



## The Impact of Online Customer Reviews (OCRs) On Consumer Purchasing Decision

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### Abstract

*This paper investigates how online customer reviews (OCRs) can affect consumer purchasing decisions mediated by online reviews type and moderated by different demographics. The online customer reviews in this study is measured by valence (ranged from positive to negative), volume (many or few), recentness (whether the online review is recent or old), and the review length (long or short review). Moving to the mediating variable, the online review type is either (objective or subjective) and moderated by demographics (age, gender, income, and education). It's important to note that there is no sufficient data regarding the effect of online customer reviews (OCRs) on consumer purchasing decisions in Egypt. Hence, this research can contribute to a deeper understanding of (OCRs), this is also necessary for developing valuable indications for the online platforms to enhance their services introduced to the Egyptian market. The current research is based on quantitative data derived from an online survey which was distributed among online users in Egypt. In this sense, the usefulness of this research is that it allows underlining significant issues and formulating vital findings: the online reviews dimensions showed a meaningful relationship between it and between the online purchasing decisions which emphasized the importance of the online customer reviews. Also, other dimensions indicated an effect on the consumer purchasing decision mediated by the online review type, whether it was subjective or objective review. On the other hand, demographics, education, job, and income moderated the relationship between dimensions of online customer reviews and consumer purchasing decisions.*

**Keywords:** *Online Customer Reviews (OCRs), Valence, Volume, Recentness and Length, Subjective online reviews, Objective online reviews, Consumer Purchasing Decision.*

### Introduction

Recently, online reviews have gotten progressively significant. Since customers consider online purchased products reviews to obtain data before settling on their online purchasing decision. Also, online retailers allow customers to share and exchange their knowledge and experiences about their purchasing transactions.

There are numerous meanings of online reviews. Park and Lee (2015) accept that online reviews and opinions are positive and negative reviews of the items that have been sold on the web based shopping center. Researchers stressed that online reviews are assessment data of articles, products, and services stuck on outsider destinations and retailers, which the shoppers make. They accept that online reviews are assessment data about

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the various parts of buyer products. With this data, shoppers can derive the nature of products as indicated by the reviews and experience to reduce individual time and the danger of procurement (Mo; Li and Fan: 2015).

On online platforms, most items are returned because clients aren't happy with what they get, yet this isn't really because of item surrenders. Since clients can't physically assess and test items before acquiring them, it's harder for them to set the correct desires and more straightforward to be frustrated by an object. This is why retailers give data-product specifications, pictures, and might include videos to provide and create a simulated physical environment to help them build corrective online purchasing decisions (Minnema et al., 2016).

Carnevali (2016) referenced that 67,7% of potential clients are affected in their buy by online reviews. 29,6% said that thoughts are very or utterly significant in settling on their buy choice.

Another, and presumably, one of the most significant reasons why reviews are substantial is that they can play an essential role in increasing retailer's sales since:

- At least 50 reviews for each item can expand change rates by 4,6%.
- 63% of clients are bound to purchase from a site with client reviews.
- Reviews composed by shoppers are fundamentally more trusted than data from a producer.
- Reviews produce an overall 18% increase in sales.

## **Literature Review and Theoretical Framework**

### ***Online Customer Reviews (OCRs)***

OCRs are single direction offbeat interchanges between one commentator or reviewer and numerous followers or readers (one-to-numerous correspondence) (Litvin et al, 2008). An online review is any positive or negative portrayal of a (previous) client about a product or service of a specific organization composed on the web (Hennig-Thurau et al., 2004).

Since, OCRs can be characterized as any positive, negative or neutral opinion, rating of an item, product or service, a brand or an individual as far as anyone knows made by a previous client and that is imparted to different customers in an unstructured arrangement. For example, a blog entry or in a progressively structured format or, purchaser reviews distributed on an independent consumer site (for example Trip Advisor-com), third party a- business site (e.g. Booking.com), or corporate site (for example Thomson.co.uk) (Filiari, 2016).

The travel industry researchers have committed much consideration regarding travel-related reviews. For instance, indicating the impact that they have on lodging deals (Ye et al, 2009), on how they influence buyer attitudes and awareness towards hotels (Vermeulen and Seegers, 2009) and consumer purchasing intentions (Filiari, 2016; Sparks and Browning, 2011; Vermeulen and Seegers, 2009). Researchers have likewise examined the antecedents of perceived review and perceived site trust (Park and Nicolau, 2015; Filiari, 2016), and the utilization and significance of OCRs at various phases of the trip arranging process (Yoo & Gretzel, 2008).

Trustworthiness and reliability are parts of believability and credibility development and are characterized as "a trustor's assumptions regarding the intentions and conduct of a trustee". Accordingly, a trusted review can be described as a review that the shopper sees as fair, earnest, and honest (Cantalops and Salvi, 2014; Cox et al., 2009; Yoo and Gretzel, 2008).

