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THE IMPACT OF ELECTRONIC WORD-OF-MOUTH (eWOM) ON
NEW CUSTOMER ACQUISITION: A Study of How Online Customer
Reviews Affect New Downloads of Mobile Applications.

Master's Thesis in Information Systems

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Åbo Akademi University

Åbo 2019

Abstract

This thesis explores the impact of electronic word-of-mouth (eWOM), focusing primarily on the user reviews of mobile apps by customers on the decisions of prospective mobile app customers to download mobile apps. The aim of the study was to enable a better understanding of the rationale or the elements that prospective customers take into consideration before downloading mobile apps onto their smartphones or tablets.

The study focused on millennials from the Helsinki capital area who were interviewed to collect data for the study. The relevant literature were reviewed to serve as a theoretical basis for the study with a focus on eWOM in general and user reviews of mobile apps in particular.

The findings indicated that textual reviews of mobile app customers are vital in the decision of prospective mobile app customers in downloading mobile apps. However, these decisions are influenced by certain underlying factors. Some of these decision-impacting factors are the perceived credibility of the source of the information as well as the shared relationships between the information source and receiver of the information.

Additionally, in evaluating the textual user reviews of mobile apps as part of the decision-making process, the millennials were not necessarily methodical in their approach of evaluating the usefulness and authenticity of the user reviews.

The findings of the study can be used as the basis for mobile app developers and stakeholders to improve on their products or service offerings. Also, marketers of mobile apps will be equipped with the requisite information on which effective decisions can be based for sustainable growth of organizations within the industry. Finally, the findings of the study have implications for academia as it contributes to knowledge of the relevant field as well as provide knowledge “gaps” for further studies.

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1 INTRODUCTION

The application of technology to business has advanced over the years and permeated almost every aspect of human endeavor partly due to the need for cultural and institutional evolution and surge in ideals of capitalism after the 1990s (Uselding, 1980, 443-452). The infusion of such technologies in marketing over the years has led to the possible advances into digital marketing and the creation of products that hitherto were non-existent, such as mobile applications (apps) software. The digital marketing technologies enabled capabilities such as ease of communication between product or service providers and customers as well as attracting potential customers. Such technology-enabled communication approaches between products or service providers, arguably, culminated in the creation of electronic word of mouth (eWOM), which can be argued as the “digital version” of the traditional or conventional word of mouth in marketing parlance. Some studies found that eWOM are considered credible by potential customers in their decision-making (Bickart & Schindler, 2001: Goldsmith & Horowitz, 2006. The user generated contents (user reviews) feature prominently in potential users’ decision making online (Riegner, 2007: Ziegele & Weber, 2015). Therefore such opinions whether expressed via the star ratings of experiences or through written or textual reviews should be considered as resourceful feedback to product improvements or updates. This emanates from the fact that current users of mobile apps are likely to influence the perceptions of potential customers’ and hence their decisions (Cheung & Thadani, 2012). There have been many studies carried out within the theme of eWOM, user generated contents and specifically on textual user reviews with different scopes of study. However, the focus (theme) of this study is on the use of written or textual user reviews of mobile apps to help explore what elements are vital considerations of potential mobile app users in their decisions of downloading mobile apps.

The remainder of the sections of this study explores the various segments of this theme of the study arranged logically to ensure that the aim of the study is achieved.

1.1 Background

The term marketing has been defined by different scholars according to their perspectives on what they considered as vital in creating value for producers of goods and services as

well as consumers of these goods and services. Hence the definitions portray the elements that are considered critical in achieving marketing objectives.

According to Kotler, as cited by Theodorou & Tsoubrakakou (2016, p.62), marketing is “the science and art of exploring, creating, and delivering value to satisfy the needs of a target market at a profit. Marketing identifies unfulfilled needs and desires. It defines, measures and quantifies the size of the identified market and the profit potential. It pinpoints which segments the company is capable of serving the best and its designs and promotes the appropriate products and services.” This definition captures the processes of creating value by finding an opportunity and deliberately creating a product or service to fulfill this opportunity. However, it does not depict the level of engagement between value creators and value consumers that have become critical, especially in the advent of the internet. Moreover, Julie Barile defined marketing as “traditionally the means by which an organization communicates to, connect with, and engages its target audience to convey the value of and ultimately sell its products and services. However, since the emergence of digital media, in particular, social media and technology innovations, it has increasingly become more about companies building deeper, more meaningful and lasting relationships with the people that they want to buy their products and services. The ever-increasingly fragmented world of media complicates marketers’ ability to connect and, at the same, time presents incredible opportunity to forge new territory” (Cohen, 2011). This definition seems to capture the relationship aspect of the value creation through a different medium than as done in the traditional sense.

The advent of the internet has contributed significantly to the disruption in almost all spheres of human endeavor, but the focus of this disruption will be in the sphere of marketing and specifically digital marketing. The internet has not only redefined how businesses should market their products and services to customers, but it has also created new channels (Agrawal, 2016, para.6) thereby decreasing the potentials which were hitherto held by businesses with a significant marketing budget. The internet’s contribution to the disruption of “traditional” marketing is not that much of a total replacement of marketing in its entirety but the introduction of innovative means of achieving or even surpassing customer satisfaction in an effective and efficient way. One of the channels or elements of marketing which has been disrupted or significantly overhauled is word-of-mouth (WOM) marketing. However, WOM marketing was pioneered by George Silverman’s “teleconferenced peer influenced groups” in the 1970s

(Brysha, 2013, para.3). This can be argued on the basis that WOM recommendations from family and friends, or acquaintances about products or services have been around as long as human interactions and commerce or trade became an important activity for survival and development.

An eWOM could be a textual-based, a recording (audio and visual) message or information that can mostly be traced or tracked, are organized and can be passed on from one-to-many form of interaction among consumers via the internet (Sharma, Morales-Arroyo, & Pandey, 2012). Thus, information passed from one consumer to another (peer-to-peer communication) via the internet. This has been facilitated by technological advances such as Web 2.0 technology which provided additional capabilities in the form of electronic word-of-mouth (eWOM) and its inherent impact on digital marketing.

EWOM has become an effective marketing tool that transcends beyond geographical boundaries making it a viable alternative or to some extent better or suitable option than traditional word-of-mouth marketing. EWOMs are expressed through online platforms such as social media, video sharing platforms, e-mails, weblogs, shopping websites, discussion forums, and consumer review websites among others.

Some studies on the impacts of eWOM marketing (in the form of customers' reviews and ratings) found that consumers do trust reviews or feedbacks about products or services from fellow consumers more than they trust "experts". However this may not be entirely the case as other factors such as total downloads and matching reviews as well as the visible actual trend could impact positively on the apps download and sale (Timmerman & Shepherd, 2016). Even though the study was conducted in a different context, it lends credence to the fact that it's not all about positive eWOM per se but accurate "social proof" is critical in achieving that milestone. Therefore customer reviews are an important aspect of potential customers' decision making in the digital environment. From that premise, and based on various conclusions of related studies; it is not clear whether potential customers of mobile apps take the reviews of other users into consideration in their decision making. Also, the methods or approaches used by the potential users to evaluate or sift through the numerous user reviews have not been adequately explored. As a consequence, this study has been necessitated by the need to better understand whether the reviews of customers at the digital platform contribute to the potential customers' decision making regarding choice of the app to download.

1.2 Problem statement

There were about 2.8 million apps in the Android Play store and 2.2 million apps in Apple's iOS Appstore with about 180 million app downloads in the first quarter of 2017 and expected to grow to about 260 billion downloads by 2022 (Statistica, 2019). This enormous number of mobile apps, as well as the number of apps downloaded suggests a critical challenge for potential mobile app users regarding their decisions about which apps to download. Therefore, it is imperative to check the customer reviews of these apps to avoid downloading non-functioning or faulty apps (Rogerson, 2019); lending credence to the importance of user reviews in mobile app downloads. These user reviews of mobile apps are forms of word of mouth (eWOM) due to digital or the online platform where they are created and disseminated. The user reviews consist of quantitative ratings such as the number of Star-ratings garnered by a product or service and users review via their own written texts (textual reviews) of their experiences of using the mobile app. The reviews present important decision aid for potential users online (Lackermair, kailer & Kanmaz, 2013, p.1).

Arguably, it is, however, a truism that the textual content of user reviews at the mobile app distribution platform (Google's Android Play store and Apple's iOS Appstore) play a pivotal role in the decision of new or potential mobile app users. The knowledge of the decision-impacting elements in the reviews makes it possible and easy for potential customers to decide on the appropriate apps to download as well as how other user reviews are evaluated. However, in spite of the many similar and related studies conducted about the impact of eWOM as evident in the literature review section of the study, none seems to vividly address this challenge.

Therefore, this study proposes to explore whether or not the textual content of user reviews are taken into consideration in making decisions about the mobile apps to download. The study will further determine the methods that potential customers use to evaluate the reviews of other mobile app users before making decisions about the apps to download. The study will use in-depth interview approach to obtain rich data for this purpose and will focus primarily on millennials within the Helsinki capital region.

1.3 Aims and Objectives

The overarching purpose of this study is to explore the impacts of eWOM (textual reviews) on the decisions of prospective mobile app customers in order to better understand the rationale behind their decisions regarding their download of new mobile apps onto their smartphones and tablets.

In order to achieve the aforementioned aim, the following research objectives were formulated;

- To review the relevant existing literature on eWOM and online customer reviews of mobile apps and related literature in order to determine how the current study should be organized in terms of structure and contents.
- To ascertain whether or not prospective customers of mobile apps rely on mobile app reviews (textual reviews) by other customers online and the rationale behind their decisions.
- To determine how information (user reviews) about mobile apps are obtained and what criteria are adopted in the evaluation and selection (decision) of mobile apps to be downloaded?
- To analyze the findings of the study and make proposals or recommendations to mobile app developers, marketers, academia and other stakeholders

The aforementioned are the four objectives of the study that all seek to aggregate outcomes in achieving the overall aim of this study. However, the first objective (review literature), was more of a first step in refining the aim, objectives and ultimately the research questions of the study. This was to familiarize oneself with the literature of the topic, as well as read and evaluate the relevance of the literature with reference to the aim and objectives of the study.

The second and third objectives were mainly the “primary” objectives of the study upon which the research questions and the methodology of this study were based. The last objective is rather based on the “outcomes” of all the preceded objectives (the first three) of the study. The inherent outcomes were synthesized in order to achieve the aim of the study and finally draw meaningful conclusions from the study.

Based on the objectives of the study, the following research questions (RQs) were formulated:

RQ 1: Do prospective mobile app customers consider or read the textual reviews of other customers about apps they intend to download before they actually download these mobile apps onto their smartphones? Why or why not?

RQ 2: How do prospective customers evaluate the textual user reviews of mobile apps of other users' before actually making a choice of the mobile app to download?

1.4 Potential contribution of the study

The findings of this study will contribute to a better understanding of the impact of customer reviews on the decisions of prospective customers in particular and arguably the general perception of brands online. This will entreat products or service providers to have better insights as to how they can strategically innovate their products and services; mobile app developers and concerned stakeholders in the case of this study.

Also, this study has uncovered the different perspectives that have been adopted in the study of eWOM as well as their contribution. Although the relevant literature used were only a fraction of the available literature in the digital marketing domain, it highlights major themes that were indispensable in this study.

Finally, this study contributes to the scholarly literature on digital marketing in general and electronic word-of-mouth (eWOM) in particular. Even though this study was conducted with multidisciplinary literature, the primary domain of literature was on digital marketing. Therefore this study will be useful for the academic or research community as well as practitioners who may find it useful or relevant.

1.5 Thesis Structure

This thesis is divided into six main sections. The first section is an introduction to the topic, followed by the literature review section, where the literature used for the study was explored. The research method section will present how data for the study was collected, transcribed and analyzed. After that, the presentation of findings section presents the empirical findings of the study. The Discussion section presents arguments that expounded on the findings from the previous section.

Lastly, the conclusion section presents a summary of the findings, the limitations of the study as well as possible recommendations based on the study.

2 LITERATURE REVIEW

The literature review in this study was synthesized from primary, secondary and tertiary sources in order to accomplish a holistic review of relevant documents and sources. This is to provide an overview of the relevant literature and increase understanding of the current status of the knowledge on eWOM and its impacts on consumer decision making. Also, it helps in contributing to the possible future direction of knowledge and literature on the subject.

2.1 The literature of the study

The literature for this study was selected based on its relevance to the topic under consideration (eWOM).

Firstly, due to the interdisciplinary nature of research on eWOM, this study accessed literature from other fields such psychology, philosophy, business, information system, computer science and other fields which are relevant to the object of this study. This is because most of the studies used for the literature review section of this study were drawn from different disciplines because of the nature of the research questions and the interdisciplinary approach needed to answer it. For instance in order to understand how consumers think, or improve one's attitudes, and ensure better communication will implore the need for psychological knowledge (Philippe, 2017). Similarly, sociological knowledge will be needed in order to understand one's society and its inherent problems such as unemployment, racism, alcoholism, drug abuse, etc., as well as their human relationships (Shresh, 2010). These have practical ramifications on the planning of social initiatives and welfare systems for these societies.

Secondly, this study used mostly academic literature published online such as books, thesis, journals (in Information systems, Electronic commerce, and management) articles, relevant conference proceedings, abstract of relevant articles or journals, systematic review articles, blogs, and newspaper reports. These sources were used due to the "frequency" of online publications and updates compared to "physical" books and the

need to present current or updated information in this study which is vital for the sake of better insights from the literature.

This section of the study is based on literature that has relevance with the themes of the research question (and sub-research questions) under consideration. This is to enable a form of control of the literature to prevent digression from the focus of the study as well as provide a useful contribution in answering the research questions.

The search terms used were “Electronic word-of-mouth” “eWOM”, “Online customer reviews” “eWOM” “impacts of eWOM on customer decision making” or similar search terms..

Furthermore, some information was accessed from corporate and consumer websites which were equally relevant. That is not to downplay the risk of information or “facts” with commercial “undertone”, as the information presented was cross-checked in order to avoid using inaccurate information in this study.

Finally, the timeline of the literature considered in this study was mostly (but not all) from 2003-2018. This fifteen years’ worth of information seems quite “outdated” information in the conventional sense. However, it also provides a way for any trend or pattern to be ascertained where necessary which are indispensable in understanding the trajectory of eWOM over the years.

This enables an understanding of the past, the present as well as predicting the possible future of eWOM for effective and strategic planning in organizations’ and other possible users of eWOM.

2.2 The review of the literature

A literature review consists of conducting the summary and synthesis of the relevant literature of a given topic mainly from academic sources such as books, journal articles, and others (University of Guelph, 2018). Literature can be reviewed as part of an initial step or process in a study as required in this study or as a stand-alone scholarly undertaking. This is carried out in order to highlight the key findings of related studies, avoid duplication of study, identify gaps in previous studies as well as different approaches, theories and recommended areas from prior studies. All these are critical in

the current research design and the needed justification that the current study fills a scholarly gap or worthwhile undertaking.

The review of the various literatures and its synthesis in the next section of the study depicts the arguments, perspectives and relevant contribution made in the literature concerning the role eWOM plays in creating value through its ability to influence prospective customer decision-making. The value creation perspective was considered appropriate for the study because proper harnessing of eWOM ultimately leads to the creation of value through the adoption of appropriate business strategies and product or service innovation.

2.3 From WOM to eWOM marketing

WOM marketing refers to recommendations of products or services from satisfied customers to potential customers that are delivered via an oral or written medium (Business dictionary, 2018).

This form of marketing is arguably the most effective way of marketing because of the inherent lack of commercial interest associated with WOM and thus it has organic reach. Also, the information is mostly shared between friends, family, or acquaintances; therefore the trust in the message is usually an extension of their personal relationships they have shared over the years. In effect, the producers of the goods or services tap into this relationship by meeting or exceeding customers' expectations. It is the organic element of traditional WOM that makes it powerful because the satisfied customers act as "informal organic marketers" for the producers of the goods or services.

An eWOM marketing, on the other hand, is defined as "any positive or negative statement made by potential, actual or former customers about a product or company, which is made available to a multitude of people and institutions via the Internet" (Hennig-Thurau, Gwinner, Walsh & Gremler, 2004, p. 39). This definition encapsulates the relevant medium (the internet) that distinguishes eWOM from traditional WOM. It, therefore, suffices to imply that eWOM is a form of traditional WOM spread through the internet; hence the extension of the possibilities of WOM into the domain of technology. Examples of the platforms where eWOMs are generated and disseminated are social media, blogs/Vlogs, consumers' online forums, and review websites, etc. That is not to imply

that eWOM has no challenges or that it is a perfect marketing tool. Challenges, such as trust, technology-enabled manipulations of contents and security online, etc. present significant points of concern. Therefore organizations can extract value from eWOM only after mitigating the impact of the inherent challenges of eWOM.

Traditional WOM marketing messages have the source and the receiver of the message in a linear fashion as shown in the upper section of figure 2 below. The lower part of figure 2 denotes eWOM configuration where there is a source and the receiver of the eWOM but through the internet/Web medium.

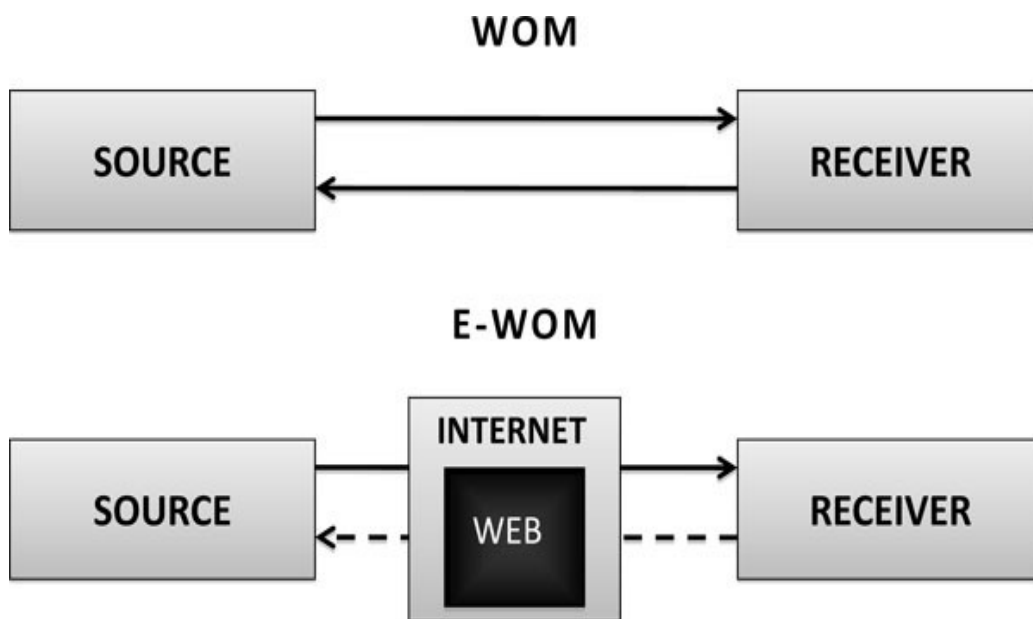


Figure 1: WOM compared to e-WOM (Adopted from Lopez & Sicilia, 2013, p.73)

2.4 Characteristics of eWOM

There are some attributes that differentiate eWOM from the traditional WOM. Some of these are the source of the eWOM, the valence and the volume of the eWOM (Lopez & Sicilia, 2013). Also, the concept of time and distance is different in the realms of eWOM and WOM (Krishnan & Beena, 2015). This is because the recipients of the eWOM and content creators need not be in the same physical space and time. This has given an enormous advantage to eWOM over traditional WOM.

2.4.1 Valence

The valence of eWOM refers to the subjective judgment as to whether the content of the eWOM is negative (rejection/low rating) or positive (acceptance/high rating) of the product or service. According to You et al. (2015), community-based websites have higher or greater valence elasticities. This can be explained that perhaps the inherent numerical advantage of such a community creates a higher possibility of having such elasticity.

Additionally, having positive reviews may create the impression of meeting customers' needs or having satisfied customers. However, it may also create a false impression that a satisfied-threshold has been reached regarding products or services. That is why negative reviews are sometimes more useful because it keeps products or service providers to be in continuous "lookout" for areas that need innovative attention. In spite of the possible influence of eWOM valence, customer relationship can play a critical role in influencing or making a significant change in customers' decisions. Arguably, it is a truism that a strong or good relationship between customers and business have a key influence on positive eWOM (Vo, 2017, p.38). Even in the case of negative eWOM, organizations can still "win" through forging stronger and cordial relationships with customers. However, that loyalty does not transcend beyond issues such as social, environmental or ethical. Thus, despite the positive valence about products or services, negative valence in certain key areas should be tackled and addressed quickly as there is no such thing as "complete or absolute loyalty" from customers.



Figure 2: Example of eWOM valence (Adopted from OD online, 2016)

The figure 2 above denotes the subjective judgment of the customer which has been shared on a community-like website (with 46 friends and 36 reviews).

2.4.1.1 Numerical ratings (1-5 star ratings)

With the advancement of online businesses with various qualities of products and services, it becomes necessary to provide a “fair” idea to other potential customers of one’s subjective judgment of products or services via the internet. This culminated into the introduction of customers ratings based on their experiences or perceived quality of products or services (Lafky, 2014, p. 2). Therefore, the online ratings of products and services are done by people ascribing numerical values to their experiences according to their subjective judgments. These customers usually have purchased or used the product or experienced the services and thus their numerical ratings reflect their level of satisfaction or otherwise. Arguably, it is a common assumption that the numerical rating should correlate with the textual or verbal ratings of products or services. However, there is a somewhat asymmetric or divergent correlation between the eWOM valence and the numerical rating (Tsao, Chen, Koong Lin, & Ma, (2018). The products and services are rated from 1-5 stars from the least (1) satisfied to the most (5) satisfied. Therefore in the

context of the mobile app's ratings, the number of stars (1-5) rated to the mobile apps indicates the level of satisfaction of customers in the use of the app.

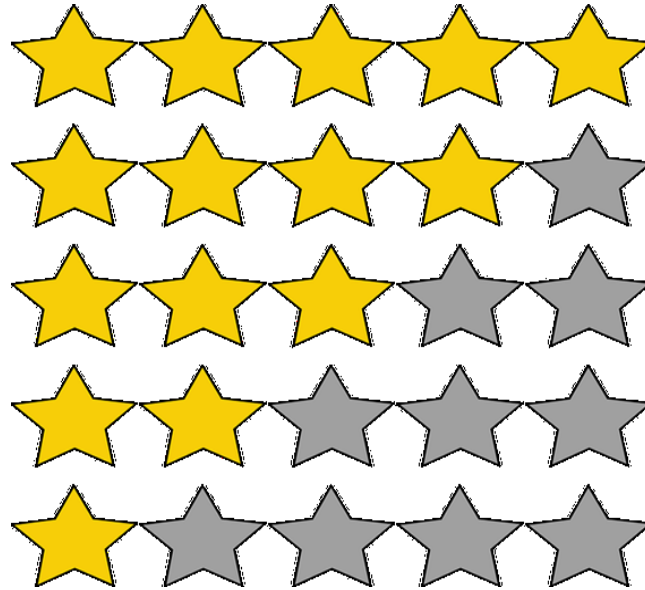


Figure 3: Star ratings (quality-best ranking) adopted from Pixabay

Figure 3 above indicates the star-ratings (denoted by the five yellow stars to one yellow star) depicting the level of satisfaction from the use of products or experience in the provision of services. However, this study is not focused on this aspect of numerical ratings or star-ratings, even though it is critical in customer reviews of products or services. The aim of the study and its corresponding research question seeks to explore in order to understand whether or not millennials read or consider the “written texts aspect” that accompany the numerical star ratings of mobile apps. This implies that the numerical star rating is outside the purview of this study.

