
| RESEARCH ARTICLE

The Effects of Online Reviews on Purchase Intention in the Shopee Fashion Industry

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| ABSTRACT

Online shopping through e-commerce websites has become prevalent in today's time. With that, online reviews have become a significant source of product information for consumers and businesses, but little is known about how consumers perceive the credibility of a review and whether it affects their intention to purchase. The purpose of this study is to identify the factors that influence review credibility and its subsequent effect on purchase intention. The study used a correlational type design wherein an adapted questionnaire was utilized to gather the insights of consumers on accuracy, completeness, timeliness, review quantity, review consistency, and review expertise as factors of review credibility and purchase intention. Respondents were selected through purposive sampling to ensure the credibility of the respondents. The study confirmed that accuracy, timeliness, and review expertise have a positive effect on review credibility, while completeness, review quantity, and review consistency revealed no significant effect. Subsequently, review credibility influences purchase intention; thus, it is recommended to focus on the factors that were determined to affect review credibility.

| KEYWORDS

Online reviews, review credibility, purchase intention

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1. Introduction

1.1 Background of the Study

Considered as an online form of Word of Mouth (WOM) and User-Generated Content (UGC), online reviews have become one of the most important sources of product information for both consumers and marketers (Li and Zhang 2020). Word of Mouth is considered one of the most effective strategies because consumers are more inclined to trust reviews and recommendations given to them by their friends and family (Arndt, 1967; Alcocer, 2017; Vendemia et al., 2019). Over the years, researchers have observed a growing behavior in consumers seeking and sharing information which is the cause of the increase in online reviews (Smith, 2011; Chakraborty & Bhat, 2017; Chen and Yuan, 2019). Based on a local consumer survey conducted last 2018 in China, more than 80% of shoppers online check the product reviews posted by previous buyers before they make their purchase decision. Further studies conducted globally suggest that 61% of shoppers online give importance to electronic Word of Mouth (eWOM) in making their purchasing decisions (Roy et al. 2018; Charlton 2015; Floyd et al. 2014). However, despite the suitable number of studies explaining online reviews and the influences on consumer attitudes, there is a lack of consideration of its different factors and the impacts on consumers' purchase intention (Karabas et al., 2020). Literature regarding factors affecting online reviews and their effect on purchase intention is scarce in categories like food and fashion, which rely on physical touch (Li and Zhang 2020).

According to Domingo (2017), trust issues were the primary reason why the growth and development of e-commerce are being held back in the Philippines as Filipino online shoppers still have distrust over buying things online. Consumers tend to look for trust cues in online reviews to consider it a trustworthy source of information (Cao et al., 2011; Bhale and Tongare, 2018; Carbonell et al., 2019). An example of these cues is information and ratings about the product or service consumed or experienced by the

user. For businesses, online reviews are an essential factor that drives sales due to the lower cost and fast dissemination of product information (Raassens and Haans, 2017).

This study considered the different factors that affect the credibility of online reviews and their effect on the consumer's purchase intention. The researchers focused on accuracy, completeness, timeliness, review quantity, review consistency, and review expertise of online reviews as factors that ultimately affect purchase intention. The findings of this study will provide significance for businesses as it can further aid and improve their overall customer relationships and strengthen their credibility in the emerging e-commerce market in the Philippines. In addition, this study depicts how consumers process online reviews on e-commerce platforms, thus enabling marketers to develop online marketing strategies and improve the utilization of user-generated online reviews. This study will also benefit consumers to obtain wise decisions when purchasing products online using customer-generated reviews. To future researchers, this study will improve the quality of their work and serve as a basis for their claims as they aim to conduct a similar study. The study will have limitations since it will mainly focus on product reviews and their effect on customer purchase intention on clothing products in the Shopee e-commerce platform. The study was conducted in the Philippine setting, wherein the e-commerce industry is just beginning to emerge. The participants of this research were Filipino residents. The majority of the respondents are university students, mainly from the National Capital Region, which may prevent the applicability of the study's findings in different countries regarding their purchasing behavior. Furthermore, Since this study is based on product reviews of clothing products, it may contain different results and may not be as useful for products of a different category and for companies that provide services.

