DO ONLINE REVIEWS REALLY AFFECT OUR PURCHASE INTENTION? A META ANALYSIS

*Charu Chaudhary **B.B. Singla

*Research Scholar, School of Management Studies, Punjabi University, Patiala.

**Assistant Professor, School of Management Studies, Punjabi University, Patiala

ACKNOWLEDGEMENT

1. INTRODUCTION

Online reviews are the positive and negative comments made by the individual who have used the products (D'Acunto, Tuan, & Dalli , 2020). Online reviews are very important aspect of our daily life as stated by (Anderson , 2018) that reviews are important conductors in increasing the loyalty of the consumers for the business. It was duly noted that at least 80% of the consumers look out for reviews while making the consumer purchase decisions (Murphy, 2019). Such hype of online reviews is not among the consumers only, but search engines are also keeping a close look on the online reviews that are being posted online (Paljug, 2017). However, many business houses and organisations also keep a close look on reviews as negative reviews can affect the final purchase decision of the consumer; in addition to this it was stated that when came across some negative reviews at least 88% hesitate to buy the negatively reviewed product (Saleh, 2015). And hence, many business managers try to manage their reputation through reviews. Due to this many business managers try to track the reviews, and then try to reply to every review so that the reputation of their organisation is not harmed(Rayome, 2017). However, sometimes there is a chance of fake reviews which effect both the businesses (Wadsworth, 2019) and the confidence of consumer while making purchase decisions(Tamar , 2016). Hence with the increase in trend of the online reviews there is a need to check for the credibility and trustworthiness of the online consumer reviews (Filieri, 2016). The online review sites are increasing day by day however still the big question lies whether the online reviews are credible or not.

The influence of online reviews is dependent on various aspects. These aspects include the various statures of online reviews which makes them allure to the review readers. Here in the research paper, we include all the database that help in detailing out the how the online reviews affect the purchase decisions. Here in the study, we have done the meta-analysis to know how the online reviews influence and shape the consumer's decisions. However, before doing the systematic literature review, we first discuss what makes an online review believable.

CREDIBILITY

The credibility of online reviews is one of the most important aspect that should be studied as the online reviews have a great in driving the customer's decision towards the intention to or not to purchase the product. The product's positive or negative reviews can surely affect the consumer's mindset whether to buy the product or not. The notion was also validated by (Obiedat, 2013) who said that the positive or negative can affect the consumer's decision making which in turn can lead to the favourable or non-favourable decision for the product. The credibility of the online reviews is dependent on many aspects which are needed to be studied. Though the effect of online reviews on purchase decisions are being studied from a very long time, but there is little research regarding the factors which affect the credibility of online reviews. Credibility of an online review is the main question which rises in the mind of the individual, as they make their purchase decisions. As the quote suggests being unknown to something, is being unsafe to that thing. Hence, credibility pays a great role here. Credibility in literal sense, can be defined as being believable or being trustworthy (CambridgeDictionary, 2021). While talking about the credibility in our daily lives, we usually associate with the way we perceive things, like regarding the doctor's credibility we usually use the terms like this is best physician I came across, or for a car repair shop we say the

mechanics here do not work diligently and we usually transfer those notions to others this affect the credibility of the others when they pass the ideas. Hence, we can say that the notion of credibility is prevalent though it can be very much true that many of us as consumers are not familiar with the word as an existent in our daily life. The term credibility as defined by(Fogg & Tseng, 1999) has four types.The first one is Presume credibility that is what we presume to believe. For example, we usually have a stereotype that a real estate agent may not give all the true information or hide the necessary details. Reputed credibility,the second type of credibility means that how much an individual presumes to be the reported credibility to be true. The third one is surface credibility that is when an individual believes a normally inspected credibility reported by the others. The last type of credibility is experienced credibility which means that how an individual believes the person who have the first-hand experience in usage. As the credibility is essential for an online review the **Argument Quality** is also necessary**.**The argument quality can be stated as the power of the message that can persuade the reader (IGI-GLobal, 2021). Argumentations are very important in our day-to-day life. Argumentation has the power to resolve problems as well as they can create them too. However, with regard to quality of an argument in the online reviews, it is seen that an online review with a strong argument can lead to a favourable response (Cheung, Sia, & Kuan, 2012). It was further added that online reviews that have strong argumentation are more persuasive as they are based on concise facts and evidence(Lee, 2009). The consistency of the review is also a mandate to reach favourable decisions on the part of the customers**. Review Consistency** as suggests is the consistency a review maintains that is how constant is the information of the online reviews with other online reviews available on the site (IGI-Global, 2021). Consistent reviews are important as they build the trust of the consumers because a review once in a while may not be able to impact an individual (Onelocal, 2018). Though online reviews have various eminent characteristics which lead a consumer to make their purchase but to show a little vision of the same , we lastly discuss the review valence. **Review valence** is the sidedness of the review i.e., it shows whether he review shows the positive aspect (goodness) or the negative aspect (badness) of the reviewed item (Wikipedia contributors, 2020). These defined terms are a part of the online reviews, but to define the whole scenario we need more substantial evidence which shows the various aspects of the online reviews which influence the purchase intention. For this a crux review of literature has been done, to get a profound idea of the same.

2. METHODOLOGY

In the research paper we have constructed a data base which includes the relevant papers. Only 0those papers were included which relevantly meet the objective of the research paper. We had collectedat least 250 research papers for this purpose. We than manually searched only those papers which were in the leading journals like Decision Support Systems, Journal of Retailing etc. After searching we came across 55 research papers but after further evaluation, we included only 43 research papers in our sample/database. The below given table shows the varied journals used in the meta-analysis.