### ***Characteristics of Customer Online Reviews (OCRs)***

There are fewer geographic limits inside this digital world. This likewise applies to online reviews. These reviews can contact a massive cluster of online consumers on the web (Somohardjo, 2017). Online

customer review is a sort of item data composed and made by clients, and the substance depends on what the clients have experienced after purchasing the product (Chen and Xie, 2008). Implying that online reviews assume a significant indicator for organizations. Since online purchaser reviews are one of the most dominant channels creating a progressive online word of mouth (Duan et al., 2008).

In online reviews, distinctive components are featured. An online review has two parts: quantity (for example, view rating) and quality (for example, survey meaningfulness) (Agnihotri and Bhattacharya, 2016). Moreover, few components in the online review might include the creator's name, number rating, a degree in tasting level, audit rating in general, and length.

The research of (Chen and Xie, 2016) provided a significant comparison between two types of reviews: customer reviews and expert or professional reviews. Moreover, Chen and Xie (2016) indicated, the containment of expert review is shaped by examinations of lab testing or assessments of specialists. Proficient reviews center around product characteristic data. For instance, features, options, and performance. Another contrast between purchaser reviews and expert reviews is that online shopper reviews depend on personal experiences and stories.

### ***Dimensions of Online Customer Reviews (OCRs)***

This is likewise why online customer reviews and recommendations have become such a significant wellspring of product data. These are regularly portrayed by the average star rating ("valence"), the number of "reviews" ("volume"). Since online reviews influence individuals' probability of purchasing something, it is needed to test whether reviews impact their likelihood of returning it (Von Helversen et al., 2018).

Previous studies clarified that online shopper reviews exist while customers' purchases significantly affect their decision to buy an item. If the product's reviews are excessively positive, this prompts significantly higher purchasing chances. A one-point increase in studies valence brings about an increased buying chance of roughly 10% (9.14% for electronics; 14.60% for furniture) according to (Casaló et al., 2015).

On the other hand, these excessively positive reviews affect customer assumptions and expectations regarding the item (that is why they get it); consumers can encounter more considerable dissatisfaction after getting the product if it doesn't satisfy its glowing audits and reviews. Accordingly, this drives more individuals to send the item back. Previous studies found that the impact of excessively positive review valence on return rates is comparable: return rate increases by 10% (11.16% for electronics; 10.34% for furniture) with a one-point increase in review valence. These outcomes lower retailers' benefits because of higher all-out return costs that balance the addition in deals. Hence, excessively positive audit valence can reverse discharge by raising client desires excessively (Von Helversen et al., 2018).

As previous researchers in the field, this study will consider a mixture of the previous two studies by taking valence, volume, recentness, and length of the online reviews as dimensions and elements of the independent variable online customer reviews (OCRs).

#### **1- Valence**

The valence can either be positive or negative. While suggesting an item or product, this is equivalent to positive word of mouth. On the contrary, when purchasers comment against a specific product, this can be characterized as negative word of mouth (Rosario et. al., 2016). Cheung and Thadani (2012) recognized valence as one of the significant variables related to the reaction or response. They imply that the valence of positive online reviews is specific and the inverse for negative online reviews. The most grounded impacts for online reviews are found in the segments with experience products and services since it is hard to encounter the product before consuming it. Research has indicated that previously purchased products

are generally touchy for online reviews according to (Park and Lee, 2009). Most customers compose an online review because their desires towards a specific item were excessively low or excessively high. In this manner, the review content is positive or negative. Positive data can prompt a positive attitude, thus affecting online customer purchasing intention. On the other hand, the inverse for negative data can produce a negative disposition and buying aim (Jia and Kou, 2016).

Other than the negative attitude towards purchase intention, negative data diminishes the reliability of the primary aim of reviews. The negativity impact implies that purchasers append more an incentive to negative data in correlation with positive data. Negative data can be easily recalled over positive data and pulls in more consideration. Previous researches tested to show members various substances (varied from highly positive to negative). Accordingly, previous researches proposed that negative implication has a more substantial effect in looking at the members in correlation with the positive substance (Stefanov, 2014).

Moreover, Sai, T. et al., (2020) suggested that the consideration impact is more noteworthy for negative data compared to positive data. Proceeding with the negativity impact, negative offline word of mouth strongly affects brand frame of mind and buy expectation rather than positive word of mouth. On the other side, a few investigations have presumed that positive data leads to positive attitudes and purchasing intention. Also, negative data show a negative attitude and purchasing intention. Online straightforward, accurate, and honest reviews are persuasive for buying intent (Cheng and Zhou, 2010). Some researchers found that the purchase intention is higher for positive online reviews than negative online reviews (Lima et al., 2016). This could be clarified by how positive online reviews arrive at the positive feelings of the shopper with all the positive words written in the study (Xia and Bechwati, 2008).

According to (Stefanov, 2014) various researches considered how the valence of product-related data influences buying behavior. There is a proof that gradual negative review was more dominant in diminishing sales than a positive review was in expanding deals. Considering the web book retailers, they demonstrated that an improvement in a book's reviews prompted an expansion in comparable sales – an expansion in the average star rating on Amazon.com brought about higher sales after some time, and positive reviews improved sales. Besides, the effect of one-star reviews was more noteworthy than the effect of five-star reviews in most situations. This proposes that negative data will have more power and impact on an individual, contrasted with extreme positive data.

