

**MASTER THESIS**

**Will I buy it?**

**The influence of vlogs on consumer's purchase  
intention and engagement in Apple AirPods 2**

Xinran Chen  
S2000091  
x.chen-1@student.utwente.nl

University of Twente  
Marketing Communication & Design – Communication Studies  
Behavioral, Management and Social Sciences

Supervisors:  
Dr. J. J. van Hoof  
Dr. M. Galetzka

Enschede, The Netherlands  
August 2019

**UNIVERSITY OF TWENTE.**

## Abstract

Social media platforms have become an important part of consumers' sharing, searching, and commenting activities as they engage in online shopping. Video blog users, known as "vloggers," are becoming influential figures who can influence consumers' shopping decisions. However, only a few studies have focused on exploring the effect of vlogs on consumers' engagement and purchase intentions while shopping online. This study aims to examine the impact of vloggers' recommendation of Apple AirPods 2 in vlogs on YouTube. To determine the factors that influence purchase intention and consumer engagement, the variables of the technology acceptance model (TAM), combined with variables derived from source credibility, are used. Source credibility is a term often used to imply a communicator's positive characteristics that affect the receiver's acceptance of information. Moreover, the variables trustworthiness, expertise, and attractiveness from source credibility are projected into consumer attitude to determine the influence of purchase intention and consumer engagement. A questionnaire-based empirical study is used to test the eight constructs: trustworthiness, expertise and attractiveness, perceived usefulness, perceived enjoyment, attitude, consumer engagement, and purchase intention. This study involves 262 respondents and quantitatively analyzes the effect of each variable on purchase intention, consumer engagement, and attitude. The main findings indicate that expertise of vloggers, perceived enjoyment, and consumers' attitude are directly predictive of a consumer's intention to buy Apple AirPods 2. However, against TAM, perceived usefulness affects purchase intention only indirectly through attitude. Regarding attitude, attractiveness and enjoyment have a significant influence, followed by trustworthiness and perceived usefulness. Additionally, attitude is a mediating factor that is also influenced largely by perceived enjoyment and slightly by the attractiveness of the vlogger, trustworthiness of the vlogger, and perceived usefulness. In conclusion, perceived enjoyment is the most influential contributor to predicting a consumer's purchase intention, engagement, and attitude.

*Keywords: vlog; vlogger; the technology acceptance model (TAM); source credibility; consumer engagement; purchase intention; online shopping*

## Table of Contents

<b>Abstract</b> .....	<b>1</b>
<b>Introduction</b> .....	<b>3</b>
<b>Theoretical framework</b> .....	<b>7</b>
Purchase intention.....	7
Consumer engagement.....	7
Source credibility.....	8
Technology acceptance model (TAM) and new product adoption.....	11
Attitude towards vlogs.....	13
Perceived usefulness of vlogger’s recommendations.....	14
Perceived enjoyment of vlogger’s recommendations.....	15
Conceptual model.....	16
<b>Method</b> .....	<b>17</b>
<b>Research design and procedures</b> .....	<b>17</b>
<b>Pre-test</b> .....	<b>17</b>
<b>Data collection</b> .....	<b>17</b>
<b>Measurement</b> .....	<b>20</b>
<b>Data analysis</b> .....	<b>22</b>
<b>Results</b> .....	<b>24</b>
<b>Correlations</b> .....	<b>24</b>
<b>Model testing</b> .....	<b>26</b>
Regression analysis to predict Purchase Intention.....	27
Regression analysis to predict Consumer Engagement.....	28
Regression analysis to predict Consumer’s Attitude.....	29
<b>Structural equation modeling</b> .....	<b>29</b>
<b>Overview of hypotheses</b> .....	<b>30</b>
<b>Final research model</b> .....	<b>33</b>
<b>Discussion</b> .....	<b>34</b>
<b>Discussion of results</b> .....	<b>34</b>
Source credibility.....	34
User-related features.....	35
Attitude.....	36
Demographic characteristics.....	37
<b>Theoretical and practical implications</b> .....	<b>38</b>
<b>Limitations and future research</b> .....	<b>39</b>
<b>Conclusion</b> .....	<b>40</b>
<b>Reference</b> .....	<b>41</b>
<b>Appendix</b> .....	<b>51</b>
<b>Appendix 1. Demographic Profile</b> .....	<b>51</b>
<b>Appendix 2. Overview of Measurements</b> .....	<b>53</b>
<b>Appendix 3. Online Questionnaire</b> .....	<b>55</b>

## Introduction

In this era, the Internet enables people to express themselves on social media such as Facebook, YouTube, Twitter, and Instagram. Content creators such as bloggers and vloggers are becoming leaders on social media platforms who have a strong influence on the minds of consumers. “Blogs are journal-based websites that typically use content management tools to allow the authors to post contents on the websites” (Gordon, 2006). A video blog, shortened as a vlog, is user-generated content that combines consistent storytelling and audio-visual contents and is posted on a video sharing platform. The vlog trend gradually began in 2007 on YouTube, an online video-sharing platform that was launched in 2006. YouTube is currently the largest video content sharing platform with more than 1 billion users, on which 5 billion videos are watched daily. A total of 10,113 videos have generated more than 1 billion views (Brain, 2016).

This study chooses YouTube as a source of vlogs. YouTube is an ideal platform for those interested in displaying and evaluating the products they buy, and a great tool to communicate with other users through comments (Cen, 2015). People choose YouTube as a platform to share and post their personal experiences and ideas, and the content of the vlog on a personal channel can range from daily life to traveling to makeup routine. Vloggers also share their reviews after using products (Cen, 2015). The vlog viewers are highly involved in watching daily or monthly updates and interact by commenting on the vlogs since they are influenced by vloggers’ expertise and objectiveness (Mir & Rehman, 2013).

Vlogs have become a popular phenomenon as a new media format for sharing thoughts, feelings, and ideas linked to particular events (Molyneaux, O’Donnell, & Gibson, 2009). Vlog hosts or viewers interact with other users by liking, commenting, and sharing (Safko, 2010). Although there are significant economic influences on a consumer’s purchase intention and possible economic returns, it also takes much effort to start and maintain an “active” vlog, which not only requires regularly updated content but also depends on vlog viewers to visit and frequently interact with it (Hsu & Lin, 2008). Many vlog channels have been given up soon after their creation. In addition, attracting vlog viewers is a daunting task. Vlog viewers spent less than two minutes watching vlogs (Bonhoeffer, 2003). Therefore, this

study focuses on investigating the reasons for vlog participants (both vloggers and viewers) to engage in vlogs. Wegert (2010) pointed out that 81% of consumers would seek advice from social media before purchasing a product through online websites, and 74% of those who accepted these suggestions and recommendations believed that social media had an impact on their purchase. Consequently, social media—including vlogs—has apparently become an important factor for consumers before they make purchasing decisions for products and services. This trend successfully attracts the attention of marketers, who actively harness electronic word-of-mouth as a new marketing tool by inviting consumers or key opinion leaders to post personal product reviews on third-party social media platforms (Dellarocas, 2003). Goldsmith (2006) defined electronic word-of-mouth (eWOM) as “word-of-mouth communication on the Internet, which can be diffused by many Internet applications such as online forums, electronic bulletin board systems, blogs, review sites, and social networking sites.” Electronic word-of-mouth is regarded by marketers as an essential source of product information that influences a consumer’s behavioral intentions (McFadden and Train, 1996).

The rapid adoption of social media networks provides a platform for the distribution of digital products and related derivative products. Digital products are used as research objects in this paper and there are reasons why they have been selected. First, the market for digital products is thriving and there are a plethora of online comments or reviews about wireless earphones. Second, digital products match the definition of high-participation products; some studies also classify digital products as a type of high involvement (Johnson & Eagly, 1989). Smartphones have, for most people, become an indispensable technology tool for updating and connecting with the world via the Internet. Included are related derivative digital products such as earphones and sound speakers (Johnston, 2019). Based on this, relevant technology companies regularly attempt to improve existing functions and introduce innovations to attract more customers. The digital product that most recently has attracted public attention is AirPods 2, produced by the Apple company. Apple AirPods 2 were launched with some notable updates based on the first generation in 2019. Apple AirPods 2 is the main discussion of this study and was chosen as an example of a digital product.

AirPods are a technological innovation in the field of audio accessories. They are a new concept for earphones, fabricated from hard plastic and shaped similarly as the traditional ones from Apple are but kept in a charging case and without the traditional wires. This innovative audio accessory created by Apple aims to solve the problem of the messy knots from their regular headphones and will forever change the way consumers use headphones. When AirPods are pulled out of the charging case, they instantly turn on and connect to the user's iPhone, Apple Watch, iPad, or Mac. Audio automatically plays as soon as they are put in the user's ears and pauses when they are removed. To adjust the volume, change the song, make a call, or even get directions, just double-tap to activate Siri ("AirPods -Technical Specifications," 2019).

New products never lack early adopters. Due to the heat of the launch of AirPods 2, many online reviews sprang up on various social media platforms, evaluating whether Apple AirPods 2 were worth the purchase. Prior research found that online product reviews contribute to influencing product sales through the posting of a variety of comments (Bee & Lee, 2010). Compared to traditional celebrities (e.g., actors, musicians), Djafarova and Rusworth (2017) found that consumers tend to believe online reviewers (e.g., bloggers and vloggers) are more credible than celebrities. In the online shopping context, the perceived source credibility (trustworthiness, expertise, and attractiveness) of vloggers has become critical to influencing a consumer's buying behavior (Gefen, Karahanna, & Straub, 2003).

In the current research, the influence of a blogger's recommendations on consumer purchase intention has been investigated. Hsu and Tsou (2011) proposed a theoretical framework that outlines the relationship between consumer experience, purchase intention, and information credibility in a blog environment. They studied the impact of bloggers' recommendations on consumer buying attitudes and analyzed consumer trust in bloggers' recommendations for specific products and services. The results reveal that the customer experience has a significant impact on the willingness to purchase based on the perceived usefulness of a blogger's suggestions and credibility.

However, few studies have explored whether vloggers' recommendations can provide positive marketing results for reaching consumers. Since online transactions are not conducted face-to-face, and consumers need reliable and useful information to better

understand products and subsequently support their purchasing decisions, the power of electronic word-of-mouth affecting online shopping for digital products is examined in this study. The main purpose of this study is to investigate why vlog viewers purchased vlogger-recommended products and participated in vlogs. An empirical study of typical examples regarding Apple AirPods 2, a recently popular digital product, was conducted to test the framework and derive quantitative results. Therefore, the following research questions are addressed:

*“To what extent do source credibility of vloggers, perceived usefulness, perceived enjoyment of vlogs affect the viewer's (a) purchase intention and (b) engagement in vlogs?”*

## **Theoretical framework**

### **Purchase intention**

Intentions can be defined as “the person’s motivation in the sense of his or her conscious plan to exert effort to carry out a behavior” (Eagly & Chaiken, 1993). Purchase intention is a conscious plan made by an individual who decides to buy a product, service, or brand (AMA, 1995; Spears & Singh, 2004).

With the increasing popularity of the Internet, the influence of interpersonal communication on purchasing decisions is growing rapidly. Geissler and Edison (2005) introduced the concept of “market mavens,” consumers who are shopping experts and can influence other buyers to purchase certain products by sharing their recommendations. The product review videos (vlogs) they post on YouTube and help other consumers make purchase decisions can be considered “market mavens.”

Previous studies have demonstrated that consumers are influenced by online reviews generated by other users who believe their opinions are considered the most reliable for consumers who are searching for product information (Bae & Lee, 2011). The power of recommendations on purchase intention may be considered a hidden marketing communication tool (Liljander, Gummerus, & Söderlund, 2015). Therefore, it can be relatively assumed that vloggers, as market mavens, can influence the future purchase intentions of viewers.

### **Consumer engagement**

Consumer engagement refers to the frequency with which a consumer participates in online social communities, for example, in the form of sharing product-related experiences and providing product ratings (Cheung, Xiao, & Liu, 2014). The vlog content with which consumers may engage affects the degree that consumers do engage. The research of Huang, Su, Zhou, and Liu (2013) indicated that attitude toward content is an important factor influencing consumers’ sharing behavior on social media. The format and purpose of the content will also influence consumer engagement. Research by Hsu et al. (2013)

demonstrates that vlogs are among the most popular eWOM platforms, and online users consider a vlog to be a highly engaged source among all sources in various media.

De Vries, Gensler, and LeeFlang (2012) indicated that multi-sensory and interactive posts are more likely to increase engagement. Similarly, Swani, Milne, and P. Brown (2013) found that consumers are more likely to focus on posts that are less commercial and more emotional. Through watching and interacting on YouTube, consumers are becoming more familiar with the vloggers and the content they provide. As a result, interaction between the vloggers and the consumers gradually increases, thereby influencing consumers' purchase intentions. Results of the research have revealed that engagement (involvement) is an important influencing factor in information processing (Johnson & Eagly, 1989). It is vital and beneficial to collect feedback when consumers are actually engaged in making purchasing decisions (Winsor, 2004).

However, few papers use social media itself as a prerequisite for consumer engagement. Using the TAM of Davis (1986), Pinho and Soares (2013) conclude that perceived usefulness leads to greater intention to engage in social media platforms. Chen and Berger (2016) report that the power of the content to attract or hold one's attention has a primary influence on consumer engagement. Specifically, consumers are more likely to share an interesting vlog when they receive it from others and perceive it as interesting.