2.4.1.2 Textual content of user reviews

The mobile app market is one of the most competitive industries that is growing over 15 percent (ReportsnReports, 2018) worldwide. This has been necessitated by the increase in the use of smartphones and tablets across the world that creates the enabling platform for the apps to be used. The value of software in general and apps, in particular, depends on the number of customers (user base) who use it (Vu, Nguyen, Pham & Nguyen, 2015). Therefore it is crucial for organizations that are in the mobile app business to aspire to

retain their current customers and also attract new ones if they are to be sustainable. However, it is challenging to achieve this objective without the provision of better products or services, including better customer relationships. As a result, it has become necessary for such businesses to take reviews or feedback from customers seriously in correcting defects as well as ensuring the improvements or innovation of their products. Among the reviews or feedback of customers or users are the numerical star ratings and the text's components that customers “leave” for developers and potential customers about their experiences in using the product. These reviews are usually given about the mobile apps via the digital platform where the apps can be downloaded from such as the “Google play store” or the “Apple Appstore” and other online platforms. There have been various opinions regarding the relevance of customer or user reviews of products or services in the digital environment as they are susceptible to technological manipulations. While there may be genuine concerns about the possibility of manipulated or fraudulent reviews of mobile apps in the digital app market platform, stringent rules and effort are being made to eradicate or reduce the menace. Some of these efforts are the application of sophisticated machine “learning” and human intelligence (Jansen, 2018) to track these dishonest reviews in order to ensure credibility on the platforms.

Some scholars argue (as cited by Vu, et al. 2015) that over 60% of mobile app user reviews are less useful. That is not to mean that customer reviews are “useless” per se, but it rather implies that there may be some “concocted or less impactful” reviews with an ulterior motive. It therefore becomes apparent that concerned organizations need to be able to adopt an effective system to sift through the array of reviews that are useful for their correctional or innovative purposes. As subjective opinions expressed textually, there is bound to be biases and errors, yet it may contain the information resource necessary to better understand customers’ grievances about their products.

These textual reviews can be converted into useful resources that can be used to gain better insights into understanding how customers perceive their brand in general or products and services in particular. There are various approaches that can be adopted to convert the textual reviews of customers into an actionable strategic asset. Some of the approaches are opinion mining techniques such as Sentiment analysis (SA), natural language processing (NLP), supervised learning, user preferences, Entities analysis, App evaluation and User satisfaction (Li, Zhang & Stefanidis, 2018) among others. These processes can be analogized to the basic “Input-process–output” paradigm where the

textual reviews are the “input”, the text “mining” technique as the “Process” and the result as the “Output”. From the foregoing, this analogy lends credence to the inherent resource and innovative potential of the subjective textual reviews of mobile app customers or users.

This study focuses on the textual aspect of user reviews of mobile apps for the following reasons. Firstly, the textual reviews of mobile apps supplement the star-ratings review option. This acts as a fresh source of data that can be mined by organizations for its value creation potential. Secondly, it enables the emotional aspect of the users to be “felt” through the textual submissions of their user reviews. This is an important pointer to the mobile apps developers’ and concerned organizations regarding how the target users feel about their product. Thirdly, compared to the normal star-ratings, the textual reviews are more likely to offer better insight. This is because a mere 1-star rating, for example, is less valuable in terms of insights than 1-star rating with textual content explaining the reason for the lower rating. Finally, given the aim of the study and the research questions, it lends more towards the textual aspect of the user review than the star-ratings of the mobile apps. Hence, the focus of this study on the possible impact of the textual element of user reviews of mobile apps on potential customers decisions.

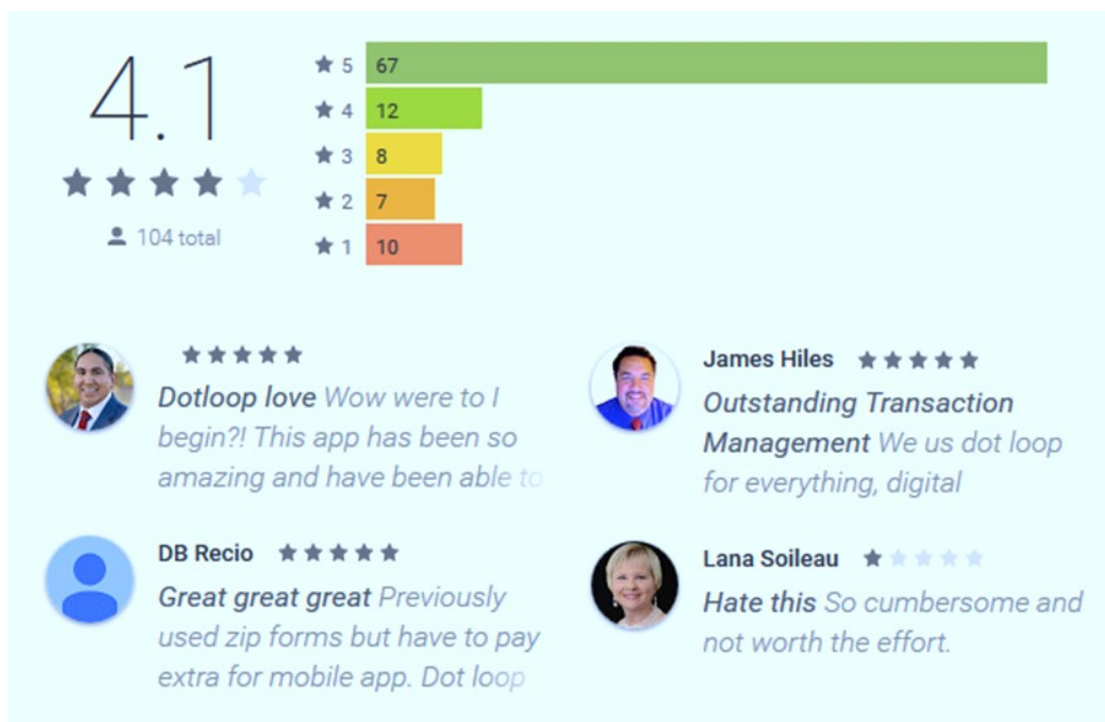


Figure 4: Textual reviews of Dotloop (Adapted from Real Estate software reviews)

The figure 4 above shows the star-ratings user reviews of a mobile app (Dotloop) by customers indicating the level of satisfaction or otherwise of the app. It can be seen from the figure above that the four customers expressed various levels of satisfaction with the mobile app. It is these subjective opinions (textual user-reviews) that are the focus of the study; by determining their inherent considerations (or not) in potential users decisions making regarding app downloads onto their electronic devices.

2.4.2 Volume

The volume of the eWOM is the quantity of the eWOM messages or reviews (for example in quantitative or numeric terms) about products or services. Regarding the volume elasticity, You et al. (2015) again reiterated that “...volume elasticities are higher for durable goods and for reviews on specialized review sites” This implies that the relative responsiveness or change in the quantity (or number) of reviews is higher for durable or utility goods having the reviews in some specialized websites. Therefore the change that can occur in decision making about products or services based on the review volume depends on the type of products and the source of the review. Similar studies by Kim, Yoon & Choi (2018) found that the eWOM volume is relatively a better determinant of revenue than valence. This is not to undermine the importance of eWOM valence, but it may be perhaps due to setting, objective and the methodology applied in the study. This posits that organizations choice of relying on either on volume or valence as a strategy may not be appropriate from the foregoing. Thus, the challenge cannot be addressed by an “either-or” approach, but rather through proper evaluation of organizations industry, products or services, and the overall business model to determine what is suitable in their context. Perhaps, that may be the reason why some organizations are less affected by low eWOM volume than others; thus signaling the effect of differences in approach and context.



Figure 5: Typical customer review by volume (Wikihow, 2018)

From figure 5, it can be noticed that there are over sixty 5-star ratings with less than twenty 4-star ratings, which gives the impression that the product has been received favorably by customers.

2.4.3 Other features of eWOM

In order to provide useful and comprehensive information about eWOM, it is imperative that other features related to it are also examined. There are six identified features of eWOM according to King, Racherla & Bush (2014). These are enhanced volume, platform dispersion, persistence and observability, anonymity and deception, the salience of valence and community engagement. In a similar study, Kaijasilta (2013, p.60), identified nine features of eWOM that are equally important in this study. These are the following; eWOM is opinion sharing, opinion leaders are influential, interactions are via the internet through different platforms, are based on networks, directed to multiple people, no time and location limitations, can be anonymous, credibility issues, and influences decisions. Both studies have identified similar features, and hence may be overlapping, but few will briefly expatiate for further support to the other features of eWOM.

Anonymity and deception

There is a higher possibility that people who create or generate contents (reviews) online may have identity unknown or hidden. Therefore this creates an environment where deception could be used to mislead people online. However, this challenge serves “dual purpose”, as genuine customers or people can share useful or credible information about products or services. On the other hand, people and even organizations with ulterior motive may compromise the platform to their advantage. Therefore it is vital that organizations and consumers become aware of such deceptive reviews that are aimed at providing false validations of products or services. On one hand, there can be individuals who may provide false reviews and on the other hand, could be organizations actively providing false reviews to their advantage. Therefore, the online environment becomes saddled with deception from both parties; hence it is imperative that false reviews be identified and controlled in order to minimize their negative impact. This emanates from the rate of increase in false reviews online (Plotkina, Munzel & Pallud, 2018). So the use of automated psycholinguistic deception cues could be effective than pure dependence on manual human approach. From the foregoing, it is indicative that eWOM has high potential in value creation; however, it can only be achieved if the inherent challenges through anonymity and deception are controlled or managed.

Community engagement

The idea of eWOM being powerful is the ability to have the “community feel” in the online space, thus the feeling that they are communicating or engaging with others on the other end of the spectrum. This creates the impression that their views are being heard or responded to. This can be through a synchronous approach such as instant messaging, chat forums as well as asynchronous such as email, blogs, or similar platforms. The rapidity with which information can be spread through such engagement online is astounding, and a positive eWOM, in this case, will significantly impact on organization image and brand position. It is this “community” that becomes the generators of and consumers of eWOM through sharing their experiences to others. As these “communities” would have been among acquaintances, friends and family in the

traditional WOM, such communities are predominantly unknown in the case of eWOM. Therefore is pertinent that organizations not only provide quality products or services but also engage with customers' throughout the value chain in order to address their concerns for genuinely positive eWOM.

No time and location limitation

Electronic word-of-mouth overcomes the geographical and time boundaries that are inherent in offline or traditional word-of-mouth marketing due to its operating environment. That means that irrespective of the time and as long as there is an internet connection, eWOM can be created and spread around or disseminated to whoever is connected to that platform. Through eWOM, consumers have other option of getting information about products and disseminate the information to geographically-dispersed people (Jalilvand, Esfahani & Samiei, 2010, p. 44).

This characteristic of eWOM provides potentially significant challenges to organizations and marketers in the online environment. Opportunities such as increasing customer base or market reach almost effortlessly, any negative information "travels in the same path" and speed. Thus it can be termed loosely as opening the online "Pandora box" in terms of digital marketing for the "unprepared" organization. In spite of that, when the time and location attributes are well harnessed, it can leverage this to the achievement of strategic and competitive advantage or reaching the marketing and organizational objectives.

Potential influence on decisions

The characteristics of eWOM that could potentially be impactful in creating value in organizations are apparent. However, as to whether eWOM has an obvious impact on potential customers' decisions is arguable. This is because in as much it has potential in influencing consumer decisions does not mean that every eWOM has the same potential of influence on customer decisions'. Arguably, eWOM could be a source of information resource that may influence potential consumers' purchase-decisions. As a result, eWOM (reviews) may be a source of information in making decisions about their purchase online (Almana & Mirza, 2013, p. 23). This supports the study of Kaijasilta (2013), who asserted that eWOM has a significant influence on customer decision making. However, the potential influence depends on the source of eWOM. This is because when the source of

the eWOM is considered credible, it almost translates into credible eWOM. It, therefore, follows that the credibility established increases the likelihood of influencing customers' decisions.

2.5 Decision-making potential of eWOM

The argument concerning the possible impact of eWOM on potential customers' actions or decision is quite complicated and arguably based on one's perspective. This emanates from the fact that there have been "mixed or different" conclusions drawn from these studies depending on their objectives, research methodologies, and theoretical or other perspectives. Some studies emphasize the significant impact of eWOM (Lerrthaitrakul & Panjakajornsak, 2014), and (Wang, Cunningham & Eastin, 2015) on potential customers decisions. However, it is not necessarily about the fact that the word of mouth is "electronic" that account for the inherent impact on potential customers' actions or decisions. The ultimate decisions of the potential customers are rather based on certain characteristics of the eWOM such as the valence, the type of message (whether it is benefit or attribute-centric) in the eWOM. Similar studies (Krishnan & Beena, 2015) support the assertion that eWOM has a higher possibility of impacting on decisions of potential customers. Further, the impact of the eWOM is being enhanced by individualism and virtual groups (Krishna et al., 2015) such as online consumer groups and other ephemeral or temporary groups. It is argued that through individualism that the recipients of the eWOM are empowered to overcome social bonds and influences and thus make decisions by themselves. The virtual groups, on the other hand, ensure that the eWOM are disseminated through the group members because it has less commercial intentions and is thus trustworthy.

Also, whether eWOM is positive or negative could influence differently on potential customers' decisions (Shabsogh, 2013) depending on some factors. These factors are the source of the eWOM and the characteristics of the receiver of the eWOM, further lending credence to earlier studies with similar findings. On the contrary, Park & Lee (2009) as cited in Hartman, Hunt & Childers (2013, p. 2) found that the effect of eWOM is greater when the eWOM is negative than when positive. Thus negative eWOM has a stronger impact on potential customers' than positive eWOM regarding their decisions.

In effect, the possible influence of eWOM depends on endogenous (interpersonal influences, trustworthiness or credibility, etc.) and exogenous factors or variables, such as characteristics of the receiver and the source of the eWOM.

Therefore, eWOM has the tendency of influencing decisions of potential customers, but there are other factors that are complementary in the achievement of that objective. So, those elements or factors have to be identified by organizations and effectively “welded” into the digital marketing strategy of those organizations in order to realize the needed impact on potential customers’ decisions.

2.5.1 Review manipulation

The digital distribution of software and other digital products such as mobile apps are carried out through software/app platforms. There are many digital platforms that enable developers of software or apps to offer their products to potential users/customers. Some of these digital platforms are Google’s Android Plays store, Apples iOS Appstore, Amazon Appstore, BlackBerry world, Firefox market place, Ovi (Nokia), Ubuntu Software Centre, and Windows store. (Medium, 2018). However, Google’s Play Store and Apple’s iOS Appstore are the two dominant digital distribution platforms for mobile apps as at the time of writing of this piece; hence they are the two platforms that are considered in this study.

The digital platforms create enormous opportunities for digital products such as mobile apps to be distributed effectively and efficiently by the developers of these apps. However, the ubiquitous nature of the internet that makes the digital distribution possible also creates an enabling environment for its related challenges. Some of the challenges in the digital platforms are the possible “bad reviews” of mobile apps and classified into “bad content”, “fake reviews” and “incentivized content” (Jansen, 2018). The “fake reviews” are the focus of this study because it typically consists of manipulated ratings and the textual reviews of mobile apps which are relevant for this study. These reviews aim at boosting the position or rankings of apps by falsely giving high ratings or positive reviews to the targeted apps and deliberately giving low ratings or negative reviews to related or competitors apps. The challenge of dishonest reviews is further complicated by the increasing level of sophistication such as the use of Artificial Intelligence (AI) technology (Greenemeier, 2017) in generating the reviews. This is not to imply that there

are no genuine reviews of mobile apps at the digital platforms, but rather the increase in the number of such dishonest reviews undermines or compromises the inherent influence of genuine reviews. Therefore it is critical for developers and concerned organizations in the mobile app industry to be wary of such development and take proactive measures in ensuring that the negative effect of such a fraudulent scheme is mitigated. Such mitigating measures are the adoption of counter AI robots or algorithms to identify dishonest reviews, as various systems are being developed to help curb this menace. An example is the adoption of a Machine learning technique called a “Classifier” (Juuti, Sun, Mori & Asokan, 2018) which helps to identify or spot the dishonest reviews among the numerous reviews.



Figure 6: An example of a fake review (Adapted from Li, Caverlee, Niu & Kagazgaran, 2017)

The figure 6 above illustrates an example of a typical suspicious review of a mobile app. It can be noticed that the textual content of this review seems like “a normal review” to the “average person”. However, according to Li et al., (2017) this review exemplifies a suspicious review of an app, perhaps based on certain factors identified in their study. Some of the observations regarding suspicious crowd-sourced reviews are based on the fraudulent promotion of the app, higher average rating, and questionable linguistic pattern among others.

However, this does not imply that overly satisfied customers cannot give such a review to an app but rather implies that not all highly positively ratings or reviews are genuine reviews as well. Therefore textual reviews of mobile apps, which are the focus of this

study, can be very insightful for mobile app developers and related businesses. However, it can also be misleading if the appropriate fraudulent-mitigating review systems are not applied to curtail or deal with misleading and fraudulent reviews prevalent in the digital platform. Consequently, making decisions based on these misleading or dishonest textual reviews of mobile apps will make the decisions equally misleading; thus inappropriate app may be downloaded instead of genuine ones.

2.5.2 Review helpfulness

The act of decision making is quite complicated; and the more credible information one has about a product or a service, the easier the decision making becomes. This is somewhat predicated on the assumption that information about products or services is sought before decision making. One critical factor in the online space concerning whether or not customers' reviews matter is the concept of review "helpfulness". The review helpfulness comprises the relative "informativeness" of mostly subjective and objective reviews of products or services from peers (Ghose & Ipeirotis, 2009) as an indicator of its tendency of impacting on decision making. The inherent helpfulness of the review of a customer depends, to a large extent, on the references that are made to it (Chen, Chai, Liu, & Xu, 2015). Using the supposed "references" as a premise, it suffices to say that even though it may assist in decision making; it does not lend itself equally to new reviewers. This emanates from the fact that potential reviewers may be "distracted" by the sheer number of earlier "review votes" because it occupies the front pages of the review sections (Chen et al. 2015). This "blocks" the latter reviews or review votes and thereby lessen it's potential "helpfulness", even though later reviews may be equally or significantly helpful than the earlier review votes. This potential challenge of visibility of later review votes at the digital platform corresponds to a similar assertion that higher level of visibility is necessary in order to have helpful reviews (Singh, Irani, Rana, Dwivedi, Saumya, & Roy, 2017). The supposed helpfulness reviews or votes are usually simple statements or questions that ask the potential customer seeking for the information whether that review was helpful or not; with a "Yes or No" options or a "thumb up or thumb down" sign next to it. This inquires from the potential customer if he/she considers the review by the other customers helpful in his/her search for information about products or services. Even though this may seem like an oversimplification of otherwise a complex decision making consideration; it readily provides an overview of what reviews have been

identified as being “helpful” in a sense. This is however challenged by the inappropriate or lack of genuine “helpfulness” evaluative systems, the credibility of the reviewer and lack of a suitable method of elevating the efficiency of the reviews that impact on the helpfulness index; hence on decisions (Almagrabi, Malibari, & McNaught, 2015). This implies that the helpfulness of reviews is vital because it has the possibility of impacting on decisions, however, it cannot be effective as a decision making resource if the inherent challenges are not identified and mitigated.

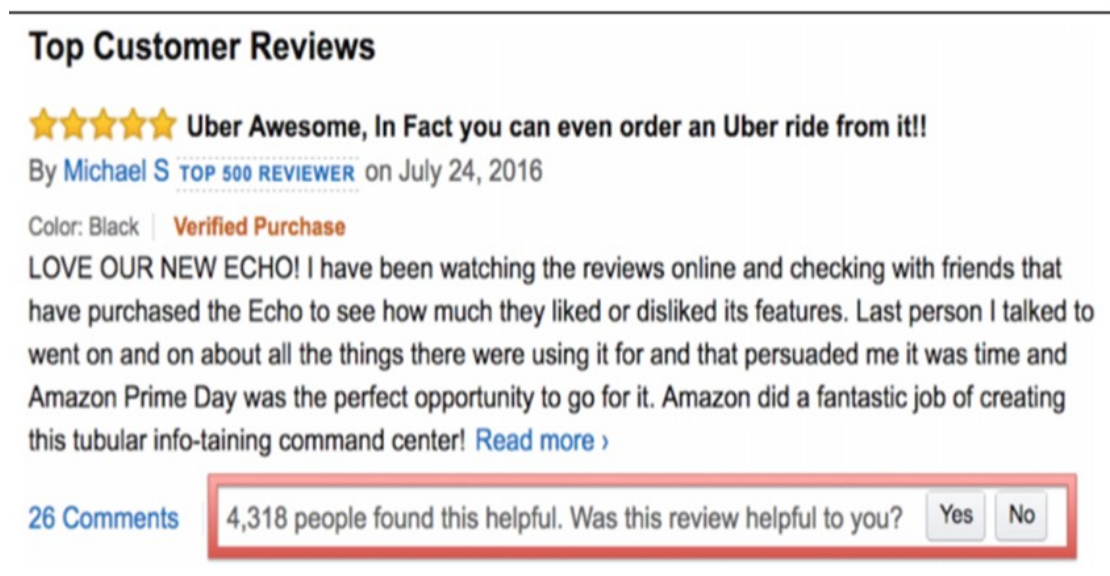


Figure 7: Customer reviews with “helpful” section (Adopted from Wei, Ko & Patel, 2016).

The figure 7, shows a typical customer review of a product with a section for a vote of “helpfulness” that allows customers to answer or “vote” on whether the review was helpful in their quest for information or not. Therefore, it implies that potential customers may or may not consider the over 4300 “helpful” support of reviews in their decision making concerning the product or service.

2.6 Value creation potential of eWOM

The art of creating value in businesses or organizations involve series of actions or processes using the resources of the organizations that have the potential of increasing the value of the products or services for customers and stakeholders of such enterprises (Business dictionary, 2018). It suffices to argue from this premise that information in the form of eWOM in the context of affecting consumer decision-making is crucial since it

is also a “decision-impacting” resource. EWOM can be categorized based on need or use into four distinct types; namely requesting for information about product or services, sharing of experience from the use of products or services, having issues or challenges with business practices and finally the comments by users relating to new product launches (Andreassen & Streukens 2009, p. 249-265).

Whether or not eWOM has an influence on customers decisions is however arguable, given the various perspectives or point of view one holds. According to Sharma, Morales-Arroyo & Pandey (2012), eWOM has an influence on consumer decision-making and ultimately sales; thus positive eWOM has a positive influence on consumers’ decision making. The findings from this study introduce a useful pointer in terms of conclusions drawn by similar studies on the impact of eWOM on consumer decision making. Similar studies by Wang (2018) asserts the importance of eWOM in influencing consumers decision making and further identified useful factors that can act as a catalyst in further influencing decisions of consumers. It is however imperative to state that in spite of the inherent impact of eWOM in consumers decision making, other elements are equally crucial if desired objectives are to be achieved. The study by Sharma et al. and Wang particularly identified the contribution or importance of the social element as critical in creating useful value from eWOM. While the former implies the high potential of social media in the generation of credible eWOM, the latter primarily was concerned with eWOM from social interaction as useful in the process of value creation.