Table 1 : Number of Research Papers from the Leading Journals

Serial No.	Journal name	N: of Journals
1	Journal of Interactive Marketing	2
2	Journal of Vacation Marketing	1
3	Cornell Hospitality Quarterly	2
4	Electronic Commerce Research	1
5	International Journal of Electronic Commerce	3
6	Journal of Consumer Marketing	1
7	International Journal of Advertising	1
8	Journal of Consumer Behaviour	1
9	Journal of Travel & Tourism Marketing	1
10	Business Horizons	1
11	Journal of Interactive Advertising	1
12	Information Technology Management	1
13	Electronic Commerce Research and Applications	4
14	MIS Quarterly	2
15	International Journal of Hospitality Management	4
16	Tourism Management	3

17	Decision Support Systems	5
18	Journal of Marketing	1
19	Journal of Travel Research	1
20	Annals of Tourism Research	1
21	Journal of Consumer Psychology	1
22	Journal of Business Research	1
23	Internet Research	1
24	Journal of Retailing	2
25	Marketing Science	1
	Total	43

The research papers were retrieved from various reliable sources. The research papers collected were from the period 2004 to 2019. The source for the database is clearly defined through the pie chart shown below.
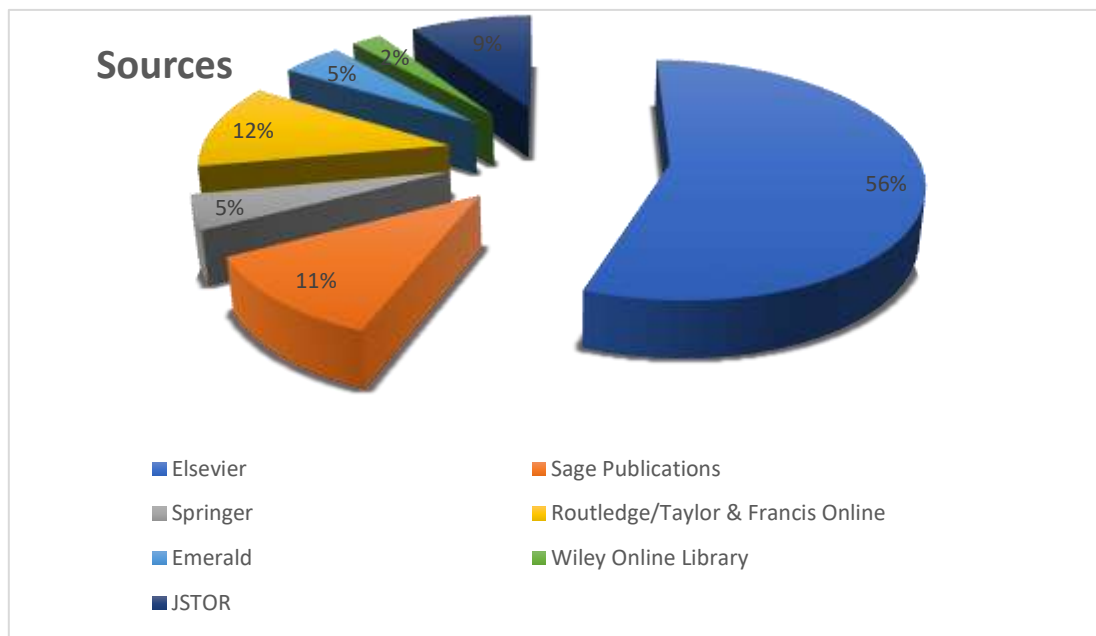
Figure 1: Database of research papers for conducting the Meta analysis

The chart shows that 56% of the research papers were retrieved from Elsevier, 11% from Sage Publications and the least amount of research papers were collected from Wiley Online library. However, with regard to the country of context of the research papers we noticed the following were countries showed countries were there.
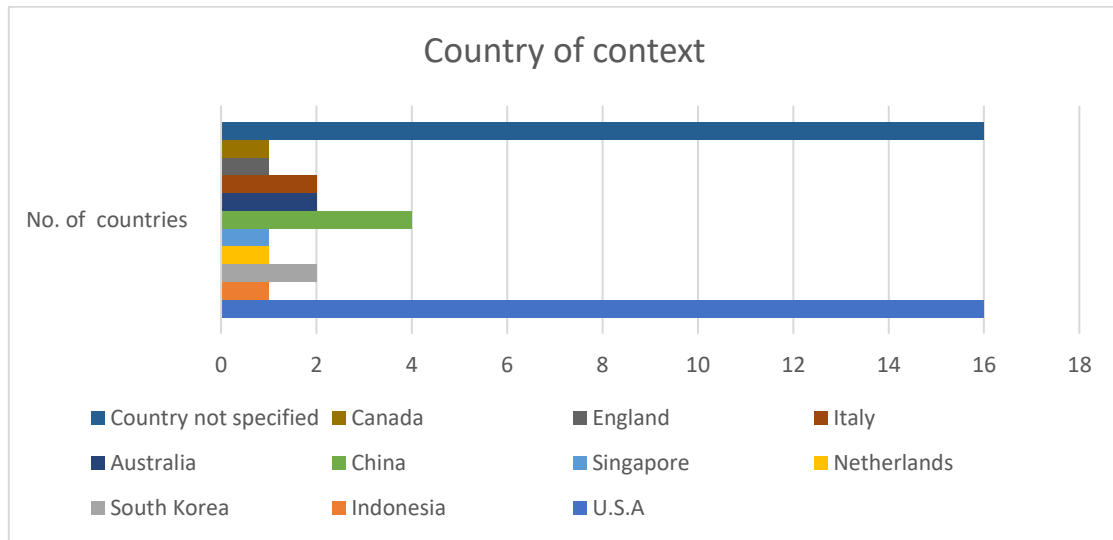
Figure 2: Location profile

With the context of time period, the line chart shows the real numbers from which the research papers are obtained.
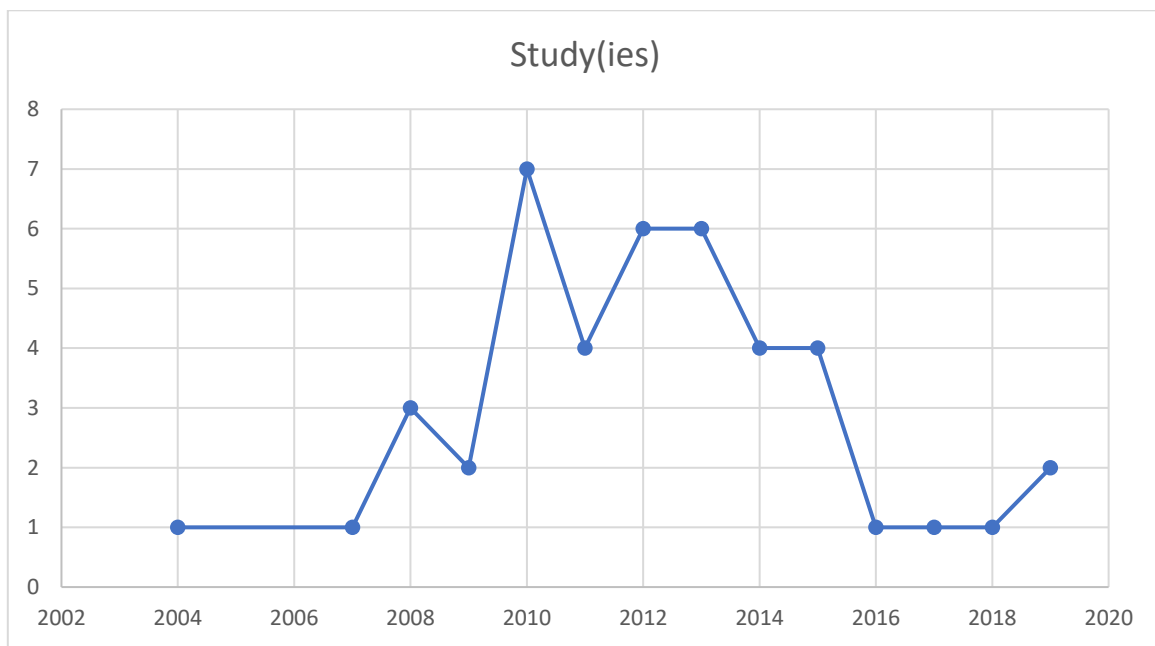
Figure 3: Studies from different years

