Therefore, in the final instrument that we used for data collection, the direction of the scale was always the same. We understand that this would reduce the validity of the measures, however, we made a choice to sacrifice that methodological validity check in the interest of larger incidence rates and completed surveys.

Gosling et al (2003) posited the frequently used and validated personality inventories that are short yet show robust psychometric properties of measures. This scale is popularly known as the “Big-Five Personality” scale. We modified the scale for brevity based on pretests of our online instrument. The Big-Five personality dimensions we included in our survey related to extraversion, agreeableness, conscientiousness, emotional stability, and openness to experience. All items in the scales are answers on a 7-point scale, where 1 = strongly disagree and 7 = strongly agree (we retained this response direction and response categories for consistency). Gosling et al. (2003) Study 1 had a sample of 1,704 undergraduate students and Study 2 involved 1,813 undergraduate students. Their inventory had on average a test-retest reliability of 0.68 across the five dimensions, whereas our adaptation had an increased reliability of 0.773.

Bearden et al. (2001) proposed Consumer Self-Confidence (CSC) and defined CSC as the extent to which an individual feels capable and assured with respect to his or her marketplace decisions and behaviors. The concept reflects the subjective evaluations of one’s ability to generate positive experiences as a consumer in the marketplace. Bearden et al. (2001) CSC had six dimensions that were summarized into two constructs: decision making self-confidence and protection self-confidence. In their research, an initial pool of 145 items was generated, and after deleting redundant, leading, and ambiguous items a pool of 97 items was retained. Based on seven studies involving student, non-student, and faculty samples, a robust scale was identified. The Bearden et al (2001) scale was the basis of our adaptation based on the on-line context of our study. We pretested the scale and refined and reduced items (Bagozzi, 1993), increasing the reliability slightly from 0.84 to 0.851. We modified CSC scale using items that were pertinent to our context and sample (see Table 1 for examples).

Table 1: Example CSC

| When making an online purchase... (1=Strongly disagree and 7= Strongly agree) |
|-------------------------------------------------|
| ... I often doubt the purchase decisions I make. |
| ... I frequently agonize over what to buy. |
| ... I never seem to buy the right thing for me. |
| ... Too often, the things I buy are not satisfying. |
| ... When I read reviews it has an effect on my purchase decision. |
| ... The number of reviews affect my buying decision. |
| ... Online customer reviews matter more than personal recommendations. |
Table 2: Adapted Scale Values

| Original Scale | Original Scale (Cronbach’s Alpha Value) | Our Adaptation (Cronbach’s Alpha Value) |
|----------------|----------------------------------------|----------------------------------------|
| Consumer Self Confidence | 0.84 | 0.851 |
| Personality Scale | 0.68 | 0.773 |
| Shopping Decisions | -- | 0.782 |
| Products | -- | 0.827 |
| Social Media | -- | 0.740 |

Survey Design and Implementation

The survey we used for our research was set up to be short and simple, while ensuring that all the information we needed was captured. This data collection instrument was developed and administered online with an average response time of about 5 minutes. In our attempt to find the predictive information we wished to obtain; our survey was brief and well-organized. The survey began with asking participates psychographic questions. This gave us a good idea of our participates personality, and shopping behaviors. We followed this by asking them about their online purchasing habits. For ease of response, survey questions were set up using 7-point Likert Type Scale, ranging from ‘Strongly Disagree’ to ‘Strongly Agree.’

Our survey yielded a total of 238 responses over several waves of online administration, no incentives were provided. After cleaning the data, we came to an effective sample of 207 usable surveys with incidence rate of 87%, which is considered excellent.

Figure 2: Sample Profile

To summarize, 58.5% of our respondents were female, many of the participants had incomes around $26,000-$75,000. Most of the participants (73.9%) of them, were from 18-24 years old. A combined 81.6% of the participants resided in either suburban or urban areas. Approximately 58.9% were students (given the affiliations of the authors, this is not a surprise), most of our respondents were single (85%). Over 50% of participants in this study were Caucasian. Due to the nature of our study related to online reviews, this sample was well informed and frequently shopped online.
Data Analysis and Findings

We used SPSS to run statistical analyses that included descriptive statistics, ANOVA, Chi-Squared tests, and Regressions. As seen in Table 2, our Cronbach Alphas are in line with prior studies and indicate the validity of our scales by measuring their internal consistency Cronbach (1951). Most of our scales were above the acceptable range of 0.60 to 0.70 Nunnally (1978), with some scales being as high as .851 (Consumer Confidence Scale).
How often do you...
(Mean Rating)