Secondly, other vital considerations in the generation of useful insight from eWOM are the sources of eWOM information. It, therefore, implies that if the source of eWOM is considered as not credible, the information or the eWOM cannot be assumed to be credible or trustworthy. This in effect also affects the value that can be potentially created from the eWOM information. Studies such as Amblee & Bui (2007) and Le (2014) reiterate the significance of the sources of the eWOM as the influencer in consumer decision making. EWOM in the form of customer ratings of products or services is vital in giving a quick glance of consumers’ level of satisfaction about products or services. However, it can further be argued as an oversimplification of an otherwise detailed and yet important aspect of what a useful and relevant measure of customers’ level of satisfaction ought to be. In the study by Le, the issue of credibility of the source of information was a high predictor of a positive eWOM effect than other sources identified in the study. Another study, Meanders (2013) found that eWOM from a known source or

acquaintance are significantly reliable than from an anonymous source. This was because it was perhaps assumed that friends and family had no commercial intention when sharing the information compared to the other sources of information considered in the study. In support of this, Yahya, Azizam & Mazlan (2014) argued that the determination of a brand can be affected by the quality of the eWOM about a product or service. Therefore the value of a brand determined by the eWOM has a significant effect on the perception of consumers about the brand; which can either negate or reinforce a firm belief about the brand. The authors further cited Peter & Olsen (2002) who argued that eWOM has a significant impact on decisions of consumers and the non-commercial information from friends and acquaintances are mostly preferred to information from marketers and producers. Of the non-commercial assertion argued by Peter & Olsen, Okada (2012) identified that the characteristics or the nature of the products or services determine the receiver of the eWOM. That is, the ultimate receiver of the eWOM becomes the subjective judgment of the bearer of the eWOM as not all acquaintances are equally worthy or may be interested in a particular eWOM.

Additionally, the volume of customer reviews on a product or service is arguably an effective predictor and influencer of sales than subjective judgments (valence) of consumers. This implies that the higher the number of positive reviews of a product or service, the higher the tendency of influencing prospective and repeat customers to purchase than be influenced negatively by few negative feedback or comments from dissatisfied customers. Furthermore, this assertion contrasts Feick and Price (1987) as cited in Timmerman & Shepherd (2016) who found that the buying decisions of consumers are significantly influenced by some people who have a general overview of the market (market mavens) and their information affect buying decisions more than experts. This argument is in support of Jalilvanda, Esfahani & Samiei (2010) that “opinion leaders” are the most generators of WOM online. This stems from the fact that these so-called market mavens or opinions leaders can influence in no small measure the decisions of consumers concerning products or services online.

From the foregoing, it may be assumed that organizations are less powerful or disadvantaged regarding what eWOM information is shared about their products or services online. In as much as this may be the case depending on the nature of one’s

industry, products or services, organizations can institute mitigating measures or even create a positive eWOM about their brands online. According to Chena, Lawb & Kui (2016), the eWOM responses from businesses or organizations can be critical in creating value. Therefore it is imperative that organizations take an active approach in appreciating their positive eWOM and resolving negative eWOM complaints about their products or services. The authors identified three types of responses adopted by entities used in the study. These modes of responses were public responses to the eWOM, contact of consumers privately to address the issue and finally taking no action at all. It is however the open response approach that ultimately achieved better result for the organization. This is perhaps as a result of the need for transparency by consumers in dealing with businesses, hence reducing or eliminating doubts or skepticism from minds of customers or prospective customers.

As with most unique resources that have the potential for rapid growth of businesses, they have equally unique challenges that must be overcome in order to tap into value creation potential. Likewise the usefulness of eWOM cannot be fully tapped if the inherent challenges are not addressed or mitigated. For instance challenges such as the perceived “quality” of the eWOM can affect outcome (Lee, Park & Han, 2008) and the ubiquitous nature of the internet makes eWOM dissemination more rapid (Jalilvanda et al., 2010). The issue with “quality” is arguable as the study by Lee et al. does not explicitly define what constitutes a “quality” eWOM. In spite of that, the relevance of the study is paramount to the subject of this study. Some of the features of eWOM such as “like, share, or comment” on some eWOM platforms ensure that consumers’ feedback on products or services can be disseminated with less effort as much as possible thereby creating a cycle of “eWOM loop”. This ensures that feedbacks are considered as important ingredients of value creation in businesses and other organizations.

2.6.1 Credibility – Trust through the source of eWOM

The source of eWOM is considered an important determinant of its supposed credibility. As a possible determinant of consumers’ choice, it has become necessary because consumers’ in the online space make decisions about some products without physically touching or inspecting products or experiencing services beforehand. According to You, Vadakkepatt & Joshi (2015), the elasticities regarding the volume and valence are higher

for privately consumed, “low-trialability” products in less competitive industries with reviews from independent review websites. The findings from their study point to the fact that the sources of the reviews (independent review websites) are an important consideration in assessing the credibility of the eWOM. From the foregoing, it is plausible to imply that in as much as the subjective judgments and the numerical value of the reviews are vital; the sources of the reviews are also possible determinants of consumers’ choices. The study is by no means a perfect piece regarding the full understanding of the issue of eWOM elasticities due to the different settings, the approach of the study and so on. However, it provides useful “pointers” regarding the categories of products as well as industries with possible higher valence and volume elasticities. It suffices to say that the source of the eWOM is important since it can be the first point of creating credibility and ultimately trust for the brand. After that, potential customers are more likely to take the desired action requested by the product or service provider because it may reinforce the positive image created within the potential customer. This supports the argument by Cheung, Lee & Thadani (2009), who asserted that the relationship between consumers’ emotional trust and their purchase intention is reinforced by positive eWOM. Thus high ratings or positive reviews made about a product or service has a higher tendency of positively influencing consumers regarding their intention to purchase goods or services being reviewed. The study used to experiment and belief-attitude-intention framework to ascertain the impact of eWOM on the trust of online vendors’ products or service offerings. That is not to imply that a few negative eWOM will totally negate or erode credibility. This is because it is quite natural that some feedback could be negative, as that may even mean that they are more likely to be credible or from “real people”.

Again, See-To & Ho (2013) found that eWOM has a positive correlation with consumers purchase intention. This is however preceded by their trust or confidence of consumers derived from the source of the eWOM in the social networking websites, which eventually leads to influencing their purchase decision. This study is in concurrence with Hodza, Papadopoulou, & Pavlidou (2012), who asserts that eWOM from social networking websites have a positive effect on consumers and purchase intentions. That does not mean that other sources of eWOM are not vital, but it is probably assumed that eWOM from social networking websites are from “real people” not computer generated content, a robot or computer program-manipulated content. The attainment of some level of credibility and trust can arguably be translated into a form validation of products or

services. However, seeking validation only without a conscious effort of creating loyalty would be a disadvantage to businesses or organizations (Whitler, 2014). Therefore it is important for businesses to capitalize on the positive brand image acquired through the established credibility and trust to connect with existing customers as well as attract potential customers in the process.

Even though these studies used in reviewing the literature are insightful for the purpose of understanding eWOM in different perspectives, they are also limited by their underlying approaches and the various contexts used in the studies.

2.6.2 EWOM in the creation / innovation of products/services in the digital economy

Arguably, the contribution of eWOM in the creation of new products or services as well as innovating or improving existing ones cannot be overemphasized. This is predicated on the premise that eWOM is a valuable information resource that individuals and organizations' can rely on to make relevant and effective decisions. Also, the usefulness of eWOM is as important as the perceived credibility of the eWOM (Reichelt, Sievert & Jacob, 2014). This is because it significantly affects customers' attitudes, intentions and ultimately behavior towards the products or services. Also, given the overall aim of the study, it suffices to imply that consumer reviews (eWOM) are the potential input as well as the guide that shapes organizations products or service delivery. Therefore customers' online reviews should not be taken as few isolated cases of unsatisfied or disgruntled customers who should be ignored. But rather, organizations should be proactive in aggregating these feedbacks or reviews, spot the potential trends in them, and make the appropriate modifications or corrections if they are to be competitive. However, organizations cannot achieve much from the data (eWOM) without the application of data mining techniques. From that premise, the outcome of this study will be relevant or useful not only for academia but for industry, especially for software developers in general and mobile app developers in particular.

2.7 Summary and implications from the literature review

The literature review section of this study indicated the various perspectives held by the different authors as argued by their scholarly contribution to eWOM and its possible impact on customers' decisions. Throughout the review of the various literature, some common themes have emerged that could serve as the basis for understanding as well as providing guidance in the study given the research questions and objectives of the study. Therefore the observations from the literature review and their inherent implications on the role of eWOM in decision making will be presented in so far as they assist to answer the research questions, achieve research objectives or provide useful insights in understanding the role of eWOM in decision making. Thus this section briefly encapsulates some of these emergent themes and considerations expounded in the literature review section of the study.

Firstly, the contribution of eWOM in influencing or impacting customers' decisions has been emphasized in most of the literature for the study. Even though these contributions of eWOM vary regarding the aspect of the eWOM that was studied, it nonetheless highlights the vital role of eWOM (reviews) in potential customers' decision making. Not only that, but the impact of eWOM can also be argued as they could depend on some factors such as the source of eWOM, the credibility of eWOM, the accessed platform, the types of products and the relationship between businesses and customers. This implies that eWOM is not a "stand-alone" concept, because it can be affected by the very elements from which it emanated. Therefore, in as much as the literature asserts the importance of the eWOM in online decision making, it does have other facets that affect this claim as well as the extent of the influence, if any.

Secondly, the influence of social media is a key component of organizations effective digital marketing efforts. This is evident, though arguable in the role of social media and the possible generation of credible eWOM content in the digital social media platform. This is perhaps predicated on the assumption that social media has more of "social proof" for products and services than a purely commercial advertisement, alluding to the claim of inherent authenticity in socially-enhance eWOM. This is still arguable, but the potential of social media is important for effective eWOM generation and dissemination. Therefore, it is important for organizations to have a viable or effective customer relationship management strategy. This strategy should include social media element by

building customer-centric relationships and not to merely seek validations such as “likes, comments, or shares” from the digital social media space.

Thirdly, the approach adopted in responding to customers’ critical reviews or negative feedback (negative eWOM) is vital in giving useful insight to customers concerns regarding the product or service offered to them. These critical reviews act as sources of information resources that enhance innovations in proactive organizations that “mine” these relevant reviews for organizational advantage. Since eWOM can be either positive, negative or both, it is important for critical textual reviews to be handled in a “professional” or “customer-centric” perspective to derive much better value than adopt an approach of defensiveness. These defensive responses, though some may seem valid, could stifle innovation if these negative or critical reviews are not tolerated as part of the “iteration” process of value creation. Therefore appreciating positive reviews and tolerating negative reviews helps to create positive impressions and ultimately loyalty for these organizations. This implies that the organization can then harness the loyalty of these customers for current and for future or long term strategic objectives because of the adoption of an “open door reception” approach to reviews online.

Moreover, the textual online reviews of products or services including digital products such as mobile apps are created and disseminated on digital platforms (such as social media platforms, blogs, websites, and video streaming websites among others. Therefore, the credibility (or lack of it) of the reviews will depend, to an extent, on the inherent credibility of the reviewers (content creators), the relationship between the content creators and the receivers and the platform from which the reviews (eWOM) are generated and disseminated. All these factors play key roles in alluding to the importance of credibility in customer reviews in general and textual reviews in particular. This is because the credibility of the textual reviews (eWOM) translates to the credibility of the decisions made on their basis; hence the need to ensure credibility in all factors that affects decision making including the credibility of the eWOM platform.

Also, the decision-making potential of eWOM may be influenced by the perception of genuineness or the perceived credibility and associated “helpfulness” score on average. Similar to the credibility argument in the previous section, this concept of helpfulness provides an overall glance of the reviews of products or services, including digital product such as mobile apps. Therefore the impact of the reviews on potential customers’ decision

making can be affected by “glance-induced” helpfulness score of the product or service. Even though the helpfulness score seems rather over-simplification of a complex phenomenon, it gives an overview of the inherent value placed on the reviews by other customers; thereby giving “pointers” to decision making to potential customers.

Finally, the satisfaction of customers or exceeding customers’ expectations is the foremost requirement in generating and dissemination of eWOM through reviews as there cannot be reviews without products or services. From the literature review, it can be argued that customers’ feedbacks, ratings, or reviews (eWOM) are based on how customers’ perceive organizations in meeting their expectations or satisfying their needs or wants. Therefore it can be argued that perhaps the main driver of eWOM is the perceived satisfaction (or lack of it) of customers. It is when the customer satisfaction requirement is fulfilled that customers create or generate reviews including textual reviews thereby sharing their experiences on the online platforms, especially in the Appstore or Playstore in the case of this study. Thereafter satisfied customers are likely to approve and share their experiences online to the potential customers by clicking the “like” button in approval or the “share” button. The extremely satisfied or passionate customer could become voluntary “brand ambassadors”, “market mavens” or “opinion leaders” for the brand. These “market mavens” share their satisfaction via reviews of the products and services on the various electronic or online channels to their acquaintances, friends or family and the general public. These culminate in wide acceptance of the brand and possibly positively influence decisions of potential customers as well as positive brand image.

2.8 The customer decision model

The model of decision making presented in this section of the study has been necessitated by the fact that it is difficult to fully comprehend and achieve the overall objective of this study without the inclusion of some of the decision making "trajectory" of customers. In furtherance of this, the possible decision making models, alternatives or approaches adopted or likely to be adopted by potential customers will be used. These models or approaches of making decisions are geared towards the achievement of objectives such as requesting a “purchase”, “sign up”, or “download” decisions (as the case may be) in general, and in the online environment in particular. As can perhaps be established from the aim of this study, the focus of exploring the impact of eWOM (reviews) in decision-making is to identify whether the reviews impact on decisions and understand the

important decision-making elements considered in the decision making. Therefore the inclusion of the concept of decision making is inevitable for the sake of understanding the decision making path or trajectory of customers in general and potential customers in particular given due to changes infused by technology. Also, the understanding of how consumers make decisions serves many purposes. For instance, by understanding the consumers' thought-process in decision making enables organizations to create customer segments or profiles in order to tailor products or services as well as innovate certain product segments. Therefore some suitable decision-making models were used in order to better highlight the possible consumer decision making "journey" which is arguably inevitable to this process. These models are the traditional consumer decision-making funnel, the Awareness Interest Desire, Action (AIDA) model, and AISDALSLove, which is an extension by the addition of extra dimensions to the basic AIDA model. Finally, the role eWOM play in these decision-making models is presented.

The customer decision making process encompasses the entire stages from the moment the customer identifies the need for a product or service to the decision-making stage, and even after the purchase. Thus customer decision is not a singular act of merely deciding to buy something and actually going to execute the purchase. But rather, given that customers are rational, they are likely to go through a process before making a purchase, even if they do not realize it.

The fig. 9 below shows the typical or the traditional stages or processes customers go through in making decisions. From left to right shows the steps: Awareness, Familiarity, Consideration, Purchase and loyalty. Thus, simply put when consumers become aware of a need/want, they familiarize themselves with information about that particular product/service, consider different options, makes the purchase and then they may / may not be loyal to the brand. The issue of loyalty in the final stage will depend on the satisfaction derived from the product or service.

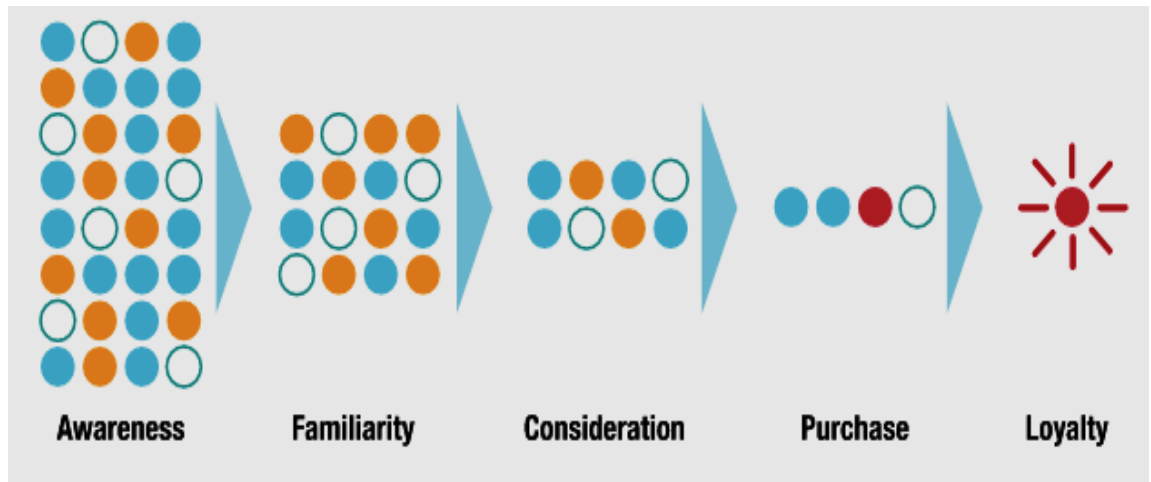


Figure 8: Traditional decision making “funnel” (Stankevich, 2017)

The traditional approach of customer decision-making process briefly explained in figure 8 highlights the necessary stages or thought-processes that consumers go through in decision making.

However, it seems to be an over-simplification of a rather complex process such as the inadequate capturing of the electronic/online dimensions of the elements of the decision-making process. These online or internet dimensions have been necessitated by the changes in the typical or conservative marketing environment into the contemporary technology-driven environment. As a result, new elements reflecting the socioeconomic and technological changes that affect consumer decision making have been introduced.

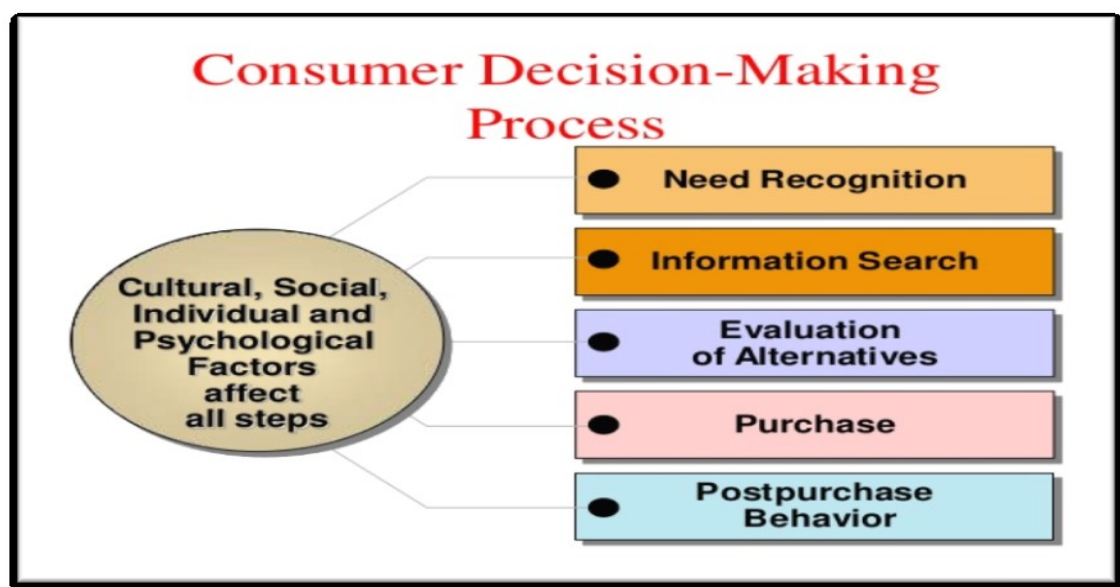


Figure 9: The consumer decision-making process (Adapted from IIBM, 2015)

Figure 9 presents an alternative consumer decision-making approaches that, even though similar to the process in figure 9, but succinctly considers the changes that technology introduces into the process. Hence the adoption of Kotler's five-stage consumer decision making process. The decision-making process according to this model is the following: need recognition, information search, evaluation of alternatives, purchase and post-purchase behavior (SHMA, 2012). The five stages in this model are adopted as a starting point because it encapsulates the customer decision-making process and provides a general overview for adequate comprehension of the process; hence, the presentation of the brief synopsis of the elements of the model below.

Need recognition

Arguably, this is the first step in the decision-making process of a typical customer. When a customer has a firm need for a product or service, it becomes a "void" that has to be filled with the acquisition of goods or services that can fulfill that need. This stage can be referred to as the "trigger" that has the possibility of influencing the other steps based on how the need can be satisfied. This need could be as a result of intrinsic motivation (such as hunger, thirst, or feel-good effect, etc.) Or extrinsic motivation, such as aesthetic appeal to others, need for praises/ attention, word of mouth and so on (Johnston, 2016). This implies that customers need can be influenced by what they "really" think they need by themselves or can also be influenced by what they see, hear, or experience through others such as advertising of products or services.

Information search

From the identification of the need in the preceding stage, it is necessary, given the rationality assumption of consumers, to find possible information about the product. At this stage, various sources of information may be accessed, such as personal sources, commercial sources, public sources and experiential sources (Juneja, 2019). Thus, sources such as asking friends and acquaintances, bulletins, newspapers, radio, magazine, online search, word of mouth and through own experiences and experiences of others. These sources of information are vital because it has the possibility of influencing

decisions or reinforcing “held beliefs” about products or services. Also, the credibility of these sources inherently translates into potential credibility of the particular products or service or at least a strong indicator of the credibility of products or services. This makes the credibility of information viable criteria right from this stage to the subsequent stages of the process.

Evaluations of alternatives

This stage of the process is the logical outcomes of the information search/seeking stage of the process. The various results obtained from the search for information about the product have to be assessed based on predetermined criteria suitable for the consumer. It is imperative for one to understand that consumers do not necessarily purchase products/service per se; they desire or they purchase the benefits that the products/services accord them. The general attitude of the customer among other criteria plays a critical role in significantly impacting on the decision of the customer. Therefore the criteria vital to influencing the consumer at this stage is the product or service that has a higher possibility of providing the most benefit or satisfaction.

Purchase

This is the ultimate action that is desired from the first stage of the consumer decision-making process. At this stage, it is assumed that the prospective customer has “weighed” the various options or alternatives that have the potential of providing the best satisfaction. However, it is still possible that this stage can be altered negative reviews or feedbacks and the motivation to accept the feedback (Kotler 2009) as cited in Johnston (2016). Based on this premise, it can be argued that the customer can be influenced almost at any stage of the decision-making process. Therefore it is incumbent on organizations and marketers especially to provide a compelling offer to prospective customers that have a higher likelihood of providing the best possible benefit or satisfaction.

Post-purchase behavior

This is the final stage of the consumer decision-making process that can act as “test” of the level of satisfaction or benefit derived from the product/service. When customers obtain higher satisfaction from the product/service consumed, it is more likely that positive feedbacks or reviews will be obtained from the customer and vice versa. Therefore this means that the purchase of products or services is not the end of the decision-making process. So organizations that do not consider the post-purchase behavior into consideration in their marketing strategy is bound to lose in the long term because there will be less likely to have repeat purchases. Ultimately, this stage is more concerned with how the customer feels about the products or services and to encourage repeat purchase and build healthy customer relationship leading loyalty for the brand.