In the context of online social communities, prior studies have also demonstrated the role of consumer engagement in moderating the effect of eWOM content on consumer purchase intention (Lee & Lee, 2009; Lee, Park, & Han, 2008).

### **Source credibility**

According to Chaiken (1980), source credibility is defined as the extent to which the recipient of the message perceives the credibility of the message source and does not reflect any information onto the message itself. In other words, the recipient of the information believes that the source of information is trustworthy and competent (Cacioppo, Petty, Kao, & Rodriguez, 1986). Thus, a factor for vlog viewers in evaluating the usefulness of recommendations is whether they trust the source of information. If the consumer believes the vlog recommendations are provided by high-credibility individuals, he or she will then

have a higher perception of the usefulness of those recommendations. Lee and Park (2009) observed that the source credibility of information providers is important for audiences. Researchers find that the information provider has significant influence on the preference and decisions of consumers (Herr, Kardes, & Kim, 1991). If people regard it as credible, it likely has a greater impact on their behavior (Chu & Kamal, 2008).

The three popular dimensions of source credibility have been perceived trustworthiness, expertise, and attractiveness; these were developed by Ohanian (1990) and agreed to generally and reliably by many researchers (Fogg & Tseng, 1999; Hovland, Janis, & Kelley, 1953). Ohanian (1990) also pointed out that the problems with these previous scales are 1) there is no consistency between authors in terms of the quantity and type of source credibility, and 2) there is no assessment of the reliability and validity of the scale, with very few exceptions. Recent studies have discovered that higher levels of trustworthiness lead to better outcomes (Pornpitakpan, 1998; Pornpitakpan, 2002). Furthermore, the relationship between source credibility and attitude has been proved by market researchers. The report by Hovland et al. (1953) demonstrates the positive impact of expertise and trustworthiness on attitudes by studying previous research findings. Recently, several empirical studies from different backgrounds have also identified the importance of source expertise, trustworthiness, and attractiveness in influencing attitudes about and acceptance of information (Sussman & Siegal, 2003; Pornpitakpan, 2004; Cheung, Lee, & Rabjohn, 2008).

***Trustworthiness.*** Ohanian (1991) defines trustworthiness as the “consumer’s confidence in the source for providing information in an objective and honest manner” (p. 47). In the present study, the source here refers to vloggers who recommend products or services in their vlogs. When a source is perceived as trustworthy and knowledgeable, the message will be more persuasive in affecting individuals’ attitudes than when the source is considered less trustworthy (Ohanian, 1990; Pornpitakpan, 2003). In general, audiences perceive digital celebrities, including vloggers, as more credible than traditional celebrities (Bianchi, 2016; Djafarova & Rusworth, 2017), perhaps because they are considered more honest and transparent in delivering information about products (Wiley, 2014). For example, Ananda and Wandebori (2016) found that the credibility of vloggers is predictive of the positive attitudes and willingness of consumers.

Previous studies have shown that the relationship between trust and perceived usefulness is also positive, and this trust increases the degree of perceived usefulness (Gefen et al., 2003). The indirect impact stems from the fact that trust can influence the use of social media through perceived usefulness, thereby reducing risk and increasing trust, and then user's attitudes and intentions (Han & Windsor, 2011).

*H1: Perceived trustworthiness has a positive effect on consumer's purchase intention.*

**Expertise.** Perceived expertise is described as “the extent to which a communicator is perceived to be a source of valid assertions.” (Hovland et al., 1953, p. 21), also refers to how much valid information a communicator can provide for an audience (Pornpitakpan, 2003). When a person is considered to have extensive experience and knowledge of a product, he or she is considered to be an expert who is willing to communicate this information honestly (Gilly, Graham, Wolfenbarger, & Yale, 1998; Lüthje, 2004). This study addresses vlog viewers' perceptions of recommendations about products and their ability to make meaningful evaluations. Previous research investigated source expertise in persuasive communication and prevalently indicates the positive influence of perceived expertise on attitude change (Horai, Naccari, & Fatoullah, 1974; Maddux & Rogers, 1980; Mills & Harvey, 1972). It is worth noting that consumers are more likely to believe vloggers who are not sponsored by the company instead of company-sponsored vloggers (Fred, 2015).

*H2: Perceived expertise has a positive effect on consumer's purchase intention.*

**Attractiveness.** The third dimension of credibility relates to the attractiveness of the communicator (Eisend, 2006). Numerous studies in the field of advertising and communication have reported that appearance attraction is an important clue to one's initial judgment of another person. Crocker (1989) and Erdogan (1999) both found that attractiveness positively affects shaping attitude towards products in advertisements. Pornpitakpan (2004) found that attractiveness has a positive effect on purchase intention. A further motivation is that attraction has become an important factor as celebrities are increasingly used as spokespersons for products, services, and/or social undertakings (Baker & Churchill, 1977; Caballero, Lumpkin, & Madden, 1989; Caballero & Solomon, 1984; DeSarbo & Harshman, 1985; Patzer, 1983). If an attractive figure supports a product/brand in

an advertising, consumers may also have a positive feeling about the product/brand. Thus, this study examines whether the vlog viewers are more likely to consider opinions and assessments of vloggers who are attractive physically.

Recent studies have pointed to the importance of source credibility in attitudes, information adoption, or purchase intention (Sussman & Siegal, 2003; Pornpitakpan, 2004; Jin, Cheung, Lee, & Chen, 2009). In a detailed review from Joseph (1982), he summarizes experimental evidence of the impact of attractive communicators on perceptions about product evaluations. His conclusion is that attractive (as opposed to unattractive) communicators are always more popular and have a positive impact on the products that are relevant to them. Additionally, his finding is consistent with others that report that increasing the communicator's attractiveness can strengthen positive attitude change. According to Loggarenberg et al. (2009), communicators who are considered to be attractive are more likely to lead purchase intention.

Therefore, in this study, the researcher conceptualizes credibility as a three-dimensional construct, with attractiveness, expertise, and trustworthiness as distinct dimensions.

*H3: Perceived attractiveness has a positive effect on consumer's purchase intention.*

### **Technology acceptance model (TAM) and new product adoption**

Based on the relevant literature, the theory of reasoned action (TRA) (Fishbein & Ajzen, 1975) is acknowledged as the common theory to explain the attitudes of existence (individuals' positive and negative feelings about specific behaviors) and behavioral intentions. Moreover, the TAM, developed from the TRA, has been widely used in research predicting online shopping users' behavior. The TAM is an augmentation of the TRA (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975) for predicting acceptance of information systems (Davis, Bagozzi, & Warshaw, 1989).

Research predicting online shopping users' behavior has also used TAM. Vijayasarathy (2004) extended the model to predict consumer behavioral intentions in online shopping. The behavioral intention to purchase a new product or service is decided by the attitude toward the product or service and its perceived usefulness, whereas attitude can be influenced by the perceived usefulness and perceived ease of use (Bhattacharjee, 2001; Gefen et al., 2003;

Gefen & Straub, 2000). Then TAM was applied and extended (Koufaris, 2002) by adding consumer perception of enjoyment to perceived usefulness and perceived ease of use as predictors of intention to return to the Internet for future shopping.

Due to the existence of TAM, people's perception of the digital product and the experience of watching a vlog may be formed during the participation process. To explain user behavior, perceived usefulness and perceived enjoyment are included as important factors. To gain trust and eliminate the risks of shopping online, consumers are increasingly finding information from blogs and vlogs. In addition, blog suggestions are considered more reliable and valuable than business advice (Wu, 2011). Since blogging/vlogging is a voluntary behavior created to achieve social interaction, this study assumes that usefulness and enjoyment are factors that reflect a user's belief in blog usage (Hsu & Lin, 2008).

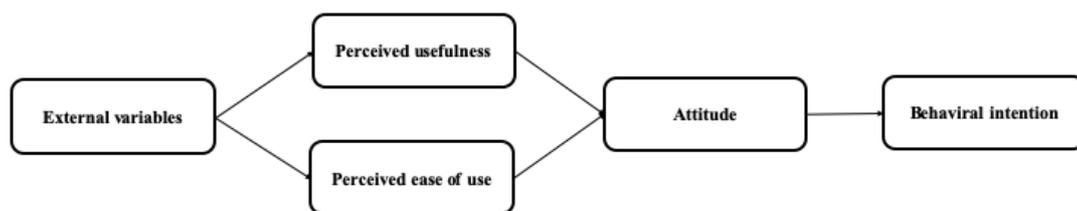


Figure 1. Technology acceptance model (original)

When a new technology product is launched, consumers go through a process that allows them to adopt it and accept innovation. Rogers (1962) argues that consumers can be divided based on the level of technology adoption and he elaborates on the diffusion of innovations theory (Figure 2). The chart itself represents a consumer group that adopts technological innovation. It is believed that innovators, early adopters, and early majority groups are consumer groups who adopt innovation in the initial stages of the product life cycle, while they occupy only a small market share. By contrast, late majority and laggards are consumer groups who adopt innovative products only when they reach the maturity stage of their life cycle.

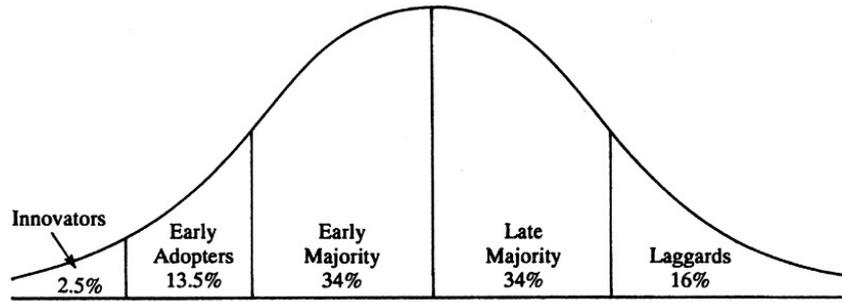


Figure 2. Diffusion of Innovations Theory

The findings of past research studying adoption of new digital products found that age and income are the main influencing factors (Bayus et al., 2003). Specifically, this means consumers with higher incomes and younger consumers are more likely to be among the innovators and early adopters.

### Attitude towards vlogs

Attitude is an evaluative judgment, describing the beliefs and feelings consumers perceive about a particular object (Kardes, Cronley, & Cline, 2011). In the vlog context, an attitude can be considered as the expected feelings of vlog viewers (potential consumers) toward a new product, and the degree to which consumers expect the performance of a certain device to be satisfying. Prior research has found that determinants such as perceived usefulness and perceived ease of use influence behavioral intention through attitude. Bhattacharjee (2000) and Kim et al. (2011) pointed out an important relationship between attitude and behavioral intention.

This study has combined the TRA (Fishbein and Ajzen, 1975) with TAM (Davis, 1989) to understand factors that influence consumer attitudes about vlogger recommendations. While TRA has a huge impact on interpreting the relationships between attitude, intention, and behavior, TAM theorizes that an individual's behavioral intention to adopt a particular piece of technology is determined by the audience's attitude toward the use of the technology. Therefore, current research built on previous research by TAM and TRA to explain consumer attitudes toward products and services recommended by vloggers.

*H4: Perceived trustworthiness positively influences attitude towards online activities (e.g. sharing, liking/disliking, following/unfollowing).*

*H5: Perceived expertise positively influences attitude towards online activities (e.g. sharing, liking/disliking, following/unfollowing).*

*H6: Perceived attractiveness positively influences attitude towards online activities (e.g. sharing, liking/disliking, following/unfollowing).*

*H7: A positive attitude toward vlogs has a positive influence on purchase intention towards online shopping.*

*H8: A positive attitude toward vlogs has a positive influence on consumer engagement towards online shopping.*

### **Perceived usefulness of vlogger's recommendations**

Based on TAM, perceived usefulness is defined as “the degree to which a person believes that using a particular system would enhance his or her job performance” (Davis, 1989). Within TAM proposed by Davis (1986), perceived usefulness is a major factor in human behavior. In the context of vlogs, this study redefined perceived usefulness to be when a vlog viewer believes a vlogger's recommendations and comments would strengthen his or her purchase intention, especially when purchasing new or expensive products. It is commonly explained that individuals feel uncertain and tend to look for a vlogger's recommendations to reduce the risk of their purchase intentions when buying new or expensive products (Burkhardt & Brass, 1990; Brown & Reingen, 1987; Kotler & Makens, 2010).

Prior studies of bloggers indicate that readers refer to a blogger's recommendations (perceived as useful) prior to purchasing a product (Hsu & Tsou, 2013). The definition also applies to vlogs on the relevant information provided previously. Vlogs may help viewers purchasing certain products based on the relevant information provided. According to Mir and Rehman (2013), perceived usefulness affects the attitude of online users in cognitive aspects. Some other previous studies have validated that perceived usefulness has a significant effect on a consumer's intention (Hsu & Lu, 2004; Lin & Lu, 2000; Yu et al., 2005).