- Read Reviews Before Purchase? (SD = 1.7)
- Shop Online? (SD = 1.5)
- Feel the amount of positive-negative reviews affect my buying decisions? (SD = 1.6)
- Feel the reviews for a product are accurate? (SD = 1.4)
- Read Reviews After Purchase? (SD = 2.0)

When I buy ____., I am most likely to look at a product review.
(Mean Rating)

- Electronics (SD = 1.5)
- Appliances (SD = 1.8)
- Automotive (SD = 1.8)
- Beauty/Healthcare (SD = 2.0)
- Shoes (SD = 2.1)
- Clothing (SD = 2.2)
- Books (SD = 2.1)
- Office Supplies (SD = 2.1)
The above charts reveal many interesting findings. First, participants had higher levels of perceived trust and helpfulness for customer reviews above manufacturer reports. This finding corresponds with the idea that customer reviews may be more honest about a product’s flaws than a manufacturer report. As expected, reviews are typically used for pre-purchase deliberation. However, participants are more likely to read online reviews for electronics, appliances, and automotive than beauty/healthcare, shoes, clothing, books, and office supplies. This behavior may be explained by the fact that electronics, appliances, and automotive are all more expensive purchases, so consumers may read reviews to be secure in these heavier purchase decisions. Lastly, Google and online review sites are the most commonly used, whereas social media sites like Facebook and Twitter are not used as much for product reviews.
Table 3: Hypotheses and Results

| Hypotheses                                                                 | Variable (Psychographics + Demographics) | Dependent Variable                          | P-value |
|---------------------------------------------------------------------------|------------------------------------------|---------------------------------------------|---------|
| Consumer psychographics and demographics have an impact on consumer perception of the **effectiveness** of online reviews |  | Dependable                                  | 0.033   |
|                                                                          |  | Open to New Experiences                    | 0.021   |
|                                                                          |  | Sympathetic                                | 0.042   |
|                                                                          |  | Emotionally Stable                         | 0.087   |
| Consumer psychographics and demographics have an impact on the **reliance** on manufacturer versus consumer online reviews in making purchase decisions. |  | Organized                                  | 0.042   |
|                                                                          |  | Calm                                       | 0.043   |
|                                                                          |  | Emotionally Stable                         | 0.081   |
|                                                                          |  | Organized                                  | 0.044   |
|                                                                          |  | Emotionally Stable                         | 0.021   |
| Consumer psychographics and demographics have an impact on the **number** of online reviews used to influence purchase decisions. |  | Open to New Experiences                    | 0.031   |
|                                                                          |  | Sympathetic                                | 0.064   |
|                                                                          |  | Calm                                       | 0.034   |
| Consumer psychographics and demographics have an impact on **trust** invested by consumers in online reviews. |  | Extraverted                                | 0.017   |
|                                                                          |  | Dependable                                  | 0.001   |
|                                                                          |  | Open to New Experiences                    | 0.019   |
|                                                                          |  | Income                                     | 0.035   |
on-line purchase decisions made using online reviews.

| Calm                  | Dissatisfied with purchase | 0.043 |
|-----------------------|-----------------------------|-------|

Our data revealed several interesting findings. One such finding was that participants that viewed themselves as organized and emotionally stable regarded both past customer reviews and manufacturer reports as important, rather than one over the other. Such findings could be explained by organized and emotionally stable participants preferring to have as much information as possible when determining their purchase decisions. Moreover, while most of our hypotheses produced findings related to psychographic variables, we found that participants with higher incomes invested greater trust in online reviews. This finding corresponds with the belief that participants with higher incomes have more disposable income and thus have greater flexibility in their spending practices, leading to more trust in online reviews. Across all personality traits, however, consumers open to new experiences seemed to be the most impacted by online reviews, which lends special utility for companies’ online review pages.

Our findings about the respondent preference for manufacturer versus consumer reviews, the number of reviews used to make an informed product purchase decision, the trust placed in the reviews, and post-purchase behavior (regret, remorse) were clearly influenced by psychographics and demographics of the study participants. While respondents that view themselves as being organized found both past customer reviews (p = 0.042) and manufacturer reports (p = 0.044) important to their decision process, those that viewed themselves as calm claimed that past customer reviews were more important to them (p = 0.043) and the more emotionally stable participants indicated that manufacturer reports were more important to them (p = 0.021). These findings further confirm the conclusions of Bounie et al (2020), which found the effect of online peer reviews to be as important as the effects of personal and expert reviews. However, the distinction of responses between calm and emotionally stable participants presents additional possibilities for manufacturer reports and past customer reviews in targeting those psychographic segments.