2.8.1 The AIDA Model

Basic AIDA Model: [Awareness/Attention](#)→ [Interest](#)→ [Desire](#)→ [Action](#)

The AIDA model is a marketing (decision making) approach that is aimed at providing a better insight into understanding the customer through the stages or steps assumed to be used by prospective customers with the object of generating sales (Rouse, 2017). The elements of the model that constitute the steps for effective marketing or decision making are the foundation of this model. These steps are Awareness, Interest, Desire, and Action (AIDA). This is a model that was built on the similar premise as the other models by guiding the customers from the first point of attracting customers’ attention to the desired action of actually purchasing/closing a sale. The fig. 10 below depicts the diagrammatic presentation of the AIDA model and the elements briefly explained in the subsequent section.

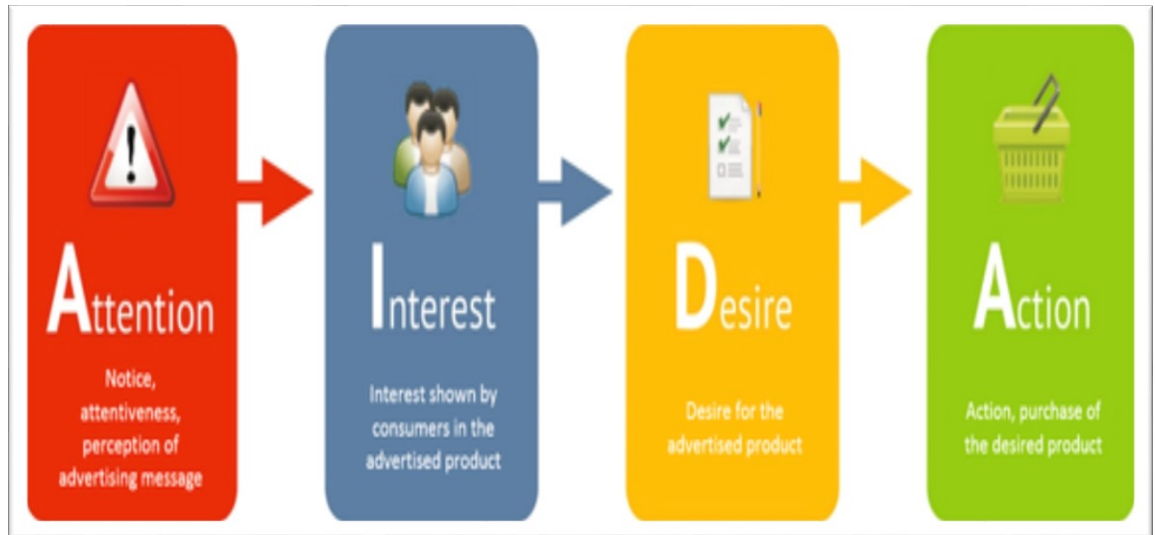


Figure 10: The AIDA model (Adapted from modern buyer behavior, 2017)

Awareness /Attention

This is the first stage of the model where prospective customers actually become aware of / attention drawn to the offering by businesses or service providers. Arguably, this can also be a moment a customer becomes aware of a need to be satisfied through the purchase of goods or services that are assumed to have the capability to satisfy that need. This step is usually triggered by the various media of advertisements aimed at creating awareness about products or services to prospective customers. The aim of this stage is more of grabbing the desired attention and creating excitement or curiosity of the prospect to the extent that they actually begin to relate the product/services to their lives (De Mers, 2013). For instance, if the offerings are clothes, the prospective customers could actually “picture” themselves wearing them; or how they may feel or be satisfied if the offerings are services. This makes the second step of the process much easier if the goal in this stage is achieved. However, it is vital that the “typical” customer for the offering is known in terms of who they are most likely to be, their income, geographic location, interest, etc. This is the key to tailoring offerings to these targeted prospective customers and in turn, they would be more likely to be attracted to the product/service offerings.

Interest

This is the desired result from the preceding stage; that prospective customers gain interest in the product/service offerings such that they are willing to “explore” more about the brand.

However, it is important at this stage to prove to the prospective customers that their problems/ challenges are understood. That is not to imply that one becomes a “quack” or achieves that objective through deception; but rather through credible or verifiable information such as having proof. These proofs can be achieved through genuine recommendations, feedbacks, testimonials, etc. from credible people or real customers who have engaged with the brand and obtained the “claimed” satisfaction. This will even draw more interest if the prospective customers and the satisfied customers have some similarities in their “profiles”.

Since the ultimate aim of this step is to gain the interest of the prospective customers to the brand, it is important to focus on how the information will be presented such as using a visually appealing approach or interesting character or voice actor (Chi, 2018).

Desire

The desired step of the model involves the customers' mental shift from interest to actually imagining themselves as beneficiaries of the intended satisfaction the products or services seeks to offer. This stage has drawn the prospective customer much closer to purchasing stage by the presentation of the products/services unique value proposition (Rouse, 2019) that is compelling enough to possibly attract purchase. This is the stage the prospective customers actually find out whether or not the product or service offering is suitable for them thereby increasing the possibility of eliciting the desired action. This further ensures that the customers imagine how “well-off” they are likely to be, given the benefits of the product. On the hand, they can also imagine how “worse-off” they are likely to be without the inherent benefits of the products/service offerings. As a result, these “internal wrangling” could propel prospective customers to move to the next step in the process if the outcome is positive for the brand and vice versa.

Action

This is the final stage of the process that ultimately determines whether the preceded stages have been successful, at least to some extent. The aim of this step is to get the customer to commit to taking action such as buying, subscribing, watching a video, sharing content and other call-to-action (CTA) phrases. The key at this step is ensuring that prospective customers take the desired actions by eliminating possible risks and ensuring guarantees that may be a challenge in closing the sale or making the purchase (CTA) for example. Given the enormous amount of information about competitors' products that seek to provide the same or similar benefits may affect the action at this stage. Therefore, other strategies such as offering certain types of product bundles, discounts or free shipping could further entice the prospective customer to take action by purchasing.

Criticisms of the AIDA model

The AIDA model, as a typical hierarchical model, does not consider certain vital elements such as repeat patronage behavior, consumption, satisfaction or other post behavioral intentions such as participation in online reviews (Wikipedia, 2019). Also, its lack of support for the integration of digital and interactive media such as brand communities and social media significantly limits its applicability. Given that this study focuses on electronic word of mouth (eWOM); which relies on digital or technologically-enabled environment, the basic AIDA model is inappropriate and therefore would not be used in this study.

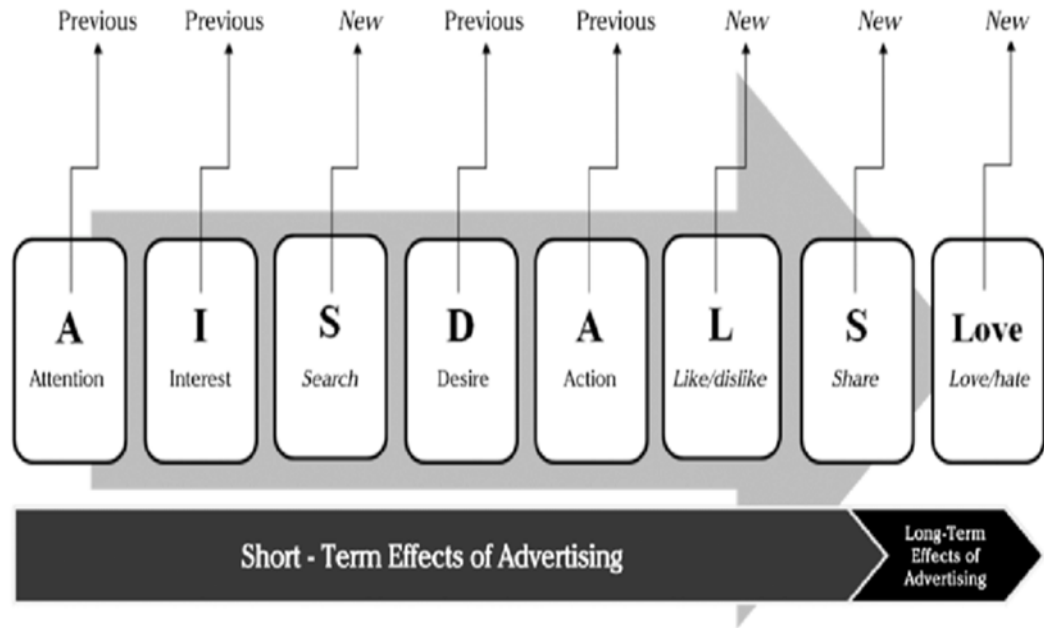


Figure 11: AISDALSLove model (Adapted from Wijaya 2012, p. 80)

2.8.2 The AISDALSLove model

The AISDALSLove model: Awareness → Interest → Search → Desire → Action → Like/dislike → Share → Love/ Hate

The AISDALSLove model is a customer decision-making approach that relies on the sales “funnel” approach to achieve marketing objectives by the inclusion of additional elements that were absent from the basic AIDA model. This model differentiates itself from the AIDA model with the inclusion of additional variables namely: Search, Like/dislike, Share and Love/hate.

The aforementioned additional elements added to the basic AIDA model is mostly due to the advent of the technology in marketing (Granger, 2017). Thus; arguably the AISDALSLove model is an update or expansion of the AIDA model. The figure 11 below depicts the AISDALSLove model with the additional elements marked “new” with the AIDA elements marked “previous” to denote that it belongs to the previous AIDA model explained in the section 2.8.1 of this study.

Search

This is the first element of addition in the AISDALSLove model which implies that prospective customers actually “search” for information about the product or service before the desired stage of the process (Granger, 2017). This element of the model is crucial due to the changes that have been introduced into the marketing efforts of business or service providers. The search in this instance can be accomplished through internal and external sources. Internal sources are the information that has been stored in consumers’ memory through life experiences and general feeling towards products or services. External source, on the other hand, can be accessed via internet media such as social media networks, online search engines such as Google, Yahoo, Bing, Ask, Duckduckgo, and others. Hitherto, this stage would not have involved advanced technology as available and being used today. As a result, this step has become easier and cheaper compared to the traditional or non-technological approach.

Like/dislike

This is the step in the AISDALSLove that precedes the “Action” step; implying that customers will determine their opinions whether or not they like the products or services after they have actually taken the required action. This is important because it affords prospective customers to experience what the product or service is, in order to determine if they like it or not. This means that one cannot “like/dislike” what has not been experienced. So it is important that the product works as claimed so as build credibility for the brand and thus may be “liked”.

Also, through the adoption of technology in this step, the “like or dislike” can be expressed by simple “click” of a mouse or “swipe” on an electronic screen. Therefore this creates opportunities for business to have their products or services “liked” if they are able to provide a better customer experience or satisfaction.

Share

This element of the AISDALSLove model implies that prospective customers share their experiences with others concerning whether they liked or disliked the product or service.

This is one of the many features of the model that spread information about the products or services to other consumers. This is the stage consumers actually express their feelings to others by sharing their experiences with others through different media platforms (Wordfinder, 2018). These experiences are shared online via social media, blogs, consumer review websites, online forums, etc. The power of consumers has been strengthened mostly through social media and the ease of sharing their experiences has enormous potentials to build good customer relationships (Morgan, 2017). The consumers act as “voluntary publicists” or market “mavens” for the brand, and their views are taken seriously by prospective customers. This is mostly because of the assumption that the consumers sharing the information have no commercial intention or “stake” in the information.

Love/hate

This is the last stage in the AISDALSLove model that “sums up” the entire feelings that consumers have about particular brands. Since these feelings about the products or service measure the overall rating of the product, it has long term-term effects on the product or service provider. The feelings can be whether they love or hate the product or service (Wordfinder, 2018). In order to achieve this positive “Love” rating for brands, it is critical that products or service providers ensure positive brand experiences. Arguably, this can be achieved through understanding customers to have better insights for decisions and ultimately achieve brand loyalty (Wijaya, 2012, p.83). The brand loyalty of consumers will contribute significantly to achieving long term marketing objectives due to their “inherent positive inclination” towards the brand.

On the other hand, if the consumer hates the products, that same feeling of hate will cause the customer to “bad-mouth” the product or service resulting which can create bad perception about the product or service. This implies that marketers should have an appropriate marketing strategy for their product or services, as there is no single “magic approach” to marketing every product or service.

2.8.3 The justification of the adopted model (AISDALSLove)

In the previous sections 2.8.1 and 2.8.2, the two decision-making models, the AIDA model and the AISDALSLove models respectively were presented. Even though these two models were all built on the premise of the “Hierarchy of effects” models, the AISDALSLove model is more relevant in this study than the AIDA model. In spite of the usefulness of the AIDA model, it has many limitations.

The AIDA model constitutes a general approach in customer decision making/hierarchy of effects model in advertising and lacks certain essential elements. Some of these elements are after-purchase intentions and effects such as reviews from customers, referrals, satisfaction, and consumption. Hence the AIDA model does not accurately present or capture the actual or real processes of consumer decision making in the current technologically-driven marketing environment.

The AISDALSLove model, on the contrary, has additional elements that take the post-purchase effects and behaviors into consideration. The added elements are “Search, Like, Share and Love/hate”. The positions of these elements in the AISDALSLove model determine the sequences of relevance were argued in the model. For instance, while the AIDA implies that “Action” by prospective customers is the desired result, the AISDALSLove extends that limitation to include “Like, share, and Love/hate. Therefore the aim of the latter model is to still engage customers, build relationships, understand why the “Like or dislike”, “share” and how they share their experiences and eventually why they “hate or love” the product or service. These additional elements are mostly technology-enabled in the contemporary marketing environment. Given the aim of the study, the AISDALSLove is more appropriate for the study because online customers’ reviews and the mobile applications "theme" are mostly technologically-enabled concepts.

3 RESEARCH METHOD

A research method can be defined as an approach or process used to study phenomena or a particular topic to arrive at a course of action or decision (Business dictionary, 2018). A chosen research method determines what philosophy or perspective that will be adopted in the study given the research questions that need to be answered with reference to the objectives of the study. It further determines what context, assumptions (ontology), what

constitutes useful or relevant knowledge (epistemology), and appropriate subjective judgments of value (axiology) that will be adopted for the study.

Generally, there are two main types of research methods namely quantitative approach and qualitative research approach. The next sections of the study further explain these two approaches of which this study will adopt the appropriate method in answering the research questions posed at the research problem section (1.2) of this study.

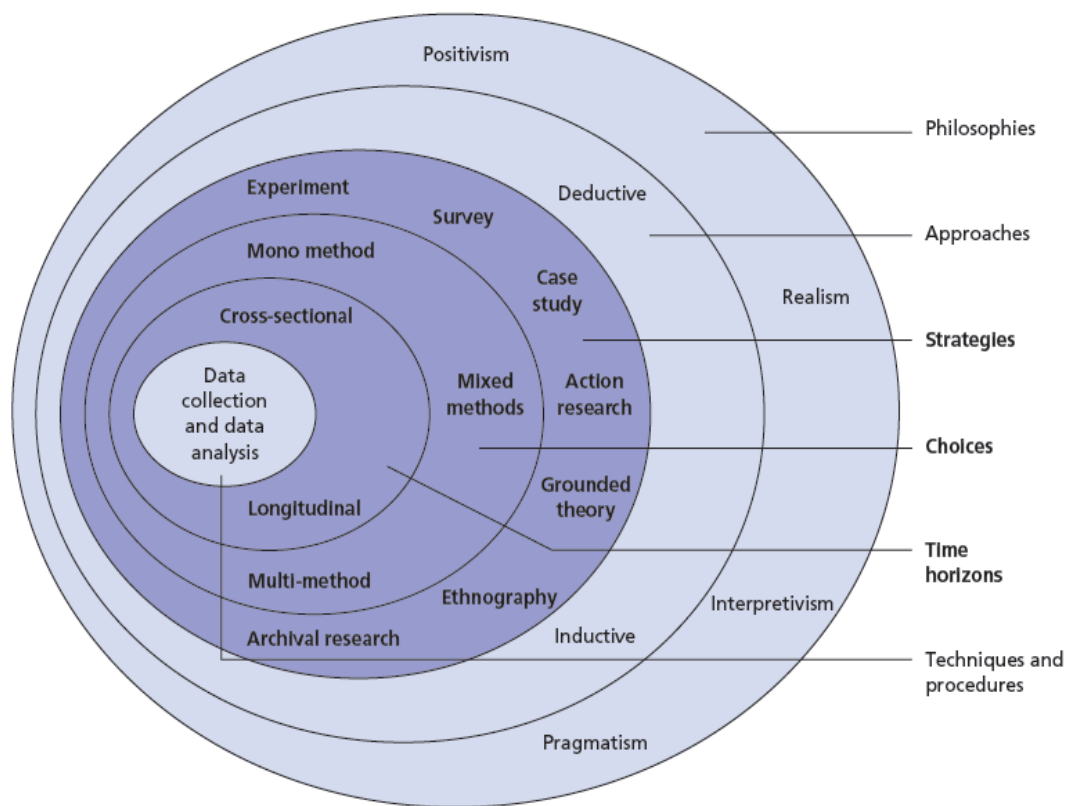


Figure 12: The Research “onion” adapted from (Saunders, Lewis & Thornhill, 2009, p.138)

The research onion from figure 12 above denotes the various options of the research regarding the philosophies, approaches, strategies, research methods, time horizons and techniques as well as procedures to be adopted in the study. The methods section from the research onion will be explored further in the latter section of this study where a clear and appropriate method will be adopted in order to help answer the research question(s) of the study.

3.1 Quantitative method

A quantitative research method is a type of research method that employs statistical, mathematical or numerical data gathering approach as well as using computational techniques to manipulate and analyze the data in solving a research problem (USC, 2018). This method can also make use of pre-existing data for the manipulation and analysis and the results can be generalized based on certain assumptions, factors or variables that underpin the study. Furthermore, this research method is mainly used to ascertain the relationships between certain identified variables (dependent and independent) of the study. The main aim, arguably, of this method is to identify and establish relationships, construct possible statistical models or frameworks, or classify certain features or attributes based on findings from the statistical or computational manipulations of the data. Thus, this method mainly focuses or enables the data and findings of a study to be quantified and generalized respectively (Chetty, 2016).

Some of the features of the quantitative method are in themselves limitations when compared with the qualitative method. For instance, the quantitative method uses structured research instruments, well-defined research question; its results are based on larger sample sizes that fairly represent the population and the ease of repetition of study because of its inherent reliability are some of the uniqueness of this approach. The aforementioned merits of this method make it suitable for use in the natural sciences because of its attributes and the requirement of accuracy or precision needed in scientific studies. However, despite the advantages associated with quantitative research method, it has equally unique pitfalls that limit its use or adoption in other contexts. Some of the limitations of the quantitative method are the inherent difficulty in controlling the study environment, the possible limited outcomes in a quantitative study, the time-consuming and expensive nature of the quantitative study as well as the inherent difficulty in the statistical analysis, etc. (Chetty, 2016). As a consequence of these and other limitations, the quantitative method has limited application in non-numerical or “less-precision” demanding environment such as social phenomena (Study, 2019). Non-numerical attributes or information such as the motivations, beliefs, imaginations, etc. are important elements in understanding human behavior as needed in this study. These critical elements are lacking in quantitative studies.

Therefore, given that this study seeks to explore the actions of human respondents with the aim of better comprehension makes this method unsuitable and as a result will not be used for this study.

3.2 Qualitative method

A qualitative research method is a type of research method whereby reality becomes a social construct, as well as the inherent relationships between the variables and the constraints or limitations of the study (USC, 2018). The data in qualitative research is not only textual in nature, but it can also be audio, picture or images and video as well (Saunders et al. 2009, 151). Therefore, this method advocates that perceived reality is subjective, and it is based on one's perspective (constructs) as well as other elements that will be assumed to affect the study.

This research method has relevant application in the social sciences due to its characteristics in helping to understand social phenomena. Some of the qualitative research designs employed to understand the social phenomena are a naturalistic, emergent and purposeful approach.

The naturalistic deal with studying social or research subjects without interference in their natural way. The emergent adopts an open approach where during the study, new or further understanding is appreciated without any rigidity in design, therefore any emerging or unexpected outcome enriches understanding or further insights to the study. Finally, the purposeful design method is whereby certain cases are selected for the study due to its relevance to the phenomena being studied. This method is normally adopted for study due to its inherent perceived insightfulness and the richness of the data that further provides understanding; these are vital elements' that positively impacts on the results of the study. It is however arguable that this method achieves its research objectives by "convenience" or "cherry-picking" fitting-cases for the study; hence its inability for results or conclusions to be generalized. In spite of this, generalizations of conclusions or results can still be made to the sample population being studied which further elicits an understanding of the phenomena being studied.

Finally, the qualitative research method was adopted for this study because it falls within the purview of exploring and understanding a social phenomenon (Keegan, 2009, p.37).

This is captured in the objectives of this study and the results of this study could help in innovating how mobile apps should be optimized and presented for customer downloads from the app store platform.

3.2.1 Data collection

Data collection refers to the process of gathering or collecting data from the research sample population in order to help answer the research question of the study. The prime objective of this process (data collection) is to collect a “quality” or accurate data as possible in order for results of the study to be meaningful or purposeful. Therefore it is imperative that the type of data to be collected will largely depend on the type of research method and objectives for the study. There are three types of data that can be collected, namely primary data, secondary data and tertiary data for a research project or study.

Primary data are the “originally” generated or collected data on which a study can be based. Examples of primary data are diaries, interviews, letters, websites, meetings and conference proceedings, patents, photographs, video, and audio recordings, etc. (Yale University, 2017)

Secondary data are “refined” primary data, thus undergone evaluations or interpretations. Examples are Biographical works, commentaries, magazines and newspaper articles, textbooks, history, criticisms, dictionaries, encyclopedias, etc. (Yale University, 2017)

Finally, tertiary data refers to the product of the distillation or consolidation of both secondary sources and primary sources (Yale University, 2017). Examples of tertiary sources are manuals, textbooks, indexes, abstracts, directories, almanacs, guide and fact books, dictionaries, bibliographies, etc. It is, however, vital to state that some sources overlap between secondary sources and tertiary depending on the particular case, research type, and objective. In spite of the usefulness of all these types of data sources in a study, the type of data relevant for this study are interviews as the source of primary data. Proceedings of meetings, conferences, and relevant newspaper articles will also be used for analysis. These are important because the domain of the study (electronic word of mouth/information system) literature is being frequently updated which may provide useful insights’ for further understanding.

3.2.1.1 Focus groups

Focus groups as a primary data collection method involve the use of a sample population or group, usually from 7 to 12 (others suggest 5-15) people who share their views, opinions, or ideas about a particular topic in a particular environment with the guidance of a moderator or researcher (Research methodology, 2018).

This method of gathering data is useful because researchers usually are provided with very different perspectives about the topic or subject being researched. Also, it is quite an easy and economical approach for data collection (Leung & Savithiri, 2009) and the data is usually captured via audiotape, videotape recordings and field notes after which the recordings are transcribed verbatim for analysis. These approaches of capturing data in focus groups provide rich data that has a higher possibility of providing useful insights into understanding the topic being studied. On the other hand, focus-group as a data collection method has some inherent demerits. For instance, few people may be dominating in the group discussion (Smithson, 2000) and some participants may also feel intimidated by others or shy to speak in the group.

This may create an unbalanced or unfavorable environment for some members of the group who may not have the opportunity to equally contribute or are shy to do so. Despite this, focus groups may be a relevant method of gathering data if the objective is to obtain collective views and understanding participants' experiences (Gill, Stewart, Treasure & Chadwick 2008, p.291-295) and suitable for purposes of evaluation and assessment of needs (Leung & Savithiri, 2000). For the purpose of this study, this method of data gathering will not be appropriate because the object of this study is to tap into the respondents' experiences (in order to understand) as well as identify their reasons or motivations (to answer the "why") for taking certain actions in a particular manner. Therefore, the negative group influences inherent in focus groups will be a significant challenge in obtaining credible data from the respondents, which will ultimately affect the outcome of this study. As a result, a focus group, though useful in obtaining insights from group members due to its interactive setting, is not an appropriate approach of data collection for this study; hence not considered in this study.