Also, (Stefanov, 2014) referenced that negative exposure to an item or a product can have positive versus negative impacts. As well as, negative direction could improve buying probability and sales when existing product availability and awareness were low. Breaking down book reviews on the New York Times and sales, it is proposed that positive reviews constantly helped expand sales. In contrast, the impact of negative reviews relied upon familiarity with the author. Positive and negative exposure had a diverse effect on the sales of founders, yet comparative for new creators, which indicated that negative direction might have a beneficial outcome because of the separation of valence in memory. Additionally, for unknown products, the impact of negative reviews turned out to be progressively positive with time since exposure valence blurred; however, expanded mindfulness remained.

Some previous studies examined whether individuals weigh negative data more than positive data regarding assessing a product. It was implied that product type moderated the impact of review valence and that individuals were bound to peruse negative reviews and be more drawn in with them than positive reviews. While other studies examined upheld the presence of negativity bias for utilitarian products, however not for hedonic products. Likewise, individuals were bound to consider utilizing purchaser reviews for valuable products in their purchasing decision, which shows that general shopper reviews would be progressively influential for utilitarian products according to (Sai, T. et al., 2020)

## 2- Volume

Volume refers to the number of online reviews or ratings about a specific item or brand (Chintagunta et al., 2010; Floyd et al., 2014). The high amount of review volume is directly related to more product awareness and, as a result, higher sales (Anderson and Salisbury 2003; Archak et al. 2011; Bowman and Narayandas 2001). Consumers can be more persuaded when viewing products with a high volume of online reviews, as an opinion and view shared by a massive cluster of consumers will increase the perceived correctness of that opinion. Furthermore, consumers can become more informed about a product with many online reviews, which affects and influences product sales (Godes and Mayzlin, 2004; Salganik and Watts, 2008). Liu (2006) found that volume has an "informative influence on awareness." However, several other studies found no significant effect on awareness or purchase intentions. For example, Chintagunta et al. (2010) expose that the main driver and force of movie box-office performance is online review valence, not volume. Depending on these results, Kostyra et al. (2016) reveal that volume does not straight affect consumer choice but aids only as a moderator of the valence of online reviews.

## 3- Recentness

The third dimension to assess the online reviews is the recentness: which refers to the date the online review was shared. Cheung and Thadani (2012) recognized recentness as one of the significant elements related to the reaction. The recentness can be partitioned into "recent" postdates, and "old" postdates. An examination that explored the impact of online travel reviews appraised the recentness as critical when assessing a travel review. 59.3% of the respondents appraised the recentness as basic when evaluating an online review (Yoo & Gretzel, 2008). Insight says that the effect of the latest online reviews might be more significant than old online reviews, given the forward-thinking data of the latest online reviews (Jin et al., 2014). As a result, the connection between the recentness and the effect on shopper choice is still vague. Likewise, the research of Wu and Huberman (2007), various examinations explored in this context found that memory and being new will terminate after some time. Another study recommends that shoppers consider old reviews more beneficial than anticipated (Pan and Zhang, 2011).

Since a positive connection was found between the apparent supportiveness of an item review and passing the time since the review was posted, ongoing examination says that members lean toward late reviews over old audits (Jin et al., 2014). The investigation of Jin (2014) is explicitly centered around the timeframe interaction. Implying that members with not-so-distant future purchases (booking lodging in two days) read later reviews than members with far off future purchases (booking in six months). Also, members with further future purchase read more old reviews than members with not-so-distant future purchases. There aren't a lot of studies and hypotheses about the recentness and the effect on the purchases (Jin et al., 2014).

Less research has been done on the impact of later and old online reviews. The investigation about online travel reviews expects that the recentness is significant when passing judgment on a travel review (Yoo & Gretzel, 2008). Applicants with near future buy read later and recent studies (Jin et al., 2014). When buyers read old online reviews, they may imagine that the review content is too old to even think about using and like this untrustworthy when using it to decide purchasing decisions (McKinney et al., 2002). Researches in this context have assumed that the impact of new online reviews is more significant than old ones. This depends on rationale and experience. Since new and recent data is increasingly beneficial and usable for buyers.

## 4- Length

The fourth dimension of online reviews assessment is the total number of composed characters (Chevalier and Mayzlin, 2004). Shorter online reviews likely have fewer data contrasted with longer online re-

views (Pan and Zhang, 2011). Longer online reviews offer more data and could be more persuading than shorter online reviews. Close to, longer online reviews draw more consideration since buyers can find what they are searching for in longer online reviews. Length is one of the most significant signs buyers utilize while looking for products (Järveläinen et al., 2013). This infers that longer online reviews are increasingly helpful, contrasting to shorter online reviews. Due to search merchandise's reality-based nature, these reviews can be short (Mudambi and Schuff, 2010).