*H9: A consumer's perceived usefulness of vlogger's recommendation will positively affect his/her purchase intention towards online shopping.*

*H10: A consumer's perceived usefulness of vlogger's recommendation will positively affect his/her engagement towards online shopping.*

*H11: A consumer's perceived usefulness of vlogger's recommendation will positively affect his/her attitude towards online shopping.*

### **Perceived enjoyment of vlogger's recommendations**

Davis et al. (1989) introduced the concept of perceived enjoyment to model the role of intrinsic motivation. They reported that perceived enjoyment and perceived usefulness had a significant effect on behavioral intention. Perceived enjoyment is defined as “the extent to which the activity of using the technology is perceived to be enjoyable in its own right, apart from any performance consequences that may be anticipated.” In the vlog context, perceived enjoyment is defined as how much positive emotion is felt when watching a vlog. Perceived enjoyment is considered to be a strong variable to capture the affective aspect or reaction of an individual (Koufaris, 2002). Heijden (2003) added perceived enjoyment and verified that it positively affected an adopter's attitude and behavioral intention toward personal adoption.

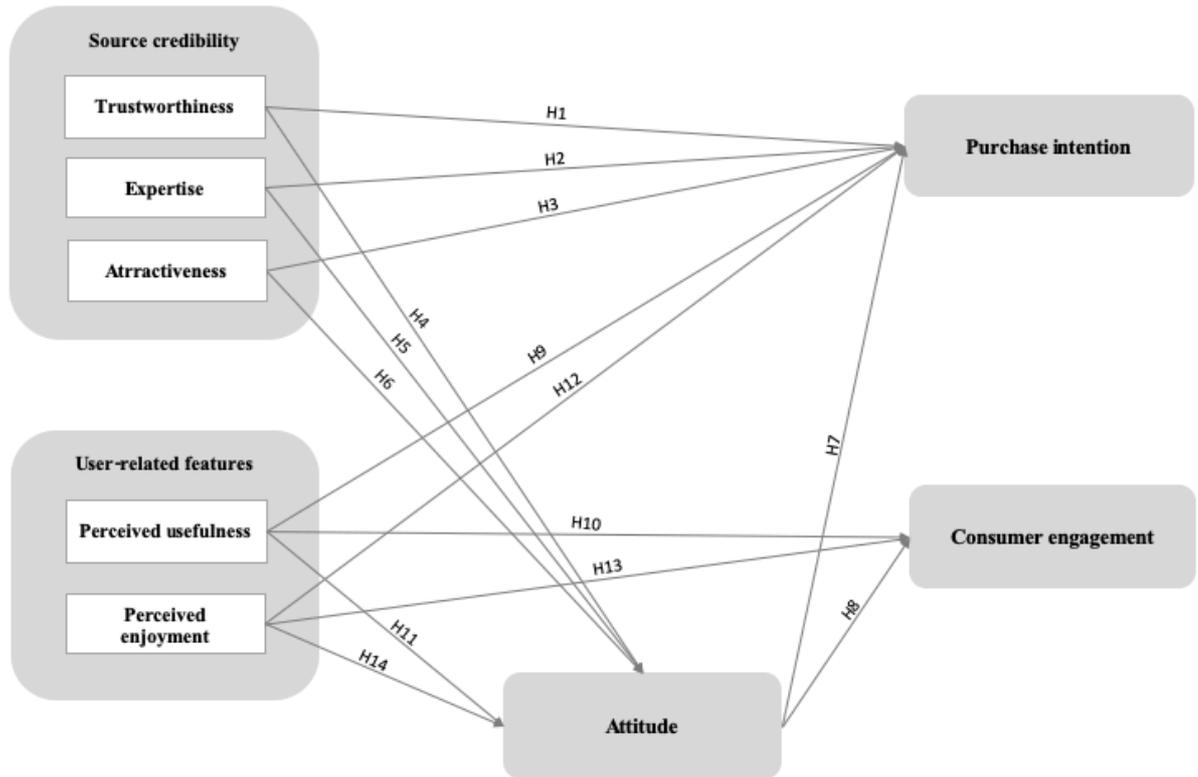
*H12: A consumer's perceived enjoyment of vlogger's recommendation will positively affect his/her purchase intention towards online shopping.*

*H13: A consumer's perceived enjoyment of vlogger's recommendation will positively affect his/her engagement towards online shopping.*

*H14: A consumer's perceived enjoyment of vlogger's recommendation will positively affect his/her attitude towards online shopping.*

## Conceptual model

To provide an overview of this research, all elaborated hypotheses in the previous section are plotted in the following conceptual model, as shown in *Figure 2*.



*Figure 2. Conceptual model*

## **Method**

### **Research design and procedures**

The research used an online questionnaire to examine the proposed model. The first section of the survey was composed of questions concerning demographic information about the respondents (e.g., gender, age, nationality, education level, English level, time of been abroad experience of viewing vlogs, experience of following vlogger's recommendation and interested degree) (see Appendix 1). Experience with viewing vlogs and following vlog's recommendations were also included in the first section. In the second section of the survey, a brief introductory material will be shown to the participants at the beginning of the survey in order to investigate the reaction of participants with vlogger and vlog. The final part contained items used to measure factors from the extended model. A five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree), was used in constructing the survey.

### **Pre-test**

The questionnaire was pre-tested by 5 participants before the main study to determine whether all the related information and survey items could be understood. These respondents did not take part in the final survey. They suggested some minor changes in the wording of some items and the questionnaire's format and indicated no problems with its length or the time needed to complete it. After the pre-test, some modifications were made based on the suggestions they provided.

### **Data collection**

This study used the method of an online questionnaire to collect data, which supports the quantitative testing of all hypotheses. The survey was conducted over 20 days in the summer of 2019. The intended population of this study mainly focused on adults aging from 18 to 35 with no further nationality restrictions because young adults use social media such as blogs or vlogs frequently and they make up the majority of consumers who follow fashion product information on social media and video vlogs on YouTube (Huang et al.,2008; Pixability, 2015; Sutanto & Aprilningsih, 2015). The average time for all the survey questions was 10

minutes. Convenience and snowball sampling were adopted for data collection. Convenience sampling was conducted by approaching the potential participants based on convenience to contact them. In addition, snowball sampling was adopted to require some participants to distribute the questionnaire to other relevant people. The focal product is Apple AirPods 2 which is categorized in a featured digital product, participants watched a vlog of reviewing the Apple AirPods 2 that is publicly available on the YouTube channel. The length of the clip is 6 minutes and 9 seconds. The vlogger in the clip is Marques Brownlee, a vlogger of some renown concerns on digital products on YouTube.

A total of 286 respondents filled in the online survey. All the participants participated voluntarily and were not compensated for their participation. 262 of the responses were included to further analysis while 24 were still in progress before finishing data collection. Of these participants, 13 gave incomplete answers, 8 was under the required English level, and 9 had seen the vlog before. These participants were not taken into account, leaving a total of 232 participants, of whom 85 were males (36.6%) and 140 females (60.3%), aged between 18 and 35 years. Most of the participants were highly educated (less than Bachelor = 19.1%, Bachelor = 40.9%, Master = 36.6%, higher than Master = 3.4%). Further demographic information is presented in Table 1. Respondents who have known or searched Apple AirPods 2 on the internet before were over a half, for 50.9% and 49.1% respectively for yes and no. Experience with vlogs was also measured as part of demographic characteristics. In a survey question, respondents were asked about how many times their experiences with viewing vlogs before making a purchase decision. The result was varied from 23.7% never experienced, 32.8% 1-2 times, 17.7% 3-4 times, 6.9% 5-6 times and 19% more than 6 times. From this data, it could be concluded that the sample mostly (76.3%) had the experience with viewing vlogs before purchasing a product in the past 6 months. On another survey question, respondents were asked about how many times their experience with following vlogger's recommendation of a product. The result was distinguished by 31% never experienced, 40.2% 1-2 times, 14.2% 3-4 times, 3.4% 5-6 times and 10.8% more than 6 times, which showed 71.2% participants barely followed vlogger's recommendations.

**Table 1.** *Summary of Demographic Characteristics (N=232)*

Measure	Items	Frequency	Percentage
Age	Mean	25.5	
	SD	3.1	
Gender	Male	85	36.6%
	Female	140	60.4%
	Prefer not to say	7	3.0%
Education Level	Lower than bachelor	44	19.1%
	Bachelor	95	40.9%
	Master	85	36.6%
	Higher than master	8	3.4%
Time of been abroad	Never	54	23.3%
	For 3 months or less	49	21.1%
	For 4-6 months	27	11.6%
	Over 6 months	102	44.0%
Experience with viewing vlogs	Never	55	23.7%
	1-2 times	76	32.8%
	3-4 times	41	17.6%
	5-6 times	16	6.9%
	More than 6 times	44	19.0%
Experience with following vlogger's recommendation	Never	72	31.0%
	1-2 times	94	40.5%
	3-4 times	33	14.3%
	5-6 times	8	3.4%
	More than 6 times	25	10.8%
Experience with searching Apple AirPods 2 online	Yes	118	50.9%
	No	114	49.1%
Degree of being interested in Apple AirPods 2	Not at all interested	59	25.4%
	Slightly interested	64	27.6%
	Moderately interested	39	16.8%
	Extremely interested	54	23.3%
	Very interested	16	6.9%

## Measurement

To develop scales for measuring constructs for source credibility (trustworthiness, expertise and attractiveness), perceived usefulness of vlogger's recommendations, perceived enjoyment of vlogger's recommendations, attitude, consumer engagement and purchase intention, some measurement items have been utilized from existing validated scales from past researches (Davis, 1989; Doney & Cannon, 1997; Feick & Higie, 1992 ; Ohanian, 1990; Lim *et al.*, 2006, Hsu *et al.*, 2013; Mortazavi, Esfidani & Barzoki, 2014), the others were generated by the researcher specifically for the context of vlogs. Each item was slightly modified to suit the context of vlogs. Besides the scales for measuring constructs, the survey had several items to measure the respondents' demographic characteristics, including gender, age, nationality, education level, English level, time of been abroad. The complete questionnaire can be found in Appendix 3.

### *Purchase intention*

The items for measuring purchase intention were adapted from earlier researches (Mikalef *et al.*, 2013; To *et al.*, 2007; Hsu & Tsou 2011; Vogelgesang, 2003; Zaichkowsky, 1985; Dessart, Veloutsou, & Morgan-Thomas, 2016; Fred, 2015). The scales were characterized by 5-point Likert items used to measure the inclination of a consumer to buy Apple AirPods 2 ( $M=2.57$ ,  $SD=0.77$ ,  $\alpha=.82$ ). And included statements: 1. "I would consider buying the product after watching this vlog." 2. "I would recommend the product to others after watching this vlog." 3. "I intend to buy the product after watching this vlog." 4. "I intend to buy the product after watching this vlog in the near future." 5. "I would not consider the product as my first choice." 6. "I would not consider it is worthwhile to buy the product."

### *Consumer engagement*

Consumer engagement of the respondents was measured combining the scale adapted from Vivek *et al.* (2014) and Fred (2015). Fred (2015) used statements to assess how general consumer can involve in online interaction or activities towards a specific product. Vivek *et al.* (2014) examined consumer involvement using scales composing five-point Likert statements that were intended to measure a person's reaction with online social communication activities. Consumer engagement ( $M=3.07$ ,  $SD=0.88$ ,  $\alpha=.91$ ) was measured by four items: 1. "I intend to follow the vlogger after I watch the vlog." 2. "I intend to

interact with the vlogger through commenting.” 3. “I intend to share the vlog with my friends in the near future.” 4. “I intend to watch another vlog of the vlogger in the near future.”

#### *Attitude*

The items to measure attitude toward the vlog were adapted and modified from existing research by Bagozzi & Dholakia (2006) and Vogelgesang (2004). The construct was found to be reliable ( $\alpha = .74$ ). The statements included were: 1. “I have positive feelings when watching the vlog.” 2. “I feel comfortable when watching the vlog.” 3. “Watching the vlog is not a pleasant experience.” 4. “Recommendation of the product in the vlog will not have favorable consequences.”

#### *Trustworthiness*

To measure trustworthiness of vloggers, respondents had to rate if they disagree or agree (1 till 5) with four constructs (Feick & Higie, 1992; Ohanian, 1990; Fred, 2015), The construct was found to be reliable ( $\alpha = .72$ ). The statements included were: 1. “The vlogger in the vlog is trustworthy.” 2. “The vlogger in the vlog is honest.” 3. “The vlogger in the vlog is unreliable.” 4. “The vlogger in the vlog is insincere.”

#### *Expertise*

To measure expertise of vloggers in an online environment, Fred (2015) employed multi-item scale from Ohanian (1990) and Feick and Higie (1992). This scale was modified to the vlog context and 4 statements included: 1. “The vlogger in the vlog is skillful about the product.” 2. “The vlogger in the vlog is knowledgeable about the product.” 3. “I would consider the vlogger inexperienced in giving advice about the product.” 4. “I would consider the vlogger unqualified in giving advice about the product.” The construct proved to be reliable ( $\alpha = .74$ ).

#### *Attractiveness*

Fred (2015) employed multi-item scale from Ohanian (1990) and Feick and Higie (1992) to measure attractiveness in an online environment. This scale is modified to the vlog context and 4 statements included: 1. “The vlogger in the vlog is attractive.” 2. “The vlogger in the vlog is credible.” 3. “The vlogger in the vlog is boring.” 4. “The vlogger in the vlog cannot absorb my attention.” According to the result of reliability analysis summarized in table 2, the Cronbach’s Alpha of Attraction was 0.65 after the deletion of statement “The vlogger in

the vlog is attractive”. Before this deletion, the Cronbach’s Alpha was .63, so this mentioned item was excluded for further factor analysis.