Participants that viewed themselves as extraverted (Chi-squared = 11.999; p < 0.05), dependable (Chi-squared = 19.574; p < 0.05), and open to new experiences (Chi-squared = 11.800; p < 0.05) were more willing to trust consumer reviews. This finding extends a previous study that found that consumers perceived customer-written product reviews as more helpful than those written by experts (Li et al 2014). Similarly, participants that viewed themselves as extraverted (Chi-squared = 7.95; p < 0.1), dependable (Chi-squared = 8.196; p < 0.1), emotionally stable (Chi-squared = 9.274; p < 0.1), and disorganized (Chi-squared = 7.823; p < 0.1) typically found customer reviews more helpful when making an online purchase.

Participants that viewed themselves as more open to new experiences (Chi-squared = 10.605; p < 0.05), sympathetic (Chi-squared = 8.900; p < 0.1), and emotionally stable (Chi-squared = 10.380; p < 0.05) claimed that the number of reviews had a greater effect on their buying decisions. While the effect of the number of reviews has not been previously attributed to specific personality traits, this finding enriches past findings of a study which concluded a positive association between the number of reviews and consumers’ purchase
intention (Lawrence & O’Connor, 2000). Additionally, the greater influence of the volume of reviews on the purchase of experience products versus search products, as concluded in another previous study, can be paired with this finding to maximize the effect of the number of reviews on buying decision (Cui et al., 2012).

Respondents that view themselves as more dependable (Chi-squared = 10.506; p < 0.05), open to new experiences (Chi-squared = 11.594; p < 0.05), and sympathetic (Chi-squared = 12.840; p < 0.05) claimed that reading reviews had a greater effect on their purchase decisions. As suggested by previous research, weaker brands may benefit from having this narrowed demographic for their customer reviews in influencing consumer buying decision (Ho-Dac et al., 2013). Our results indicate that those participants that viewed themselves as extraverted (Chi-squared = 10.213; p < 0.05) and emotionally stable (Chi-squared = 13.364; p < 0.05) regarded independent reports as an important factor in their buying decisions. This result pinpoints specific personality traits associated with an earlier study which found that independent reports were used among 55% of consumers, second only to retail platforms (Constantinides & Holleschovsky, 2016).

In terms of consumer age-based distinctions in reliance on online reviews, we found that younger participants tended to doubt the purchase decisions they make more than older participants (Chi-squared = 25.799; p < 0.05). Similarly, those in our study that identified themselves as students expressed a level of doubt and cognitive dissonance with the purchase decisions, compared to employed participants (Chi-squared = 29.342; p < 0.05). However, student status had no significant impact on buying decision. Neither finding, although both significant, were revealed in any of the prior studies in the area.

Our data indicated that respondents with higher income valued the importance of reviews from independent reports (Chi-squared = 21.144; p < 0.05) and were most willing to trust consumer reviews (Chi-squared = 19.435; p < 0.05). Again, both these findings are new to the research stream.
Table 4: Summary of Regression Findings
(All relationships are positive and statistically significant)

| Dependent Variable               | Independent Variable                                      | R-Square | P-value |
|----------------------------------|----------------------------------------------------------|----------|---------|
| Pre-purchase doubt               | Trust in manufacturer reviews                            | 0.021    | 0.036   |
| Decision deliberation            | Doubt in product without reviews                        | 0.033    | 0.009   |
|                                  | Trust in manufacturer reviews                            | 0.024    | 0.026   |
| Failure to make suitable purchase| Online customer reviews > personal recommendations       | 0.027    | 0.031   |
|                                  | Doubt in product without reviews                        | 0.021    | 0.039   |
|                                  | Trust in manufacturer reviews                            | 0.027    | 0.018   |
| Lack of satisfaction with purchase decision | Online customer reviews > personal recommendations | 0.027    | 0.019   |
|                                  | Doubt in product without reviews                        | 0.021    | 0.039   |
|                                  | Trust in manufacturer reviews                            | 0.024    | 0.024   |
| Effectiveness of reviews         | Effect of number of reviews on purchase decision         | 0.251    | 0.001   |
|                                  | Online customer reviews > personal recommendations       | 0.087    | 0.001   |
|                                  | Doubt in product without reviews                        | 0.246    | 0.001   |
|                                  | Trust in customer reviews                               | 0.209    | 0.001   |
|                                  | Trust in customer ratings                               | 0.251    | 0.001   |
|                                  | Helpfulness of customer surveys                         | 0.164    | 0.001   |
|                                  | Effect of number of reviews on purchase decision         | 0.275    | 0.001   |
|                                  | Online customer reviews > personal recommendations       | 0.134    | 0.001   |
| Reliance on past customer reviews | Doubt in product without reviews | 0.335 | 0.001 |
|----------------------------------|---------------------------------|-------|-------|
|                                 | Trust in customer reviews       | 0.264 | 0.001 |
|                                 | Trust in customer ratings       | 0.314 | 0.001 |
|                                 | Helpfulness of customer surveys | 0.239 | 0.001 |