3.2.1.2 Participants observation

Participants observation is a type of data collection method in the sample population (participants) are being systematically or consistently observed in order to understand them by recording or noting their experiences and later analyzing in order to interpret their behavior (Saunders et al. 2009, p.228). Thus this data gathering method is more concerned with “what” people do and attempts to inscribe meaning to their activities in order to understand them.

However, this method is not to be confused with structured observation, which is used in a quantitative research method as that has a different focus of application not considered in this study. Besides, participants’ observation is deeply rooted in anthropological studies, especially in ethnography where researchers immerse themselves in the native culture of the community being studied for insights into understanding their actions and motivations. Also this approach of data collection is suitable for spotting trends or explore their behavioral routines (Kawulich, 2005) over a prolonged period of time (sometimes for years) to avoid temporary distortions; hence the need for researchers to normally live among the research subjects or community in order to achieve “quality” data, which is critical for the success of the study. Though a participant observation has the ability to provide rich data of experiences for better insights, it will not be adopted data collection method in this study for the following reasons. Firstly, this study does not need or use the anthropological setting as necessary in the participant observation method. This study focuses on exploring respondents experiences regarding a product (mobile apps) on how certain actions (downloading mobile apps) are taken in a particular way within a short time frame. Secondly, this study particularly concentrates on a small segment of “millennials” who use the product (mobile apps) with no community-focus as in the case of participants’ observation method. Finally, the use of informants (though rare, but sometimes necessary in participants observation) and researchers bias inherent in this method makes it inappropriate for this study. This is because, even though absolute objectivity is difficult to achieve especially in a qualitative research approach, it is critical to limit biases to the barest minimum in this study if the outcome is to be impactful.

As a result, the participant observation is not applicable for the purpose of this study due to divergent focus and the setting of this study.

3.2.1.3 Interviews

An interview refers to a process of capturing data from a sample population or respondents through inquiry which are recorded and used as the basis (data) of a study. This method of soliciting for information enables the study to be furnished with rich and in-depth data that can potentially provide accurate and relevant results if conducted appropriately. This is because interviews go further in exploring, describing and gives a possible explanation of the phenomena being studied depending on the types of interviews adopted. There are three forms of interviews namely; structured interview, semi-structured interview and unstructured interviews. The use of interviews particularly has the powerful effect of obtaining credible narrative data (Alshenqeeti, 2014) which enables researchers to explore further beyond quantitative data. Thus, respondents are allowed to express their opinions, though guided through the frame of the interview, to about the phenomena being studied. Therefore the data obtained considers the “human element” such as feelings, emotions and non-verbal cues that all enrich the face to face interview data. For the purpose of this study, interview as a data collection approach will be used because it is suitable for obtaining insight-rich data from interviewees (millennials). Besides, interviews give the general snapshot of the phenomena being studied in the interviewees “own voice” which is critical if a reliable data is to be obtained.

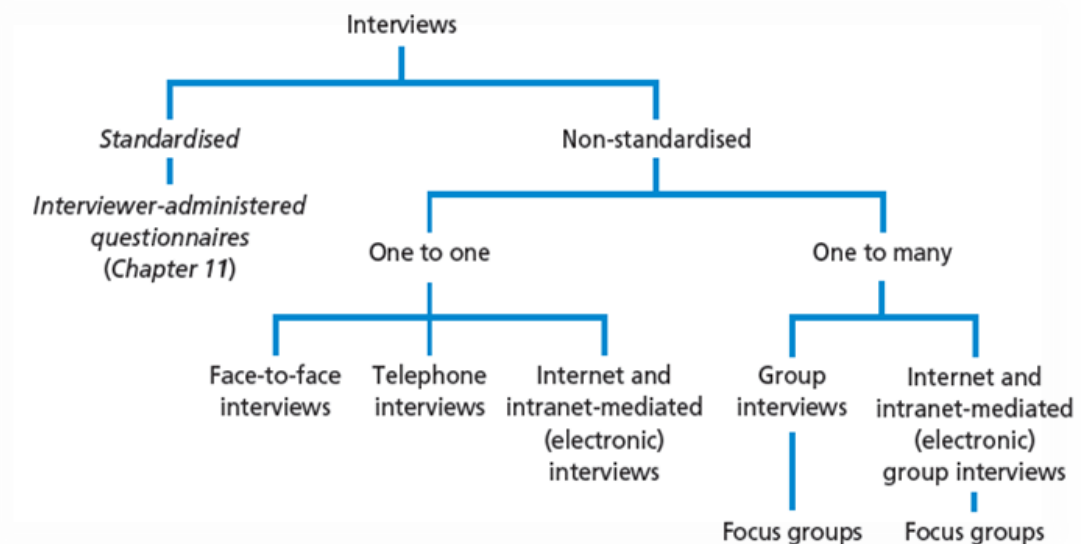


Figure 13: Forms of interviews (Adapted from Saunders, Lewis & Thornhill, 2009, p.321)

Standardized/Structured and Non-standardized /Unstructured interviews

A standardized /structured interview is a type of interview where the interviewer asks respondents set of questions and then completes or fills-in the responses on a prior-prepared form. This method of the interview makes it possible for researchers to get responses for quite difficult questions and data is easily validated because it is a well-thought-out question meant to get useful responses. This method is mostly used to solicit responses where the study is more concerned more with descriptive and explanatory in nature. However, this will not be appropriate for this study as the objective is though quite explanatory but not descriptive in this study.

An unstructured interview is a type of an interview data gathering method where respondents are freely allowed to discuss or talk on a particular topic with little control or organization as possible, to solicit for data from interviewees. This method can lead to a variety of perspectives and rich data, however, it is difficult to manage and risk of digression from the topic is quite high. In spite of this, it is useful for research where exploration is significant and much “depth” is required. This method could have been used for this study but the inherent demerits, and other constraints make it unsuitable for this study.

Semi-structured / standardized interviews

A semi-structured interview is a method of interviewing the sample population with a clear and purposeful design of some elements of organization or structure in the interview and also allow for purposeful-diverging of the interview. This is by design so as to obtain structured data and “rich” or “in-depth” responses as well in order to mitigate the inherent limitations in the structured and unstructured interview methods.

Furthermore, this method is very effective in a study that seeks to find answers not only to the “what” and “how” questions but also the “why” questions that are “in synch” or aligns itself with the research questions of this study.

Moreover, with careful control measures from the interviewer in semi-structured interviews, in-depth data can be obtained within the set parameters of the interview which makes it economical and relevant for this study.

Finally, based on the research questions and objectives of this study, it is arguably evident that personal interactions from interviewees are valuable as it further provides data through their body languages and other cues (Saunders et al., 2009, p.116). Despite the merits of this method of interview, the inherent flexibility could lessen reliability of the study, the difficulty of analyzing open-ended questions as well as inability to guarantee the honesty of interviewees may also be a limitation. However, given the objective and research questions(s) of this study, the semi-structured interview method is more suitable than structured and unstructured methods; hence will be used for this study.

3.2.1.4 Interview design

The interview design encompasses all activities or processes from preparation towards the interview to the final element of the interview in order to collect the necessary data from the interviewees to answer the research questions(s). The interview design approach largely depends on the type of interview that is whether it is a structured, unstructured or semi-structured interview. According to Creswel (2003; 2007) as contained in a study by Turner (2010, p.756), suggested a three-step process for conducting interviews. These are preparing for the interview, crafting of relevant research questions and implementing of the interview. This is a simple and relevant approach to conducting an interview; however, it was slightly adapted to suit this study because it was not used exactly as opined by the author.

3.2.1.1 Preparations for the interview

In order to make the interview more effective, it is imperative that one understands the objectives of the interview in order to make adequate intellectual and logistical preparations necessary to achieve useful responses or outcomes.

The intellectual aspect dealt with thinking through any possible “intellectual deficiencies” regarding how interview questions will be framed, given the objectives of the study and the research questions. In preparing for interviews, McNamara (2009) cited by Turner 2010, p.757) provided eight relevant steps which were adopted for this study. This was used for the study because it suited the purpose of the study and is “quite comprehensive” enough in covering the relevant stages for a typical semi-structured interview. The eight

stages are the following; interview environment, explanation of interview purpose, confidentiality issues, explain interview format, duration of the interview, possible contact after the interview, possible question(s) prior to the interview and finally recording the interview. These aforementioned stages or steps imply the critical decisions that must be made prior to conducting the interview. However, some elements contained in these steps may overlap with others used in the interview guide for the sake of clarity.

Interview environment

This refers to the interview setting that will be considered for the interview, how it will be organized. The venues for the interview in this study will be “quiet” places that will be considered serene enough with little to no distractions as possible. The setting for the interview in this study will be agreed with the interviewees based on convenience and suitability.

Explanation of interview purpose

The purpose or objective of the interview will be explained to the interviewees in order for them to understand how their contributions are critical to the achievement of the research objectives. In this regard, there will be self-introduction, why the research is being conducted by the author, the institution mandating or authorizing the research and perhaps the overall positive implications of the study.

Confidentiality issues

The issue of confidentiality in this regard connotes how the interviewees’ responses (data) will be handled. This includes the assurance that their data will be protected or safeguarded from unauthorized parties (Techopedia, 2018). This is to ensure the interviewees will have confidence in the interviewer and the whole process knowing that their information and the data provided will be handled appropriately.

Explanation of the interview format

The interview format refers to the way or the approach the interview will be conducted on the sample population for the study. The way the questions will be framed, whether closed-ended, open-ended or “hybrid”, as well as the general overview of the interview, need to be clarified. This ensures that the interviewees have a “clear mind” of what to expect and more likely to make them cooperate in the interview in order to obtain “rich” and relevant data for the study. The interview format for this study will be quite an in-depth interview with reference to semi-structured interview criteria or guidelines.

Duration of interview

The duration of the interview refers to the time that will be used from the beginning to the ending of the interview. This could be measured in hours, minutes or seconds depending on how the interview was organized in agreement with the interviewees. It is however important not to have lengthy or prolonged interviews due to fatigue, irrelevant data and its implication on the data quality for the study. For the purpose of this study, the duration of the interview will be about 45 minutes for the 15 interview questions. Practically, the interview may slightly be under or over the 45 minutes depending on factors pertinent to the interview such as the speed of responses from the interviewees, the need for repetition of some questions or briefing of some related concepts. Therefore this is an arbitrary estimation depending on the high volume of data to be obtained from the interview and the need for transcription of all interviewees’ responses and time constraints.

Contact after the interview

The issue of trust in researchers and interviews, in this case, by respondents has been a challenge for researchers. Therefore it is important that the respondents know that the objective for their responses in the studies is genuine and ethical. This makes it more likely for them to trust the current study and any future researcher when there is the possibility of contacting the interviewer after the interview. Therefore the possibility of

contacting the interviewer will be given to the interviewees in this study as it could improve their cooperation in the interview.

Answering possible question (s) prior to the interview

The possibility of the interviewees having some question(s) before the interview may enable the interviewees to clear any doubts they may have concerning the study at an earlier stage. This may perhaps positively affect the data to be obtained from the interview. This is because when the interviewees have doubts about any aspect of the study, they may be inclined to withhold information which could be vital in the data for the study. Therefore the interviewees will be given the opportunity to ask the question(s) they may have before the interview.

Recording the interview

The capturing or recording the interview is crucial in obtaining useful data for the study. All the preceded stages in the preparation for the interview were to actually ensure the capturing of data for this study. Therefore it is imperative that the data is captured well as the analysis and conclusions of this study depends on the data obtained from this stage.

The recording devices that will be used to capture the interview will be mobile phones and a “normal” audio recorder. These two devices are to ensure that the audio recording will be audible enough so that the data obtained from the two devices can be compared for a “quality” check which is vital for the study.

3.2.1.2 Interview guide

An interview guide is a document that specifies the areas that will be covered in the interview (Turner, 2017); that is the interview questions as well as possible “backups” or “probing” questions to the interviewees. The objective of the interview guide is to ensure that the interviewer asks the right questions and still enable the interviewees some form flexibility in their responses. It is however considered advantageous if an interviewee somewhat digresses in their responses because that may enable an insight into a rich data

collection for the study. This is not to imply that total or absolute digression from the topic is preferred, but rather the digression should be within the domain of the topic or at least could be somewhat related. In this regard, the interview guide serves as a form of “flexible” control of the interview process. For the sake of clarity, this interview guide has been divided into three sections namely; Building rapport, defining the topic areas with their respective questions to be asked and possible probing questions.

3.2.1.5 Population and sample size (Interview participants)

The population refers to the totality (or the entire) cases or elements from which part of them are drawn (or selected) for a particular course of action (Saunders et al, p.212). The sample size is the portion that is actually selected for the course of action; hence the sample is a subset of the population.

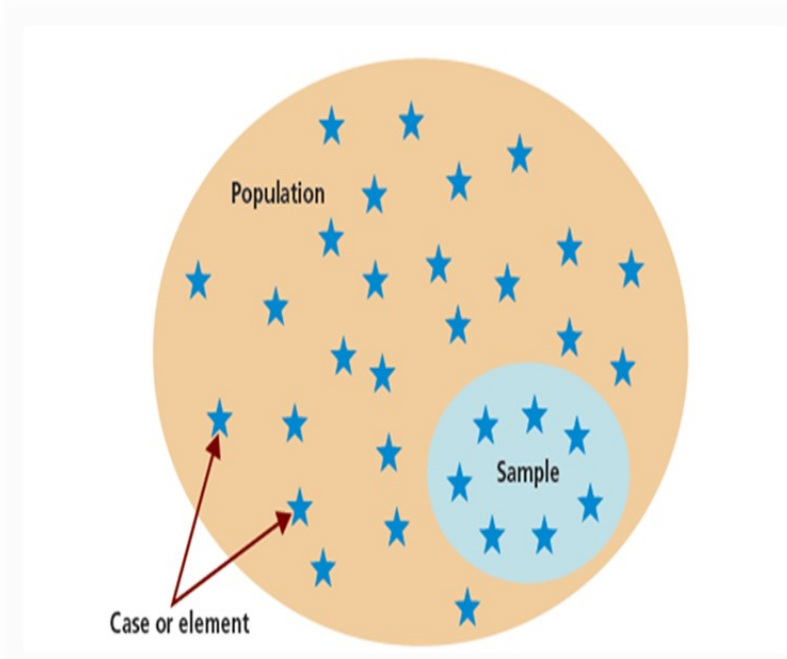


Figure 14: Population, sample and individual cases (Saunders et al 2009, p.211)

The figure 14 above indicates the population, the sample, and the individual cases. While the population represents the millennials in general, the sample used for this study

represents some millennials in Helsinki who will be directly interviewed for their responses in this study. Even though the aim of the study is not to generalize the findings to all millennials within Helsinki but the sample is relevant due to the common characteristics shared by the sample population.

The population considered for this study is millennials (generation Y+Z). Millennials are people born within 1981 to 2001 (Urban dictionary, 2016) preceded by those born within 1961-1981 (generation X). The term millennials are rather used arbitrarily or in a compact fashion, because it encompasses generation Y and generation Z (1991-2001 birth years). The term “millennials” may have derogatory connotation depending on the context of use because of the characteristics millennials share due to their birth years. There was a significant change inherent in their era of growth mainly from technological impact and adoption. Millennials are heavy adopters of technology (Jiang, 2018) and many aspects of their lives are influenced by technology. Therefore the millennials were chosen as the sample population for this study due to their significant adoption of technology due to their era of birth. Some studies extend the birth years of millennials to 1996 (Jiang, 2018) as shown in the fig. 15. For the purpose of this study, the millennials were defined according to the urban dictionary’s definition (1981-2001) with no further distinction regarding gender, income or similar demographic or socioeconomic variables. There were no other variables taken into consideration other than being a millennial since that was the only requirement or criteria needed for the objective of this study.

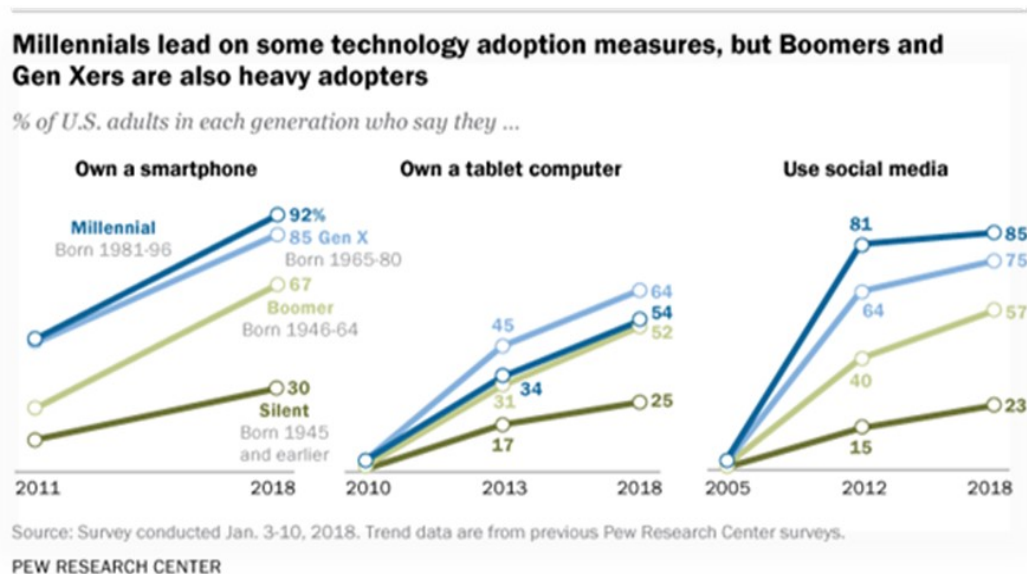


Figure 15: Millennials technology adoption (PEW research center, 2018)

From the figure 15 above, it can be noticed that over 90% of the millennials considered in the study own smartphones, over 50% own a tablet computer and over 80% use social media on a regular basis. Therefore it suffices to imply that millennials are mostly tech-savvy and it is this particular attribute that makes them more relevant for the study. Even though the results were based on a different setting (Millennials in the United States), it is still relevant for the setting of this study (Helsinki) due to the similarities shared by millennials worldwide (with few exceptions).

The setting of this study (Helsinki) was chosen (as of 20th) among 100 best cities for millennials (Finnfacts, 2017). Therefore this study will draw on the burgeoning millennial population in Helsinki for better insights into discovering and understanding the rationale behind their download of mobile apps and how they go about it.

The sample population (interview participants) for this study was ten (10) interviews of millennials. This number was used because it serves as an effective number in which a viable “saturation” point could be identified during the process. Arguably, this number may be appropriate due to the need for “in-depth” generation of responses from interviews due to the overarching purpose of the study. Therefore with a maximum of ten people, it is most likely that a particular trend or theme could be generated for the purpose of analysis. According to Dworkin (2012, p.1319-1320), 5-50 interviews for qualitative studies is “good enough”, but this, however, depends on the objective of the study and other constraints such as time and resources. Therefore the number of interviewees chosen for this study was considered appropriate with reference to the objective of the study and other constraints.

3.2.2 Data transcription

This is the process of converting data, normally audible and visual format into written text word-for-word before the stage of analysis (Bailey, 2008). In order to make sense of the interview data, the transcription needs to take into account subtle features of the speed of the talk or response, tone of voice, timing and pauses between the interview responses. These elements are vital in terms of the interpretation and analysis of the data of the study. Therefore the interview data of the study were transcribed not necessarily verbatim because the focus was on giving insight for the relevant concepts within the data to be

extracted. This was done in order to derive meaningful and “rich enough” data which is important for the study.

3.2.3 Data analysis

This was the next step after the data of the study were collected and transcribed accordingly. Through analysis of the data, the meanings were deciphered or extracted meanings and thereby made the findings of the study meaningful.

The data that was used for the analysis was the transcribed audio recording of the interview responses and the field notes taken during the interview sessions. This was to ensure that the data collected was “rich enough” in terms of its relevance and usefulness which were vital for the meaningfulness of the study.

Generally, there are various methods of analysis that are used in analyzing qualitative studies, such as content analysis, thematic analysis, narrative analysis, discourse analysis, framework analysis, and grounded theory. Each of these methods of data analysis was better suited for peculiar cases, settings or type of study or research and the particular focus of other studies. However, the data analysis approach that was adopted in analyzing the data of this study was a thematic analysis technique. This technique of analyzing data systematically condenses the qualitative data into observable themes or patterns (Liebenberg, Jamal & Ikeda, 2015). This was done in order to better understand and interpret the findings of the study to draw meaningful conclusions from it. Also, the thematic analysis technique was used because of its flexibility as it does not align itself to any specific theoretical or epistemological perspective (Maguire & Delahunt, 2017) making it adaptable for use in this study.

Finally, considering the exploratory nature of this study and the need to analyze the textual data from interviewees makes this technique relevant and suitable for this study. In using this technique for the data analysis of this study will involve a series of steps.

The following steps illustrate how the data will be analyzed:

Firstly, there was familiarization with the data of the study. This enabled the identification of the necessary elements needed or to be used further in the process to be spotted.

Secondly, the initial codes or identifiers attached to some segment of the data will be generated. This enables the proper categorization of these elements needed in creating patterns.

Thirdly, observable patterns or themes reflecting the collections of the identified codes are identified. These themes served as the main areas of concern that were the focus of the study since they emerged from the data. The data was then reviewed in order to understand and explain the meaning and dynamics of the themes. Moreover, the need to maintain rigor through inter-coder agreement will be observed. This reduced the likelihood of errors in the analysis thereby obtaining relevant or credible findings from the study. The reviewed data or themes were defined accordingly so as to include all elements that fitted into the defined category.

Finally, a report was written denoting the findings of the study and assessed as to whether the research questions were answered or the research aim achieved. This was the final process to explicitly assess and document the extent to which the research questions posed in section 1.3 of the study were answered or addressed.

4 PRESENTATION OF FINDINGS

This section of the study presents the findings obtained from the interview of respondents. However, the Table 1 below provides the information of the respondents used in the study before the actual presentation of the findings of the study.

Respondents number	Respondents Alphabet	Gender Male (M) /Female (F)	Age	Respondents identity (ID) used in the study
1	A	F	32	AF32
4	D	F	31	DF31
6	F	F	33	FF33
9	J	F	26	JF26
10	K	F	28	KF28
2	B	M	36	BM36
3	C	M	39	CM39
5	E	M	28	EM28
7	G	M	27	GM27
8	H	M	28	HM28

Table 1: Basic information of respondents (age, gender, ID used in the study)

The Table 1 above denotes the basic information of the respondents such as respondents' age, gender and their designated identity used in the study. It comprises of five parts, namely: the respondent's number, the alphabet used to represent the respondents, the gender of respondents, the age of respondents at the time of interview and the respondents ID used in the study. The number of the respondents represents the order in which the respondents were interviewed, the alphabets used were A-H, except I, which was used to represent the interviewer during the interview. Finally, the respondents ID represents the combination of the Alphabet, the gender and the age of the respondents used in the study.

The Table 1 is important because it enables better understanding of the elements used to represents the respondents in the study.