The contrasts between search products and experience products affect the length. The impact of length for search products builds the diagnosticity more than experience products (Mudambi and Schuff, 2010). Jin et al. (2014) indicated that it is more simple to assemble and collect data on product quality for search products before buying a specific good. The length has a relationship with the creator's energy (Chevalier and Mayzlin, 2004). Longer online reviews could be seen as more persuading that long online reviews offer more data and frequently comprise more insights regarding the specific item and more data about the circumstance where setting the thing was utilized (Mudambi and Schuff, 2010). Given this finding, the supposition that the length of the online audit could influence purchase intention and buyers' attitudes.

Mo, Z.; Li, Y. and Fan, P. (2015) clarified that customer learning means that shoppers obtain information, experience, abilities and continually improve their purchasing behavior during the buying process. Purchasers' attitudes are influenced by the amount and ratings of online reviews. When customers need to purchase a thing, they are indicated by the positive or negative remarks; they will like or dislike the products. When positive reviews emerge, shopper motivation will keep on getting reinforced. At the point when low-quality reviews are rising, purchaser drive is decreased. After their buy, the quality of products is perceived by customers. Online reviews of believability and trustworthiness selection procedures can be comprehended as customer learning behavior.

From the previous, the researchers propose the following hypothesis:

- H1: There is a significant relationship between online customer reviews (OCRs) and purchasing decision
- H1a: There is a significant relationship between the valence of online reviews and purchasing decisions.
- H1b: There is a significant relationship between the volume of online reviews and purchasing decisions.
- H1c: There is a significant relationship between the recentness of online reviews and purchasing decision.
- H1d: There is a significant relationship between the length of online reviews and purchasing decision.

### ***The Mediating Effect of Online Review Type and Consumer Purchasing Decision***

Following the above mentioned dimensions, many studies focused on the review type. The estimation of each online review can be partitioned into two types. The first type is the subjective measurement, and the second type is the objective measurement. The subjective measurement depends on the judgment of the shopper and what the customer knows. Connected to the subjective measurement, these are assessments. These are subjective opinions dependent on singular reviews and might include biases and errors. subjective data contains passionate data, and it might consist of the shading, color, and shape (Lee and Lee, 2009). This subjectivity can be impacted by how the usage and interpretation of word of mouth will dominate when the person's confidence or certainty is greater according to (Siering, Muntermann and Rajagopalan, 2018). Online reviews as "I am so satisfied with this item; despite everything I can't envision this item is mine" is a case of subjectivity (Park et al., 2007). While objective measurement and estimation depend on assessing someone else's information, objective analysis can be classified in the facts category. Objective data depends on the product's specifications which are estimated objective, similar to length or

weight (Lee and Lee, 2009). Facts are objective and have demonstrated ability (Eslami, Ghasemaghahi and Hassanein, 2018).

Online reviews as “*This USB stick is multiple times quicker as other USB sticks and even €5, - less expensive*” are a case of objectivity. Since this online review is explicit, clear, and clarified with objective reasons. Online reviews might be helpful to data of word of mouth for buyers. Online reviews with increasingly justifiable and target content with enough motivations to prescribe are progressively powerful than online reviews with enthusiastic and emotional substance with proposals dependent on not a single explicit explanation (Park et al., 2007). Online reviews won't effectively be accepted if the content doesn't include enough data (Rosario et al., 2016). This is because of the way that online review authors are mysterious on the web. In this way, their review may persuade on the off chance that they give enough data. The impact on the purchaser's intention is more significant when online reviews are progressively convincing (Park et al., 2007). The fact above reasons that online reviews that are the target, clear, and convincing affect the purchase intention instead of subjective and enthusiastic online reviews. This expected review type works as a mediator variable between review attitude and purchase intention. It is believed that the impacts are more effective when reviews are objective.

In this research, whether the objective or subjective review is considered the mediating variable that might affect, enhance, or weaken the relationship between Online Customer Reviews (OCRs) and consumer purchasing decision. Accordingly, the researchers propose the following hypothesis:

*H2: There is a significant relationship between online customer reviews (OCRs) dimensions and purchasing decision mediated by online review type*

### ***Online Customer Reviews (OCRs), Consumer Purchasing Decision and Demographics***

Von et al., (2018) research stated that the effect of shopper reviews on online purchasing decisions is significantly recognized. Moreover, various researches have indicated that buyer reviews influence individuals' buying intention and behavior, just as attitudes towards products and sellers (e.g., As told by ongoing meta-examinations, the most significant highlights influencing sales and customer attitudes are valence and volume of reviews) (Gopal, and Jindoliya, 2016). Generally, increasingly positive reviews lead to sales and attitudes while negative reviews reduce them. Their effect relies upon review presentation, reader's perception, and the source of the review. Although positive and negative reviews can influence buyers' behavior, some studies have demonstrated that they differ in their effect according to (Pelaez, Chen and Chen, 2019).