The chart clearly explains that the greatestnumber of studies are from 2010 and the least number of studies that is only 1 study from 2004, 2006 , 2016, 2017 and 2018.

Serial No.	Author(s) of the study	Journal Name	Country	Sample Size	Independent Variable	Dependent Variable	Moderating Variable	Mediating Variable	Context	Method(s) of Analysis	Key Finding(s)
1.	(Park & Lee, 2009)	Journal of Interactive Marketing	U.S.A and Korea	877 Internet Shoppers	Internet shopping experience, Consumer susceptibility, Frequency of online reviews, Cultural effects	Frequency of online reviews, , Purchase Influence	NA	Perceived usefulness of online reviews	Internet Shoppers Users of Online Reviews	Confirmatory Factor Analysis	More usage and believability of online reviews in Korea as compared to U.S.A
2.	(Kusumasondjaja, Shanka, & Marchegiani, 2012)	Journal of Vacation Marketing	Indonesia (Bali)	639 Travel Consumers	Source Identity, Message Valence	Perceived credibility of online reviews, Initial trust of travel related services	NA	NA	Online Hotel Reviews (Prototype)	Analysis of variance (ANOVA)	Negative reviews presumed to be more credible, though positive reviews lead to trust
3.	(Kim, Mattila , & Baloglu, 2011)	Cornell Hospitality Quarterly	U.S.A (Las Vegas)	781 Hotel Consumers	Expertise in online booking, Gender	Motivation to read online hotel reviews	NA	NA	Consumer Hotel Reviews	Factor Analysis, Analysis of Variance (ANOVA), Correlation	Women read more online reviews to reduce the risk and for quality. Men read reviews depending on the expertise they have
4	(Sotiriadis & Zyl, 2013)	Electronic Commerce Research	NA	500 Twitter Members	Source evaluation, Brand familiarity, Sociometric integration, Memory, Opportunity	Twitter users	NA	Customer involvement, Surprises, Satisfaction/Dissatisfaction, Opportunity	Twitter (Reviews)	Regression Analysis, Principal Axis Exploratory Factor Analysis	Trust on credible sources, involvements requirement for decision making, expertise leads to believing in online reviews as credible
5.	(Baek , Ahn, & Choi, 2012)	International Journal of Electronic Commerce	NA	15,059 Online Consumer Reviews	Reviewer ranking, Word count, Rating inconsistency, Negative word percentage, Reviewer real name	Review helpfulness	Product type	NA	Amazon (Reviews)	Hierarchical Regression Analysis	Information search for consumers, reviews correspondent to ratings more helpful, Ranked reviewers' reviews are considered credible.

6.	(Karakaya & Barnes, 2010)	Journal of Consumer Marketing	U.S.A	320 Consumers	Socially based sites	Consumer opinion, Engagement, Choose Brand/Company	NA	NA	Social Media (Tools) Consumers	Factor Analysis, Structural Equation Modelling	Social media sites have impact on consumer opinion, The credible aspect of these sites also lead to strong consumer engagement
7.	(Maslowskaa , Segijnb , Vakeel, & Viswanathan, 2019)	International Journal of Advertising	NA	70 Students	Brand name, Average star rating, Number of reviews, Product price, Product picture, Product description, Reviewer name, Reviewer star rating, Verified purchase, Review text, Review helpfulness	Number of visits, Total time spent	NA	NAs	University Students Exposed to Different Brand Pages	Descriptive statistics, Heat Map Analysis, Network Analysis	Consumers eyed product related information, Focus on Review text only, Review features attract less, Price the important element
8.	(Melián-González, Bulchand-Gidumal, & López-Valcárcel, 2013)	Cornell Hospitality Quarterly	NA	16,680 Hotels (in 249 Tourist Areas)	Review volume	Average rating	NA	NA	TripAdvisor (Reviews)	Regression Analysis, Analysis of Variance (ANOVA), Bonferroni's Multiple Comparison Test	More online reviews lead to positive ratings, lesser reviews lead to negative image
9.	(Schindler & Bickart, 2012)	Journal of Consumer Behaviour	NA	42 Business School Students	Product evaluative statements, Descriptive statements, Style characteristics	Perceived helpfulness of online reviews	NA	NA	Books and Automobiles Online Consumer Reviews	Regression Analysis	Review length positively associated to perceived value, Review length be adequate, negative styled reviewed less valuable, positively styles review to be more valued
10.	(Cui, Lui, & Guo, 2012)	International Journal of Electronic	U.S.A	332 Panel Data	Volume of online consumer reviews, Valence of online	New product sales	NA	NA	Amazon.com (Consumer Electronics	Descriptive Statistics, Panel Data Analysis, Regression	Review valence and volume of page view significantly affect the search product, volume