4.1 Findings from section 1

The semi-structured interview conducted for the study implied two sections (except questions 3,5,12 and 15), the structured questions requiring "Yes or No" responses (section 1) and the responses to the "probing" questions (section 2) that required further explanation of responses. For clarity purposes, section 1 of the findings from the interviews (3, 5, 12 and 15 excluded from Table 2) has been presented in table 2 below. However, the findings from section 2 were presented in the form of the themes identified from the responses obtained from the interview participants.

Findings of Section 1		
	Responses (Yes/No)	
Interview question number (A)	Yes/Partly (B)	Yes No/Partly No (C)
1	7	3
2	9	1
4	9	1
6	5	5
7	8	2
8	8	2
9	5	5

10	9	1
11	9	1
13.a Downloaded	8	2
13.b Shared and liked	6	
Shared (only)	3	1
Written a review	5	5
14	3	7

Table 2: Findings from section 1

Table 2 above depicts the findings from the first section of the interview conducted for the study. The rows labeled A, B, and C, represented the numbered interview questions, the “Yes or partly Yes” and “No, or partly No” were responses to the interview questions. The responses to questions 3,5,12, and 15 were not included in table 2 because those questions did not have implied section 1, hence were addressed in section 2 of the findings. It can be noticed that 7 respondents answered in the affirmative when they were asked whether they sought for information about apps before downloading (Question 1). Similar response (or pattern) continued in their responses to questions 2 and 4 that asked whether the reviews of other mobile app users mattered to them (Question 2) and if they knew that not all user reviews of mobile apps were genuine (Question 4).

From the table 2 above, it can be noticed that there have been some general consensus in the responses to questions 1, 2, and 4 where respondents answered “Yes” or “Partly Yes” to their respective questions posed in the interview. However, when respondents were asked whether they trusted user reviews of mobile apps from their Finland (Question 6), the responses were halved (5 each for Yes and No). Similar consensus (5 each for Yes and No) were obtained when respondents were asked whether they have written textual reviews of their experiences of using mobile apps in Question 9.

The trend of general consensus continued in questions 7 (7 out of 10) and 8 (8 out 10): where respondents were asked whether they trusted review of a mobile app by their friends on social media and whether they have rated an app with star ratings after using apps, respectively.

Also, when respondents were asked if they thought that other users written texts about their experiences with mobile apps were good to consider (Question 10), 9 out of 10 respondents answered “Yes”. Similar affirmative responses (9 out of 10) were obtained in Question 11, where respondents were asked whether highly rated reviews (4-5 star ratings) were valuable, in their opinions.

Moreover, when respondents were asked whether customers review has influenced them to download a mobile app (Question 13a), 8 out of 10 answered “Yes”. Similarly when respondents were asked whether customer reviews has made them “like”, “share” or “written a review” of their experiences (Question 13b), the responses were 6 out 10 answered “Yes”, 3 out 10 answered “Yes” and 5 out 10 answered “Yes”, respectively.

Finally, when respondents were asked whether they have received responses about their user reviews online (Question 14), only 3 out of 10 answered “Yes” and 7 respondents answered “No” in that question.

4.2 Findings from section 2

The findings of this section were mainly obtained from the responses of the “probing” questions posed to the interviewees as “follow-up” questions during the interview sessions. This was aimed at obtaining a better understanding of their responses by requesting for the rationale or justifications for their answers or responses provided in the interview.

Table 3 below depicts the interview question numbers, their related research questions to answer or the themes to address and their theme group numbers. This was to provide clarity regarding the interview questions that provided the relevant findings to address or answer the research questions or themes they related as well as their relevant theme group, at a glance.

Finally, the themes that emerged from the findings were classified into eight groups in order of relevance in answering the research questions or contribution to their inherent themes.

Table 3: The interview question numbers with RQ/Themes

Interview question numbers (D)	Research question (RQ) to answer OR Themes to address (E)	Theme group number (F)
1-3	RQ 1	1
4-7	RQ 2	2
8-9	Tendency to start or share eWOM	3
10-11	Impacts of textual reviews and ratings	4
12	Decision making trajectory of users	5
13	Testing the AISDALSLove decision making model	6
14	Organizational responses to eWOM	7
15	Additional information to product (mobile app) developers/service providers	8

THEMES FROM FINDINGS

4.1.2.1 Theme group 1: To answer RQ1

This theme group comprised of interview questions 1, 2 and 3 that aimed at obtaining relevant findings from the interview respondents to address or answer RQ1.

As a result, the following themes were extracted from the interview findings, signifying the synthesized versions of the relevant responses obtained from the interview.

Perceptions and experiences of current users matter

The prospective users of mobile apps, to some extent, consider their decisions of installing or downloading mobile apps on the experiences, opinions, and perceptions of current users. The current users are thus empowered to change the general perception of the future users of the mobile app if they have a higher level of satisfaction or positive experiences in using the product. The following quotes from two interviewees lend credence to that assertion:

“I read the comments under the apps to know what people have said about the app, generally” (Interviewee/CM35, 2019) and “I will be able to know what other people have said about the app through their experiences of using the app so as to avoid falling “prey” to people with ulterior motives who hide behind reviews of mobile apps to mislead me” (Interviewee/JF26, 2019).

These quotes from the respondents provided evidence to the effect that other people’s perceptions, to some extent, may influence the decisions of new users of mobile apps.

Finally, other respondents also consider their expectations and benefits of using mobile apps as reported by a respondent in this quote; “I seek information about apps in order to know the benefits or functions to expect from the app and also to know if it’s worth downloading or not” (Interviewee/HM28, 2019). So there are perhaps different considerations under this theme as espoused by used quotes.

Source of information about the app is important

The provider of information or the source of information about mobile apps, in this case, has an impact on how the information will be perceived by others. It may also determine the level of value or importance attached to the information about the mobile app. The following quote by a respondent provides some level of evidence:

“If the app is a recommended one, for instance, recommended by a friend, then I may download without wasting much time checking too many reviews about it; of course I assume my friend uses it and thinks it’s cool or good enough” (Interviewee/JF26, 2019). The aforementioned quote conveys the inherent importance of the source of information about mobile apps, be it from friends, obtained information or other sources.

Information about mobile apps are mostly verified

The information prospective users of mobile apps obtain are likely to be verified online, from peers or friends and acquaintances or some through other means. However the information is mostly verified online as contained in this quote:

“It depends if I know someone who has used the app, or heard from someone I trust, but if I heard it somewhere or even saw or read about it online, I do more online searches to find out if the information I read about the app is credible before trusting to download” (Interviewee/HM28, 2019).

The level verification can also be determined by the level of trustworthiness or credibility of the source of the information about the app as contained in the quote of the previous section.

Perceptions of “value” or “importance” of apps are subjective

The perception held by users regarding the inherent value or importance attached to mobile apps are not the same for all apps as evidenced in this quote;

“Well, about reading the user reviews, it depends on the importance of the app to me, sometimes I do not read reviews at all, I just download to try, especially if it was recommended for me” (Interviewee/GM39, 2019).

Also, the perception of “value” attached to the mobile app may be assumed to be the importance of the task performed by the app and the length of time it will be used. This quote by an interviewee lends credence to this proposition;

“It depends on whether it’s an app I need for a specific function or it was recommended by friends or someone I know. So if I need an app for a specific task and will be using for a long time, then I usually care about knowing more by checking online for peoples experiences of using that app” (Interviewee/JF26, 2019).

So the inherent “value” attached to mobile apps is different for various users. This is by no means an argument purporting the exhaustiveness of the definition of “value” of the mobile app by all categories of users.

There is no definite number of user reviews or pages of reviews

Based on the findings synthesized into themes in this theme category, there is no particular number of reviews or pages of reviews that prospective users consider in their mobile app-download decisions. While some respondents provided arbitrary numbers, other respondents consider other factors.

The following quotes provide evidence to the assertion;

“Sometimes, to download apps, I read a couple of reviews; it can also be just one review. It depends on the importance attached to the app but normally almost all reviews on the first page if there are not that many reviews” (Interviewee/GM27, 2019).

Another interviewee said, “I think 3 to 5 reviews sort of give me the general idea or current user perception of the app as to whether I should download it or not” (Interviewee/AF32, 2019). Therefore there is no definite number of user reviews agreed on by prospective mobile app users. Also, other respondents cited other factors as captured in this quote;

“I read the reviews on the first page easily. But it also depends on the type of app. If its app I may use for long like social media, calling or message apps, then I can even check page 2 of the review for more. For the apps that I may use for a short time before deleting, I don’t read many reviews for that” (Interviewee/BM36, 2019).

These related quotes under this theme report that there are different factors considered by potential users of mobile apps.

4.1.2.2 Theme group 2: To answer RQ 2

This theme group consists of interview questions 4, 5, 6 and 7 (4-7) that attempts to answer RQ2 of the study.

In obtaining relevant responses to help answer the above RQ2 above, the following themes were generated from the interview findings of related questions. The questions 4-7 encapsulate the relevant themes or elements that are necessary to provide appropriate findings to answer the RQ2. Therefore, the following were the themes generated from the findings of questions 4-7.

Skepticism of user reviews

There were some elements of skepticism regarding how online user reviews of mobile apps are perceived. Some respondents consider user reviews sketchy until there is evidence to the contrary as reported in the following quotes;

“I think it will be quite naïve to think that everything I read about things or people from the internet are true. It makes content creation online easier, so I don’t think user reviews of apps will be any different from the other online contents that are created to mislead the uninformed” (Interviewee /HM28, 2019).

Similarly, another respondent opined; “I think the internet has become a “hotbed” for unscrupulous people hiding behind an electronic screen to deceive people. I always had this skepticism in online stuff, that’s why I even include user reviews of apps “(Interviewee/FF33, 2019).

Contrary to the pessimistic perception or views held by some of the respondents, other respondents have different opinions as stated in this quote;

“Well, I cannot say for anyone but I think I personally will not even think of giving fake reviews of mobile apps, talk less of doing that, so I assume positive for everyone until they prove otherwise. Maybe they have something to gain or some personal interest, then I can understand” (Interviewee/EM28, 2019). Therefore there are different opinions as evidenced in the quotes used in this theme.

Identifying misleading user reviews is a challenge

The issue of identifying or determining the misleading user reviews posed a challenge to the respondents of the interview. This challenge was captured in a respondent quote below;

“I cannot point out what user reviews are or may be deceptive, but I think there may be some “odd” patterns that may give indications of suspicion. Even with that, I cannot conclude or confirm that they are fake user reviews” (Interviewee /JF26, 2019).

Another respondent mentioned the possibility of service providers or developers of digital products such as mobile apps to mislead potential users through phony reviews. The following quote points out:

I have heard and also read that some product and service providers buy reviews for their products or services which are difficult to find out. For that reason, I think it is also possible for reviewers of mobile apps to use those deceptive ways to promote their apps too (Interviewee/GM27, 2019).

Due to the challenge of finding out forged reviews, potential users of the mobile apps adopted an approach of relying on some potential fake user review “indicators” to “filter out” user reviews that fall within those indicators. Some of those indicators were mentioned in the following quotes by a respondent:

If for instance there are a couple of only positive reviews all making it sound like advertising message for the app, then I become suspicious. So if a negative review follows it claiming that all the previous reviews are scams or something in that line, then I am more inclined to believe the negative review more than the positive” (Interviewee/EM28, 2019).

When the respondent was probed for stating that the negative reviews would perhaps be believable, the following quote captures the response obtained: “Not necessarily believing only the negative, but the emphasis is on the use of the word “scam” used to discredit the other chain of reviews somehow feels believable in my opinion until I maybe decide on the contrary to download the app for trying sake” (Interviewee/EM28, 2019).

Another respondent made a similar statement on finding out phony or fake user reviews of mobile apps by positing that the focus can also be on the other details of the content such as lack of professionalism in the user review content. The “lack of professionalism” could be an exaggeration of user experiences, missing basic-but-important information in users’ profiles and making “unpardonable” mistakes or flaws in the user reviews content such as grammatical flaws or typographical errors. The following quotes by respondents attested to these assertions: “If the reviews sounds too good to be true, then it may likely be questionable” (Interviewee /JF26, 2019) and another respondent added that “It depends on some things like reading only positive reviews and nothing negative at all especially if it’s from a profile with no picture or basic profile information with too many mistakes

in the descriptions of the apps; then it's skeptical in my mind already" (Interviewee /FF33, 2019). Finally, a respondent remarked that:

If there are too many positive reviews with similar or consistent tenses, grammar, ratings, with no negative review whatsoever immediately becomes questionable in my mind. Then I do little cross-checking on other platforms to see if the reviews there correspond to what I have read in the apps store or Playstore.

This last quote supports the submission that lack of professionalism in the user review content could be an indication of phony or misleading mobile app user reviews.

The trust of user reviews online partly depends on perceived reputation offline

To some extent, the perception of reputation held by others about phenomena or some other people in real life transcends into the digital environment. When asked about trust in mobile app user reviews by fellow citizens, a respondent answered with the following quote:

Finnish are perceived to be generally honest, at least in my opinion. It's more of an image and culture kind of thing. I am not saying everyone is truthful, but generally, it is less likely to have someone write fake reviews of a mobile app in Finland in real life, so I think it is same or at least similar on the internet" (Interviewee/AF32, 2019).

Another respondent mentioned that "Even though this is quite personal, but the feeling of reading user reviews of apps from a Finn is that someone in my country has used and trusts the app, so it is likely trustworthy. It feels "real" and "justified" in my opinion" (Interviewee/EM28, 2019).

However, not all respondents are of that opinion of trusting fellow citizens per se, as others also have different opinions as in the following quotes, "I don't trust because the apps may be created outside Finland, so the person who wrote the review maybe having some interest in the product, so I don't easily believe that so quickly. Yes, I may relate to the review from Finland because I am a Finnish person but trusting is another thing" (Interviewee/CM35, 2019).

Better functioning apps may reduce skepticism

The perception of trust in the user reviews of mobile apps as a challenged can possibly be addressed by having the mobile app perform better. Thus, when the mobile app meets customers' satisfaction or even exceeds it, the skepticism surrounding the user reviews, to a greater extent, can be "ruled out".

The following quote from a respondent provided that assertion "I think I am more concerned about the product (being good or not in the first place) than the geographic location of the review. So, "No" I don't trust a review just because it's from Finland or from a Finish person" (Interviewee /CM35, 2019). Another respondent mentioned that the vital element is whether the mobile app performs well or not as reported in this quote:

I am only interested in mobile apps that deliver, not so much about where the reviewer comes from or located. I am more of product-focus kind of person, not so much about blind trust in people without proof. There can be some prejudice or bias (Interviewee/DF31, 2019).

These quotes lend credence, to some extent, that the respondents considered the performance as an important element in reducing the skepticism surrounding the user reviews of mobile apps.

Effective consumer protection regulations and institutions increase trust

The issue of trust in the user reviews of mobile apps as a product can also be attributable to the effectiveness of regulations that govern that area of activity. In the case of mobile apps as a digital product, the consumers in the setting of this study (in Helsinki, Finland) indicated that they are protected by the consumer protection law in Finland. The quotes from respondents below attest to their opinions:

It depends if the mobile app is good enough or not. But one thing I will say about Finland is that it is difficult for companies or service providers to cheat users or customers because there are strong consumer protection laws that protect us. So if the app is a paid one for example and it's not working well, I can get compensated or money back if I make a complaint" (Interviewee/CM35, 2019).

A similar opinion was expressed by a respondent to buttress the claim made by the previous respondent in the above quote. The respondent asserted that in this quote: “I may agree to some extent that some people are more likely to be trusted due to their culture and institutions. This includes their value systems, perception of morality, perception of corruption, etc. and whether they have weak or strong institutions” (Interviewee/JF26, 2019).

Prior shared relationships are important

The relationship shared by people in the “real life” as friends, colleagues, or acquaintances may have some level of influence in their perception of trusting a user review of a mobile app. In response to whether respondents trust a user review of the mobile app by friends on a social media platform, the following quotes from respondents’ indicate some of their opinions that constitute this theme:

I may have real-life relationships with those friends, so having them recommend or review an app positively to me on social media carries more weight than from a person who became friends with me on social media. Even though the latter’s review may be trustworthy to some extent, but I see the former’s review as a continuation of our offline-experiences in the online space (Interviewee/KF28, 2019).

Another quote to affirm this point as made by a respondent: “I don’t think they will recommend me something bad to try. And our social or friendship bond is quite strong about some stuff like this in Finland. So we sort of want let our friends feel we are cool or knows some cool apps” (Interviewee/BM36, 2019). On the other hand, some respondents also insisted that being friends on social media may trigger or inspire their interest but not trust as evidenced in a respondent quote below:

“No; I don’t trust their reviews of mobile to me just because they are from my social media friends. It may spike my interest to check it out but not trust from the get-go” (Interviewee/CM35, 2019). When “probed” about the reason for that submission, a value-based justification was cited as contained in the following quote: “No, because the user reviews depend on their perspective of what is good. It may not be good for me personally. Also, not all social media friends are “real” friends, so to say” (Interviewee/CM35, 2019). These quotes provide useful findings as to the role or

influence of prior relationships in trusting user reviews or recommendations of mobile apps in the digital environment.

The nature and category of friend /relationship is essential

The type or nature of friendship or relationship shared between friends either in the physical or real life and the virtual environment could influence how information disseminated about products or services are consumed. Similar to the previous point raised (about prior shared relationships), the seriousness, urgency, or positive consideration attached to user reviews of mobile apps or recommendations could be influenced by how one is perceived by friends. The following quotes encapsulate the intended assertion:

It depends on the type or kind of friend. If the person is my real life friend whom I know to be educated or has knowledge in what he or she is reviewing or recommending, then it is likely I will jump on their decisions as accurate and download the app. But If it's some random friends on social media reviewing what they have no knowledge of, then I may be skeptical of it" (Interviewee/HM28, 2019).

In support of the above statement, another respondent posited in the following quote: "Yes, I do but it depends on the friend. If I know the person well in real life, I might trust the app review than someone I don't know personally, or someone I have known via online medium" (Interviewee/DF31, 2019). The points raised in the quotations were to some extent countered by other respondents as expressed in one respondent quote below:

I think it will be unrealistic to say I trust all my friends on social media because there are friends I know personally in the real world before we moved it up into the social media; and those whom I met on social media but not in real life. So the trust level depends on our shared experiences, I believe.

The respondent quoted above indicated that not all friends are considered credible or "worthy" of trust so as to consider their review of mobile app or recommendations of apps to them.

4.1.2.3 Theme group 3: Tendency to start or share eWOM

Apps are mostly rated when users' experiences fall within the extremes

The depiction or indication of the level of satisfaction using star-ratings by users of mobile apps are mostly, but not always, made or rated when the level of satisfaction is either exceptionally high or exceptionally terrible. As quoted by one respondent "If the apps are really impressive or very terrible, then I may rate it otherwise I don't like rating apps" (Interviewee/DF31, 2019) lends credence. Other respondents are of different opinions regarding the "extremes-before-rating" assertion as captured in the following quote:

"Because I was satisfied with the performance of the app, so I felt like rating them for others to know that they are worth downloading" (Interviewee/GM27, 2019). Likewise, some respondents affirm the stance that positive or satisfactory experience of using the app may be enough to rate the apps as declared in the following quote: "Normally, I rate the apps so that others will also know about the app especially when the app is good. I feel the need to return a favor in a quick way by rating with the stars based on my level of satisfaction" (Interviewee/CM35, 2019).

Other respondents expressed their opinions about rating apps as the need to convey one's impression about the app to potential users as quoted below:

"Because I think it conveys the message of people's impression to the developers of these apps and new users as to whether the app is important, useful, good or not good enough. Also, it may also indicate the possible room for improvement in the app" (Interviewee/HM28, 2019). Therefore, there are varied opinions as to why apps are rated as the quotes connoted.

The urge to share experiences motivates users to review apps

The need or feeling to share one's experiences of using mobile apps was one of the motivating factors that are considered by users of mobile apps. Though, the experiences of mobile app users may be disseminated for other reasons; to a larger extent, is motivated by the urge of the individual users to share their experiences. The following quote by a respondent indicates this assertion: "I want other people to know my experiences of using

the app because I read other people's ratings and reviews as well. So in effect, I think we share each other experience about using mobile apps" (Interviewee/KF28, 2019). Supporting the urge to share user experiences as a motivator claim is a quote from another respondent that remarked that: "I think it is necessary because that app was very good; so I felt like just giving some stars based on my experience of using it" (Interviewee/BM36, 2019). So these positions or views held by some of the respondents may be arguable or challenged in other settings or considerations.

Time constraints users' textual review writing/sharing

The act of writing user reviews of mobile apps one has used, to a larger extent, demands customers to input text to express their level satisfaction or experiences. However, when respondents were prompted on the justification for their responses, a theme of "time" challenges were cited by some respondents as a reason for not sharing textual user reviews of apps. The following respondents' quotes illustrated this claim:

"I think for me it's more time-consuming to write reviews. I think maybe it's something I should be doing sometimes, but sadly I normally don't" (Interviewee/JF26, 2019). Other respondents affirmed that:

"No, I haven't written reviews for apps before; I just rated some apps with stars not reviewed with texts because of time constraints, that's why I prefer the rating because it's fast to do that".

Also, another evidential quote from a respondent signifies this: "I have no time for writing reviews of apps because of time and I think it's not too important for me" (Interviewee/FF33, 2019). There may be other factors that might affect the rate of indulgence in user reviews through textual format; however, time seems to be a notable factor based on the quoted respondents in this theme.

The necessity or desire to reciprocate other users/provide information

The need to provide information to potential users of mobile apps through user reviews may be influenced by the urge derived from taking advantage of other users' reviews of mobile apps. This desire was captured in a respondent's quote:

"I feel the need to return a favor in a quick way by rating with the stars based on my level of satisfaction" (Interviewee/CM35, 2019).

Other respondents also reiterated the need to provide further information or feedback to product or service providers such as mobile app developers as quoted below:" I wanted to express my appreciation and encourage the developers with some suggestions for improvement of the app. I did this because the star ratings were not enough and the textual reviews sections were the sections that I could express myself in my own words" (Interviewee/GM27, 2019). Other respondents supported that user's review of mobile apps could also be an avenue for relevant information or feedback for practitioners such as mobile app developers quoted:

"The idea is to help other people or new users to decide whether the app is ok for them, I can add that it also helps the app developers to know what corrections they need to do about the product in order to update the app" (Interviewee/EM28, 2019).

Based on the aforementioned quotes, the provision of information is a vital component that underpins the desire to share user reviews.

4.1.2.4 Theme group 4: Impacts of users textual reviews and rating of mobile apps

Textual user reviews are more informative than ratings

The user reviews of mobile apps through text to convey ones experiences of using mobile apps may provide adequate and relevant information as compared to the rating ones experiences with stars. The textual user reviews provide more "space" or avenue for the users' self-expression of their experiences or level of satisfaction. A respondent reported that textual user reviews may be an extension of ratings as posited in the following quote:

"I express my level of satisfaction in a textual form about the apps I have used because it goes beyond the ratings from 1 to 5 stars of my experiences. I think

the textual review option gives more room for self-expression that is not available in the normal star ratings. So it's a form an extension of the ratings, I think" (Interviewee/HM28, 2019).

Also, other respondents asserted the through the textual reviews, further information can be obtained that could not have been the case with the ratings with stars. The following quotes by respondents provide evidence to this effect:" Because it is like the extension of the star rating in my opinion, sort of provides more information about the app" (Interviewee/GM27, 2019). Another respondent reinforced the view held by the previous respondents in the quote:

I think the reviews of mobile apps through texts make it possible for me to know more about the experiences of current users of the apps or their thoughts about the app. By this, I am able to say much more than just rating the apps with stars (Interviewee/HM28, 2019).