Purnawirawan et al. (2015) discovered that negative reviews had the most grounded effect on consumer attitude and usefulness, recommending that negative reviews may convey more weight than positive reviews a finding that resounds with examine in other areas of communication. On the other hand, further research has revealed that the negativity bias is specified for only hedonic products with customer reviews. Besides, Wu et al., (2011) recommended that purchasers may not gauge negative reviews all the more strongly yet see them as progressively educational because they are regularly rarer and of higher quality.

Other than the valence of the review, the formatting of the data and information matters. Online websites regularly give shopper reviews two types: average ratings outline the product's perceived quality (i.e., statistical data) and single reviews containing individual stories of customers made with a specific product. The overall significance of these kinds of information is still under discussion. A recent study demonstrated that clients rate average evaluations as most significant (Rosario et al., 2016). Hong and Park (2012) found that both statistical and narrative data are similarly persuading. At the same time, Ziegele and Weber (2014) announced that the subject of how single reviews influence buyer behavior is especially significant because individuals frequently just read a few reviews before settling on a choice, concentrating on the latest reviews.

On the whole, researchers recommended that more youthful grown-ups' buyers are firmly influenced by average customer ratings. Average ratings of an item or a product, nonetheless, may lose their influence on buying decisions if they are conflicting with a well-written review, single review. Besides, some studies show that negative reviews apply more grounded influence than positive ones proposing that single negative reviews may convey more weight than single positive reviews. Conversely, little is thought about how older adults than youth adopt online shopper decisions and respond to customer evaluations and reviews (Lima et al., 2016).

It is concluded that more grown-up people don't consider accumulated purchaser data and positive reviews concentrating on positive experience with the product or service however are effectively influenced by reviews detailing negative experiences.

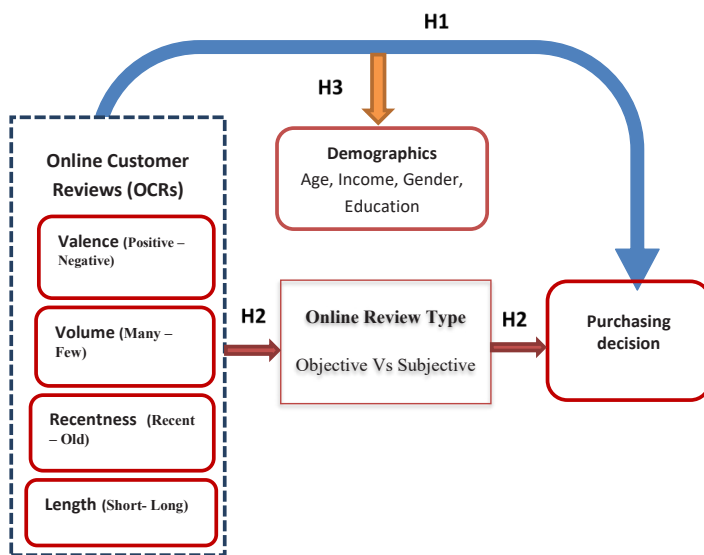
From the previous, the researchers can conclude the third hypothesis for the current research as follows:

*H3: There is a significant relationship between online customer reviews (OCRs) dimensions and purchasing decision moderated by demographics (age, gender, income, and education).*

### Conceptual Framework of the Study:

Based on the literature review, the proposed conceptual framework is developed as in figure (1).

Based on the literature review, the conceptual model (see figure 1) with three primary constructs is developed by adapting measurement items from previous researches. The online customer reviews in this study measured by valence ranged from positive to negative, volume (many or few), recentness if the online review considered recent or old, and the review length if the customer review considered long or short review. Moving to the mediating variable, the online review type is either objective or subjective and moderated by demographics (age, gender, income, and education).



Source: Developed by the researchers

Figure (1) Proposed Research Framework

## Research Methodology and Sampling

### Sampling Plan

This research is quantitative in its nature. Moreover, the study population is as follows:

- All online shoppers who can make dependent decisions of purchasing aged between (18 – 65).
- All online shopping websites are all over Egypt.

The sample is drawn from online shoppers in Cairo. The research sample is a “non-probability convenience” sample drawn from online shoppers in Cairo. Since there is no specific framework for this community, the researchers outline a selection of 400 respondents with a 95% coefficient of confidence and 5% error limits.



## ***Questionnaire Design***

An online questionnaire was developed to collect the current research primary data (see appendix p. II). The questionnaire consists of three sections designed to identify the shoppers' intentions on online reviews. Additionally, this questionnaire is divided into four main sections. The first section includes general questions to determine the used websites and applications, product categories that shoppers tend to purchase, and whether the respondent is keen to read the online reviews or not. The second section consented only to the dependent variable, the "Purchasing intention." The third section focused on the independent variable, the "online reviews." Lastly, the fourth section concentrates on demographics. All areas except the demographic information used a 5-points Likert scale, from strongly disagree to strongly agree, weighted from 1 to 5, to measure the respondents' agreement level towards the designed statements.