2. Literature review

2.1 Theoretical framework

2.1.1 ELM Model

The Elaboration Likelihood Model (ELM) appears to be the pertinent theoretical foundation for this study as it aims to explore the process whenever individuals receive messages or information. It was developed by Petty and Cacioppo (1986); it lays out a model that is capable of systematizing and understanding the fundamental processes that underpin the effectiveness of persuasive communication (Emi, 2018). The researchers adopted the ELM model in pursuit of having complete comprehension with regards to the effects of information diagnosticity on the purchase intention of the consumers. Several research studies have frequently adopted and applied the ELM model in interpreting the consumer's cognitive processing and evaluation of online reviews and recommendations (Fan et al., 2013; Luo et al., 2015, Thomas et al., 2019). Furthermore, it posits that consumers can undertake two major routes - the central and peripheral - in processing persuasive messages (Luo et al., 2013; Thomas et al., 2019). The central route pertains to the consumer's thorough exploration of the information content as they are highly motivated and willing to do so (Filiari et al., 2018). On the other hand, consumers undertake the peripheral route in the course that they are less motivated or unwilling to process and explore information content (Xiaobing et al., 2017). The ELM likewise points out that both central and peripheral routes can be provoked simultaneously during the persuasion process; however, it varies in terms of intensity (Luo et al., 2015, Thomas et al., 2019).

2.2 Accuracy

Considered as an influencing factor when it comes to online reviews, accuracy pertains mainly to the correctness and reliability of an online review (Wang and Strong, 1996; Jamil and Hasnu, 2013; Thomas et al., 2018). According to Moriuchi (2018), an accurate online review has the outright desire to inform other consumers about the product based on the real-life experience and feelings of the reviewer. In terms of its effect on the customer's purchase intention, findings suggest that potential customers trust user-generated content such as online reviews as a reasonably accurate representation of a product scoring 3.80 on a 5-point Likert scale (Hazari et al., 2016). Moreover, previous studies about online reviews consider accuracy as one of the determinants of how valuable an online review is. Based on the studies of Zha, Li, & Yan (2015) and Chakraborty & Savita (2017), the credibility of an online review goes through a process wherein the reader of the review assesses the accuracy of the online review. Thus, the perceived usefulness or credibility of an online review is affected by how accurate an online review is in reflecting the customer's authentic feelings, which is valuable information for both consumers and retailers (Xia et al., 2019).

H₁. *The accuracy of an online review has a positive effect on its credibility.*

2.3 Completeness

Previous studies likewise proposed the influence of the factor review completeness about a more precise and beneficial type of online reviews and recommendations affecting the consumer's purchase intention (e.g., Luo et al., 2013, Racherla & Friskie, 2012, Ruiz-Mafe et al., 2018, Thomas et al., 2019). Following Xiaobing et al. (2017), completeness pertains to the extent to which the online reviews and recommendations are easy to comprehend and encompass a wide array of noteworthy aspects, thus ensuring sufficient information. Online reviews are considered to be one of the most valuable features of e-commerce platforms that allow potential consumers to take into consideration the reviews of previous buyers containing images, descriptions, commentary, and

suggestions of the product they desire to purchase; these reviews reflect the substantial quality of the products specifically its problems, inconstant details, usage dilemma, quality specifications, and the overall customer experience (Zhu et al., 2020). Since consumers cannot physically touch the products sourced from an e-commerce platform, they usually seek a complete online review in pursuance of reducing potential risks and increasing purchase intention (Chen & Chang, 2018). As consumers comprehend the completeness of the online review, they will consider it as a source of credible information (Thomas et al., 2019).

H₂. *The completeness of an online review has a positive effect on its credibility.*

2.4 Timeliness

Timeliness is defined as the number of days that have transpired since the consumer review was posted on an online platform. Timeliness can determine whether the review discusses the current state of the product or service in terms of quality and performance (Thomas, Wirtz, & Weyerer, 2019; Filieri & McLeay, 2103; Jamil & Hasnu, 2013). Previous research has proven that there is a prominent relationship between a review's timeliness and its importance to customer purchase decisions. Given the number of reviews posted on e-commerce platforms, recent reviews that may be useful may get buried beneath less helpful ones (Singh et al., 2016). Older consumer reviews are thought to have more value because they contain more information. Recent consumer reviews tend to contain less information since it was already mentioned by previous reviews posted (Wang, Wang, & Yao, 2018; Pan and Zhang, 2011). Since older reviews are posted at an earlier date, it is given sufficient time to gain more reactions from viewers such as upvotes, likes, comments, and more. Timeliness can also improve the quality of an online review, which can further strengthen the argument of the review, therefore more credible (Thomas, Wirtz, & Weyerer, 2019). Timeliness is also one of the deciding factors because once the review is deemed to be out of date, it immediately loses its value (Clare et al., 2016).