The quotes used in this theme, whether to support a position held by respondents' or provide contrary opinions, provided evidential quotes to buttress the point raised. This conveyed the contribution of textual user reviews in the provision of information for potential users' decision making.

Textual reviews provide expectations to potential users

Through the user reviews of mobile apps through texts, potential users of the app are able to know in advance what benefits, or functions to expect from the app. This is, perhaps partly, because current users have provided the potential users of "what to expect" from the app. The expectations could be in the form of information about the app as evidenced in a respondents quote below: "Irrespective of what I said, that I don't trust user reviews, they can also be good source of information about what to expect, in terms the pluses and minuses of the app, at least" (Interviewee/FF33, 2019). The need for experiential information from current users of the mobile app is important for the decision of potential users. The following quote by a respondent attested to the submission:

"I get information about the app from real users or customers even before I decide to download or install. So in a way, it helps me filter out apps that I

should concentrate on or not, thus helping me decide the apps to focus on before installing them” (Interviewee/JF26, 2019).

So the textual form of user reviews of apps, in effect, has the possibility of “pre-informing” the potential users of the “status” of the mobile app through other users’ textual reviews.

Highly rated user reviews indicate the general impression

The highly rated user reviews of mobile apps may, to some extent, provide an overall or general impression or views held by current users of the mobile app. The quote by a respondent in response to the value of highly rated reviews stated: “I think user reviews with high ratings give indications as to whether the apps are good or not, it gives the overall impression at a glance, in my opinion” (Interviewee /GM27, 2019). Other supporting statements made by other respondents to that effect as captured in the following respondent's quote: “Yeah, maybe to some extent I will consider highly rated reviews; but I prefer to consider more what people write about the apps textually or watch in videos” (Interviewee/DF31, 2019). Moreover, another quote further supporting the indicators of general impression stated:

“Yes, sure highly rated reviews are actually good indicators of what people think about the app. People share their experiences for others to know; so I think that without them, future users may be making wrong decisions or downloading the wrong apps. So it helps to sanitize the process, so to say (Interviewee/EM28, 2019).

Since decision making about mobile apps download may consider the overall opinions held by current users, it, therefore, makes the opinions held by respondents varied but useful.

Possibility of skepticism in highly rated reviews

The user reviews that have been rated highly by current users could aid the decision making of potential users. However, there could be a tendency that highly rated reviews could be misleading. Therefore, some respondents posited to that effect in the following quote:” I think reviews with high ratings are only indicators of good apps but not fully reliable, so to say” (Interviewee/DF31, 2019).

Besides, highly rated user reviews are useful if they are genuine as quoted by a respondent: “If only the high rated review is credible or from credible source, then it gives some sort of assurance and ensures "usefulness" of the user review, otherwise it will mislead new users” (Interviewee /CM35, 2019).

Moreover, some respondents stated the need for confirmation or verification of the highly rated reviews as captured in a respondents quote:

I think it is not absolutely accurate to rely on the fact that the reviews are rated high, but I look at it more in terms of possible indicators of how others have perceived the app. I can include that perceived high ratings in my decision of downloading of the app only after I have explored other platforms about the said app.

The role of highly rated reviews in potential users’ decision making is arguably essential, but the credibility issue is paramount in the consideration of highly rated reviews in decision making.

4.1.2.5 Theme group 5: Decision-making trajectory of mobile app users

Source of eWOM could streamline the download process

The source of information or the user review about the app has the tendency of determining how the mobile app will be downloaded or installed. If the information was obtained from sources that are perceived to be credible, the download or installations approach was relatively simple or a “straight-forward” process. The following quote from a respondent affirms this stance:

Well, if a friend recommended the app for me, then I will log onto the Play store and download it to try. But if I got the information about the app online or from a prior unknown source, then I will check more information and compare similar apps, read the reviews before installing or downloading the app. (Interviewee/CM35, 2019).

This submission was supported by other respondents as reported in this quote:

If I know the exact app or heard from somewhere like friends or some other place, I “go straight” to the Android Playstore and search for the app, and then

I download it to my phone. But if I don't know the app beforehand or need an app for some specific function, then I first make a Google search for options, read some reviews before I download it. (Interviewee/GM27, 2019)

Further, if the function or tasks performed by apps are known to potential users, perhaps through information from friends, families, or read about it from the internet, the approach of download is almost same as previously stated. One of the respondents quote attested to this assertion:

If I know the name or the function of the app, I log on to the Play store and write the name in the search box and search for options and download the first option with the right name and function. Otherwise, I do more searches online and verify the information before downloading" (Interviewee FF33, 2019)

Verification of information/eWOM about mobile app mostly online

The information disseminated about mobile apps, whether in the form of user reviews or recommendation about apps are mostly verified online. The quote below captures one of the respondents' stances:

Mostly, I start downloading mobile apps by checking online (mostly from Google) for apps that I am searching to perform a specific task, let's say "photo editing apps" for options. Then read a couple of reviews to compare or verify some information about the apps from the various websites, or blogs that I find. (Interviewee/KF28, 2019)

Also, depending on the source of information about the app, the comparison and other necessary verifications are were carried out online as affirmed in the following quote: "If I got the information about the app online or prior unknown source, then I will check more information and compare similar apps, read the reviews before installing or downloading the app" (Interviewee/CM35, 2019).

4.1.2.6 Theme group 6: Testing the AISDALSLove decision making model

a. Downloaded

Source of the review was perceived as credible

The act of downloading mobile apps may be carried out as a result of different “triggers” that begins the process. The quote by one of the respondents attested to the influence of user reviews of mobile apps as a necessary trigger to downloading mobile apps as quoted: “Yes, some user reviews of mobile sometimes lead me to download some apps, especially if a friend or someone I know shared the link or website with me” (Interviewee/JF25, 2019). The perception of credibility was further supported by other respondents as asserted by one respondent in the following quote:” I downloaded because of the user reviews because I felt it was credible, so I needed to try it to confirm what they said about the app in the review” (Interviewee/AF32, 2019). So the perception that the user reviews are credible could be a factor that motivated the respondents to download mobile apps as affirmed in their supported quotes.

The download of the mobile app may be out of curiosity or need

The installation or downloading of mobile apps by the respondents could mainly be as a result of the necessity or one's inherent curiosity of the benefits expected from the app. The following quotes by some of the respondents attested to this claim: “I don’t search for apps if I have no need for them. But if I get information about the app from someone I know, then I may download it to try” (Interviewee/DF31, 2019). Similarly, a supporting quote declared in a response that:” I am the type of person that sometimes just check from the Play store or app store for recommended apps and what people say about it, just for the fun of it” (Interviewee/BM36, 2019).

b. “Liked” and “shared”

Potential challenges or issues

The act of clicking the “like” and “share” button on the internet to signify ones support for a product or service may have some challenges pertaining to it. The process may be relatively easier in the digital space but may have inherent implications for them. A recurring issue from the responses as captured in one of the respondent's quote lends credence to the statement in the following quotes:

It's easy to "like" and "share" these days but one reason why I don't like "sharing" that much is about a privacy issue. Because just clicking the "like" button is easy but the sharing is sort of difficult sometimes because I don't want the feeling that I am "bombarding" or even "spamming" my friends with apps they may not need or like" (Interviewee/DF31, 2019).

From the above quote, it can be observed that certain factors should be considered before "sharing" user reviews or recommendation of apps as evidenced in the quote above.

Form of expression of interest or impression ("like") and fun

The "clicking" or use of the "like" button on the internet to indicate that a product or service is desired could be as well show ones interest in the product or service in different ways. As quoted by one of the respondents: "I think it's easy to just "like" the app to signify interest and also help create the general impression of the mobile app to future users" (Interviewee/CM35, 2019). Additionally, the "like" and "share" button could be used out of fun to disseminate the information about the user review or recommendations to others, especially friends or colleagues. The following quote by a respondent lends credence to this: "Yes, I sometimes click the "like" and "share" buttons to like and share apps to friends because I think the apps were cool. And maybe we can fun with it. Because sometimes they also share or recommend some apps for me, so I feel I owe them that".

Not all "sharing" are done digitally

The sharing of user reviews about mobile apps or recommendation may not necessarily be through the digital medium or the internet. Whiles some are shared on the internet through different platforms by clicking the "share" button, others are also through non-virtual means. The following quotes attested to these claims:

Some of the apps I shared were done verbally in the form of recommendations for them to try those apps. I did that because I normally also receive app recommendations from some of my friends, so I thought it was good to also recommend apps that I think they may like" (Interviewee/JF26, 2019).

In spite of that, some of the user reviews or recommendations are shared digitally to potential users as captured in the following quote by one of the respondents': "Yes, I have shared apps with friends, but it is mostly via online but sometimes I just tell them about the "cool" apps I found. I just tell them to check out the app with the name of the app, or share the link to them if it's online" (Interviewee/KF28, 2019). This makes it evidential that the "sharing" of user reviews of mobile apps can be done either verbally or digitally or both depending on available resources or circumstances as captured in the respondents' quotes above.

4.1.2.7 Theme group 7: Organizational response to eWOM

Less proactivity from mobile app developers

The developers of mobile apps or some stakeholders in the mobile app development industry, to some extent, rely on the user reviews of users to make improvements; corrections, innovations or updates to their products. However, the user reviews or feedbacks that ensure these improvements are not paid adequate attention as asserted in one of the respondents claim as in the following quote:

"I have written many reviews about apps that I installed to the developers, but seldom do I get any reply or response back, maybe some replied to my reviews, if any, but not in a timely a manner if they did". This evidence as contained in the respondent quote indicated that developers or the stakeholders in that industry are not "taking charge" of the feedback from users of their products.

Showing appreciation and product development or future improvements

The responses from the mobile app developers and other stakeholders linked to the product or the mobile apps were mainly to shows appreciation to the users of their products. A respondent stated in the affirmation that the responses were mostly to acknowledge their receipt of feedback as well as a promise of further improvement based on their user reviews as captured in the quote below:

Yes, I have received a couple of responses to some of my written reviews of the apps. These responses were mostly to show appreciation for taking time to give them feedback, and also some were sort of promises to consider my feedbacks in further developing the app. Honestly, I feel good when I receive such responses and I feel like “sharing and liking” their products within my circle of friends (Interviewee/HM28, 2019).

The respondent quoted above states of the possibility to “share” the information about the mobile app among friends due to the excitement of receiving responses from the mobile app developers or stakeholders linked to the product.

4.1.2.8 Theme group 8: Additional information/concerns of mobile app users

Security and storage challenges

The respondents in the interview used in this study were concerned with many factors or issues they intended to inform the mobile app developers or stakeholders linked to their products. However, one of the recurring issues from respondents was about the security of their mobile apps. As captured in one of the respondents quotes:

For me what I think the app developers should take note is the security aspect of their apps so that others do not compromise them. This is because I have read about many apps being used to commit fraud through access to their private information from users of the app (Interviewee/BM36, 2019).

Apart from the security issue, another challenge was the storage space requirement of mobile apps on the electronic devices of respondents. A respondent suggested that the storage needs of the mobile apps be addressed without necessarily interfering with performance or quality of their mobile apps in the following quote:

I think the app developers should focus more on developing well-functioning apps with lesser space requirement, ideally less than 25 MB if possible. For instance, I do consider my apps space-requirement quite well before downloading or installing the apps on my device (Interviewee/GM27, 2019).

From the respondents' quotes on security and storage challenges of mobile apps, it is evident that these are among the areas of concern that needs to be addressed by mobile app developers or stakeholders linked to the products.

The need for innovative models of revenue

The experiences of mobile apps users are sometimes hindered by some elements that are in-built into the mobile apps to either ensure the products updates or obtain revenue in one way or the other. Among some of these user-hindering elements are the sponsored or in-app advertisements to users of the app. However, some of the respondents asserted that there were some inherent challenges that affected users of the app as a result of some of these in-built "strategies" of revenue generation.

The following quote illustrated the submission:

"I think mobile app developers should make their apps to perform better without compromising on functionality and there are too many advertisements in some apps. I will happily pay 1-5 € for an app that works better without ads than to use a free app loaded with ads" (Interviewee/KF28, 2019).

Proactivity in addressing user feedbacks

The level of seriousness in acting on the feedbacks or reviews from mobile app users was identified as a challenge by respondents. The following quote from one respondent attested to this: "I feel the apps developers and marketers should take customers feedbacks serious. They should be proactive with the reviews to know what users are saying because I think that's the way they will get to know or understand their users' experiences" (Interviewee/DF31, 2019). Therefore mobile app developers' and concerned stakeholders' should be proactive with the feedbacks or user reviews of their mobile apps. This will ensure that mobile app developers and stakeholders better understand their users as well as improve their products or services.

5 DISCUSSION

This section incorporated sections 1 and 2 of the findings of the study. This was necessary because both sections contained the findings that are relevant to answer the research questions (RQs) of the study. Further, this section has been divided into the RQs-related themes consisting of RQ1-related and RQ2-related themes. Also some supporting themes that emerged from the literature and findings were also identified. The supporting themes section is no less important than RQ-themes; it is to ensure a compact structure for the other themes necessary to address the RQs of the study. The conclusion section will synthesize the interpreted findings to answer or address the RQs of the study.

RQ-related themes

For the sake of clarity, the applicable themes that related to the RQ of the study were categorized based on their relevance in answering the appropriate RQs under discussion. As a result, the Theme groups (1-8) that emerged from the findings in section 4 of the study were categorized accordingly.

5.1 Research Questions-related themes

5.1.1 RQ1-related themes

As a recap, the RQ 1 of the study is: [Do prospective mobile app customers consider or read the textual reviews of other customers about apps they intend to download before they actually download these mobile apps onto their smartphones? Why or why not?](#)

Firstly, based on the findings of the study regarding the relevant themes in answering the RQ1, it was found that 7 out of 10 respondents answered in the affirmative that they sought information about mobile apps before downloading. Similarly, 9 out of 10 agreed that other user reviews of mobile apps are important to them. This could be as a result of many factors; however, the urge to know the perceptions of current customers or users were the key motivating factor. This finding, however, confirms the studies by Lerrthairakul & Panjakajornsak (2014) and Wang, Cunningham & Eastin (2015), that eWOM has a significant impact on potential customer decisions. Using the mobile apps as case-in-point of this study, the perception of the current users, to some degree, have a

role in shaping the perceptions of potential users through user reviews of the mobile app. This implies that eWOM valence has some possibility of influencing users or customers' decisions regarding mobile apps to install or download onto their electronic devices.

Secondly, just as data or fact-driven decisions have a high tendency to yield better outcomes, so does credible user reviews enable better download decisions. So the inherent quality of potential users' decisions regarding the mobile app to download may depend, to a larger extent, on the credibility of the user review or eWOM. The credibility assertion of user reviews, in turn, depends on the source of the user reviews. Again, from the findings, 8 out of 10 respondents agreed that user reviews of mobile apps from friends they know in "real life" and on social media are more likely to be credible than user reviews from unknown sources. This implies that respondents trusted the people they know such as their families, friends or acquaintances than those they do not know. This finding is in agreement with the study by Meanders (2013) who reiterated that eWOM from known sources are significantly reliable than eWOM from other sources. That's not to fully discredit all other forms of eWOM or user reviews, however, considering the inherent rationality of humans; it is plausible to suggest that people will naturally gravitate towards what they are familiar with as compared to what one is not familiar with. Therefore it was only natural that the respondents' trusted the sources of information they were familiar with.

Moreover, if credible information is critical for decision making, then it follows that to fully trust some information, it has to be verified in order to make better decisions when used. The respondents interviewed for this study agreed (9 out of 10 agreed), that they knew that not all user reviews they read online are credible. Contextualizing this finding with the user reviews of mobile apps, it is important to identify the need to have credible user review or source of information that has less likelihood of misleading oneself. A study by Jansen (2018), found that "bad content" and "fake reviews" were among some of the challenges in the digital environment that can result in bad or ineffective decisions. This study reinforced the findings of the study that perhaps accounts for the skepticism of the respondents about user reviews of mobile apps as a source of information in their decisions of downloading mobile apps.

Furthermore, the respondent of the study could not have consensus regarding how the intensity of the user reviews one need read or consider before deciding on the mobile app

to download. This emanated from different responses obtained during the interview. The implication for this is that there is no definite number of user reviews or extent of intensity that user reviews be subjected to, before deciding on an app to download. However, it depends on the credibility and “completeness” of the information contained in the user reviews that were vital to their decision making. This finding is in concurrence with Ghose & Ipeirotis (2009) who found that “informativeness” of user reviews were a rather important consideration for decision making. This does not imply that all “information-rich” user reviews of mobile apps are relevant; it is rather genuine user reviews of apps that provide adequate information that is important.

Finally, the textual user reviews of mobile apps is a way current users disseminate their perceptions, and opinions about their experiences to potential users online via their “own written texts” about the mobile apps on digital platforms. From the findings of the study, the respondents were “halved” on opinions they have expressed via “written” text about the apps they have used or downloaded. However, 9 out of 10 of the respondents agreed that other users written reviews were important factors to consider in their decisions of downloading apps. This implies that even though the respondents were aware of the inherent importance or the value that other users written reviews provided them, they were reluctant to write textual reviews themselves. This may be explained by “lack of time” challenges that textual reviews demands as compared to rating user experiences with 1-5 star on the digital. This is because the “time factor” was one of the themes that respondents mentioned as their potential challenges in expressing their user opinions. Due to the nature of textual or written reviews as compared to ratings, it enables the user to “freely express” their opinions about the apps, thereby enabling more opportunity for self-expression of experiences. These findings were indicative that textual reviews provided comparatively more information than other forms of reviews such as star-ratings. That is why businesses or service providers of products including digital products such as mobile apps have to ensure that their users “write” positive reviews about their product. But positive user reviews, to a large extent, depend on the quality of the product or service delivered to users or customers which could translate into a better brand image.

However, the quality of a brand can be determined by positive reviews of its products or services as found in the study of Yahya, Azizam & Mazlan (2014). From the foregoing, it can be ascertained that the process is more of “cyclical” because for instance having a better performing mobile app can lead to satisfied users who in turn could write positive

user reviews. These positive user reviews can lead to better brand image and that can motivate the app developers or businesses to produce improved or superior apps in turn.

Therefore, the inherent importance attached to the user reviews of mobile apps is more about obtaining credible but useful information related to the mobile apps they intend to download. However, highly rated reviews further aid in shaping perceptions of potential users by providing the overall or general perceptions briefly. The challenge with highly rated reviews is that it is only useful if only it is credible as supported by the study of Reichelt, Sievert & Jacob (2014) who affirmed the usefulness of eWOM based on its credibility. This is because decisions to download a mobile app which is made based on fake user reviews is almost a wrong decision from the start, especially with the increase in false reviews online as argued by Plotkina, Munzel & Pallud (2018). So it is evident that user reviews are critical in decisions about mobile apps to download, but they are generally useful if the inherent challenges are overcome.

5.1.2 RQ2-related themes

As a recap, the RQ2 of the study is: *How do prospective customers evaluate the textual user reviews of mobile apps of other users' before actually making a choice of the mobile app to download?*

Firstly, the findings of the study suggested that there was a general consensus among respondents that identifying a false user review of a mobile app was challenging. As a result, the respondents reiterated their reliance on certain indicators of possible false user review to “filter out” fraudulent or phony reviews. This finding brings forth the need for product or service providers to devise strategies aimed at ensuring the credibility of their user reviews. While the potential user of the product expects a credible user review on which to base one's decisions, the mobile app developers need to secure their products from being tampered with. Therefore it is imperative that certain policy directions aimed at reducing the impact of dishonest or false user reviews. It could be strategic initiatives via the use of technology as Juuti, Sun; Mori & Asokan (2018) initiated a system for the identification of false user reviews using technology. This is not to imply that investment in technology can do away with all dishonest user reviews, it, however, needs a holistic or collective organizational initiative to combat it.

Secondly, there is some element of skepticism in user reviews of mobile apps. The belief that user reviews of apps are perhaps not credible until proven credible has long run repercussions on the image of the brand. The issue of skepticism in user reviews of apps has been heightened due to the prevalence of false reviews online as attested by Plotkina et al (2018) cited in the previous section. The implication of this assertion is rather to recognize that measures should be adopted in countering the issue of false reviews. The measure to be adopted should be “built-into” the product or service delivery so that any indications of dishonesty in that direction will be detected in a timely manner.

Also, the trust of user reviews online partly depends on perceived reputation offline. The findings reported that respondents were halved concerning trusting a user review of a mobile app from their countries. This finding suggested that perhaps some perceptions of attitude, or reputation held about some people in the “real world”, to a large extent, may be extended into the digital or online platform. This phenomenon can contribute to creating prejudices and bias towards the “labeled or profiled” group such that their credible opinions may be interpreted as false. For instance, a genuine user review from a person in some specific countries may likely be deemed as false or fake. While there may be some genuine concerns to be wary of some user reviews from people in specific some countries, it may not be prudent to assume that all users’ reviews from those countries are false. This is not to denigrate the stance of Amblee & Bui (2007) and Le (2014) on the significance of credible sources of eWOM. So to some extent, the findings from the study that perceived “offline” reputation can transcend to “online” reputation through user reviews may be relevant but not accurate.

Moreover, the respondents were of the same opinion that better product (apps) could reduce skepticism. When mobile apps are performing or functioning well to most customers’ satisfaction or expectation, it has the potential of reducing the skepticisms that surround it. Therefore when negative valence or user reviews are disseminated about it, the performance of the app becomes the “confirmation” of the said user review. In this case, a better performing app will negate the negative valence and vice versa. Therefore the mobile app becomes “its own reviewer” through satisfying customers’ expectations that may have positive reviews for the product over time.

Arguably, prior relationships shared by people have the potential to influence the perceptions of prospective users of mobile apps through their reviews of those apps. This

is quite a profound considering the possible influence people who share similar values or bond in one way or the other have on each other. From this premise, it is possible that their user reviews of mobile apps may have a higher likelihood of being accepted, especially if the perception is positive about the mobile app. This finding is in agreement with Cheung, Lee & Thadani (2009), who maintained that the emotional trust of consumers is reinforced by positive eWOM. This implies that the consumers are likely to accept the perceptions of others because of the trust reposed in the person with the information. The critical element that drives this argument is not more about the information; it's rather about the relationship shared among them and the perceived non-commercial nature of the information as contended by Peter & Olsen (2002). This is because the perceived non-commercial information is rather the result of trust due to the relationships shared over time, hence valuable in influencing perceptions through their reviews of mobile apps.

In addition, the findings from the respondents reiterated the importance of the nature of relationships that has the tendency to influence perceptions or decisions. This factor is quite similar to the previously discussed assertion but it is different regarding the extent of their relationships, including the interplay of emotions and power dynamics. In today's contemporary world where "old" relationships have been "digitized" and new ones formed on social media means that relationships have evolved over time. Therefore ones "friends" on social media, depending on the nature and extent of the relationship, can influence perceptions about mobile apps through their reviews. This is consistent with the finding of Hodza, Papadopoulou, & Pavlidou (2012), who found that eWOM in the form reviews or recommendations have a positive effect on the purchase intention of potential consumers. To put into context implies that user reviews of apps on social media can influence prospective users of the mobile app.