| Reliance on manufacturer reviews | Effect of number of reviews on purchase decision | 0.162 | 0.001 |
|---------------------------------|-------------------------------------------------|-------|-------|
|                                 | Online customer reviews > personal recommendations | 0.086 | 0.001 |
|                                 | Doubt in product without reviews                | 0.161 | 0.001 |
|                                 | Trust in customer reviews                        | 0.088 | 0.001 |
|                                 | Trust in manufacturer reviews                    | 0.163 | 0.001 |
|                                 | Trust in customer ratings                        | 0.103 | 0.001 |
|                                 | Helpfulness of customer surveys                  | 0.135 | 0.001 |

| Reliance on independent reports | Effect of number of reviews on purchase decision | 0.167 | 0.001 |
|---------------------------------|-------------------------------------------------|-------|-------|
|                                 | Online customer reviews > personal recommendations | 0.152 | 0.001 |
|                                 | Doubt in product without reviews                | 0.181 | 0.001 |
|                                 | Trust in customer reviews                        | 0.170 | 0.001 |
|                                 | Trust in manufacturer reviews                    | 0.014 | 0.087 |
|                                 | Trust in customer ratings                        | 0.161 | 0.001 |
|                                 | Helpfulness of customer surveys                  | 0.232 | 0.001 |

Almost all the trust and reliance factors revealed weak positive associations with the effect of reading reviews on purchase decisions, including the number of reviews, importance of online customer reviews over personal recommendations, doubt in a product when there were no reviews available, trust in customer reviews and ratings, and helpfulness of customer reviews.
surveys. Similarly, these factors also revealed moderately strong positive associations with the importance of past customer reviews. Since the respondents displayed higher levels of trust for past customer online reviews, companies should openly provide these reviews on their product pages to better address potential doubts in their consumers’ buying decisions.

While it is expected that consumers would find customer reviews trustworthy and thus be impacted by them, moderately strong positive associations with the importance of manufacturer reports were also revealed for a number of factors including the number of reviews, importance of online customer reviews over personal recommendations, doubt in a product when there were no reviews available, trust in customer reviews and ratings, trust in manufacturer reviews, and helpfulness of customer surveys. Since consumers that trust customer reviews also consider manufacturer reports important, companies should prioritize providing this information to consumers to further reduce the doubt in purchase decisions.

Our analysis of the importance of independent reports revealed moderately strong positive associations with the number of reviews, importance of online customer reviews over personal recommendations, doubt in a product when there were no reviews available, trust in customer reviews and ratings, trust in manufacturer reviews, and helpfulness of customer surveys. Given that companies have less control over independent reports compared to customer and manufacturer reviews, it would be advisable for them to maintain awareness about such publications and address common concerns raised in those reports to better cater to their consumers’ trust.

Concluding Remarks

Through our research, we studied the demographic and psychographic relationships behind the effectiveness of online reviews, including but not limited to what individuals turned to look for reviews, if they preferred personal reviews over manufactured reviews, how much of an effect it had on them eventually purchasing an item, and post-purchase reaction to the decision. Businesses should continue providing online reviews for their customers because it is evident that consumers are reading online reviews to suppress doubt about their buying decisions. Allowing customer reviews and surveys to remain as accessible as possible will build a consumer’s trust in a company’s product. As the general consumer population continues to trust customer-written reviews, companies should encourage their customers to post reviews on such websites to further control their marketing practices. Similarly, companies should also heed the general popularity of Google and online review sites as sources for product reviews. Ideally, businesses must understand their consumers on an in-depth level to correctly cater to the preferences of different personalities and demographics.