H₃. *The timeliness of an online review has a positive effect on its credibility.*

2.5 Review Quantity

Frequently applied as a peripheral factor in previous research about online reviews, review quantity is defined as the number of available online reviews for a particular product or service in a review site or e-commerce platform (Filieri and McLeay, 2013; Thomas et al., 2018). According to Cheung and Thadani (2010) & Thomas et al. (2018), having a large number or quantity of online reviews makes it more observable, thus affecting the verification process for the credibility of individual online reviews. For example, a product with one (1) negative online review may not be sufficient to be considered as a credible review. However, if the product has thousands of negative online reviews, then it is presumed that a more significant number of people have the consensus that the said product is not a good one (Metzger, Flannagin, & Medders, 2010; Hong & Pittman, 2020). However, review quantity or the number of online reviews by itself cannot indicate the desirability or undesirability of a product but rather serves as a cue that provides evidence for other online review components such as star ratings & product reviews (Hong & Pittman, 2020). Though the number of online reviews is considered essential for consumers to determine the credibility of an online review as well as other cues of online reviews (Mumuni et al., 2019), this claim is contradicted by the studies of Ziegele and Weber (2015) & Jung and Yi (2017) where their studies suggest that a single online review may have a more substantial effect on the customers' attitude towards purchase rather than the aggregate review scores of multiple online reviews.

H₄. *Review Quantity has a positive effect on its credibility.*

2.6 Review Consistency

Several studies have taken consideration of Review Consistency as an essential peripheral cue that plays an essential role concerning online reviews (e.g., Baek et al., 2012, Munzel, 2016; Thomas et al., 2019;). Review expertise connotes consistency as the point to which the prevailing online reviews available are coherent to the experiences expressed by other consumers who have already bought or used the same product or service (Chang et al., 2016). In the rating section found within the e-commerce platforms, the reviews and recommendations apropos to consumption are usually published by multiple experienced consumers (Cheng et al., 2009, Liu et al., 2018). These commentaries are compiled together, enabling potential consumers to gather opinions quickly and compare and contrast their consistency (Muralidharan et al., 2017). In this regard, considering the tendency of the majority to rely on repetitive opinions, consumers regard reviews as highly credible since it is consistent with other commentaries (Roy et al., 2019). On the contrary, consumers are bound to be skeptical about reviews that are inconsistent with the other existing reviews (Thomas et al., 2019).

H₅. *Review Consistency has a positive effect on its credibility.*

2.7 Review Expertise

Review expertise can be defined as the extent to which a person is knowledgeable regarding a specific subject (Chakraborty & Bhat, 2017; Ohanian, 1990). Reviewer expertise can also be based on the reviewer's experience and skills (Banerjee et al., 2017;

Berlo, Lemert, & Mertz, 1969). If an expert reviews a product or service, it is a massive possibility to influence the reader's actions (Chakraborty & Bhat, 2017; Dou et al., 2012). The level of expertise can also affect how others view the information in the consumer review (Vendemia et al., 2019; Vendemia, 2017). It is difficult to assess the credibility of a consumer review, especially when it is given by an anonymous user (Filieri, Hofacker, & Alguezaui, 2017; Sen & Lerman, 2007). Meanwhile, reviews given by experts are more credible than those given by laypersons (Thomas, Wirtz, & Weyerer, 2019). The manner and style of how the message regarding the consumer review is expressed can be a factor that can influence a user in determining the level of expertise the writer is on. (Vendemia et al., 2019). Some readers may rely on the language style of the reviewer in determining their expertise level (Carbonell et al., 2019; Wu et al., 2017). Many platforms provide pieces of information or heuristics so that viewers may have an idea of what their activity and credentials are regarding the use of the product. (Vendemia et al., 2019).

H₆. *Review Expertise has a positive effect on its credibility.*

2.8 Purchase Intention Based on the Credibility of Online Reviews

In the current context, review credibility pertains to the authenticity and accuracy of an online review; it is the extent to which consumers recognize the reviews and recommendations as believable or factual (Hsieh & Li, 2020). In line with this, Karabas et al. (2020) connote that the credibility of online reviews significantly impacts consumers' attitudes and behavioral intentions, increasing the likelihood that they will acknowledge it. Furthermore, several works of literature have shown that review credibility plays a vital role in affecting consumers' information processing as it builds customer trust (Wu, 2017). E-commerce platforms' rapid and continuous growth enables consumers to voice out their opinions concerning different products, thus enabling potential consumers to be informed and knowledgeable, affecting their purchase intention (Filieri et al., 2018). Purchase intention showcases a kind of consumer behavior as they are highly motivated and willing to make an effort in purchasing a product or service (Lu et al. 2014; Thomas et al., 2019). Within the current study, purchase intention refers to the potential consumers who opt to purchase products with the condition that it has been priorly reviewed. Several studies have suggested that review credibility positively influences consumers' purchase intention (e.g., Chih et al., 2013; Fan and Miao, 2012; Lee et al., 2011; Thomas et al., 2019).