#### *Perceived usefulness*

Perceived usefulness was measured through the usefulness of the object scale by Davis (1989), Doney & Cannon (1997) and Hsu & Lin (2008). The scale, which consists of five-Likert statements, is designed to measure the extent to which a person believes that viewing the vlog will improve their efficiency and effectiveness ( $M=3.42$ ). The Cronbach’s Alpha for perceived usefulness is just above 0.6, considering the results of reliability analysis, the research kept one construct “Vloggers’ recommendations would make it easier to make an online shopping decisions” that best representing the meaning of perceived usefulness to do further analysis.

#### *Perceived enjoyment*

The items to measure perceived enjoyment ( $M=3.59$ ,  $SD=0.68$ ,  $\alpha=.82$ ) toward the vlog were based on the constructs adapted from earlier work (Doney & Cannon, 1997; Ghani et al., 1991; Koufaris et al., 2002). 4 statements were included: 1. “Watching this vlog is enjoyable.” 2. “Watching the vlog is a leisure activity.” 3. “It is not interesting in watching this vlog.” 4. “It is not exciting in watching this vlog.”

### **Data analysis**

The analysis of the study started after merging and importing the data into SPSS 25. The analysis consisted of different frequency and descriptive tables, and reliability analysis (Cronbach’s alpha), a correlation analysis, and model testing by a regression analysis. Several descriptive results and the reliability analysis were addressed in this method section already. Reliability was test using Cronbach’s alpha, which is essential to decrease error in the dataset for further analysis. Kline (2015) recommend the level of Cronbach's Alpha 0.7 or more represents the excellent reliability, 0.6-0.7 is acceptable.

**Table 2. Reliability Analysis**

Measurement	No. of Items	Mean	Std Deviation	Cronbach's alpha
Trustworthiness	4	3.73	0.52	.72
Expertise	4	3.77	0.56	.74
Attractiveness	3	3.60	0.60	.65
Perceived Usefulness	1	3.42	0.53	/
Perceived Enjoyment	4	3.59	0.68	.82
Attitude Consumer	4	3.55	0.58	.74
Engagement	4	2.57	0.77	.81
Purchase Intention	6	3.07	0.88	.91

The results of the correlation analysis and regression analysis were stated in the next section. Structural equation modeling was applied to test the hypotheses and relations presented in the research model by using AMOS.

## Results

### Correlations

Pearson correlation analysis was conducted to measure the correlations between each variables. Pearson correlation ( $r$ ) measures the amount of change in a variable that is explained by a linear relationship with another variable (Aljandali, 2016). If the two variables are completely linearly-related, the correlation indicates 1. A value of 0 indicates no linearity between the two variables, and value of -1 defines a perfect descending correlation. If the value indicates between 0 -1, it means a linear relationship existing among the variables in some extent.

Table 4 shows an overview of the correlations of all variables. Consumers' attitude toward Apple AirPods 2 is strongly correlated with the vlogger's attraction ( $r=.599, p<.01$ ) and perceived enjoyment ( $r=.680, p<.01$ ). Consumer engagement ( $r=.533, p<.01$ ) also proven to be strongly correlated with purchase intention by this study.

The results showed that attractiveness of vloggers is an influential variable since there are three correlations above 0.4 between attractiveness and other variables (trustworthiness, expertise, perceived enjoyment and consumer's attitude). The same also goes with perceived enjoyment, four correlations above 0.4 including attractiveness ( $r=.541, p<.01$ ) consumer's attitude ( $r=.680, p<.01$ ), consumer engagement ( $r=.473, p<.01$ ) and purchase intention ( $r=.451, p<.01$ ).

According to the results, there are some correlations among demographical features. For instance, gender of vloggers has a negative correlation with perceived usefulness ( $r=-.181, p<.05$ ) while positive but weak correlation with consumer engagement ( $r=.141, p<.05$ ) and purchase intention ( $r=.136, p<.05$ ). In regard to experience with viewing vlogs before purchasing, as the times consumers view vlogs increase, respondents are more likely to engage or buy the product. Moreover, on the contrary of expectations, the correlations between experience with searching Apple AirPods 2 online and consumer engagement ( $r=-.202, p<.01$ ) as well as purchase intention ( $r=-.328, p<.01$ ) are negative. Moreover,

participants' interested degree with Apple AirPods 2 do have significant correlations with several variables, such as perceived enjoyment ( $r=.131, p<.05$ ), attitude ( $r=.130, p<.05$ ), consumer engagement ( $r=.157, p<.05$ ), and purchase intention ( $r=.285, p<.01$ ).

**Table 5. Correlation Analysis**

	GEN	AGE	TV	TF	SE	IN	TR	EX	AT	PU	PE	AU	CE	PI
Gender	1													
Age	0.061	1												
Times_viewing	0.077	0.066	1											
Times_following	0.037	0.109	.654**	1										
Searched	-0.06	.183**	-.237**	-.179**	1									
Interested degree	0.038	0.112	.219**	.238**	-.235**	1								
Trustworthiness	0.045	-0.08	-0.045	-0.086	-0.05	0.066	1							
Expertise	-0.074	-0.018	-0.065	-0.083	0.003	-.143*	.489**	1						
Attractiveness	-0.035	-0.061	-0.059	-0.106	-0.013	0.005	.416**	.508**	1					
Perceived usefulness	-.181**	-0.101	-0.108	-0.056	0.039	0.034	.307**	.442**	.362**	1				
Perceived enjoyment	-0.064	-0.09	0.087	0.08	-.151*	.131*	.286**	.279**	.541**	.238**	1			
Attitude	-0.012	-0.02	0.086	0.026	-0.11	.130*	.464**	.433**	.599**	.373**	.680**	1		
Consumer engagement	.141*	-0.072	.256**	0.104	-.202**	.157*	0.111	-0.027	.217**	0.019	.473**	.344**	1	
Purchase intention	.136*	-0.066	.249**	0.108	-.328**	.285**	0.117	-0.025	.231**	.137*	.451**	.415**	.553**	1

\*\* Correlation is significant at the .01 level (2-tailed).

\* Correlation is significant at the .05 level (2-tailed).

**Table 3. Correlation Analysis**

## Model testing

Regression analysis summarized the correlations or relationships between one variable to another. Multiple hierarchical regression analysis and structural equation modeling (using Amos 20.0) were conducted to test the proposed hypotheses (Figure 2).

The multiple hierarchical regression was executed into three steps. The first model aimed to test the variables which were derived from TAM and source credibility constructs to predict consumer's purchase intention. The second model was to test proposed variables derived from TAM to predict consumer engagement. The third model tested all independent variables included in the first model to predict attitude.

Table 4 shows the summary of regression models by comparing the values of R-squared, standard error and F-value change. The outcome of this analysis for Model 1a, was  $F(6, 225) = 14.438, p=.000$ . And for Model 1b, was  $F(3, 228) = 23.613, p=.000$ . Since both P-value are smaller than 0.05, it can be assumed that based on this data, there is a significant effect on the variance of purchase intention. Model 1a indicated that 27.8% ( $R^2=.278$ ) of the variance in Purchase Intention could be explained by 6 variables mentioned in Table 4.1, which increased to 40.2% ( $R^2=.402$ ) by adding demographical features (gender, age, experience with viewing vlogs and following vlogger's recommendation, experience with searching and degree of interest in Apple AirPods 2) in model 1b. The outcome of this analysis for Model 2a, was  $F(3, 228) = 23.613, p=.000$ . And for Model 2b, was  $F(9, 222) = 11.403, p=.000$ . Model 2a would also increase the amount of variance to 31.6% ( $R^2=.316$ ) to explain Consumer Engagement by adding demographic characteristics. The outcome of this analysis for Model 3a, was  $F(5, 226) = 66.147, p=.000$ . And for Model 3b, was  $F(11, 220) = 30.965, p=.000$ . Model 3a presented the highest variance among another model to explains the relationship of all variables with Attitude, with a total variance of 60.8% ( $R^2=.608$ ) after adding demographic characteristics.

**Table 4. Regression Model Summary**

Model	Std. Error	R <sup>2</sup> change	F change
1a	0.759	.278	14.438
1b	0.700	.124	7.554
2a	0.681	.237	23.613
2b	0.653	.079	4.279
3a	0.376	.594	66.147
3b	0.375	.014	1.262

*Regression analysis to predict Purchase Intention*

Table 4.1 exhibits the standardized coefficients beta, t-value, and significance of all constructs in the hierarchical models tested. The analysis supports the paths of the technology acceptance model in model 1b but the influence of perceived usefulness is weak than the other 2 variables. The highest standardized coefficients which also indicated strong significance predicting purchase intention was perceived enjoyment ( $\beta=.283, p<.001$ ), followed by Expertise ( $\beta=-.222, p<.01$ ), attitude ( $\beta=.220, p<.01$ ). Age had a slight positive relationship with purchase intention ( $\beta=.140, p<.05$ ) while experience with searching vlogs before relates negatively ( $\beta=-.203, p<.001$ ). Trustworthiness and attractiveness, and other demographic characteristics, such as gender, experience with following presented the insignificant regression with Purchase Intention.

**Table 4.1 Regression Coefficients for Factors Influencing Purchase Intention**

		$\beta$	t-value	Sig.
Model 1a	(Constant)			
	Trustworthiness	.003	.048	.962
	Expertise	-.271	-3.680	<b>.000</b>
	Attractiveness	-.004	-.048	.962
	Perceived usefulness	.074	1.137	.257
	Perceived enjoyment	.309	3.863	<b>.000</b>
	Attitude	.294	3.312	<b>.001</b>
R <sup>2</sup> =.278, F(6, 225) = 14.438, p=.000				
Model 1b	(Constant)			
	Trustworthiness	-.036	-.549	.583
	Expertise	-.222	-3.159	<b>.002</b>
	Attractiveness	.025	.336	.737

Perceived usefulness	.131	2.103	.057
Perceived enjoyment	.283	3.745	<b>.000</b>
Attitude	.220	2.640	<b>.009</b>
Gender	-.012	-.217	.829
Age	.140	2.594	<b>.010</b>
Times_viewing	.211	2.976	<b>.003</b>
Times_following	-.139	-1.959	.051
Searched	-.203	-3.554	<b>.000</b>
Interested degree	.120	2.079	<b>.039</b>

R<sup>2</sup>=.402, F(12, 219) = 12.258, p=.000

*Regression analysis to predict Consumer Engagement*

The results of the hierarchical regression for predicting Consumer Engagement is presented below. Only perceived enjoyment is supported with  $\beta=.441$ ,  $p<.001$ . The influence of perceived usefulness and attitude is non-significant. In contrast to the outcomes for Model 1b, attitude presented to be an insignificant predictor with  $\beta=.032$ ,  $p>.05$ . In regard to demographical features, the influence of consumer's experience with viewing vlogger's recommendation is proved to be significant with their engagement ( $\beta=.259$ ,  $p<.01$ ) as well as age ( $\beta=.142$ ,  $p<.05$ ) while others are not significant.

**Table 4.2** Regression Coefficients for Factors Influencing Consumer Engagement

		$\beta$	t-value	Sig.
Model 2a	(Constant)			
	Perceived usefulness	-.119	-1.902	.058
	Perceived enjoyment	.443	5.606	<b>.000</b>
	Attitude	.087	1.048	.296

R<sup>2</sup>= .237, F(3, 228) = 23.613, p=.000

Model 2b	(Constant)			
	Perceived usefulness	-.055	-.894	.373
	Perceived enjoyment	.441	5.720	<b>.000</b>
	Attitude	.032	.398	.691
	Gender	-.044	-.751	.453
	Age	.142	2.487	<b>.014</b>
	Times_viewing	.259	3.441	<b>.001</b>
	Times_following	-.130	-1.746	.082
	Searched	-.062	-1.023	.308
	Interested degree	.056	.946	.345

R<sup>2</sup>= .316, F(9, 222) = 11.403, p=.000

*Regression analysis to predict Consumer's Attitude*

The variance of model 3b can be explained by 59.45% by trustworthiness, attractiveness, perceived enjoyment and usefulness. Standardized coefficients showed perceived enjoyment is a significant predictor which had a relatively high influence on attitude ( $\beta=.479, p<.001$ ). Also, the prediction of perceived usefulness derived from TAM ( $\beta=.122, p<.05$ ) are supported. Trustworthiness ( $\beta=.174, p<.001$ ) and attractiveness ( $\beta=.195, p<.05$ ) are proved to be another two significant predictors for attitude, only expertise is rejected, which are not conforming the stated hypothesis. Furthermore, the influence of all demographical features is not supported.