We recommend that businesses and online stores continue to view review methods such as the ones outlined in this paper as possible strategic competitive advantages. More specifically, marketers could benefit from a brief rating scale based on this study to keep track of which reviews, and to determine which reviews were found most helpful to consumers looking to purchase from their websites and perhaps relate it to consumer demographics and psychographics. Moreover, companies, with the power of these specific consumer insights, could display different volumes and content of reviews for different customer-based on psychographics and demographics. While companies cannot control posts of independent
reports, they should focus on making their company review sites as thorough and targeted to the individual consumers as possible. In addition to the source of review studied by this research, clarity, brevity, and recency of upload might draw the attention of future studies. Finally, this research was conducted prior to the COVID-19 pandemic and begs for a post-pandemic study. The pandemic made consumers spend more time on reviews and make more frequent purchases online and has altered online buying forever. We suggest that future research replicate our findings to study the impact of pandemics on our constructs.

As consumer psychology involves both the characteristics of the purchase and that of the consumer, these findings advance our conceptions of the latter. While previous research has deepened our understanding of the types of products whose purchase is affected by online reviews, these new observations lend important context and insight into the relationship between the consumers’ traits and their buying decisions. These findings also supplement previous ones pertaining to consumer psychology in the in-person buying sector by elevating them to an online level and accurately reflecting the growing technological age. Although conducted pre-pandemic, this research may offer a baseline to measure consumer trust and reliance on online reviews in a post-pandemic world. Overall, our findings complement our previous knowledge on consumer buying behavior and unlock new avenues for future research.

References
Bagozzi, R. P. (1993). Assessing Construct Validity in Personality Research: Applications to Measure of Self-Esteem, Journal of Research in Personality, 27(1), 49-87. https://doi.org/10.1006/jrpe.1993.1005
Bearden, W. O., Hardesty, D. M., & Rose, R. L. (2001). Consumer Self Confidence: Refinements in Conceptualization and Measurement, Journal of Consumer Research, 28(1), 121-134. https://doi.org/10.1086/321951
Bearden, W. O., Netemeyer, R. G., & Haws, K. L. (2011). Handbook of Marketing Scales: Multi-item Measures for Marketing and Consumer Behavior Research. (3rd ed.). SAGE.
Bounie, D., Bourreau, M., Gensollen, M., & Waelbroeck, P. (2020). Do Online Customer Reviews Matter? Evidence from the Video Game Industry, Telecom ParisTech Working Paper No. ESS-08-02. http://doi.org/10.2139/ssrn.1091449
Constantinides, E. & Holleschovsky, N.I. (2016). Impact of online product reviews on purchasing decisions, Proceedings of the 12th International Conference on Web Information Systems and Technologies. https://pdfs.semanticscholar.org/b8d6/15ca5baeca53105f3f450b56b3f744052737.pdf
Cronbach, L.J. (1951). Coefficient alpha and the internal structure of tests. Psychometrika, 16(2), 297-334.
Cui, G., Lui, H. K., & Guo, X. (2012). The Effect of Online Consumer Reviews on New Product Sales, International Journal of Electronic Commerce, 17(1), 39-58. https://doi.org/10.2753/jec1086-4415170102
Floyd, K., Freling, R., Alhoqail, S., Cho, H. Y., & Freling, T. (2014). How Online Product Reviews Affect Retail Sales: A Meta-analysis, Journal of Retailing, 90(2), 217-232. https://doi.org/10.1016/j.jretai.2014.04.004
Gosling, S. D., Rentfrow, P. J., & Swann, W. B. (2003). A Very Brief Measure of the Big-Five Personality Domains, Journal of Research in Personality, 37(6), 504-528. https://doi.org/10.1016/s0092-6566(03)00046-1

113
Ho-Dac, N. N., Carson, S. J., & Moore, W. L. (2013). The Effects of Positive and Negative Online Customer Reviews: Do Brand Strength and Category Maturity Matter? Journal of Marketing, 77(6), 37-53. https://doi.org/10.1509/jm.11.0011

John, O. P., & Srivastava, S. (1999). The Big Five Personality Trait Taxonomy: History, Measurement, and Theoretical Perspectives. In L.A. Pervin and O.P. John (Eds.), Handbook of Personality: Theory and Research. Guilford.

Lawrence, M., & O’Connor M. (2000). Sales forecasting updates: How good are they in practice? International Journey of Forecasting, 16(3), 369-382. https://doi.org/10.1016/s0169-2070(00)00059-5

Liu, Z., & Park, S. (2015). What makes a useful online review? Implication for travel product websites, Tourism Management, 47, 140-151. https://doi.org/10.1016/j.tourman.2014.09.020

Matos, C. A., & Rossi, C. V. (2008). Word-of-mouth communications in marketing: a meta-analytic review of the antecedents and moderators, Journal of the Academy of Marketing Science, 36(4), 578-596. https://doi.org/10.1007/s11747-008-0121-1

Murphy, R. (2020). Local Consumer Review Survey 2020. Brightlocal. https://www.brightlocal.com/research/local-consumer-review-survey/

Nunnally, J. C. (1978). Psychometric theory (2nd ed.). McGraw-Hill.