H₇. *The credibility of the online review has a positive effect on the customer purchase intention.*

2.9 Conceptual Framework

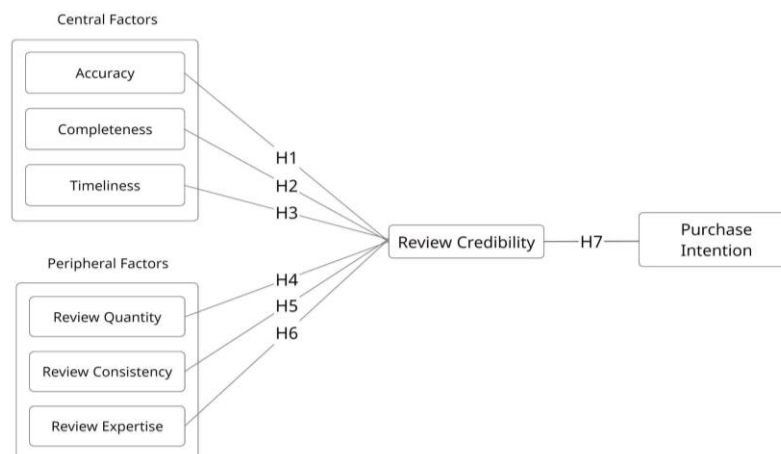


Figure 1: Conceptual Framework Model

Figure 1 illustrates the conceptual framework that the researchers have adapted from the research journal: Determinants of Online Review Credibility and its Impact on Consumer's Purchase Intention by Thomas, M., Wirtz, B., & Weyerer, J. (2019). After a thorough review of the existing literature, the researchers have selected *accuracy*, *completeness*, and *timeliness* as the central factors while *review quantity*, *review consistency*, and *review expertise* as the peripheral factors. These individual factors are to be tested in this study whether they have an effect on *review credibility* and, in turn, *review credibility's* effect on *purchase intention*.

3. Methodology

3.1 Subject and Data Collection

The participants of this study were composed of shoppers who purchase fashion products online via Shopee and read online reviews. The participants all came from NCR, and the researchers used the Raosoft calculator to determine the recommended

sample size. At a 5% margin of error, a confidence level of 95%, and the NCR Population at 15,000,000, the study targeted three-hundred eighty-five (385) participants as the minimum number of respondents based on the Raosoft calculator. Moreover, to ensure the credibility of the respondents, the researchers implored two (2) qualifying questions in the survey questionnaire. The first question confirmed that respondents had bought fashion products inside the Shopee platform, while the second question confirmed that they looked at online reviews before purchasing. The survey was conducted online as the respondents answered the questionnaire through Google Forms. The Google Form link was sent via email and Facebook Messenger to the respondents. Lastly, the researchers did not implore any incentive to the participants involved to avoid possible non-qualified respondents.

3.2 Instrumentation

In doing the quantitative study, the researchers adapted a questionnaire from the research journal: Determinants of Online Review Credibility and its Impact on Consumer’s Purchase Intention by Thomas, M., Wirtz, B., & Weyerer, J. (2019). Permission was sought through electronic mail addressed to Dr. Marc-Julian Thomas, Dr. Bernd W. Wirtz, and Prof. Jan C. Weyerer. The questionnaire’s reliability in terms of internal consistency was ensured with a result of a .70 reliability rate using Cronbach’s alpha. The questionnaire was designed to be self-completed, and the respondents answered without any intervention. The researchers opted for a two-part questionnaire to collect the appropriate data needed. Part I depicted the screening questions to validate whether the respondents were qualified or eligible to participate in the research study. Part II showcased the actual questions in connection with those mentioned above central and peripheral factors in determining their effect on the purchase intention of the respondents. These variables were measured through a six-point Likert Scale ranging from 1 as strongly disagree to 6 as strongly agree.

3.3 Data analysis

The researchers utilized Mean and Standard Deviation as the descriptive statistical tool to summarize the data collected. Since the study involves latent variables that cannot be measured directly, the researchers also used Structural Equation Modeling (SEM). This statistical tool is primarily used to examine the relationship between latent variables as utilized by the previous researches of Chakraborty, U., & Bhat, S. (2017), Thomas, M., Wirtz, B., & Weyerer, J. (2019), and Changchit, C., Klaus, T., & Lonkani, R. (2020). Through SEM, the researchers simultaneously analyzed the dependency relationship between the latent variables involved in this study.

3.4 Ethical consideration

The researchers ensured to discuss the legality of the study being conducted to the respondents. Moreover, the respondents were provided with ensured security concerning their personal information. In pursuant of RA 10173: Data Privacy Act of 2012, all data and information provided by the respondents of this study was only used for academic purposes. No personal information was gathered by the researchers, such as the respondent’s name, address, and contact information. The survey questionnaire was administered online to ensure the safety of the respondents amidst the threat of Covid-19. The aims and objectives of this study were strictly for academic purposes. The respondents were given the prior knowledge that the researchers of this study were not affiliated with Shopee Philippines to avoid biases regarding answering the survey questionnaire.