**Table 4.3** *Regression Coefficients for Factors Influencing Attitude*

		$\beta$	t-value	Sig.
Model 3a	(Constant)			
	Trustworthiness	.182	3.628	<b>.000</b>
	Expertise	.067	1.213	.226
	Attractiveness	.191	3.332	<b>.001</b>
	Perceived usefulness	.104	2.154	.032
	Perceived enjoyment	.482	9.509	<b>.000</b>
R <sup>2</sup> = .594, F(5, 226) = 66.147, p=.000				
Model 3b	Trustworthiness	.174	3.405	<b>.001</b>
	Expertise	.076	1.339	.182
	Attractiveness	.195	3.371	<b>.001</b>
	Perceived usefulness	.122	2.466	<b>.014</b>
	Perceived enjoyment	.470	9.007	<b>.000</b>
	Gender	.057	1.275	.203
	Age	.033	.751	.453
	Times_viewing	.091	1.596	.112
	Times_following	-.042	-.740	.460
	Searched	-.018	-.388	.698
	Interested degree	.041	.877	.381
R <sup>2</sup> = .608, F(11, 220) = 30.965, p=.000				

**Structural equation modeling**

This study employed Structural Equation Modeling (SEM) with Amos 20.0 to test the hypothesized relationship among variables. Based on several fit indices, the evaluation of the

structural model yields an acceptable model fit:  $\chi^2(4) = 8.19$ ;  $\chi^2/df = 1.54$ ; the standardized root mean square residual (SRMR) = .05; the normed fit index (NFI) = .96; the Tucker-Lewis index (TLI) = .95; the root mean square error of approximation (RMSEA) = .04. As stated in previous studies, Hoe (2014) states that  $NFI > 0.90$  indicates an acceptable model fit. For TLI, Hu & Bentler (1999) suggest  $TLI > 0.95$  shows close fit,  $TLI > 0.90$  shows fair fit, and  $TLI > 0.85$  shows acceptable fit. For the RMSEA statistic, Steiger (1989) suggests values between 0.00 to 0.05 indicate close fit, Browne & Cudeck (1993) suggests values between 0.05 to 0.08 indicate fair fit and values between 0.08 to 0.10 indicate acceptable fit. And for SRMR, values  $< 0.08$  indicate appropriate model fit (Hu & Bentler, 1999).

The dependent variable purchase intention has an  $R^2$  of .28 which means the variance of purchase intention can be explained for 28% by trustworthiness, expertise, attractiveness, perceived usefulness, perceived enjoyment, and attitude. Perceived usefulness, perceived enjoyment, and attitude have an explanatory power of 24% regarding consumer engagement. In regard to attitude, trustworthiness, expertise, attractiveness, perceived usefulness, and perceived enjoyment have an explanatory power of 59%.

### **Overview of hypotheses**

Table 6 summarizes the validation of the hypotheses. According to the results, 6 out of 14 hypotheses were supported.

The first hypothesis is rejected, trustworthiness has no direct influence on purchase intention. While there is a weak positive influence on attitude by trustworthiness, thus H4 is supported. The influence of expertise on purchase intention is significant but negative, rejecting hypotheses H2. However, we did not find any influence of expertise on attitude, thus reject hypotheses H5. Attractiveness of vloggers do not influence consumers' purchase intention but attitude, hereby rejecting hypothesis H3 and supporting hypothesis H6.

Regarding to attitude, the influence on purchase is positive, thus hypothesis H7 is supported. While there is no influence can be found on consumer engagement, thus hypotheses H8 is rejected. Perceived usefulness did not influence purchase intention, consumer engagement, and attitude directly rejecting hypothesis H9 H10, and H11. While

perceived enjoyment did influence purchase intention, consumer engagement and attitude positively and significantly, confirming hypotheses H12, H13 and H14. Additionally, there is only an indirect influence of perceived enjoyment on purchase intention and consumer engagement following the path mediated by attitude.

**Table 5.** *Standardized direct, indirect and total effects*

Hypothesis	Path	Direct effects ( $\beta$ )	Indirect effects ( $\beta$ )	Total effects ( $\beta$ )
H1	Trustworthiness → Purchase Intention	.00	.05	.05
H2	Expertise → Purchase Intention	-.27	.02	-.25
H3	Attractiveness → Purchase Intention	.00	.06	.06
H4	Trustworthiness → Attitude	.18	/	.18
H5	Expertise → Attitude	.07	/	.07
H6	Attractiveness → Attitude	.19	/	.19
H7	Attitude → Purchase Intention	.29	/	.29
H8	Attitude → Consumer Engagement	.09	/	.09
H9	Perceived Usefulness → Purchase Intention	.07	.03	.10
H10	Perceived Usefulness → Consumer Engagement	-.12	.01	-.11
H11	Perceived Usefulness → Attitude	.10	/	.10
H12	Perceived Enjoyment → Purchase Intention	.31	.14	.45
H13	Perceived Enjoyment → Consumer Engagement	.44	.04	.48
H14	Perceived Enjoyment → Attitude	.48	/	.48

**Table 6. Overview of Hypotheses**

Hypothesis	Path	Validation
H1	Perceived trustworthiness has a positive effect on consumer's purchase intention.	Rejected
H2	Perceived expertise has a positive effect on consumer's purchase intention.	Rejected
H3	Perceived attractiveness has a positive effect on consumer's purchase intention.	Rejected
H4	Perceived trustworthiness positively influences attitude towards online activities (e.g. sharing, liking/disliking, following/unfollowing).	Supported
H5	Perceived expertise positively influences attitude towards online activities (e.g. sharing, liking/disliking, following/unfollowing).	Rejected
H6	Perceived attractiveness positively influences attitude towards online activities (e.g. sharing, liking/disliking, following/unfollowing).	Supported
H7	A positive attitude toward vlogs has a positive influence on purchase intention towards online shopping.	Supported
H8	A positive attitude toward vlogs has a positive influence on consumer engagement towards online shopping.	Rejected
H9	A consumer's perceived usefulness of vlogger's recommendation will positively affect his/her purchase intention towards online shopping.	Rejected
H10	A consumer's perceived usefulness of vlogger's recommendation will positively affect his/her engagement towards online shopping.	Rejected
H11	A consumer's perceived usefulness of vlogger's recommendation will positively affect his/her attitude towards online shopping.	Rejected
H12	A consumer's perceived enjoyment of vlogger's recommendation will positively affect his/her purchase intention towards online shopping.	Supported

H13	A consumer's perceived enjoyment of vlogger's recommendation will positively affect his/her engagement towards online shopping.	Supported
H14	A consumer's perceived enjoyment of vlogger's recommendation will positively affect his/her attitude towards online shopping.	Supported

### Final research model

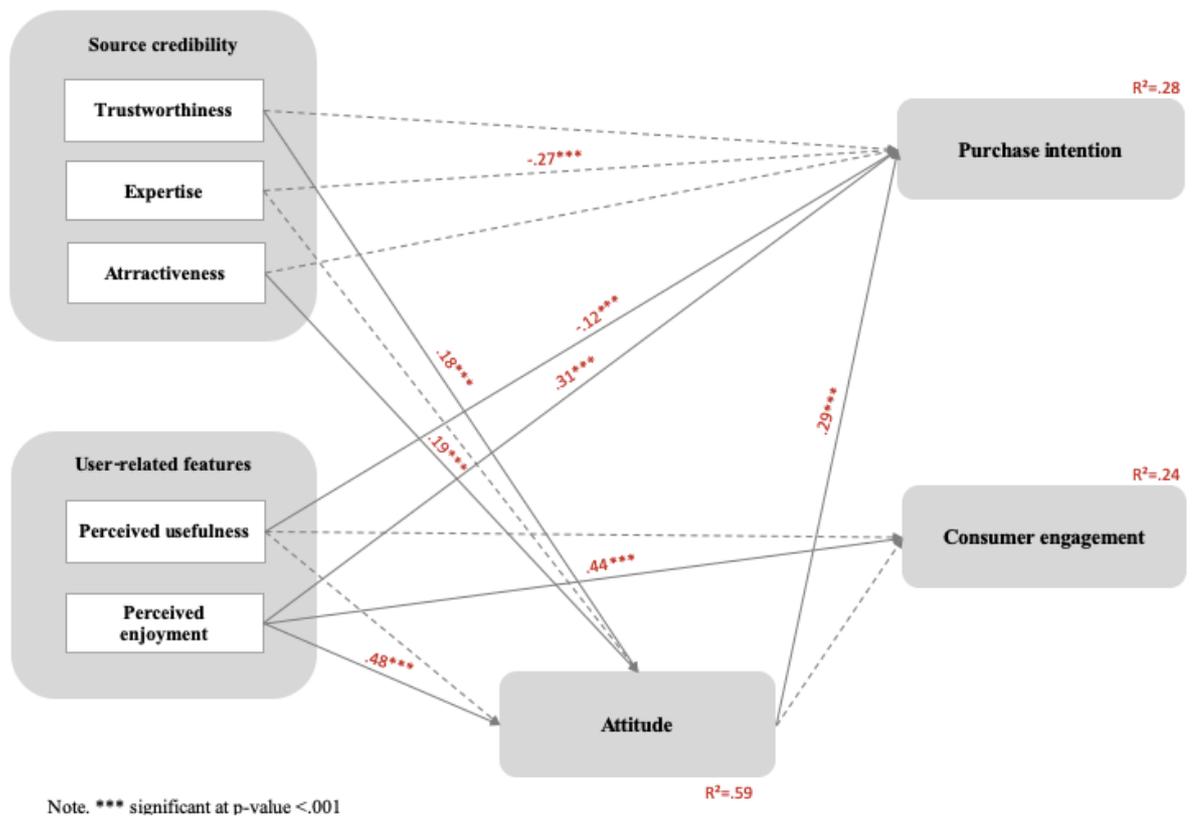


Figure 3. Final Research Model

## Discussion

The goal of this study was to investigate whether recommendations by vloggers influence consumers' purchase intentions and engagement. To determine the answers, this study was based on an extended TAM and TRA model to build the proposed research model, with the addition of several significant variables of source credibility such as trustworthiness, expertise, and attractiveness. To examine this, 14 hypotheses were formulated based on past research, an online questionnaire was distributed to respondents, and the responses were quantitatively analyzed. This chapter provides a discussion and conclusion of this research. Results of analysis are discussed, followed by the interpretation of hypothesis testing findings. Next, both theoretical and practical implications are offered, followed by the limitations and suggestions for future research.

### Discussion of results

Overall, the results indicated that the variables from those perspectives are predictive of a consumer's intention to buy Apple AirPods 2, among which expertise, perceived enjoyment, and consumers' attitude are direct predictors. However, against TAM, perceived usefulness did not affect purchase intention. Regarding attitude, attractiveness and enjoyment have a significant influence, followed by trustworthiness and perceived usefulness. Notably, perceived enjoyment is an important contributor to all three dependent variables. Attitude only mediated the relationship between perceived enjoyment and purchase intention.

#### *Source credibility*

The results of this study suggest that consumers' online shopping behavior is negatively influenced by the expertise of the vlogger, meaning that viewers' purchase intention would not increase if they perceive the vlogger as knowledgeable and skillful. This result is inconsistent with the previous study by Lee et al. (2011), who explained that the perceived expertise of online reviewers had a positive influence on consumers' purchase intentions in online shopping. In addition, expertise of the vlogger has no significant effect on attitude. This means information-seeking viewers are unlikely to change their attitude toward the

product because of professional knowledge provided in the vlog. This result is in line with previous findings by Hagel and Armstrong (1997). They found that people who search for information online are not particularly interested in expert knowledge. Instead, they prefer many suggestions from different (non-similar) groups (Hagel & Armstrong, 1997).

Trustworthiness and attractiveness moderately affects the attitude according to the results of this study, which supports the finding of Yoon, Kim, & Kim (1998) in some extent. They found that trustworthiness and attractiveness are more important dimensions of source credibility than expertise affecting consumer's attitude towards commercials. Thoumrungrroje (2014) found that the appearance of a person has a great influence on like-minded consumers.

Nonetheless, No supporting results were found for the significant effects of trustworthiness and attractiveness on purchase intention. This suggests that trustworthiness and attractiveness of vloggers cannot affect a consumer's buying intention by providing reviews about the product. The result conforms with previous findings (Ohanian, 1991; Ananda & Wandebori, 2016). Ohanian (1991, p. 52) reasoned: “. . . in advertisements most celebrities are attractive, and as such, respondents have a mindset in which attractiveness is not a determinant factor in their brand-selection decisions. Further, with the widespread use of celebrities and athletes in paid commercials, the audience does not associate a high level of trustworthiness with individuals who get paid handsomely to promote a product.” Another possible reason for the no effects of attractiveness and trustworthiness on purchase intention in Ohanian's (1991) study comes from the celebrity-product matching model. According to this model, vlogger's attractiveness had little impact on product reviews when the product was unrelated to attractiveness of the vlogger.

#### *User-related features*

Perceived enjoyment had a significant influence on three variables (purchase intention, consumer engagement, and attitude). Moreover, perceived enjoyment is the main critical predictor of influencing consumers' attitudes toward the vlog and product, which supports previous studies about TAM that found perceived enjoyment to be a significant determinant of attitude (Davis et al., 1989). This also supports hypotheses H6, H7, and H8, which provided powerful explanations that if viewers did perceive watching the vlog as enjoyable, they were more likely to interact online or even make decision-making intentions.