## ***Data Analysis***

SPSS is used to analyze data statistically. Researchers performed various tests on data such as reliability analysis, correlation, and regression analysis.

## **Statistical Analysis**

### ***Reliability and Intrinsic Validity for Research Dimensions***

The results of Cronbach's alpha measure and average inter-item correlation assured that the questionnaire is reliable as the Cronbach's alpha and average inter-item correlation coefficient for all items greater than 0.7 as it was shown in table 1 (see appendix p. I).

### ***Descriptive Statistics of the Study Framework Variables***

In this section, the descriptive statistics of the study variables are described in table 2 (see appendix p. I), since the results were as follows:

- The average of valence is 2.7 133 which mean that respondents tend to agree mostly to the statement that measure negative valence than positive valence.
- The average of volume is 3.62 which mean that respondents tend to agree mostly to the statement that measure volume (many) than few.
- The average of recentness is 3.31 which mean that respondents tend to neutrally agree to the statement that measure both recent statement and old statements.
- The average of length is 3.4 which mean that respondents tend to neutrally agree to the statement that measure both short and long statements.
- The average of objective review is 3.918 which mean that respondents tend to agree to the statements that measure objective review.
- The average of subjective review is 3.54 which mean that respondents tend to agree to the statements that measure subjective review.
- The average of purchasing decision is 3.27 which mean that respondents tend to neutrally agree to the statements that measure subjective review.
- Also, the homogeneous variable (the variable with least variation) is objective review with coefficient of variation = 12.7%, while the variable with highest variability is subjective reviews with coefficient of variation = 17.6%.

### Correlation Analysis

From the following table it is clear that with confident 95% that there is positive significant correlation between purchase decision and each of objective reviews, subjective reviews, valence, volume, recentness, and length this with confident 95% as the p-value is less than 5%.

Correlations							
	purchasing decision	objective review	subjective review	Valence	Volume	Recentness	length
purchasing decision	1	.402**	.333**	.370**	.565**	.339**	.390**

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

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

### Testing the Research Hypotheses

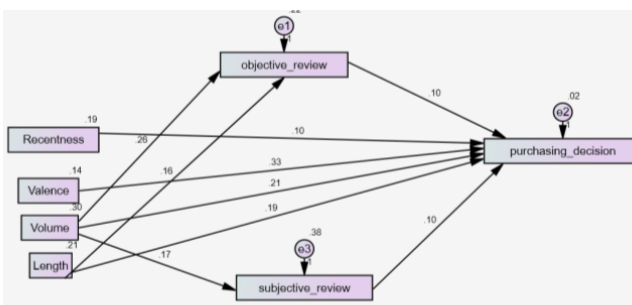
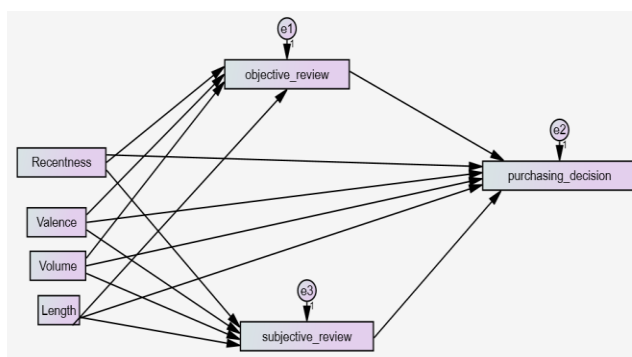
To answer the above mentioned hypotheses, the following path model is estimated

Firstly, from the following table we can conclude that with confident 95%

- There is no significant impact of each of recentness and valence on objective review.
- There is no significant impact of each of recentness, length, and valence on subjective review.

So these paths are deleted and the model is analyzed again as shown in the following

The following table and path model presents the results of the above estimated path model, and from it we can conclude that:



Path model is estimated after removing insignificant paths

#### 1- Direct Effects

- Volume has direct positive impact on objective review and this effect = 0.255, and this with confident 95% as the p-value associated with them are less than 5%, this means that increasing volume leads to increase the interest by objective review.
- Length has direct positive impact on objective review and this effect = 0.155, and this with confident 95% as the p-value associated with them are less than 5% this means that increasing length leads to increase the interest by objective review.
- Volume has direct positive impact on subjective review and this effect = 0.174, and this with confident 95% as the p-value associated with them are less than 5%. this means that increasing volume leads to increase the interest by subjective review.
- Recentness has direct positive impact on purchase decision and this effect = 0.095, and this with confident 95% as the p-value associated with them are less than 5%. this means that increasing recentness leads to increase the purchasing decision.
- Valence has direct positive impact on purchase decision and this effect = 0.332 and this with confident 95% as the p-value associated with them are less than 5%. this means that positive valence leads to increase the purchasing decision.
- Volume has direct positive impact on purchase decision and this effect = 0.210 and this with confi-

dent 95% as the p-value associated with them are less than 5%. this means that increasing volume leads to increase the purchasing decision.