4. Results and Discussion

4.1 Profile of Respondents

Table 1 - Profile of Respondents (n=399)

Profile	Category	Frequency	%
Gender	Female	282	70.7
	Male	106	26.6
	Others	11	2.8
	Total	399	100.0
Age	18-19	70	17.5
	20-24	298	74.7
	25-29	17	4.3
	30 above	14	3.6
	Total	399	100.0
Educational Attainment	Graduate Degree	39	9.8
	High School & Some High School	66	16.6

Some College	115	28.8
Undergraduate Degree	172	43.1
Others	7	1.8
Total	399	100.0

As shown in table 1, more than half of the respondents are female, which is 70.7%. The majority of the respondents are aged 20-24 at 74.7%, followed by aged 18-19 at 17.5%, and the rest are aged 25 and above. Lastly, 172 respondents have an undergraduate degree, 115 are some college, 66 are some high school and high school graduates, and 39 respondents have a Graduate degree.

4.2 Descriptive Statistics Of Central Variables

Table 2 - Descriptive Statistics Of Central Variables

	Minimum	Maximum	Mean	S.D
AC1 Online reviews found on Shopee are accurate	2	6	4.667	.815
AC2 Online reviews on Shopee are thoroughly written	1	6	3.749	1.120
AC3 Online reviews on Shopee are correct	2	6	4.253	.913
AC4 Online reviews on Shopee are precisely formulated	1	6	3.694	1.106
Accuracy	2.00	6.00	4.091	.791
CO1 Online reviews on Shopee contain all the information needed about the reviewed product or service.	1	6	3.840	1.234
CO2 Online reviews on Shopee contain very detailed information about the reviewed product or service.	1	6	3.757	1.227
CO3 Online reviews on Shopee contain a variety of information about the reviewed product or service.	1	6	4.316	1.087
CO4 Online reviews on Shopee are comprehensive.	1	6	3.915	1.086
Completeness	1.00	6.00	3.957	.985
T11 Online reviews on Shopee are current	1	6	4.624	.984
T12 Online reviews on Shopee are timely	1	6	4.571	.935
T13 Online reviews on Shopee are updated	1	6	4.589	1.055
T14 Online reviews on Shopee are readily available	1	6	4.872	1.059
Timeliness	1.75	6.00	4.664	.848

Table 2 showcases consumers' perception of the overall accuracy of online reviews in Shopee (mean = 4.091, sd = .791). Specifically, they perceive online reviews as accurate (mean = 4.667) and thoroughly written (mean = 4.253). However, the least significant result depicts online reviews as less precisely written as it lacks some important details regarding the items. (mean = 3.694). Moreover, consumers somewhat disagree with the Completeness of online reviews (mean = 3.957, sd = .985). Online reviews that obtain various information about the product are the most significant factor consumers consider (mean = 4.316). Nonetheless, they think some online reviews are not detailed enough or include complete information (mean = 3.757). In terms of Time, consumers somewhat agree with the readiness of online reviews (mean = 4.644, sd = .848). Consumers highly recognize that reviews about their wanting product are readily available (mean = 4.872). Nevertheless, these online reviews are perceived as not being well-timed or not updated in the most appropriate moment (mean = 4.571).

4.3 Descriptive Statistics of Peripheral Variables

Table 3 - Descriptive Statistics of Peripheral Variables

	Minimum	Maximum	Mean	S.D
RQ1 There is a great number of reviews from different authors about many products/services on Shopee.	1	6	4.759	1.026
RQ2 There is a variety of reviews about many products/services on Shopee.	2	6	4.885	.931
RQ3 There is a multitude of information about many products/services on Shopee.	2	6	4.694	1.003

RQ4	The number of online reviews about products/services on Shopee is high	1	6	4.649	.994
Review Quantity		2.00	6.00	4.747	.853
RC1	Different online reviews about a product or service on Shopee are often consistent with each other in terms of content.	1	6	4.323	1.019
RC2	Different online reviews about a product or service on Shopee overlap to some extent with each other in terms of content.	2	6	4.501	.918
RC3	There are a number of overlaps among different online reviews about a product or service on Shopee.	2	6	4.514	.924
Review Consistency		2.25	6.00	4.446	.779
RE1	Reviewers of online reviews on Shopee seem to possess sufficient knowledge.	2	6	4.396	.918
RE2	Reviewers of online reviews on Shopee seem to have enough insights to make an assessment.	1	6	4.509	.974
RE3	Reviewers of online reviews on Shopee seem to be competent.	1	6	4.323	.984
RE4	The manner and style of the online reviews on Shopee determine the expertise of the reviewer	1	6	4.516	1.120
Review Expertise		1.25	6.00	4.436	.812

Table 3 shows that consumers somewhat agree that the Review Quantity of online reviews on Shopee is readily available for consumers (mean = 4.747, sd = .853). They observed that there is a wide variety of reviews available online for products and services (mean = 4.885, sd = .931). Consumers also somewhat agree that review consistency of online reviews on Shopee varies (mean = 4.446, sd = .779). Consumers believe that given the number of online reviews available online, these tend to overlap (mean = 4.514, sd = .924). Lastly is Review expertise; despite having the lowest value, consumers still somewhat agree that it can influence them when reading online reviews (mean = 4.436, sd = .812). Consumers analyze the manner and style of an online review to determine the writer's expertise towards a particular product or service (mean = 4.516, sd = 1.120).