		Commerce			consumer reviews				and Videogames)	Analysis	of reviews more emphasising in experience product, volume significantly affect the new product sales
11.	(Browning , So, & Sparks, 2013)	Journal of Travel & Tourism Marketing	NA	554 Respondents	Target of complaint, Frame, Ratings, Overall valence of ratings	Attribution of service quality, Attribution of controllability	NA	NA	Hotels Booking	Experimental Analysis, Multivariate Analysis of Variance	Positive reviews affect the service quality attributions positively, and the negative reviews lead to vice versa affect
12.	(Jiménez & Mendoza, 2013)	Journal of Interactive Marketing	U.S.A	Study of Search Product (1) -178 Business Students Study of Experience Product (2)- 182 Participants	Level of detail, Level of reviewer agreement	Credibility of the reviews, Purchase intentions	NA	NA	Cell Phone Related Online Reviews, Hotel Related Reviews	Analysis of Variance (ANOVA), Mediation Analysis	Detailed review defines the search product's review credibility, Reviewer agreement level defines the experience product's review credibility
13.	(Mangold & Smith, 2012)	Business Horizons	U.S.A	227 Millennials	Online reviews	Selling to Millennials	NA	NA	Survey (Different Product Categories and Review Postings on Online Sites)	Frequency, Arithmetic Mean	Online revies effect millennials, Preference to Facebook, company sites for posting reviews, Males post more than women, Electronics and books/movies reviewed most
14.	(Xiaa & Bechwati, 2008)	Journal of Interactive Advertising	NA	85 Undergraduate Students	Personalization, Review type, Review valence	Purchase intention, Usefulness	NA	NA	Digital Camera and Airline Ticket Related	Analysis of Variance (ANOVA), Regression Analysis	Higher cognitive personalization has more impact on purchase intention when there are positive reviews, negative

									Reviews		reviews are not persuasive even with higher cognitive personalization
15.	(Hu, Liu, & Zhang, 2008)	Information Technology Management	NA	26 Batches of Review and Item Level Data	Reviewer quality, Reviewer exposure, Product coverage, Age of the product	Change in sales, Actual purchase	NA	Perceived uncertainty	Amazon.com (Panel Data of Books, DVDs And Videos)	Regression Analysis, Portfolio Approach	Consumers pay attention to review reputation and exposure, Reviews written by reputable reviewers influential, Online reviews impacts decreases on sales overtime
16.	(Utz, Kerkhof, & Bos, 2012)	Electronic Commerce Research and Applications	Netherlands	Study 1 - 171 Students Study 2-131 Participants	Assurance seal, Review, Dispositional trust	Perceived trustworthiness of online store	NA	NA	Online Store (iPod Nano Buying Assumption)	Regression Analysis	Store reputation no impact, Consumer reviews predictor of trustworthiness, Reviews impact decision making, high trusting consumers influenced by consumer reviews and assurance seal
17.	(Koh , Hu, & Clemons, 2010)	Electronic Commerce Research and Applications	Singapore, China and U.S.A	87 Chinese Students, 212 Singaporeans, MovieLens Ratings for US	Motivation, Attitude, Social norms	Frequency of average rating movies	NA	NA	IMDB.com and Douban.com	Robust Regression Analysis	Extreme opinions more posted leading to biasness (U.S.), Online reviews better quality in China and Singapore (less biasness)
18.	(Mudambi & Schuff, 2010)	MIS Quarterly	NA	1587 Reviews	Review extremity (rating), Review depth (word count) , Product type.	Review helpfulness	NA	NA	Amazon.com (MP3 player, Music CD, PC video game, Cell Phone,	Tobit Regression Model	Moderate reviews are helpful (Experienced goods) ,Review dept positive effect on review helpfulness

								Digital Camera and Laser Printer)		
19.	(Ye , Law, & Gu, 2009)	International Journal of Hospitality Management	China	3625 Reviews (248 Hotels)	Average rating, Variance rating, Price, Stars	Number of reviews	NA	NA	Ctrip.com	Log-Linear Regression Analysis	High star ratings hotels more online bookings, Price negative impact on bookings
20.	(Sparks & Browning, The impact of online reviews on hotel booking intentions and perception of trust, 2011)	Tourism Management	Australia	554 Community Members	Target of complaint, Overall valence of ratings, Frame, Ratings,	Booking intention, Levels of trust	NA	NA	Questionpro Online Survey	Analysis of Variance (ANOVA)	Positive reviews increase trust and booking intention, Negative reviews affect in early stage, Recent reviews affect more
21.	(Yin, , Bond , & Zhang, 2014)	MIS Quarterly	U.S.A	Study 1-78 Undergraduate Students Study 2-73 Undergraduates Study 3-7322 Reviews	Emotions embedded in reviews	Perceived review helpfulness	NA	Perceived effort	Study 1- (Fictitious) OnlineConsumerReview.com Study 3- Yahoo.com	Exploratory Factor Analysis, Analysis of Covariance (ANCOVA), Regression analysis, Linguistic Inquiry and Word Count (LIWC) Analysis ,Tobit Regression Model	Anxious reviews helpful , Anxious reviewers more useful
22.	(Chintagunta, Gopinath, & Venkataraman, 2010)	Marketing Science	U.S.A	148 Movies	Valence, Volume, Precision, Average star of competingmovies, Average critic score of competing movies	Gross opening (day)	NA	NA	Yahoo! Movies	Regression Analysis	Review valence drives box office performance , though at national level review volume came out to be a greater driving force
23.	(Zhao, Xu, &	Internatio	U.S.A	127,629	Subjectivity,	Customer	NA	NA	TripAdvisor	Multivariate	Long text reviews lead

	Wang, 2019)	nal Journal of Hospitality Management		Reviews	Diversity, Readability, Polarity, Length, Involvement, Hotel ranking	ratings			(Hotel Reviews)	Linear Regression Analysis	to low satisfaction, High diversity and high polarity (positive emotions) leads to high satisfaction
24.	(Helversen, Abramczuk, Kopeć, & Nielek, 2018)	Decision Support Systems	NA	Study 1- 154 Younger Adults Study 2- 165 Older Adults	Online Experience, Product Knowledge, Product Features, Average rating Consumer Review, Review Valences	Consumer choice	NA	NA	Vacuum Cleaners, Irons and Drills (Ratings and Reviews)	Logistics Regression Analysis, Analysis of Variance (ANOVA)	Product attributes and negative reviews affect young and older adults, High rated reviews influence young adults
25.	(Zhu & Zhang, 2010)	Journal of Marketing	U.S.A	220 Game Titles (Reviews)	Sales	Average rating, Sales, Price, Variation of Ratings, Number of Reviews	NA	NA	GameSpot.com	Regression Analysis	Less popular games influenced by online reviews, Average rating has no influence on game demand, Online reviews influence lesser to no impact on popular games
26.	(Zhang , Zhao, Cheung, & Lee, 2014)	Decision Support Systems	China	191 Users (Online Review Site)	Perceived informativeness, Perceived persuasiveness, Source credibility, Perceived quantity of reviews	Behavioural intention	NA	Argument quality	Dianping.com	Partial Least Squares	Argument quality, source credibility and perceived review quantity affect purchase intention
27.	(Filieri & McLeay, E- WOM and Accommodation : An Analysis of the Factors That Influence Travelers' Adoption of Information from Online	Journal of Travel Research	Italy	565 Respondents	Information timeliness, Information understandability, Information relevance, Information accuracy, Value-added information, Information completeness,	Information adoption	NA	NA	Online Questionnaire	Multiple Regression Analysis	Information accuracy, timeliness, relevance and value addition are great indicators for adoption of the information in online reviews,