Based on the results, unexpectedly, not all of the TAM hypotheses are supported. There is no significant relationship between perceived usefulness and a consumer's purchase intention engagement, and attitude in the vlog context. The results are in line with previous studies (Moon & Kim, 2001), which indicated that perceived usefulness played a critical role only in work-related environments. One possible reason for these results is that the discrepancy exists between extrinsic and intrinsic motivations. The influence of extrinsic motivation and intrinsic motivation are often differentiated on individual behavior (Ryan & Deci, 2000). Ryan and Deci explained extrinsic motivation as the performance of an activity which contributes to achieving valuable outcomes such as improving job performance. While intrinsic motivation is the obvious cause of activities other than performing it (Ryan & Deci, 2000). They indicated that perceived enjoyment had a more significant effect on individuals' attitudes than perceived usefulness. In this study, perceived enjoyment is proved as the most important determinant of attitude while perceived usefulness has no significant effect. This means that the intrinsic motivational factors (perceived enjoyment) have a more powerful effect than extrinsic factors (perceived usefulness) to build a positive attitude.

#### *Attitude*

The finding shows that attitude is enhanced by the strong factor (perceived enjoyment) and two moderate factors (trustworthiness and attractiveness), which are in line with previous findings (Tan et al., 2010; Byoung et al., 2011). Perceived enjoyment is a major significant predictor of influencing consumers' attitude toward Apple AirPods 2. It means that consumers care more about how pleasant the vlog can be to influence their attitude. This also supports previous research on technology acceptance models in which perceived enjoyment has been found to be an important determinant of attitude (Davis et al., 1989). In addition, several studies indicated that trustworthiness has a significant effect on attitude (Tan et al., 2010; Byoung et al., 2011). The more trustworthy a consumer considers a vlogger to be, the more likely he or she will develop a positive attitude toward the product the vlogger recommends.

The results of this research conform with the TAM, indicating that the attitude of consumers is an influential factor when they are going to make purchase decisions. A positive attitude will have a direct influence on a consumer's purchase intention. Many of the previous studies in different fields have also demonstrated the significant effects, such as online

shopping (Pookulangara et al., 2001) and behavioral intention (Hsu & Lu, 2004; Kim et al., 2011).

#### *Demographic characteristics*

This study illustrates that gender, age, vlog experience, and degree of interest are not the direct determinants of purchase intention. These demographic characteristics (e.g., gender, experience with viewing and searching, and degree of interest) mitigated the effects of independent variables on dependent variables and did not improve predicting, so they cannot be regarded as significant factors affecting independent variables.

This study posited that the consumer's purchase intention, engagement, and attitude are positive when they are already interested in the Apple AirPods 2. This relationship explains that people who are already interested in the Apple AirPods 2 will be more likely to buy, interact, and retain a positive attitude.

In conclusion, the results indicated that the most influential determinant in consumers' purchase intention to buy Apple AirPods 2 is perceived enjoyment of the vlog, followed by attitude and expertise. Additionally, perceived enjoyment is the most significant factor in predicting consumer engagement, whereas attitude is a mediating factor that is also influenced largely by perceived enjoyment, and slightly by the attractiveness of the vlogger, trustworthiness, and perceived usefulness. Besides all the findings mentioned above, a few other aspects also need to be addressed.

Some interesting correlations among variables are revealed. The attractiveness of vloggers has a positive correlation with perceived enjoyment of watching the vlog and the expertise of vloggers, respectively. This means that the more attractive vloggers are, the more likely customers will perceive the vlogs as skillful in providing the product information. If the vlogger can convince the viewer that he or she is trustworthy, then the viewer tends to enjoy watching the video blog. Consumer engagement positively correlates with consumer's purchase intention. If a consumer decides to purchase such a product, he or she is more likely to interact with the vlogger by commenting, liking, or following while watching the review vlog.

## **Theoretical and practical implications**

Based on the findings of this research, theoretical and practical implications can be provided. From a theoretical perspective, this study bridges the knowledge gap concerning the effect of vlogs in the online shopping context, and contributes to a better understanding of the influence of the vlogs on consumers by combining the TAM, the TRA, and source credibility model. More specifically, this study identifies how consumers' perceptions of vlogs and the source credibility of vloggers are related to the vlog and explores the factors that influence viewers' purchase behavior and consumer engagement. The findings reveal that perceived enjoyment, attitude, and the expertise of vloggers are significant predictors of a consumer's decision to purchase or interact with the vlogger.

From a practical perspective, this research provides relevant companies and consumers with an understanding of the Apple AirPods 2 digital product. Vlogging is used by companies as an influential communication tool. Consumers continue to watch vlogs and share the information that is taken from vloggers even though they know that the message is coming mostly from sponsoring companies. The crucial point for the companies is to analyze vlog viewers' perceptions about different characteristics of the vlogger. If they feel that information comes from the experience of vloggers rather than a marketing strategy from companies, vlog viewers are more likely to buy and share information. Apart from improving the credibility of the vloggers and quality of the vlog, practitioners can also obtain insights into which factors should be taken into consideration when crafting strategies to promote digital products. For example, perceived enjoyment is a main predictor of intention to buy Apple AirPods 2. Vloggers can stimulate viewers' good feelings toward the vlog and product through vlogs. Furthermore, relevant companies should be aware of the importance of opinions and reviews from early adopters of digital products (vloggers), since they may generate positive or negative word-of-mouth effects. Positive reviews may be a key approach to persuade the majority of vlog viewers to buy digital products, especially during the early launch stages. Using vloggers' recommendations as an advantage may be an influential way of promoting consumers' purchase intentions. Consumers' engagement degree toward vlogs can also be increased by such marketing strategies.

## **Limitations and future research**

In addition to some interesting implications for theoretical and practical applications, this study also has some limitations due to a variety of reasons. Therefore, this section explains the limitations of this study and recommendations for future research direction.

First, this study found another important characteristic that should be measured before choosing the vloggers to promote products in vlogs is likability. Likability has been confirmed to be influential to affect intention when consumers are watching video or audio promotion (Chaiken & Eagly, 1983). Future research should investigate the relative impact of three dimensions of source credibility (trustworthiness, expertise, and attractiveness) and likability on dependent variables (e.g., attitudes and purchase intention). This is useful for making trade-offs when selecting an ad/message spokesperson because few people may get high scores in each dimension.

Secondly, this study employed YouTube users and a target group between 18 and 35 years old only as respondents to an online survey. Thus, a bias may exist in the selected group. The results indicate that the mean value of the respondents was 25.5 years of age and 81% had at least a bachelor's degree, indicating that the respondents were primarily young and well-educated. Caution should be taken when extending these results to other contexts because the respondents are relatively young. This constraint might limit the results since this study did not equally obtain samples from all ages. Future research could develop the samples in all age groups and expand the audience to larger, more diverse samples, and even study various social media platforms targeting different cultures.

Thirdly, this study focused specifically on the Apple AirPods 2 product. The test product was limited to one specific brand despite the fact that many potential consumers might be interested in other brands. Many types of wireless Bluetooth earpods are available in the market, including Samsung Gear Icon X, Erato Apollo 7, Onkyo W800BT, and Jabra Elite Sport. Further research might focus on other brands of wireless Bluetooth earpods, and include familiar and unfamiliar brands to determine whether there are different impacts on purchasing decisions.

Finally, the present research does not touch on, but future research could explore, the effects of negative eWOM on shopping intentions. This study mainly emphasizes the effects

of positive eWOM on vlog viewers. It may be another important factor to determine how negative eWOM affects vlog viewers' shopping behaviors.

## **Conclusion**

From a theoretical perspective, this study reveals that consumer intentions of engaging and purchasing are related to vlogs and vloggers' recommendations in some extents. As a result, consumers watch product review vlogs about products in which they are interested before increasing their intention to interact or buy Apple AirPods 2. Therefore, this study recommends, from a practical perspective, that relevant marketers be aware of the importance of product reviews from vloggers since their reviews may generate positive or negative word-of-mouth impacts on consumers' purchase intentions. This can be achieved by vloggers creating a pleasant atmosphere, offering professional advice, and convincing viewers that the product is worth purchasing. As Zhu and Zhang (2010, p. 145) state, "Marketing managers will find online consumer reviews to be increasingly influential and thus should devote more resources to online channels." Additionally, consumer engagement and purchase intention will increase when consumers perceive the enjoyment of watching the vlog. Finally, consumers' age and degree of interest in the Apple AirPods 2 should also be considered since they create a positive impact on the intention to buy.

Overall, this research provides an appropriate theoretical framework for studying the new trend of vlogging for online shopping and offers insights to practitioners regarding social media marketing strategies. In line with the empirical findings, the proposed conceptual model can serve as a basis for future research regarding this important aspect of online shopping behavior.

## Reference

- Ananda, A. F., & Wandebori, H. (2016). The impact of drugstore makeup product reviews by beauty vlogger on youtube towards purchase intention by undergraduate students in Indonesia. In *International Conference on Ethics of Business, Economics, and Social Science* (Vol. 3, No. 1, pp. 264-272).
- “AirPods - Technical Specifications”. (2019, April 30). Retrieved from [https://support.apple.com/kb/SP750?viewlocale=en\\_US&locale=zh\\_CN](https://support.apple.com/kb/SP750?viewlocale=en_US&locale=zh_CN)
- Bae, S., & Lee, T. (2011). Product type and consumers’ perception of online consumer reviews. *Electronic Markets*, 21(4), 255-266. <http://doi.org/10.1007/s12525-011-0072-0>
- Baker, M. J., & Churchill Jr, G. A. (1977). The impact of physically attractive models on advertising evaluations. *Journal of Marketing research*, 14(4), 538-555. <https://doi.org/10.1177/002224377701400411>
- Beauty on YouTube: How YouTube is Radically Transforming the Beauty Industry and What That Means for Brands. (2015). Retrieved from <http://www.pixability.com>.
- Bhattacharjee, A. (2001). An empirical analysis of the antecedents of electronic commerce service continuance. *Decision support systems*, 32(2), 201-214. [https://doi.org/10.1016/S0378-7206\(00\)00061-6](https://doi.org/10.1016/S0378-7206(00)00061-6)
- Brain, S. (2016). YouTube company statistics. *Luettu*, 27, 2016.
- Browne, M. W., Cudeck, R., Bollen, K. A., & Long, J. S. (1993). Testing structural equation models.
- Caballero, M. J., Lumpkin, J. R., & Madden, C. S. (1989). Using physical attractiveness as an advertising tool: An empirical test of the attraction phenomenon. *Journal of Advertising Research*.

- Caballero, M. J., & Solomon, P. J. (1984). Effects of model attractiveness on sales response. *Journal of Advertising*, *13*(1), 17-33.  
<https://doi.org/10.1080/00913367.1984.10672870>
- Cacioppo, J. T., Petty, R. E., Kao, C. F., & Rodriguez, R. (1986). Central and peripheral routes to persuasion: An individual difference perspective. *Journal of personality and social psychology*, *51*(5), 1032. <http://dx.doi.org/10.1037/0022-3514.51.5.1032>
- Chaiken, S. (1980). Heuristic versus systematic information processing and the use of source versus message cues in persuasion. *Journal of personality and social psychology*, *39*(5), 752. <http://dx.doi.org/10.1037/0022-3514.39.5.752>
- Chen, Z., & Berger, J. (2016). How content acquisition method affects word of mouth. *Journal of Consumer Research*, *43*(1), 86-102.  
<https://doi.org/10.1093/jcr/ucw001>
- Cheung, C. M., Lee, M. K., & Rabjohn, N. (2008). The impact of electronic word-of-mouth: The adoption of online opinions in online customer communities. *Internet research*, *18*(3), 229-247. <https://doi.org/10.1016/j.dss.2012.06.008>
- Chu, S. C., & Kamal, S. (2008). The effect of perceived blogger credibility and argument quality on message elaboration and brand attitudes: An exploratory study. *Journal of Interactive Advertising*, *8*(2), 26-37. <https://doi.org/10.1080/15252019.2008.10722140>
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly*, 319-340.
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: a comparison of two theoretical models. *Management science*, *35*(8), 982-1003. <https://doi.org/10.1287/mnsc.35.8.982>

- Dellarocas, C. (2003). The digitization of word of mouth: Promise and challenges of online feedback mechanisms. *Management science*, 49(10), 1407-1424.  
<https://doi.org/10.1287/mnsc.49.10.1407.17308>
- DeSarbo, W. S., & Harshman, R. A. (1985). Celebrity-brand congruence analysis. *Current issues and research in advertising*, 8(1), 17-52.  
<https://doi.org/10.1080/01633392.1985.10505371>
- Dessart, L., Veloutsou, C., & Morgan-Thomas, A. (2016). Capturing consumer engagement: duality, dimensionality and measurement. *Journal of Marketing Management*, 32(5-6), 399-426. <https://doi.org/10.1080/0267257X.2015.1130738>
- De Vries, L., Gensler, S., & Leeﬂang, P. S. (2012). Popularity of brand posts on brand fan pages: An investigation of the effects of social media marketing. *Journal of interactive marketing*, 26(2), 83-91. <https://doi.org/10.1016/j.intmar.2012.01.003>
- Djafarova, E., & Rushworth, C. (2017). Exploring the credibility of online celebrities' Instagram profiles in influencing the purchase decisions of young female users. *Computers in Human Behavior*, 68, 1-7. <https://doi.org/10.1016/j.chb.2016.11.009>
- Doney, P. M., & Cannon, J. P. (1997). An examination of the nature of trust in buyer-seller relationships. *the Journal of Marketing*, 35-51.  
<https://doi.org/10.1177/002224299706100203>
- Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Harcourt Brace Jovanovich College Publishers.
- Feick, L., & Higie, R. A. (1992). The effects of preference heterogeneity and source characteristics on ad processing and judgements about endorsers. *Journal of Advertising*, 21(2), 9-24. <https://doi.org/10.1080/00913367.1992.10673364>
- Fishbein, M., & Ajzen, I. (1977). Belief, attitude, intention, and behavior: An introduction to theory and research. <https://doi.org/isbn/0201020890>