- length has direct positive impact on purchase and this effect = 0.186 and this with confident 95% as the p-value associated with them are less than 5%. this means that increasing length leads to increase the purchasing decision.
- subjective review has direct positive impact on purchase and this effect = 0.101 and this with confident 95% as the p-value associated with them are less than 5%. this means that increasing the interest by subjective review leads to increase the purchasing decision.
- objective review has direct positive impact on purchase and this effect = 0.100 and this with confident 95% as the p-value associated with them are less than 5%. this means that increasing the interest by objective review leads to increase the purchasing decision.

## 2- Indirect Effects

- Volume has indirect positive impact on purchasing decision through objective review and this indirect effect = 0.0255 ( $0.255 \times 0.1$ ), and through subjective review and this indirect effect = 0.017574 ( $0.174 \times 0.101$ ), this means that the total effect of volume on purchase decision = 0.253074.
- Length has indirect positive impact on purchasing decision through objective review and this indirect effect = 0.0155 ( $0.155 \times 0.1$ ), this means that the total effect of length on purchase decision = 0.2015.

This means that objective review mediates the relation between purchase decision and each of volume and length, while subjective review mediate the relationship between purchase decision and volume only.

### ***Goodness of Fit Indices for the Estimated SEM***

Regarding model in table 4 (see appendix p. 1), the researcher concluded that all the goodness of fit measures of the model indicates that all indicators at acceptable limits, especially NFI, RFI, IFI, TLI, and CFI is close to one. Also, the value of RMSEA is less than 0.05. All these measures indicate the goodness of fit of the structural model. Note that the level of significance of the Chi-square test is less than 0.05 which indicate that the model is not good fit, but this is not an accurate result as Chi-square is very sensitive for large sample size so goodness of fit of the model is determined according to the above-mentioned indicators.

### **Accordingly, it is Concluded That,**

- There is no significant relationship between the valence of online reviews (objective and subjective) and purchasing decision.
- There is significant relationship between the volume of online reviews (objective and subjective) and purchasing decision.
- There is no significant relationship between the recentness of online reviews (objective and subjective) and purchasing decision.
- There is a significant relationship between the length of online reviews (objective only) and purchasing decision.

### **Accepted for Volume and Length Only.**

### ***Testing the Mediator and the Moderator Effect Using Regression Analysis***

- H2: There is a significant relationship between online customer reviews (OCRs) dimensions and purchasing decision mediated by online review type
- H3: There is a significant relationship between online customer reviews (OCRs) dimensions and purchasing decision moderated by demographics (age, gender, income, and education).

To study these research hypotheses, regression analysis will be used, in which the dependent variable is purchasing decision, and the independent variables as mentioned before, in addition dummy variable techniques with interaction terms is used to check the moderation effect and it was concluded from the regression analysis:

- Recentness has direct positive impact on purchase decision and this with confident 95% as the p-value associated with them are less than 5%. this means that increasing recentness leads to increase the purchasing decision.
- Valence has direct positive impact on purchase decision and this with confident 95% as the p-value associated with them are less than 5%. this means that positive valence leads to increase the purchasing decision.
- Volume has direct positive impact on purchase and this with confident 95% as the p-value associated with them are less than 5%. this means that increasing volume leads to increase the purchasing decision.
- length has direct positive impact on purchase and this with confident 95% as the p-value associated with them are less than 5%. this means that increasing length leads to increase the purchasing decision.

All demographic variables have no significant impact on purchase decision, as the p-value associated with all dummies are greater than 5%.

All demographics have no moderation effect on the relationship between OCRS and purchase decision as the p-value associated with interaction terms are greater than 5%, except for the following relations since:

- Education moderates the relationship between volume and purchase decision, such that the effect of volume on purchase decision for respondents that are educated as Secondary schools is less than the same effect for who are educated as postgraduates by 0.336, while this effect for respondent who have bachelor's degree is not significantly different than who are educated as postgraduates, this with confident 95%.
- Education moderates the relationship between length and purchase decision, such that the effect of length on purchase decision for respondents that are educated as Secondary schools is larger than the same effect for who are educated as postgraduates by 0.301, while this effect for respondent who have bachelor's degree is not significantly different than who are educated as postgraduates, this with confident 95%.
- Job moderates the relationship between valence and purchase decision, such that the effect of valence on purchase decision for respondents that are entry level employed is larger than the same effect for who are managers by 0.310, and this effect for who are employed as middle management is greater than the same effect for who are managers by 0.404. while this effect for respondent with other jobs not significantly different than who are mangers, this with confident 95%.
- Income moderates the relationship between recentness and purchase decision, such that the effect of recentness on purchase decision for respondents that have income up to 50 thousand is less than the same effect for who have income more than 200 thousand by 0.228, while this effect for respondent with other income levels are not significantly different than who have income more than 200 thousand, this with confident 95%.