4.4 Descriptive Statistics Of Review Credibility

Table 4 - Descriptive Statistics Of Review Credibility

		Minimum	Maximum	Mean	S.D
RCR1	Online reviews in Shopee are factual	1	6	4.326	.997
RCR2	Online reviews in Shopee are reliable	2	6	4.429	.937
RCR3	Online reviews in Shopee are trustworthy	2	6	4.328	.932
RCR4	Online reviews in Shopee are credible	1	6	4.331	.993
Review Credibility		2.0	6.0	4.353	.864

Table 4 shows that consumers *somewhat agree* that online reviews in Shopee are credible (mean = 4.53, sd = .864). Among the four indicators of review credibility, item 2 (mean = 4.429) has the highest mean, while item 1 (mean = 4.326) has the lowest mean.

4.5 Descriptive Statistics Of Purchase Intention

Table 5 - Descriptive Statistics Of Purchase Intention

	Minimum	Maximum	Mean	S.D
CPI1 I intend to buy products from Shopee	2	6	5.356	.785
CPI2 I will recommend others to use Shopee	3	6	5.301	.827
CPI3 It is probable that I am going to buy products from Shopee	2	6	5.353	.822
CPI4 I will frequently buy products from Shopee	1	6	4.962	1.144
CPI5 I think that the use of Shopee should be encouraged by all people	2	6	4.739	1.088
Purchase Intention	2.2	6.0	5.142	.7911

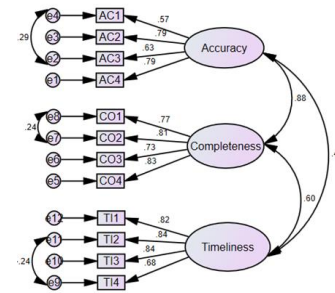
Generally, Table 5 depicts that Shopee consumers obtain a high level of purchase intention (mean = 5.142, sd = .991). Among the five indicators of purchase intention, item 1 (mean = 5.356) and item 3 (mean = 5.353) have the highest mean. On the other hand, items 4 (mean = 4.962) and 5 (mean = 4.739) are the lowest.

4.6 Confirmatory Factor Analysis of the Dimensions of Central Variables

Table 6 - Confirmatory Factor Analysis of the Dimensions of Central Variables

	Estimate	S.E.	C.R.	P
AC4 <--- Accuracy	.873	.049	17.697	***
AC3 <--- Accuracy	.579	.044	13.196	***
AC2 <--- Accuracy	.879	.050	17.548	***
AC1 <--- Accuracy	.467	.040	11.624	***
CO4 <--- Completeness	.895	.046	19.343	***
CO3 <--- Completeness	.794	.049	16.261	***
CO2 <--- Completeness	.989	.053	18.556	***
CO1 <--- Completeness	.949	.055	17.286	***
TI4 <--- Timeliness	.719	.050	14.308	***
TI3 <--- Timeliness	.882	.045	19.756	***
TI2 <--- Timeliness	.785	.040	19.568	***
TI1 <--- Timeliness	.801	.042	19.010	***

Standardized RMR = 0.0513



Chi-square=124.255, df=48, p=.000,
 Chi-squared=2.589, RMSEA=.063,
 CFI=.970, RMR=.051, Pclose=.054

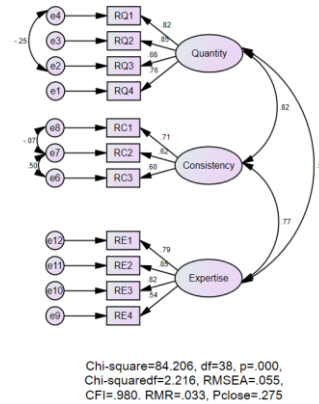
Table 6 shows the findings of the Central Variables' effects on the Review Credibility of online reviews. The three asterisk signs in the P-value column can be interpreted as a value that is less than 0.01, which means that all variables in the table are significant. The Estimate is known as the Factor Loading, and the requirement for this is to achieve a value of at least 0.5. The model confirmed that all questions are valid indicators of the corresponding variables. Item 2 (AC2) in Accuracy received the highest value of .879. For completeness, item 2 (CO2) had the highest value of .989. Lastly is the highest item for timeliness which is item 3 (TI3), with a value of .882. Among all the variables in the table, Completeness item 2 has the highest factor loading value.