				Information quality, Product ranking						
28.	(Park & Nicolau, 2015)	Annals of Tourism Research	England and U.S.A	5090 Reviews (45 Restaurants)	Valence of review (Review ratings)	Perceived usefulness, Perceived enjoyment	NA	NA	Yelp.com	Negative Binomial model	Perceived usefulness increases with the extremity of the ratings
29.	(Fang , Ye, Kucukusta, & Law, 2016)	Tourism Management	U.S.A	19,674 Reviewers	Review length, Review text readability, Distance between rating and the reviewer's mean rating, Rating minus the reviewer's mean rating	Helpfulness review received by a review,Average helpful votes received by author's reviews in New Orleans	NA	NA	TripAdvisor	Tobit Regression Model, Negative Binomial Regression Model	Readable reviews more helpful, Review characteristics impact the review perceived value.
30.	(Schlosser, 2011)	Journal of Consumer Psychology	NA	Study 1-2 Undergraduate Students Study 2-201 Undergraduates Study 3-231 Undergraduates Study 4-119 Undergraduates	Rated attributes	Helpfulness, Product attitudes, Intentions	NA	NA	Study 1-Yahoo! Movies Study 2-Epinions.com Study 3-Xiao Xiao movie review Study 4-Epinions.com	Analysis of Covariance (ANCOVA)	Two-sided review with moderate ratings more helpful and persuasive,
31.	(Duan , Gu, & Whinston, 2008)	Decision Support Systems	U.S.A	71 Movies	Online Word of mouth	Daily revenue, Daily post, Sales	NA	NA	Yahoo! Movies, Variety.com, BoxOfficeM	Three-Stage Least-Square (3SLS)	Reviews' volume influence sale the effect diminishes after some time, Online reviews less impact emphasising

								ojo.com		no persuasive effect.
32.	(Racherla & Friske , 2012)	Electronic Commerce Research and Applications	U.S.A	3000 Reviews	Days lapsed, Identity disclosure, Reviewer expertise, Reviewer reputation, Review extensiveness, Valence	Review usefulness	NA	NA	Yelp.com	Ordinary Least Squares regression (OLS)	Negative reviews perception more useful, Reviewer's reputation adds to perceived usefulness
33.	(Lee, Park, & Han, The effect of negative online consumer reviews on product attitude: An information processing view, 2008)	Electronic Commerce Research and Applications	South Korea	248 College Students	Quality of negative online consumer reviews, Proportion	Product attitude	Involvement	NA	Internet Shopping Mall Reviews	Analysis of Covariance (ANCOVA)	Low involvement consumers believe reviewer without seeing the quality of the negative review, High Negative Review quality increase high involvement consumer attitude
34.	(Gupta & Harris, 2010)	Journal of Business Research	NA	198 Students	Strength of e-WOM, Optimality of the recommended product, Motivation to process information	Laptop choice, Total time spent on the site, Time spent considering the recommended choice	NA	NA	AtoZTronics.com (Laptops)	Analysis of Variance (ANOVA)	Highly motivated consumers spend more time on information and choice given in the recommendation, Lessmotivated consumers to process information make decision on basis of recommendations
35.	(Lee, Park, & Han, The different effects of online consumer reviews on consumers' purchase intentions depending on trust in online shopping malls	Internet Research	NA	135 Subjects	Trust in online shopping malls	Credibility of online consumer reviews and OCRs embedded in advertisements, Purchase intention	NA	NA	Digital Camera	Partial Least Squares Modelling (PLS), Analysis of Covariance (ANCOVA)	High consumer trust on shopping malls defines that online consumer reviews effect is more on the purchase decision as compared to online consumer reviews embedded in advertisements

	An advertising perspective, 2011)									
36.	(Park, Lee, & Han , 2007)	International Journal of Electronic Commerce	NA	352 College Students	Review quality, Review quantity, Involvement Perceived informativeness, Popularity	Purchasing intention	NA	NA	Portable Multimedia Player (PMP)	Analysis of Variance (ANOVA), Regression Analysis	Quality reviews with sufficient facts positively affect the purchase intention, Volume of reviews affect the purchase decision
37.	(Weathers, Swain, & Grover, 2015)	Decision Support Systems	NA	Pre-test 1- 69 MBA Students Pre-test 2- 251 Respondents	Review balance, Review credibility, Product category, Expertise(direct), Expertise on credentials, Usage, Features, Relative, Other reviews (agreement), Other reviews(disagreement), Positive Features, Negative Features, Other brands	Review helpfulness	NA	NA	Pre-test 1 and 2 - Amazon.com (Vacuum Cleaners, Outdoor Grills, Skin Care Products, Music CDs (Experience Products) and DVD players, Laptop Computers, Digital Camcorders, Books (Search Products).	Multiple Logistic Regression Analysis	Balance revies, consensus, review experience, comparison, product usage adds more to the helpfulness of the experience product reviews, High rating and positive features of product leads to strong perceived review helpfulness for experience goods
38.	(Maslowskaa, Malthouse, & Viswanathan, Do Customer Reviews Drive Purchase Decisions? The Moderating Roles of Review Exposure and	Decision Support Systems	NA	Study 1- 2,598,060 observations Study 2- 2,847,379 observati	Review valence, Review volume, Exposure, Product price	Purchase intention	NA	NA	Study 1- All Offered Product categories (Stock Keeping Units) Study 2- Health and Beauty	Logistic Regression Analysis, Sensitivity Analysis	Positive valence effect on purchase decision, Negative reviews affect the decision negatively, Expensive product require high volume of reviews along with valence