Otterbacher, J. (2009). “Helpfulness” in online communities: a measure of message quality. Proceedings of the SIGCHI Conference on Human Factors in Computing Systems. https://dl.acm.org/doi/pdf/10.1145/1518701.1518848

Park, J. S. (2012). Effects of online consumer reviews on attitudes and behavioral intentions toward products and retailers [Doctoral dissertation, University of Tennessee]. TRACE: Tennessee Research and Creative Exchange. https://trace.tennessee.edu/utk_graddiss/1552

Patrali, C. (2001) Online Reviews: Do Consumers Use Them? In M.C. Gilly & J. Meyers-Levy (Eds.), Advances in Consumer Research. Association for Consumer Research.

Reich, T., & Maglio, S. J. (2020). Featuring Mistakes: The Persuasive Impact of Purchase Mistakes in Online Reviews. Journal of Marketing, (84)1, 52-65. https://doi.org/10.1177/0022242919882428

Siering, M., & Muntermann, J. (2013). What drives the helpfulness of online product reviews? From stars to facts and emotions. Proceedings of the International Conference on Business Informatics. http://wi2013.de/proceedings/WI2013%20-%20Track%20%20Siering.pdf

Singh, J. P., Irani, S., Rana, N. P., Dwivedi, Y. K., Saumya, S., & Roy, P. K. (2016). Predicting the "helpfulness" of online consumer reviews. Journal of Business Research, 70, 346-355. https://doi.org/10.1016/j.jbusres.2016.08.008

Weinjing, D., Gu, B., & Whinston, A. B. (2008). Do online reviews matter? —An empirical investigation of panel data, Decision Support Systems, 45(4), 1007-1016. https://doi.org/10.1016/j.dss.2008.04.001

Zhu, F., & Zhang, M. (2010). Impact of Online Consumer Reviews on Sales: The Moderating Role of Product and Consumer Characteristics. Journal of Marketing, 74(2), 133-48. https://doi.org/10.1509/jmkg.74.2.133
Appendix 1: Copy Ready Graphs

Impact of Various Characteristics of Online Reviews on Buying Decision (Mean Rating)

- Customer ratings most trustworthy (SD = 1.4)
- Customer surveys most helpful (SD = 1.6)
- Trust customer reviews (SD = 1.6)
- The number of reviews affect my buying decision (SD = 1.9)
- Second guess when no reviews (SD = 1.9)
- Online reviews > personal recommendations (SD = 1.7)
- Trust manufacturer reviews (SD = 1.4)

Impact of Psychographic Factors on Buying Decision (Mean Rating)

- Reviews affect purchase decision (SD = 1.8)
- Important past customer reviews (SD = 1.8)
- Important independent reviews (SD = 1.8)
- Important manufacturer reports (SD = 1.8)
- Frequently agonize what to buy (SD = 1.9)
- Doubt purchase decision (SD = 1.9)
- Never buy the right thing for me (SD = 1.6)
- Unsatisfactory purchase (SD = 1.5)
How often do you...
(Mean Rating)

- Read Reviews Before Purchase? (SD = 1.7)
- Shop Online? (SD = 1.5)
- Feel the amount of positive-negative reviews affect my buying decisions? (SD = 1.6)
- Feel the reviews for a product are accurate? (SD = 1.4)
- Read Reviews After Purchase? (SD = 2.0)

When I buy ____, I am most likely to look at a product review.
(Mean Rating)

- Electronics (SD = 1.5)
- Appliances (SD = 1.8)
- Automotive (SD = 1.8)
- Beauty/Healthcare (SD = 2.0)
- Shoes (SD = 2.1)
- Clothing (SD = 2.2)
- Books (SD = 2.1)
- Office Supplies (SD = 2.1)
I am most likely to read product reviews on...
(Mean Rating)

- Google (SD = 2.0)
- Online Review Site (e.g., consumer reports) (SD = 1.9)
- Company Site (SD = 2.1)
- Facebook (SD = 2.1)
- Yelp (SD = 2.2)
- Twitter (SD = 1.8)
- Other (SD = 2.0)