4.7 Confirmatory Factor Analysis of the Dimensions of Peripheral Variables

Table 7 - Confirmatory Factor Analysis of the Dimensions of Peripheral Variable

			Estimate	S.E.	C.R.	P
RQ4	<---	Quantity	.752	.044	17.264	***
RQ3	<---	Quantity	.859	.042	20.221	***
RQ2	<---	Quantity	.788	.039	20.292	***
RQ1	<---	Quantity	.845	.045	18.973	***
RC3	<---	Consistency	.555	.048	11.651	***
RC2	<---	Consistency	.567	.050	11.343	***
RC1	<---	Consistency	.726	.053	13.644	***
RE4	<---	Expertise	.602	.055	10.944	***
RE3	<---	Expertise	.808	.042	19.057	***
RE2	<---	Expertise	.822	.041	19.834	***
RE1	<---	Expertise	.728	.040	18.111	***

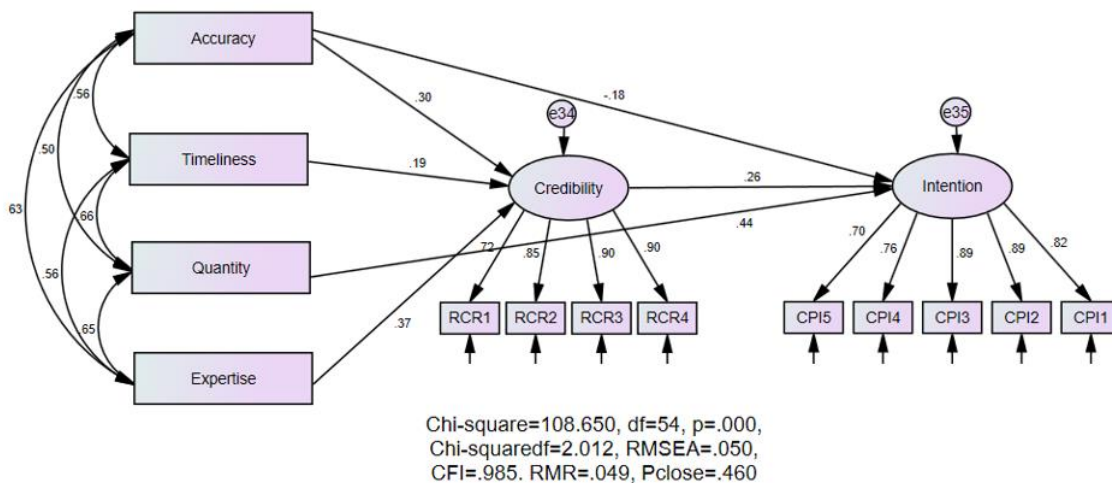
Standardized RMR = .0349



Chi-square=84.206, df=38, p=.000, Chi-squaredf=2.216, RMSEA=.055, CFI=.980, RMR=.033, Pclose=.275

As shown in Table 7, the confirmatory factor analysis proved the significance of all the dimensions used for all the three (3) peripheral variables used in this study, having attained a factor loading greater than 0.5. For review quantity, item 3 (RQ3) showed the highest significance obtaining a factor loading value of .86. For review consistency, item 1 (RC1) had a factor loading value of .73, showing the most significant importance for the dimensions of the variable. Lastly, item 2 (RE2) obtained a factor loading value of .82, which is the highest among the items for review expertise.

4.8 Final Model



Chi-square=108.650, df=54, p=.000, Chi-squaredf=2.012, RMSEA=.050, CFI=.985, RMR=.049, Pclose=.460

Figure 4 –Final Model

Figure 4 illustrates the findings of the hypothesized structural relationships concerning the effects of Central and Peripheral Variables of Online Reviews towards Review Credibility and, in turn, its effect on Purchase Intention. Structural Equations Modeling (SEM) was used to test the research model, and it depicts that four out of six individual factors are statistically significant. It was revealed that Completeness and Review Consistency have no significant effect on Review Credibility, obtaining a factor loading value < .5 contrary to the hypothesized positive effect. Thus, they were removed from the final model. Nonetheless, the results support the main hypotheses regarding the positive effect of Accuracy ($\beta = .30, p < .01$) and Timeliness ($\beta = .19, p < .01$) for the Central Variables and Review Expertise ($\beta = .37, p < .01$) for the Peripheral Variables towards Review Credibility. Consequently, the results prove the hypothesized positive impact of Review Credibility ($\beta = .26, p < .01$) towards Purchase Intention. Interestingly, SEM also provided additional information acquired through the analysis in this study. More specifically, the results depict that Review Quantity shows no direct effect on Review credibility, but rather a direct effect on Purchase intention ($\beta = .44, p < .01$). Furthermore, aside from having a positive effect on review credibility, accuracy was determined to have a direct as well on purchase intention ($\beta = -.18, p < .01$). Surprisingly, the direct effect established by accuracy on purchase intention was negative.