|								Products (Stock Keeping Units)		
39.	(Sparks, Perkins, & Buckley, 2013)	Tourism Management	Australia	537 Community Members	Source, Credibility cues, Content	Purchase intention	NA	NA	Qualtrics (Online Survey Software)	Analysis of Variance (ANOVA), Independent Samples t-tests, Mediation Analysis	Customer consent with specific facts affect purchase decision, Online community trust necessary for customer attitude formation
40.	(Zhang, Ye, Law, & Li, 2010)	International Journal of Hospitality Management	China	1242 Restaurants	Taste (rating), Environment (rating), Service (rating), Star (rating), Expense, Number of reviews	Page views	NA	NA	Dianping.com	Linear Regression Analysis	Positive reviews affect online restaurant webpages' popularity, Volume of consumer reviews increases the consumer; interest in webpage viewing, High price leads to increase in popularity
41.	(Senecal & Nantel, 2004)	Journal of Retailing	Canada	487 Subjects	Exposition to a recommendation, Type of product, Type of website, Type of recommendation source	Perceived trust, Expertise, selection or non- selection of a recommended product	NA	NA	Maximo (Fictitious Website Presented with Original Brand Products) (Wine-Experience Product; Calculator-Search Product)	Generalized Estimating Equations (GEE), Multivariate analysis of covariance (MANCOVA)	Recommendations influence consumer choices, Experience products influenced more by recommendations
42.	(Wang , Liu, & Fang, 2015)	Journal of Retailing	U.S.A	Study 1- 136 Movies Study 2- 179 Digital	Users review variance	Sales	Critic reviews variance, Product cost, Product	NA	Study 1- Movies Study 2- Digital Camera Models	Analysis of Covariance (ANCOVA)	Positive reviews valence affects sales positively, User reviews with high variance can lead to doubtfulness among customers that

				Camera Models Study 3- 242 Subjects			extension		Study 3- Books		product does not match preference (consumer breadth effect), high user and critic review variance can give rise to the assumption of the product uniqueness (strong consumer depth effect)
43.	(Mauri & Minazzi, 2013)	International Journal of Hospitality Management	Italy	349 Young Adults	Review valence, Hotel reply, Online customer reviews	Customers' expectations, Purchase intention	NA	NA	Online Survey (Hotel Searching Assumption)	Spearman's Rank Correlation Coefficient	Majority consumers look for reviews before hotel booking, Level of expectations and review valence positively correlated, Positive reviews have persuasive impact

Table 2: Meta Analysis

3. Results

From the meta-analysis we have prepared a research model based on the literature review. There are many variables which affect the purchase intention of the consumers after reading the online reviews. However, we have corroborated only those variables which are correlated and have a statistically significant impact on the purchase intention.

Research Model
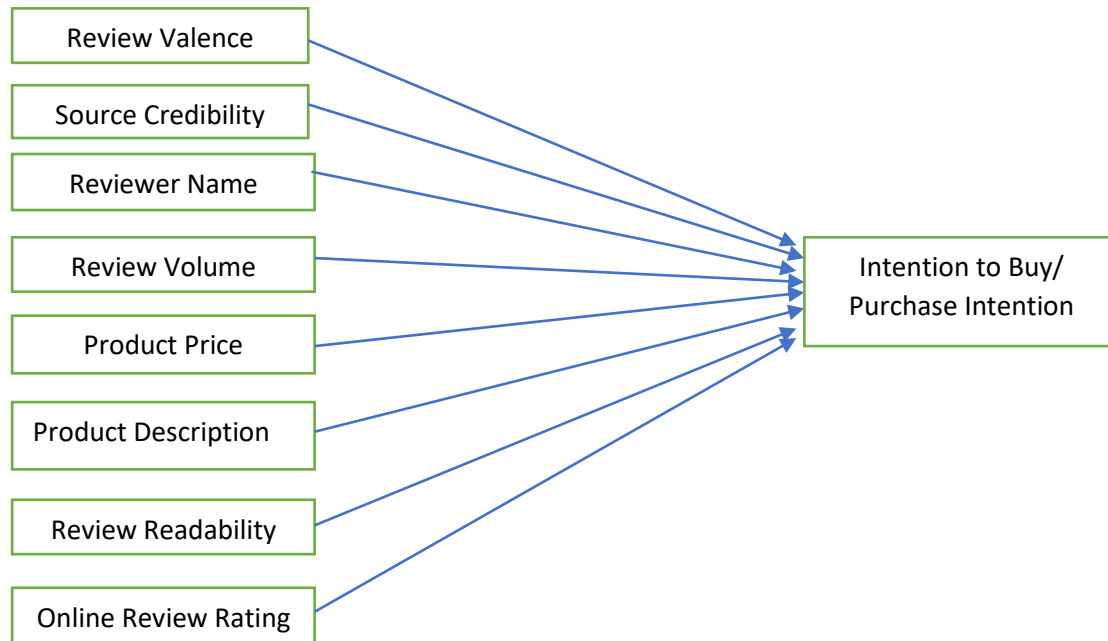
Figure 4: Factors affecting the intention of consumers to buy a Product/ Service

After the complete analysis of the research model, the effect size came out to be 0.467 which clearly states that the variables are interrelated and are statistically significant. The research paper suggests that our purchasing decisions can be guided by various variables namely the review valence, source credibility of the reviews, the name of the reviewer who has posted the review online, the volume of the reviews, product price, the readability of the reviews and the online review rating.

4. IMPLICATIONS

Our research paper suggests various implications for managers. The research papers suggest that the reviews volume and valence are great catalyst for purchase decision making. The managers should keep a keen look on the sidedness of the reviews that is whether the reviews are favourable for the product which is being sold. If faced with a negative review a consumer may believe the review script and may act accordingly. Review volume is the quantity of the reviews and the information it gives to the potential consumers (Yang, Sarathy, & Lee, 2016). The review volume surely impacts the consumer mind and can implant a particular notion for the product in the consumer's mind based on the quantity of the reviews.

Secondly the readability of the review is also one of the determinants which can influence the consumer's mind. The readability means that how readable or understandable the text. How clear is the message being given to the individuals? The manager should see whether the review is giving a message which gives a clear message to the consumer, or the review is misleading. The manager should see and provide proper responses to such reviews so that the correct notion can be spread online. The research paper also specifies that source credibility of the review makes it more trustable and reliable for a review. Hence, managers should see whether the reviews are from a credible source or not because a vague or fake review can tarnish the review. Our research paper has also accentuated the aspect of product price and description which harbour the main aspects of intention of a consumer to buy.

CONCLUSIONS

The research paper concludes our predicted statement that online reviews effect the purchasing decisions of consumers. The study amplified the fact thatnegative online reviews can affectthe decision negatively. However, from the analysis we also concluded that review volume can significantly affect the behaviour change whether volume is on the negative side or positive side. Though, review credibility stands as a pillar for a purchase decision making because an online review

embedded with a credible source and a credible reviewer make it more believable which in turn leads to influencing our purchase decision.