- Fogg, B. J., & Tseng, H. (1999, May). The elements of computer credibility. In *Proceedings of the SIGCHI conference on Human Factors in Computing Systems* (pp. 80-87). ACM.  
<https://doi.org/10.1145/302979.303001>
- Fred, S. (2015). Examining Endorsement and Viewership Effects on the Source Credibility of YouTubers. *Graduate Theses and Dissertations*.  
<https://scholarcommons.usf.edu/etd/5685>
- Ghani, J. A., Supnick, R., & Rooney, P. (1991, January). The Experience of Flow in Computer-mediated and in Face-to-face Groups. In *ICIS* (Vol. 91, No. 6, pp. 229-237).  
Doi: [aisel.aisnet.org/icis1991](http://aisel.aisnet.org/icis1991)
- Gefen, D., Karahanna, E., & Straub, D. W. (2003). Trust and TAM in online shopping: An integrated model. *MIS quarterly*, 27(1), 51-90. Doi: [dl.acm.org/citation.cfm?id=2017185](http://dl.acm.org/citation.cfm?id=2017185)
- Gefen, D., Karahanna, E., & Straub, D. W. (2003). Inexperience and experience with online stores: The importance of TAM and trust. *IEEE Transactions on engineering management*, 50(3), 307-321. Doi: [10.1109/TEM.2003.817277](https://doi.org/10.1109/TEM.2003.817277)
- Gefen, D., & Straub, D. W. (2000). The relative importance of perceived ease of use in IS adoption: A study of e-commerce adoption. *Journal of the association for Information Systems*, 1(1), 8. Doi: [aisel.aisnet.org/cgi/viewcontent.cgi?article=1191&context=jais](http://aisel.aisnet.org/cgi/viewcontent.cgi?article=1191&context=jais)
- Gilly, M. C., Graham, J. L., Wolfinbarger, M. F., & Yale, L. J. (1998). A dyadic study of interpersonal information search. *Journal of the academy of marketing science*, 26(2), 83-100. <https://doi.org/10.1177/0092070398262001>
- Gordon, S. (2006). Rise of the blog [journal-based website]. *IEE Review*, 52(3), 32-35.  
Doi: [10.1049/ir:20060301](https://doi.org/10.1049/ir:20060301)
- Hagel, J., & Armstrong, A. (1997). Net gain: expanding markets through virtual communities. Harvard Business School Press. *The McKinsey Quarterly*.

- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2013). *Multivariate data analysis: Pearson new international edition*. Pearson Higher Ed.
- Han, B. O., & Windsor, J. (2011). User's willingness to pay on social network sites. *Journal of computer information systems*, 51(4), 31-40.  
<http://doi/abs/10.1080/08874417.2011.11645499>
- Herr, P. M., Kardes, F. R., & Kim, J. (1991). Effects of word-of-mouth and product-attribute information on persuasion: An accessibility-diagnostics perspective. *Journal of consumer research*, 17(4), 454-462. <https://doi.org/10.1086/208570>
- Hoe, S. (2014). Issues and procedures in adopting structural equation modeling technique. *Journal of Applied Quantitative Methods*, 1, 76-83. <https://doi.org/10.1.1.497.1504>
- Hu, L. & Bentler, P. (1999) Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives, *Structural Equation Modeling. A Multidisciplinary Journal*, 6(1), 1-55. <https://doi.org/10.1080/10705519909540118>
- Horai, J., Naccari, N., & Fatoullah, E. (1974). The effects of expertise and physical attractiveness upon opinion agreement and liking. *Sociometry*, 601-606.  
<https://doi.org/10.1080/10.2307/2786431>
- Hovland, C. I., Janis, I. L., & Kelley, H. H. (1953). Communication and persuasion.
- Hsu, C. L., & Lin, J. C. C. (2008). Acceptance of blog usage: The roles of technology acceptance, social influence and knowledge sharing motivation. *Information & management*, 45(1), 65-74. <https://doi.org/10.1016/j.im.2007.11.001>
- Hsu, H. Y., & Tsou, H. T. (2011). Understanding customer experiences in online blog environments. *International Journal of Information Management*, 31(6), 510-523.  
<https://doi.org/10.1016/j.ijinfomgt.2011.05.003>

- Huang, L. S., Chou, Y. J., & Lin, C. H. (2008). The influence of reading motives on the responses after reading blogs. *CyberPsychology & Behavior*, *11*(3), 351-355.  
<https://doi.org/10.1089/cpb.2007.0063>
- Huang, J., Su, S., Zhou, L., & Liu, X. (2013). Attitude toward the viral ad: Expanding traditional advertising models to interactive advertising. *Journal of Interactive Marketing*, *27*(1), 36-46. <https://doi.org/10.1016/j.intmar.2012.06.001>
- Johnson, T. J., & Kaye, B. K. (2009). In blog we trust? Deciphering credibility of components of the internet among politically interested internet users. *Computers in Human Behavior*, *25*(1), 175-182. <https://doi.org/10.1016/j.chb.2008.08.004>
- Johnson, B. T., & Eagly, A. H. (1989). Effects of involvement on persuasion: A meta analysis. *Psychological bulletin*, *106*(2), 290.  
<http://dx.doi.org/10.1037/0033-2909.106.2.290>
- Johnston, M. (2019) Smartphones Are Changing Advertising & Marketing. Retrieved from <https://www.investopedia.com/articles/personal-finance/062315/how-smartphones-are-changing-advertising-marketing.asp>
- Keh, H. T., & Xie, Y. (2009). Corporate reputation and customer behavioral intentions: The roles of trust, identification and commitment. *Industrial marketing management*, *38*(7), 732-742. <https://doi.org/10.1016/j.indmarman.2008.02.005>
- Kim, D. (2017). Vlog as a Branding Tool: How to Build a Brand with a Video Blog in Social Media.
- Kotler, P., Bowen, J. T., Makens, J. C., & Baloglu, S. (2006). Marketing for hospitality and tourism.
- Koufaris, M. (2002). Applying the technology acceptance model and flow theory to online consumer behavior. *Information systems research*, *13*(2), 205-223.  
<https://doi.org/10.1287/isre.13.2.205.83>

- Koufaris, M., & Hampton-Sosa, W. (2004). The development of initial trust in an online company by new customers. *Information & management*, 41(3), 377-397.  
<https://doi.org/10.1016/j.im.2003.08.004>
- Lee, H. H., & Chang, E. (2011). Consumer attitudes toward online mass customization: An application of extended technology acceptance model. *Journal of Computer-Mediated Communication*, 16(2), 171-200. <https://doi.org/10.1111/j.1083-6101.2010.01530.x>
- Lee, J., & Lee, J. N. (2009). Understanding the product information inference process in electronic word-of-mouth: An objectivity–subjectivity dichotomy perspective. *Information & Management*, 46(5), 302-311.  
<https://doi.org/10.1016/j.im.2009.05.004>
- Lee, J., Park, D. H., & Han, I. (2008). The effect of negative online consumer reviews on product attitude: An information processing view. *Electronic commerce research and applications*, 7(3), 341-352. <https://doi.org/10.1016/j.elerap.2007.05.004>
- Lee, M., & Youn, S. (2009). Electronic word of mouth (eWOM) How eWOM platforms influence consumer product judgement. *International Journal of Advertising*, 28(3), 473-499. <https://doi.org/10.2501/S0265048709200709>
- Lin, J. C. C., & Lu, H. (2000). Towards an understanding of the behavioural intention to use a web site. *International journal of information management*, 20(3), 197-208.  
[https://doi.org/10.1016/S0268-4012\(00\)00005-0](https://doi.org/10.1016/S0268-4012(00)00005-0)
- Lim, K. H., Sia, C. L., Lee, M. K., & Benbasat, I. (2006). Do I trust you online, and if so, will I buy? An empirical study of two trust-building strategies. *Journal of management information systems*, 23(2), 233-266. <https://doi.org/10.2753/MIS0742-1222230210>
- Liljander, V., Gummerus, J., & Söderlund, M. (2015). Young consumers' responses to suspected covert and overt blog marketing. *Internet Research*, 25(4), 610-632.  
<https://doi.org/10.1108/IntR-02-2014-0041>

- Lüthje, C. (2004). Characteristics of innovating users in a consumer goods field: An empirical study of sport-related product consumers. *Technovation*, 24(9), 683-695.  
[https://doi.org/10.1016/S0166-4972\(02\)00150-5](https://doi.org/10.1016/S0166-4972(02)00150-5)
- Maddux, J. E., & Rogers, R. W. (1980). Effects of source expertness, physical attractiveness, and supporting arguments on persuasion: A case of brains over beauty. *Journal of personality and social psychology*, 39(2), 235.  
<https://psycnet.apa.org/doi/10.1037/0022-3514.39.2.235>
- McFadden, D. L., & Train, K. E. (1996). Consumers' evaluation of new products: Learning from self and others. *Journal of Political Economy*, 104(4), 683-703.  
<https://doi.org/10.1086/262038>
- Mills, J., & Harvey, J. (1972). Opinion change as a function of when information about the communicator is received and whether he is attractive or expert. *Journal of Personality and Social Psychology*, 21(1), 52. <https://psycnet.apa.org/doi/10.1037/h0031939>
- Mir, I. A., & Ur REHMAN, K. (2013). Factors affecting consumer attitudes and intentions toward user-generated product content on YouTube. *Management & Marketing*, 8(4).
- Moon, J. W., & Kim, Y. G. (2001). Extending the TAM for a World-Wide-Web context. *Information & management*, 38(4), 217-230.  
[https://doi.org/10.1016/S0378-7206\(00\)00061-6](https://doi.org/10.1016/S0378-7206(00)00061-6)
- Ohanian, R. (1990). Construction and validation of a scale to measure celebrity endorsers' perceived expertise, trustworthiness, and attractiveness. *Journal of advertising*, 19(3), 39-52. <https://doi.org/10.1080/00913367.1990.10673191>
- Patzer, G. L. (1983). Source credibility as a function of communicator physical attractiveness. *Journal of business research*, 11(2), 229-241.  
[https://doi.org/10.1016/0148-2963\(83\)90030-9](https://doi.org/10.1016/0148-2963(83)90030-9)

- Pornpitakpan, C. (2003). Validation of the celebrity endorsers' credibility scale: Evidence from Asians. *Journal of Marketing Management*, 19(1-2), 179-195.  
<https://doi.org/10.1080/0267257X.2003.9728206>
- Pornpitakpan, C. (2004). The persuasiveness of source credibility: A critical review of five decades' evidence. *Journal of applied social psychology*, 34(2), 243-281.  
<https://doi.org/10.1111/j.1559-1816.2004.tb02547.x>
- Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary educational psychology*, 25(1), 54-67.  
<https://doi.org/10.1006/ceps.1999.1020>
- Safko, L. (2010). *The social media bible: tactics, tools, and strategies for business success*. John Wiley & Sons.
- Spears, N., & Singh, S. N. (2004). Measuring attitude toward the brand and purchase intentions. *Journal of Current Issues & Research in Advertising*, 26(2), 53-66.  
<https://doi.org/10.1080/10641734.2004.10505164>
- Sussman, S. W., & Siegal, W. S. (2003). Informational influence in organizations: An integrated approach to knowledge adoption. *Information systems research*, 14(1), 47-65.  
<https://doi.org/10.1287/isre.14.1.47.14767>
- Sutanto, M. A., & Aprianingsih, A. (2016). The Effect of Online Consumer Review toward Purchase Intention: A Study in Premium Cosmetic in Indonesia. In *Journal International Conference on Ethics of Business, Economics, and Social Science*.
- Swani, K., Milne, G., & P. Brown, B. (2013). Spreading the word through likes on Facebook: Evaluating the message strategy effectiveness of Fortune 500 companies. *Journal of Research in Interactive Marketing*, 7(4), 269-294.  
<https://doi.org/10.1108/JRIM-05-2013-0026>

- Thoumrunroje, A. (2014). The influence of social media intensity and EWOM on conspicuous consumption. *Procedia-Social and Behavioral Sciences*, 148, 7-15. <https://doi.org/10.1016/j.sbspro.2014.07.009>
- Vivek, S. D., Beatty, S. E., Dalela, V., & Morgan, R. M. (2014). A generalized multidimensional scale for measuring customer engagement. *Journal of Marketing Theory and Practice*, 22(4), 401-420. <https://doi.org/10.2753/MTP1069-6679220404>
- Vijayasathy, L. R. (2004, July). Predicting consumer intentions to use on-line shopping: The case for an augmented technology acceptance model. *Information and Management*. <https://doi.org/10.1016/j.im.2003.08.011>
- Winsor, J. (2004). Beyond the brand: why engaging the right customers is essential to winning in business. Dearborn Trade Publishing.
- Yoon, K., Kim, C. H., & Kim, M. S. (1998). A cross-cultural comparison of the effects of source credibility on attitudes and behavioral intentions. *Mass Communication and Society*, 1(3-4), 153-173. <https://doi.org/10.1080/15205436.1998.9677854>
- Yu, J., Ha, I., Choi, M., & Rho, J. (2005). Extending the TAM for a t-commerce. *Information & management*, 42(7), 965-976 <https://doi.org/10.1016/j.im.2004.11.001>
- Zaichkowsky, J. L. (1985). Measuring the involvement construct. *Journal of consumer research*, 12(3), 341-352. <https://doi.org/10.1086/208520>