## Conclusion

This study aimed at examining how online customer reviews (OCRs) affect the consumer purchasing decision and the mediating effect of the online review type either subjective or objective, in addition to the moderating effect of demographics (age, gender, income and education) on the relationship between online cus-

tomer reviews and the consumer purchasing decision. It is a vital issue that has received insufficient attention in the literature: particularly, empirical evidence about the application of the suggested conceptual framework in Egypt context, and this research can contribute to a deeper understanding of this topic. This is also necessary to develop useful indications for sellers about the importance of the online customer reviews and how it can affect the purchasing decision of other customers thus increasing sales and customer satisfaction.

Although there was insufficient research about the importance of the effect of online customer reviews in Egypt: particularly, empirical evidence about the application of the suggested conceptual framework in Egypt, this study developed a model constructs of three main variables, the independent variable is the online customer reviews measured by several dimensions such as valence, volume, recentness and length and the dependent variable is the consumer purchasing decision in addition to the mediator variable which is the online review type either subjective or objective review and the moderater variable which is demographics (age gender income and education) the model of the study had been applied on a sample collected from the Egyptian economy examining the most famous platforms operating in Egypt that are used to purchase several categories of online products such as fashion, electronics, furniture and others. the results of the study indicated that there is significant relationship between some of the dimensions of the online customer reviews and that consumer purchasing decision.

The results of the study showed that there is a significant relationship between volume of the online reviews and the consumer purchasing decision also there is a significant relationship between the length of the online reviews and the consumer purchasing decision, but other dimensions of the online customer reviews showed no significant relationship between them and between the consumer purchasing decision. Meaning that the customer is affected by the volume of the online reviews either if it is many or few online reviews available on the different platforms operating in Egypt before taking his decision in purchasing such an online product, also the length of the review showed a considerable importance ranged from short review or long and detailed review.

Volume has direct positive impact on objective review this means that increasing volume leads to increase the interest by objective review. Length has direct positive impact on objective review, this means that increasing the length of the online review leads to increase the interest by objective review. Volume has direct positive impact on subjective review meaning that increasing the number of online reviews leads to increase the interest by subjective review. Recentness has direct positive impact on purchasing decision. This means that then you review would have a positive effect on the purchasing decision more than the old reviews. Valence has direct positive impact on purchase decision, that means that the positivity and the negativity of the online customer reviews would play a significant role in deciding to purchase the online product or not.

Regarding the mediator effect of the review type either subjective or objective online review. Volume has indirect positive impact on purchasing decision through objective, and through subjective. Length has indirect positive impact on purchasing decision through objective review, this means that the total effect of length on purchase decision. This means that objective review mediates the relation between purchase decision and each of volume and length, while subjective review mediate the relationship between purchase decision and volume only. All demographics have no moderation effect on the relationship between OCRS and purchase decision except for the following. Education moderates the relationship between volume and purchase decision, such that the effect of volume on purchase decision for respondents that are educated as Secondary schools is less than the same effect for who are educated as postgraduates, while this effect for respondent who have bachelor's degree is not significantly different than who are educated as postgraduates. In addition to, Education moderates the relationship between length and purchase decision, such that the effect of length on purchase decision for respondents that are educated as Secondary schools is larger

than the same effect for who are educated as postgraduates, while this effect for respondent who have bachelor's degree is not significantly different than who are educated as postgraduates.

Other moderator showed an effect which is job. Job moderates the relationship between valence and purchase decision, such that the effect of valence on purchase decision for respondents that are entry level employed is larger than the same effect for who are managers and this effect for who are employed as middle management is greater than the same effect for who are managers. while this effect for respondent with other jobs not significantly different than who are managers. Also, Income moderates the relationship between recentness and purchase decision, such that the effect of recentness on purchase decision for respondents that have income up to 50 thousand is less than the same effect for who have income more than 200 thousand, while this effect for respondent with other income levels are not significantly different than who have income more than 200 thousands.

### **Limitations of the Study and Suggestions for Further Research**

A few constraints and limitations in this study can be settled and resolved in future research. The study was completed with restricted time and capacities. Time limitations of the study affected the results. Because of this need, not all online platforms operating in Egypt are included in the research. Particular platforms were given to the respondents to choose from however, there was an option for the respondent to add other platforms, there was other chance to increase the number of platforms thus increasing the chance of generalizing the results. The equivalent goes for buyer assessment gatherings. Moreover, the same goes for customer reviews and opinion forums. Also, factors affecting consumer purchasing decision and influence aside from review functions and platforms could be explored more thoroughly and were ignored in this paper. It is advised to expand on this model and research further, since the generalizability is limited due to the limited sample population. The sample should therefore be extended by random sampling. Moreover, future studies engaging in cross-cultural comparisons to enhance the understanding of the research implications is recommended. In the future, the topic of the research and its results might have changed due to the steadily growing and changing environment. For the survey, no professional tools or more attractive and additional incentives for the collection of results were available. Due to convenience sampling no equal amount of consumers in terms of geographical facts was reached. Moreover, due to the difference in perception between nationalities, the Egyptians perception might be different than other perceptions for people who are coming from different countries since the internet and social media, as well as online shopping might play a different role in their countries. Results might hence be biased and limited to Egypt.

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