REFERENCES

1. Anderson , J. (2018, November 27). Why Are Customer Reviews So Important? Retrieved from Medium.com: https://medium.com/revain/why-are-customer-reviews-so-important-185b915d4e5d#:~:text=Reviews%20provide%20an%20opportunity%20for,with%20a%20non-en

2. Baek , H., Ahn, J., & Choi, Y. (2012). Helpfulness of Online Consumer Reviews: Readers' Objectives and Review Cues. International Journal of Electronic Commerce, 17(2), 99-126.

3. Browning , V., So, K. K., & Sparks, B. (2013). The Influence of Online Reviews on Consumers' Attributions of Service Quality and Control for Service Standards in Hotels. Journal of Travel & Tourism Marketing , 30, 23-40.

4. CambridgeDictionary. (2021, January 13). Credibility. Retrieved from Cambridge Dictionary: https://dictionary.cambridge.org/dictionary/english/credibility

5. Cheung, C. M.-Y., Sia, C.-L., & Kuan, K. K. (2012). Is This Review Believable? A Study of Factors Affecting the Credibility of Online Consumer Reviews from an ELM Perspective. Journal of the Association for Information System, 13(8), 618-635.

6. Chintagunta, P. K., Gopinath, S., & Venkataraman, S. (2010). The Effects of Online User Reviews on Movie Box Office Performance: Accounting for Sequential Rollout and Aggregation Across Local Markets. Marketing Science, 29(5), 944-957.

7. Cui, G., Lui, H.-K., & Guo, X. (2012). The Effect of Online Consumer Reviews on New Product Sales. International Journal of Electronic Commerce, 17(1), 39-57.

8. D'Acunto, D., Tuan, A., & Dalli , D. (2020). Are Online Reviews Helpful for Consumers?: Big Data Evidence From Services Industry. In S. Loureiro, & H. R. Kaufmann, Exploring the Power of Electronic Word-of-Mouth in the Services Industry (pp. 198-216). Business Science Reference.

9. Duan , W., Gu, B., & Whinston, A. B. (2008). Do online reviews matter? — An empirical investigation of panel data. Decision Support Systems, 45, 1007-1016.

10. Fang , B., Ye, Q., Kucukusta, D., & Law, R. (2016). Analysis of the perceived value of online tourism reviews: Influence of readability and reviewer characteristics. Tourism Management, 52, 498-506.

11. Filieri , R., & McLeay, F. (2013). E-WOM and Accommodation: An Analysis of the Factors That Influence Travelers' Adoption of Information from Online Reviews. Journal of Travel Research, 20(10), 1-14.

12. Filieri, R. (2016). What makes an online consumer review trustworthy? Annals of Tourism Research, 58, 46-64.

13. Fogg, B., & Tseng, H. (1999). The Elements of Computer Credibility. Conference on Human Factors and Computing Systems (pp. 80-87). Pittsburgh, PA : ACM.

14. Gupta, P., & Harris, J. (2010). How e-WOM recommendations influence product consideration and quality of choice: A motivation to process information perspective. Journal of Business Research, 63, 1041-1049.

15. Helversen, B. v., Abramczuk, K., Kopeć, W., & Nielek, R. (2018). Influence of consumer reviews on online purchasing decisions in older and younger adults. Decision Support Systems, 113, 1-10.

16. Hu, N., Liu, L., & Zhang, J. J. (2008). Information Technology Management. Do online reviews affect product sales? The role of reviewer characteristics and temporal effects, 9, 201-214.

17. IGI-GLobal. (2021, July 10). What is Argument Quality. Retrieved from IGI GLobal: https://www.igi-global.com/dictionary/argument-quality/53727

18. IGI-Global. (2021, July 10). What is Review Consistency. Retrieved from IGI Global : https://www.igi-global.com/dictionary/review-consistency/53733

19. Jiménez, F. R., & Mendoza, N. A. (2013, `). Too Popular to Ignore: The Influence of Online Reviews on Purchase Intentions of Search and Experience Products. Journal of Interactive Marketing, 27, 226-235.

20. Karakaya , F., & Barnes, N. G. (2010). Impact of online reviews of customer care experience on brand or company selection. Journal of Consumer Marketing, 27(5), 447-457.

21. Kim, E. E., Mattila , A. S., & Baloglu, S. (2011). Effects of Gender and Expertise on Consumers' Motivation to Read Online Hotel Reviews. 52(4), 399-406.

22. Koh , N. S., Hu, N., & Clemons, E. K. (2010). Do online reviews reflect a product's true perceived quality? An investigation of online movie reviews across cultures. Electronic Commerce Research and Applications, 9, 374-385.

23. Kusumasondjaja, S., Shanka, T., & Marchegiani, C. (2012). Credibility of online reviews and initial trust: The roles of reviewer's identity and review valence. Journal of Vacation Marketing, 18(3), 185-195.

24. Lee, J., Park, D.-H., & Han, I. (2008). The effect of negative online consumer reviews on product attitude: An information processing view. Electronic Commerce Research and Applications, 7, 341-352.

25. Lee, J., Park, D.-H., & Han, I. (2011). The different effects of online consumer reviews on consumers' purchase intentions depending on trust in online shopping malls An advertising perspective. Internet Research, 21(2), 1066-2243.

26. Lee, S.-H. (2009). How do online reviews affect purchasing intention? African Journal of Business Management, 3(10), 576-581.

27. Mangold, W. G., & Smith, K. T. (2012). Selling to Millennials with online reviews. Business Horizons, 55, 141-153.

28. Maslowskaa , E., Segijnb , C. M., Vakeel, K. A., & Viswanathan, V. (2019, June 06). How consumers attend to online reviews: an eye-tracking and network analysis approach. International Journal of Advertising, 39(2), 282-306.

29. Maslowskaa, E., Malthouse, E. C., & Viswanathan, V. (2017). Do Customer Reviews Drive Purchase Decisions? The Moderating Roles of Review Exposure and Price. Decision Support Systems, 98, 1-9.

30. Mauri, A. G., & Minazzi, R. (2013). Web reviews influence on expectations and purchasing intentions of hotel potential customers. International Journal of Hospitality Management, 34, 99-107.