Finally, the findings suggested that effective consumer protection regulations increase trust in products or services. This theme was rather "novel" one but insightful finding of the study. This purports to imply that the enforcement of regulations regarding products could increase trust in users' perceptions. Therefore by enforcing regulations that concern mobile app stakeholders and mobile app users, it is likely to build trust between them including trust in the users' review of mobile apps. From this premise, the trust between mobile app stakeholders and users is equally likely to be "transferred" between the users themselves, which translates into trust in their reviews of apps.

5.2 Supporting themes

Firstly, on the basis of the findings of the study, the tendency to review mobile apps or share a review of an app is influenced by many factors. Some of those factors are the urge to share experiences and the necessity or desire to reciprocate other users by providing information.

The desire to share information about one's perceptions and experiences about the mobile app through user reviews of mobile apps is vital for potential users' decision making. This is particularly important if the information is shared among friends, family, and acquaintances. Such information is taken as credible by the potential users of the mobile app because of the source of the review or information about the app. This finding is in concurrence with that of Meanders (2013) who argued that eWOM from known sources are more reliable than from the unknown source. Therefore the desire to share user reviews of mobile apps is affected by whom the information is shared.

Secondly, the textual reviews of mobile apps are informative but time-consuming. The expression of user opinions via written text on the digital platform may be informative but time-consuming for users of the apps as evidenced in the findings. Due to the need for users of the mobile app "spend" their time to personally expressed opinions about the app in a textual form has been deemed a challenge by some users. Notwithstanding, textual reviews of mobile apps have been considered comparatively more useful than the star rating of mobile apps. This is perhaps because the text form of the user reviews provides more "avenue" for users to express their opinions quite "in-depth". By so doing, more information is disseminated to prospective users of the mobile app than numeric 1-5 ratings of user opinions.

Thirdly, respondents rated mobile apps based on users experience falls within the extremes. The star -ratings of mobile apps by users to indicate their level of satisfaction can be attributed to many factors that could affect the need for the ratings. However, some users rate mobile apps when they either extremely satisfied with the app or when they are extremely disappointed in the expected experiences of using the app. This does not mean that users only rate apps only when they are, at least in one of these two emotional extremities. Given that, to some extent, the link between the subjective user reviews and ratings are not identical (Tsao, Chen, Koong Lin, & Ma, 2018), provides an impetus for

other factors to influence the ratings. Therefore this can be argued as inconclusive, even though the finding may be relevant as far as other factors are concerned.

Moreover, the decision making trajectory of the potential user of a mobile app is somewhat “complex and simple”. It is quite complex based on certain factors such as knowing the app to download and the source of information (user review) of the app. When the respondents knew what apps they wanted to download, they accessed the download platform (Appstore or Play store, etc.) to read some user reviews briefly downloading them. When the respondents did not know which app to download, but searched “by function” of the app for options, read some reviews, verified the reviews from other platforms before deciding to download the one with a favorable user review. In these two approaches of decision making about the app to download, the source of the user review was a critical factor. This was because when the user review was from the recommended source or was perceived as credible, the process was relatively simpler than from other unknown sources.

Furthermore, the AISDALSLove model as expounded in section 2.8.2 implies an expansion of the basic AIDA model in customer decision making, by the addition of other decision-impacting elements such as “Search, “Like/dislike,” “Share” and “Love/hate”. Therefore, the findings were addressed in the perspective of the AISDALSLove model.

The findings reported that 8 out of 10 respondents have downloaded mobile apps based on other customers or users reviews of those apps. However, the findings also suggested that the respondents’ downloaded those apps based on the trust or credibility they had in the source of the information or the user review. Also, some apps were downloaded out of curiosity or need, thereby implying that some users may have to obtain information or review of apps before the need for them arises. It also implies that the source of the information or user review has been quite significant as a potential deciding factor for the mobile apps to download. The potential users are concern about the sources of information because there is a possibility of being misled by fraudulent user reviews of apps. Since eWOM (user reviews in this case) has the tendency to influence decisions (Almana & Mirza, 2013, p.23) online, it is most useful if it is credible. Therefore mobile apps may be more likely to be downloaded when the source of information or user review is perceived as credible. Also, mobile apps may be downloaded out of curiosity or when they are needed. This finding has strategic marketing implications for app developers or

stakeholder to recognize that some users may have latent needs for their mobile apps through other user reviews of their product.

The act of suggesting ones “interest” and disseminating information about the digital product such as a mobile app can be expressed verbally or via the digital platform by “clicking buttons”. From the findings of the study, 6 out of 10 respondents have “liked”, “written reviews” and shared” mobile apps while 3 out of 10 respondents have only “shared” mobile apps to other potential users. The “liking” of mobile apps may be an expression of interest in the app and could be “fun-sharing” to friends, colleagues or acquaintances through “offline” and “online” media.

The findings imply that respondents may be more likely to “like” mobile apps than “share” mobile apps. This may as a result of some possible challenges associated with “liking” and “sharing” mobile apps. Some of these challenges in “liking” apps digitally are “personal connectedness” to the mobile app. This means that potential users of the app may be able to trace those who “liked” the app to them; such that fraudulent apps “liked” may have uncomfortable feeling personally. Another challenge identified was the “sharing” of mobile apps to friends or people who may not be interested in those apps. This may mean that the users may not be respecting their friends’ privacy by “spamming” their electronic devices (smartphones, tablets, etc.) with apps reviews or recommendations. However, the “Sharing” has been made easier due to digital technology as attested by Jalilvanda et al. (2010), due to the ubiquitous nature of the internet. The ubiquitous characteristic of the internet in sharing information is a “double-edged sword” such that it can share positive reviews of apps as well as negative reviews of apps. Therefore mobile app developers and stakeholders should ensure they satisfy their users so as to gain positive user reviews to strengthen their brand.

Also, not all “sharing” is done digitally. One of the themes that emerged from the finding was that some respondents “shared” their reviews or opinions about some apps verbally to their friends or colleagues. This has implication for ensuring better products or customer service that might ensure that positive reviews about the apps are “shared” to others verbally as well.

Finally, the way mobile app developers and stakeholders in that industry respond to users’ reviews or opinions about their products or apps may have a possibility of affecting their brand. The finding of the study reported that 3 out of 10 respondents have received

responses about their written reviews apps they have used. This may mean that the developers or stakeholders of these apps are inundated with so many reviews that it is perhaps practically impossible to respond to individual user reviews of their apps. It can also mean that there is no customer relationship management system in place to enable better interaction between mobile app users and developers or concerned stakeholders. This finding is in support of the findings of Chena, Lawb & Kui (2016) who found that strong or good relationship between customers and business have a key influence on positive eWOM. Thus good relationships between businesses and customers have an influence on customers' positive user reviews. Therefore proactivity and better customer relationships are essential in ensuring a good image or brand. Another theme from the finding was the information of appreciation and assurance of product improvement obtained from the respondents of the study.

5.3 Additional information

The findings from the respondents enumerated some themes that were considered important factors that need to be addressed by developers of mobile apps and stakeholders. These were security and storage challenges, the need for innovative revenue models and the need for proactivity in addressing user feedbacks.

The security of the mobile apps was important for respondents because of the possibility of the devices of the users being infiltrated with malicious software. Such software can cause malfunctioning of their devices or compromise their private information stored in their devices. Also, the storage "spaces" for data in the devices presented another challenge to respondents. This was a vital factor because the apps already stored on the device are mostly subjected to automatic updates that required extra storage space on the device. Therefore, it complicates the issue especially if the devices do not have extra space for such apps or the apps to download required bigger "space" on the device. So, mobile app developers should optimize their development apps so as to reduce the storage space required on the users' devices.

The revenue models of some mobile apps depend on "showing advertisement (ads)" to users to generate revenue. Sometimes, these ads are too much that it distracts the users from using the app, thereby resulting in negative user experiences. This challenge can be

overcome by adopting innovative revenue models for mobile apps so as to appeal to users without comprising apps with “pushy or distractive” apps.

The last issue from the findings was the need for proactivity in addressing users’ feedbacks. The users of the mobile apps express their opinions about the apps through their reviews or feedback of the product. Therefore it is important to ensure that there is smooth interaction or relationships exist between the mobile app users and developers or stakeholders. Not only will this likely encourage positive user reviews of the apps, but it will also provide constructive reviews or criticisms that are necessary to innovate or improve the mobile app.

6 CONCLUSION

This study aimed at exploring the possible impact of user reviews of mobile apps on prospective users’ decisions of downloading mobile apps. This was in an attempt to better understand the rationale behind the decisions to download mobile apps. Based on the qualitative research method, the following were the research questions and their responses based on the findings of the study.

RQ 1: Do prospective mobile app customers consider or read the textual reviews of other customers about apps they intend to download before they actually download these mobile apps onto their smartphones? Why or why not?

Firstly, on the basis of the findings of the study, the textual review of mobile apps is one of the important factors that prospective user of mobile apps consider in their decisions’. This emanates from the fact that through the textual review of the app, users express their perceptions, opinions, and experiences of using the mobile app, hence the need to include them in the deciding factors. In spite of the importance of textual reviews, there are some factors that can affect the outcome that could have been expected from reliance on textual reviews as a source of information. One of such factors is the credibility of the textual review. The credibility of the textual review makes it useful or meaningful as a critical ingredient in the decisions of prospective users of the mobile app. As a result, the textual user reviews or information disseminated through textual form about apps to families, friends, acquaintances are considered more credible. This inherent credibility of these

reviews stems from the perceived non-commercial nature of the shared information or the textual user reviews.

Secondly, from the customer decision-making trajectory identified in the findings, the process of downloading the app was relatively “simpler” when the source of information was perceived as credible. On the other hand, the process of downloading the apps was quite “complex”; involving verification of the user reviews from other digital platforms before downloading the app, if the user reviews were favorable for the app.

Thirdly, there was no definite number of textual user reviews of apps that potential users considered in their decisions. The decisions were based primarily on the credibility and “informativeness” that was perceived about the mobile app that was considered. From that premise, the number of reviews garnered by the mobile apps was less impactful as compared to “in-depth” textual reviews of the mobile app.

Even though textual user reviews of mobile apps have impactful decision-making ingredients, it is however challenged in practical terms. This challenge emanated from time constraints that were cited as a critical factor that hindered the actual “writing” the textual reviews of the apps used or downloaded. Despite this challenge, the importance of textual user reviews as a basis for making a decision about the apps to download onto prospective customers smartphones are still paramount.

Finally, based on the factors argued thus far, it can be argued that textual users’ reviews constitute one of the vital considerations in prospective users decisions about downloading mobile apps. However, the inherent value of the textual user reviews can be derived if the underlying challenges are mitigated or minimized.

RQ 2: How do prospective customers evaluate the textual user reviews of mobile apps of other users’ before actually making a choice of the mobile app to download?

Firstly, the evaluation of textual user reviews of mobile apps is one of the vital elements that ensure that the decisions of prospective users are based on some credible or “verified” information. As a result, information about products such as mobile apps should be “filtered” so as to obtain meaningful value when decisions are based on them.

Based on the findings of the study, the skepticism concerning textual user reviews of mobile apps was prevalent. This may stem from the tendency of being misled online through fake or dishonest user reviews of mobile apps. This is because the “average” person’s ability to generally identify dishonest or fake reviews is quite difficult or challenging.

Secondly, the approach mostly adopted by prospective users of mobile apps depends, to a large extent, on certain factors. These factors have a tendency to change the way or approach that prospective mobile app users will evaluate the obtained information or user review about an app.

The first factor is the source of the information or the textual user review. When potential users’ of a mobile app obtain information about apps from sources that are perceived to be credible, there is little verification needed, if at all. Therefore textual reviews or information about mobile apps from their friends, family or acquaintances are likely to be perceived as credible. As a result of such a perception of credibility accorded the information, the mobile apps can be downloaded with little verification or “cross-checking” of information. On the contrary, when the source of the user reviews is not perceived as credible or not traceable to any known person, the information was subjected to some level of scrutiny. These methods of scrutiny or verifications of the textual user reviews were checking through other platforms whether the said app has “favorable” textual reviews. Similarly, the prospective users also relied on certain “fraudulent review-detection” indicators such as exaggeration of users’ experiences in the textual reviews and lack of “professionalism” in the information about the apps.

Thirdly, the perceived relationships between the source of the information and the potential user can affect how the information is evaluated. This factor is quite similar to the previous factor, but the difference is a matter of perception. For instance, one's friends on social media are not necessarily one “friend”; therefore the inherent relationship becomes the deciding factor. This is because when the textual user review of the app is from someone who is known to possess knowledge of apps or technology, then it may be perceived as credible. However, when the information or user review of the app is from a “random” friend on social media, then it may be subjected to verification or scrutiny.

Finally, the evaluation of textual user reviews of mobile apps has become necessary due to the prevalence of dishonest textual user reviews that are disseminated online about

mobile apps. However, the approach adopted to evaluate the credibility or otherwise of mobile depends on the factors enumerated above. This is by no means exhaustive factors as there are other factors which may change how the textual reviews are evaluated. Thus, there is no “clear-cut” evaluative approach to textual user reviews of apps because they depend on certain factors.

6.1 Summary

The findings indicated that decisions of prospective mobile app customers were influenced by certain factors. Some of these factors were the credibility of the information obtained about the mobile apps, the source of the information, the relationships between the prospective mobile app customer and the source of the information, among others. Also, the decisions of prospective mobile app customer were based on the inherent “informativeness” rather than reliance on a definite number of textual user reviews.

Moreover, the textual user reviews of mobile apps could be misleading due to the prevalence of dishonest or fake user reviews of mobile apps. Due to the challenge in the identification of these dishonest or fraudulent textual reviews, prospective mobile app customers rely on possible review-fraud indicators.

Furthermore, the skepticism in the textual reviews can be minimized if mobile app developers and concerned stakeholder ensure quality products. By so doing, it can enable users of the mobile app to give positive feedbacks of their app which in turn can entice or attract new users of the mobile app.

Also, there is no particular approach adopted in the evaluation of textual reviews of mobile apps. The approach of evaluating textual reviews depends on the perception of the credibility of the source of the textual review, the relationships that exist between the prospective user and the source of the user review, etc. As a result, there is no particular well-defined approach to evaluating and downloading mobile apps.

Finally, the findings of this study have implications for mobile app developers, marketers and other stakeholders in the industry. They would be furnished with information regarding what critical elements prospective mobile app users consider in making their decisions about downloading mobile apps. It also informs them of how prospective customers evaluate the textual user reviews of mobile apps. This may have implication

for improving their products and customer relationships. The findings of the study may also have implications for academia regarding the possible areas to study as per the limitations of this study.

6.2 Limitations of the study

The findings of this study should be seen in the light of some limitations. Firstly, due to the nature of research questions, literature used for the study was drawn from other fields such psychology, philosophy, business, information system, computer science, etc. which were relevant to the objectives of this study. The literature used for the study was mostly from 2003-2018; certain information might have changed or been updated since last accessed for this study, hence “updated” findings cannot be guaranteed.

Secondly, the study collected data from respondents through semi-structured interviews. This approach of collecting data cannot guarantee complete honesty from respondents and the inherent flexibility in semi-structured interviews may lessen the reliability of the data and ultimately the findings of the study.

Thirdly, given that the study used only ten millennials in the Helsinki region as sample population for the interview, the findings could be different if sample from different geographic location with different attitudes were used. The location factor and the small sample population may be a limitation to enable any relevant generalizations of the findings of the study.

Finally, since the data was collected using semi-structured interviews of respondents, there is the possibility of interview bias which may reflect in the data and hence the findings of the study. This may limit the usefulness of the findings of the study.

6.3 Recommendations

The following are some of the recommendations that can be made based on the analysis of the findings of the study and their implications for the mobile apps industry and academia.

6.3.1 Recommendations for industry

Firstly, since people are more likely to trust sources of the information they know or are familiar with, it is important that mobile app developers or companies produce better products to satisfy or even exceed customers' expectations, if possible. This ensures that their positive reviews of these mobile apps could influence their friends, families, colleagues or acquaintances to trust and even share the products to others.

Secondly, considering that the textual reviews of mobile apps are critical in potential customers' decision-making, there should be a proactive approach in dealing with negative reviews so as to mitigate its possible negative impact on the product or brand.

Thirdly, the skepticism of prospective mobile app customers implies that the performance of the mobile app is arguably the most important deciding factor. As a result, the mobile apps performance should not be compromised under any circumstances, if possible.

Finally, given that the millennials are not methodical in their approach of evaluating textual user reviews and downloading mobile apps may imply that they have other unique factors that have been identified and incorporated in the product or service delivery.

6.3.2 Recommendations for academia

Firstly, this study can be duplicated using other research methods that may have a better approach to collecting data. Data collection approaches such as focus groups, where the respondents are recorded downloading mobile apps via video may provide much "richer" data that can potentially provide better insight than the interview approach adopted in this study. This may have implications for obtaining perhaps more useful findings than the current study.

Secondly, a larger sample population of millennials in different city or town in Finland or millennials in other countries may be used for this study. The findings from similar

studies in Finland or other countries can be compared to the findings of the current study for better understanding of the particular sample population used for the study.

Thirdly, an advanced qualitative data analysis approaches such as the use of computer software (for example Nvivo) could be used to analyze the captured data. Since computer software is quite sophisticated compared to the manual data analysis approach used in this study, it has a higher possibility of giving “richer” findings and better insights.

Finally, there could be some variables such as gender, level of income, etc. that can be used (or tested) in similar studies to find out how these variables may affect decisions of downloading mobile apps.

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Appendix 1: INTERVIEW QUESTIONS

TOPIC AREAS/THEMES	INTERVIEW QUESTIONS	POSSIBLE PROBES/ FURTHER QUESTIONS
<p>RQ1: FINDING OUT WHETHER THEY READ THE REVIEWS</p> <p>(To help answer RQ1)</p>	<p>1. Do you seek for information about mobile apps before downloading them? If you don't, why? If you do, how?</p>	<p>Why is it necessary?</p>
	<p>2. Do the reviews of mobile apps by other customers matter to you? Why? Or why not?</p>	<p>Why do you think so?</p>
	<p>3. If you do, how intense do you read the textual reviews / feedbacks of other customers about those mobile apps you intend to download? For instance, how many reviews on average or how many pages of reviews do you read/check?</p>	<p>Why do you need to do that?</p>
<p>RQ2: FINDING OUT HOW THEY EVALUATE REVIEWS</p> <p>(To help answer RQ2)</p>	<p>4. Do you know that not all reviews are genuine/credible? Or from genuine customers?</p>	<p>If yes, how did you know? If no, why?</p>
	<p>5. How do you find out or identify if a review about an app is credible before downloading?</p>	<p>What pointers or signs do you look for?</p>
<p>OTHER THEMES FROM THE LITERATURE REVIEW</p> <p>a. Group vs. individual effect on choice</p> <p>b. The tendency to start</p>	<p>6. Do you trust a review about an app by a person from your country (Finland) at the Android Playstore/Apple Appstore?</p>	<p>If yes, Why do you trust that? If No, why don't you?</p>
	<p>7. Do you trust a review of an app by your friends on social media?</p>	<p>If yes, Why do you trust them? If no, why?</p>
	<p>8. Have you rated an app with star ratings after you have downloaded and used the app? 9. Have you written a textual review of your experience of using an app?</p>	<p>Why do you think is necessary? Or Why have you not? If yes, What prompted you? If no, Why have you not?</p>

<p>or share eWOM/Market mavens</p>	<p>10. Do you think that other customers' written texts about mobile apps are good to consider in your decision?</p>	<p>Why do you think so? Or why not?</p>
<p>IMPACT OF REVIEWS: Textual reviews</p>	<p>11. In your opinion, are highly rated reviews (4-5 stars) valuable?</p>	<p>Will you consider the star ratings in your decision? Why? Or why not?</p>
<p>Star ratings (1-5 stars)</p>	<p>12. Normally, how do you go about (the process of) downloading an app from the app store / play store?</p>	<p>Why do you do it that way?</p>
<p>DECISIONMAKING PROCESS</p>	<p>13. a. Has a customer review led you to "download an app" online?</p>	<p>Why did you do that? If no, why have you not?</p>
<p>TESTING AISDALSLove concept in use</p>	<p>b. Has downloading and using a mobile app ever led you to "like", "share" or "write a review" about your experiences?</p>	<p>If yes, what action was it? How did you do it and why? If no, why not?</p>
<p>ORGANIZATIONAL RESPONSES</p>	<p>14. Have you received responses about your reviews online from the product/service provider/ software developer, etc.?</p>	<p>If yes, what was your experience? Positive or Negative; why?</p>
<p>TO REVIEWS(eWOM)</p>	<p>15. From your experiences of installing and uninstalling software/apps to your devices, what more do you want to share/ wish they should or should not do?</p>	<p>What is/was it and why?</p>

Appendix 2: Interview Guide

Issues to be considered	Check box To be marked if “DONE”
<p>1. Building rapport</p> <p>The building of rapport involves establishing a good or harmonious relationship between people or groups so as to improve communication and understanding between them (Oxford dictionary, 2018). This implies that any inhibition to the smooth communication and cooperation between people in such a setting should be eliminated or at least reduced to the barest minimum. Therefore it is important for the sake of building rapport between the interviewers and the interviewees to clarify the following elements of the interview in order to possibly elicit thoughtful responses.</p> <ul style="list-style-type: none"> ○ Familiarization <ul style="list-style-type: none"> Greeting the interviewees and introducing oneself <ul style="list-style-type: none"> ➤ Example: Good morning/afternoon/or evening? ➤ How was your day or how have you been? ➤ Was it easy getting here? I am.....from Åbo Akademi University and I have been living here (Helsinki, Turku or Finland) for aboutyears. And you? Interesting! ○ “Small talk” to ease possible tension or awkward feeling by talking about “neutral” topics like weather and sports, for instance. It is important to avoid sensitive topics such as politics, religion, sexuality, etc. as it could create a negative first impression and besides it is outside the domain of this study. <ul style="list-style-type: none"> ➤ Example: What do you think of the weather today? ➤ Based on your experience, how do you think of the weather as compared to ...xxxx...? 	

<p>2. Explanation of the interview, interview format, and purpose</p> <ul style="list-style-type: none">➤ This interview is a short social discussion about what you think /answer/ or your response to some few questions about the topic (Downloading of mobile apps) onto smartphones or tablets. <p>The format of the interview will be partly structured and partly “open”. This means you (the interviewee) will respond to the questions posed to you and also feel free to add any further information you feel is relatable. The purpose of this interview is to gather relevant and credible data to help answer the research question posed in section 1.3 of the study. In this way the study is contributing to the research community and practitioners to understand why people decide to download some specific apps, and how they go about doing it. By your responses, you would have contributed immensely to this worthy cause.</p>	
<p>3. Assurance of confidentiality</p> <p>The confidentiality of the interviewees is paramount depending on the type of information the study is willing to obtain from the respondents. Therefore the confidentiality assurance to the interviewees could be for example, as below:</p> <ul style="list-style-type: none">➤ The information you share for the purpose of this study will be handled with the utmost care without releasing it to any third party.➤ The identity of all interviewees of this study is protected as only their responses are recorded for documentation purposes. <p>4. Mode of the recording of the interview and the duration</p> <p>For the purpose of obtaining all relevant data needed for this study, the interviews will be audio-recorded for quality data which is critical for obtaining relevant results. The interview will last approximately thirty (30) minutes. So please do signal if for any reason you wish it to be paused or interrupted for further continuation.</p>	

<p>5. Possible contact after the interview</p> <p>There is a possibility that the author of this study can be contacted to obtain or further furnish any relevant information for the sake of this study. Therefore in order to be professional or credible, the institutional email (.....@abo.fi) is most appropriate for this purpose and will be used for post-interview contact.</p>	
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