## Appendix

### Appendix 1. Demographic Profile

Measure	Items
Gender	Male
	Female
	Prefer not to say
Age	18-35 years
Nationality	All countries from A - Z
Education level	Lower than bachelor
	Bachelor
	Master
	Higher than master
English level	Very good
	Good
	Competent
	Limited
	Never
Time of been abroad	For 3 months or less
	For 4-6 months
	Over 6 months
Experience with viewing vlogs for purchasing products	Never
	1 to 2 times
	3 to 4 times
	5 to 6 times
	More than 6 times
Experience with following vlogger's recommendation	Never
	1 to 2 times
	3 to 4 times
	5 to 6 times
Experience with following vlogger's recommendation	More than 6 times
	Never
	1 to 2 times
	3 to 4 times
Experience with following vlogger's recommendation	5 to 6 times
	More than 6 times
	Never
	1 to 2 times
Experience with following vlogger's recommendation	3 to 4 times
	5 to 6 times
	More than 6 times
	Never

Experience with searching  
Apple AirPods 2 online

Yes

No

Degree of being interested  
in Apple AirPods 2

Not at all interested

Slightly interested

Moderately interested

Extremely interested

Very interested

---

## Appendix 2. Overview of Measurements

Construct	Item	Measurement	Reference
Trustworthiness	TR1	The vlogger in the vlog is trustworthy.	Feick & Higie, 1992 ; Ohanian, 1990; Fred, 2015
	TR2	The vlogger in the vlog is honest.	
	TR3	The vlogger in the vlog is unreliable.	
	TR4	The vlogger in the vlog is insincere.	
Expertise	EX1	The vlogger in the vlog is skillful about the product.	Feick & Higie, 1992 ; Ohanian, 1990; Fred, 2015
	EX2	The vlogger in the vlog is knowledgeable about the product.	
	EX3	I would consider the vlogger inexperienced in giving advice about the product.	
	EX4	I would consider the vlogger unqualified in giving advice about the product.	
Attractiveness	AT2	The vlogger in the vlog is credible.	Feick & Higie, 1992 ; Ohanian, 1991; Fred, 2015
	AT3	The vlogger in the vlog is boring.	
	AT4	The vlogger in the vlog cannot absorb my attention.	
Perceived usefulness of vlogger's recommendation	PU1	Watching the vlog gives me access to useful information of the product.	Davis, 1989; Doney & Cannon, 1997
Perceived enjoyment of vlogger's recommendation	PE1	Watching this vlog is enjoyable.	Doney & Cannon, 1997; Ghani et al., 1991; Koufaris et al., 2002
	PE2	Watching the vlog is a leisure activity.	
	PE3	It is not interesting in watching this vlog.	
	PE4	It is not exciting in watching this vlog.	
Attitude	AU1	I have positive feelings when watching the vlog.	Bagozzi and Dholakia, 2006; Vogelgesang, 2004
	AU2	I feel comfortable when watching the vlog.	
	AU3	Watching the vlog is not a pleasant experience.	

	AU4	Recommendation of the product in the vlog will not have favorable consequences.	
	CE1	I intend to follow the vlogger after I watch the vlog.	
Consumer engagement	CE2	I intend to interact with the vlogger through commenting.	Fred, 2015;
	CE3	I intend to share the vlog to my friends in the near future.	Vivek et al., 2014
	CE4	I intend to watch another vlog of the vlogger in the near future.	
	PI1	I intend to purchase the product recommended by the vlogger after watching this vlog.	
	PI2	I intend to purchase the product recommended in the vlog by the vlogger in the near future.	Mikalef et al., 2013; To et al., 2007; Hsu & Tsou 2011; Vogelgesang, 2003
Purchase intention	PI3	I would not consider the product recommended in the vlog as my first choice.	
	PI4	I would not consider it is worthwhile to purchase products.	
	PI5	I would not consider it is worthwhile to buy the product.	
	PI6	I would not consider the product as my first choice.	

---

### Appendix 3. Online Questionnaire

Welcome to this survey!

Thank you for taking the time to participate in the survey. The goal of this research is to gain insight in your opinion about how vloggers' recommendations in their vlog will influence your purchase intention as a part of my master's research at the University of Twente, Enschede.

It is advised to conduct the survey over a laptop or a computer. It will take approximately **12 minutes** to complete. Please answer the questions carefully. This is an anonymous survey; all the information you provide is confidential and will only be used for this research.

If you have any questions or need other related information, please feel free to contact me (x.chen-1@student.utwente.nl).

Xinran Chen  
Communication Studies  
University of Twente

---

Do you want to participate in this survey? Note: if you answer no, you will be taken to the end of the survey

- Yes
- No

What is your gender?

- Male
  - Female
  - Prefer not to say
-

What is your age?

▼ 18 ... 35

---

What is your nationality?

▼ Afghanistan ... Zimbabwe

---

What is your current/highest level of education?

- Lower than bachelor
- Bachelor
- Master
- Higher than master

Because the content of this survey has certain requirements for English proficiency, please answer the following questions truthfully.

---

What is your English level?

- Very good
  - Good
  - Competent
  - Limited
-

Have you ever been abroad for a longer period of time?

- Never
  - For 3 months or less
  - For 4-6 months
  - Over 6 months
- 

How many times have you viewed vlogs for suggestion before purchasing a product in the last 6 months?

- Never
  - 1 to 2 times
  - 3 to 4 times
  - 5 to 6 times
  - More than 6 times
-

How many times have you followed vlogger's recommendations and eventually bought the product/service?

- Never
- 1 to 2 times
- 3 to 4 times
- 5 to 6 times
- More than 6 times

The survey chooses a vlog of reviewing Apple AirPods 2 as the research material, you will watch this vlog that is publicly available on YouTube. Have you ever known or searched the Apple AirPods 2 on the internet before?

- Yes
  - No
- 

What is the degree that you are interested in Apple AirPods 2?

- Not at all interested
  - Slightly interested
  - Moderately interested
  - Very interested
  - Extremely interested
- 

## **The Apple AirPods 2**

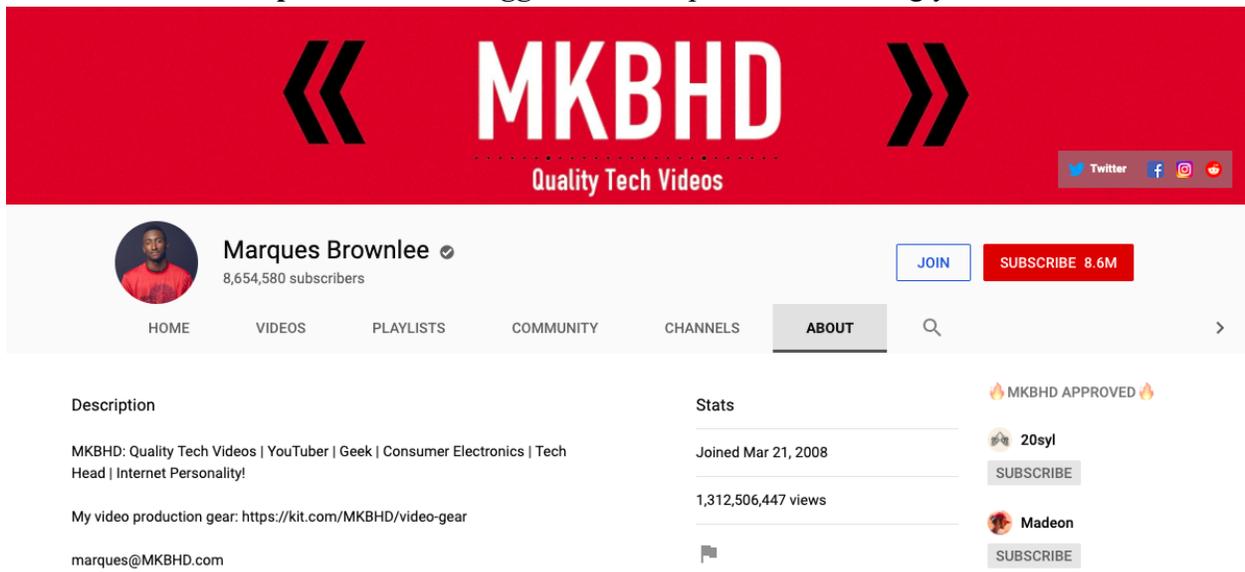
Apple's newest AirPods come with an **optional Wireless Charging Case** that enables **Qi-based wireless charging**. And it now supports **hands-free "Hey Siri" functionality**, allowing users to control volume and swap songs through voice commands. There's no longer a need to tap on the AirPods to activate Siri in this version. AirPods pair up with iPhone, iPad, iPod touch, Apple Watch, Apple TV, and Mac, and thanks to the H1 chip, you can easily switch between devices.

AirPods now include the all-new Apple H1 headphone chip, for a faster and more stable wireless connection to your devices. Switching devices is now up to 2x faster. And if you want to make a call, you have a connection 1.5 times as fast. Thanks to the H1 chip you can also control Siri with your voice and the delay in games is up to 30% lower. So whether you're enjoying music, playing games or listening to podcasts, the sound quality is better than ever.

There have been **no apparent appearance changes** to the AirPods, so they continue to look similar to the standard Apple Ear Pods but without the cord. AirPods are **completely wire-free** and continue to be **available only in white**. You can get the new AirPods without the charging case for \$159, with the Charging Case for \$199, or you can buy just the Charging Case for your existing AirPods for \$79.



Here is the **Youtube profile of the vlogger** who will present in the vlog you will see:



Please open the link and watch the vlog of reviewing the Apple AirPods 2 :

<https://www.youtube.com/watch?v=-8oT3dE0hik>

If YouTube is limited in your country, please open this link and watch the vlog of reviewing the Apple AirPods 2: <https://www.bilibili.com/video/av53497327/>

Have you ever seen this vlog before?

Note: If you have watched the vlog before, please stop doing the survey and thank you for your participation! Otherwise, please continue finishing the survey :)

Yes

No

Please answer the following questions based on the vlog you have just seen. In case you did not see the vlog, please restart the survey.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
The vlogger in the vlog is trustworthy.	<input type="radio"/>				
The vlogger in the vlog is honest.	<input type="radio"/>				
The vlogger in the vlog is unreliable.	<input type="radio"/>				
The vlogger in the vlog is < insincere.	<input type="radio"/>				

---

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
The vlogger in the vlog is skilful about the product.	<input type="radio"/>				
The vlogger in the vlog is knowledgeable about the product.	<input type="radio"/>				
I would consider the vlogger inexperienced in giving advice about the product.	<input type="radio"/>				
I would consider the vlogger unqualified in giving advice about the product.	<input type="radio"/>				

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
The vlogger in the vlog is attractive	<input type="radio"/>				
The vlogger in the vlog is credible.	<input type="radio"/>				
The vlogger in the vlog is boring.	<input type="radio"/>				
The vlogger in the vlog cannot absorb my attention.	<input type="radio"/>				

Please answer the following questions based on the vlog you have just seen.< In case you did not see the vlog, please restart the survey.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Watching the vlog gives me access to useful information about the product.	<input type="radio"/>				
Watching the vlog increases my intention to buy the product recommended by the vlogger.	<input type="radio"/>				
Watching the vlog will not help me to decide to buy the product recommended by the vlogger.	<input type="radio"/>				
Watching the vlog decreases my intention to buy the product recommended by the vlogger.	<input type="radio"/>				

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Watching this vlog is enjoyable.	<input type="radio"/>				
Watching the vlog is a leisure activity.	<input type="radio"/>				
It is not interesting in watching this vlog.	<input type="radio"/>				
It is not exciting in watching this vlog.	<input type="radio"/>				



	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I have positive feelings when watching the vlog.	<input type="radio"/>				
I feel comfortable when watching the vlog.	<input type="radio"/>				
Watching the vlog is not a pleasant experience.	<input type="radio"/>				
Recommendation of the product in the vlog will not have favorable consequences.	<input type="radio"/>				

Please answer the following questions based on the vlog you have just seen. **In case you did not see the vlog, please restart the survey.**

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I intend to follow the vlogger after I watch the vlog.	<input type="radio"/>				
I intend to interact with the vlogger through commenting.	<input type="radio"/>				
I intend to share the vlog with my friends in the near future.	<input type="radio"/>				
I intend to watch another vlog of the vlogger in the near future.	<input type="radio"/>				





	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I would consider buying the product after watching this vlog.	<input type="radio"/>				
I would recommend the product to others after watching this vlog.	<input type="radio"/>				
I intend to buy the product after watching this vlog.	<input type="radio"/>				
I intend to buy the product after watching this vlog in the near future.	<input type="radio"/>				
I would not consider the product as my first choice.	<input type="radio"/>				
I would not consider it is worthwhile to buy the product.	<input type="radio"/>				