31. Melián-González, S., Bulchand-Gidumal, J., & López-Valcárcel, B. G. (2013). Online Customer Reviews of Hotels: As Participation Increases, Better Evaluation Is Obtained. Cornell Hospitality Quarterly, 20(10), 1-10.

32. Mudambi, S. M., & Schuff, D. (2010). What Makes a Helpful Online Review? A Study of Customer Reviews on Amazon.com . MIS Quarterly, 34(1), 185-200.

33. Murphy, R. (2019, December 11). Local Consumer Review Survey. Retrieved from BrightLocal: https://www.brightlocal.com/research/local-consumer-review-survey/

34. Obiedat, R. (2013, August 31). Impact of Online Consumer Reviews on Buying Intention of Consumers in UK: Need for Cognition as the Moderating Role. International Journal of Advanced Corporate Learning (iJAC), 6, 16- 21.

35. Onelocal. (2018, November 16). 4 Reasons Why Consistency & Recency Matter for Online Reviews. Retrieved from One local : https://blog.onelocal.com/4-reasons-why-consistency-recency-matter-for-online-reviews/

36. Paljug, K. (2017, July 31). How to Take Control of Your Business's Online Reviews. Retrieved from Business News Daily: https://www.businessnewsdaily.com/10118-online-customer-review-basics.html

37. Park, D.-H., Lee, J., & Han , I. (2007). The Effect of On-Line Consumer Reviews on Consumer Purchasing Intention: The Moderating Role of Involvement. International Journal of Electronic Commerce, 11(4), 125-148.

38. Park, S., & Nicolau, J. L. (2015). Asymmetric effects of online consumer reviews. Annals of Tourism Research, 50, 67-83.

39. Park , C., & Lee, T. M. (2009). Antecedents of Online Reviews' Usage and Purchase Influence: An Empirical Comparison of U.S. and Korean Consumers. Journal of Interactive Marketing, 23, 332-340.

40. Racherla, P., & Friske , W. (2012). Perceived 'usefulness' of online consumer reviews: An exploratory investigation across three services categories. Electronic Commerce Research and Applications, 11, 548-559.

41. Rayome, A. D. (2017, April 19). The Importance of Customer Reviews. Retrieved from https://www.techrepublic.com/article/7-best-practices-for-managing-online-reviews-of-your-business/

42. Saleh, K. (2015, July 20). The Importance Of Online Customer Reviews [Infographic]. Retrieved from Invespcro.com: https://www.invespcro.com/blog/the-importance-of-online-customer-reviews-infographic/

43. Schindler, R. M., & Bickart, B. (2012). Perceived helpfulness of online consumer reviews: The role of message content and style. Journal of Consumer Behaviour,, 11(3), 234-342.

44. Schlosser, A. E. (2011). Can including pros and cons increase the helpfulness and persuasiveness of online reviews? The interactive effects of ratings and arguments. Journal of Consumer Psychology, 21, 226-239.

45. Sotiriadis , M. D., & Zyl, C. v. (2013). Electronic word-of-mouth and online reviews in tourism services: the use of twitter by tourists. Electronic Commerce Research, 13, 103-124.

46. Sparks, B. A., & Browning, V. (2011). The impact of online reviews on hotel booking intentions and perception of trust. Tourism Management, 32, 1310-1323.

47. Sparks, B. A., Perkins, H. E., & Buckley, R. (2013). Online travel reviews as persuasive communication: The effects of content type, source, and certification logos on consumer behavior. Tourism Management, 39, 1-9.

48. Senecal , S., & Nantel, J. (2004). The influence of online product recommendations on consumers' online choices. Journal of Retailing , 80, 159-169.

49. Tamar , W. (2016, October 21). Are fake online reviews killing consumer confidence? Retrieved from Marketingland: https://marketingland.com/fake-online-reviews-killing-consumer-confidence-194239

50. Utz, S., Kerkhof, P., & Bos, J. v. (2012). Consumers rule: How consumer reviews influence perceived trustworthiness of online stores. Electronic Commerce Research and Applications, 11, 49-58.

51. Wadsworth, S. (2019, november 4). Negative and fake reviews – their impact on your company's reputation. Retrieved from reputations.org.uk: https://www.reputations.org.uk/blog/impact-negative-fake-reviews-on-company-reputation/

52. Wang , F., Liu, X., & Fang, E. (2015). User Reviews Variance, Critic Reviews Variance, and Product Sales: An Exploration of Customer Breadth and Depth Effects. Journal of Retailing, 91(3), 372-389.

53. Weathers, D., Swain, S. D., & Grover, V. (2015). Can online product reviews be more helpful? Examining characteristics of information content by product type. Decision Support Systems, 79, 12-23.

54. Wikipedia contributors. (2020, October 17). Valence (psychology) [Internet]. Retrieved from Wikipedia, The Free Encyclopedia: https://en.wikipedia.org/w/index.php?title=Valence_(psychology)&oldid=983928796

55. Xiaa, L., & Bechwati, N. N. (2008). Word of mouse: The role of cognitive personalization in online consumer reviews. Journal of Interactive Advertising, 9(1), 3-13.

56. Yang, J., Sarathy, R., & Lee, J. (2016). The Effect of Product Review Balance and Volume on Online Shoppers' Risk Perception and Purchase Intention. Decision Support Systems, 89, 66-76.

57. Ye , Q., Law, R., & Gu, B. (2009). The impact of online user reviews on hotel room sales. International Journal of Hospitality Management, 28, 180-182.

58. Yin, , D., Bond , S. D., & Zhang, H. (2014). Anxious or Angry? Effects of Discrete Emotions on the Perceived Helpfulness of Online Reviews. MIS Quarterly, 38(2), 539-560.

59. Zhang , K. Z., Zhao, S. J., Cheung, C. M., & Lee, M. K. (2014). Examining the influence of online reviews on consumers' decision-making: A heuristic–systematic model. Decision Support Systems, 67, 78-89.

60. Zhang, Z., Ye, Q., Law, R., & Li, Y. (2010). The impact of e-word-of-mouth on the online popularity of restaurants: A comparison of consumer reviews and editor reviews. International Journal of Hospitality Management, 29, 694-700.

61. Zhao, Y., Xu, X., & Wang, M. (2019). Predicting overall customer satisfaction: Big data evidence from hotel online textual reviews. International Journal of Hospitality Management , 76, 111-121.

62. Zhu , F., & Zhang, X. (2010). Impact of Online Consumer Reviews on Sales:The Moderating Role of Product and Consumer Characteristics. Journal of Marketing, 74, 133-148.