4.9 Discussion

Given the growing skepticism and trust issues towards the credibility of online reviews, this study aimed to examine the different factors that affect the credibility of online reviews and the consumer's purchase intention. Rooted from the Elaboration Likelihood Model, this study hypothesized that Central Variables - accuracy, completeness, timeliness - and Peripheral Variables - review quantity, review consistency, review expertise - positively affect the credibility of online reviews. Additionally, it posited that the credibility of the online review has a positive effect on the customer purchase intention. The study results reveal that three out of six proposed factors significantly influence consumers' perception towards review credibility, while two factors directly influence purchase intention. In the context of the Central Variables, two out of three, specifically *Accuracy* and *Timeliness*, had a statistically significant positive effect on the credibility of online reviews. Similar to the studies of Hazaril et al. (2016) and Thomas et al. (2019), the results of this research support (H1), wherein *accuracy has a positive effect on review credibility*. These findings suggest that consumers' perception of the *accuracy* of a review affects its credibility mainly when the reviews are *thoroughly-written (AC2)* and *precisely-formulated (AC4)*. Likewise, the results also support (H3) where *timeliness has a positive effect on review credibility*, which is previously mentioned in the works of Wang et al. (2018) and Cho & Chan (2019). For the case of fashion products in Shopee as focused by this study, results show that consumers who encounter "out-of-date" reviews dismiss its credibility. In addition, more recent reviews are perceived by consumers as "updated," especially in fast-changing industries such as the fashion industry, as supported by the work of Cho & Chan (2019). For the Peripheral factors, SEM revealed that *Review Quantity* does not affect review credibility, rejecting H4; however, it was determined by the model that although *Review Quantity* has no significant effect on review credibility, it has a direct effect on purchase intention. This is in contrast with the findings of Klaus & Changchit (2017) Karabas et al. (2020), wherein their study suggests that the quantity/number of reviews affects its credibility. Regarding the assumption of other Peripheral Variables, *Review Expertise* has a positive and significant effect on the credibility of online reviews supporting H6. The results suggest that consumers' previous knowledge and experiences, which showcases their *expertise*, affect the credibility of online reviews. Similar to the findings of Chakraborty & Bhat (2017), the customers' expertise can enable them to give more informed reviews to potential buyers.

On the other hand, while all the factors mentioned above hold a significant effect on Review Credibility and/ Purchase Intention, unexpectedly, this does not apply with *completeness*. SEM indicated that the *completeness of an online review does not positively affect its credibility*, nullifying (H2). This is contrary to the findings of Muralidharan et al. (2016). Their study mentioned that *complete reviews* are persuasive mainly because of citing the pros and cons of the product to potential buyers. Based on our findings and as mentioned by Lou et al. (2015), the probable reason for this is that the consumers do not see the importance of *completeness* because they are not sure of the authenticity of its content. Interestingly, the results further revealed that *Review Consistency* is *statistically insignificant* with the hypothesized model; hence, (H5) was rejected. These findings are inconsistent with existing studies that suggest *Review Consistency* as a determinant that affects the Credibility of Online Reviews (Cheung et al., 2012; Luo et al., 2015). A possible explanation of these contradictory findings stands within the growing interests of consumers towards online reviews; as such, they tend to become doubtful with online reviews that other consumers did not agree with, like, or vote back (Chakraborty & Bhat, 2017). Likewise, as consumers often gather opinions towards a particular brand or product, they tend to have a hard time comparing its consistency as every individual obtains a different set of expectations and sentiments; they do not opt to follow normative opinions. Lastly, the results of the study support (H7) where *Review Credibility has a positive effect on Purchase Intention*. Consistent with the studies of Klaus & Changchit (2017), Thomas et al. (2019), online reviews that are deemed credible play an important role in the consumers' intention to purchase a good or service online, thus emphasizing the importance of the different factors that influence online review credibility. This study went beyond these previous approaches as it reveals how the different factors influence review credibility, thus providing significant information on how to increase the consumers' purchase intention through online reviews by utilizing the factors determined to influence its credibility.

Surprisingly, the model revealed additional information such as the direct negative effect of accuracy to purchase intention contrary to the following findings. Accuracy refers to the perceived reliability and correctness of the information given in an online review (Thomas et al., 2019; Jamil & Hasnu, 2013; Wang & Strong, 1996). Since online reviews are given by anonymous users, customers tend to be wary of the credibility of online reviews. Consumers' prior knowledge is also considered an essential factor (Thomas et al., 2019). Customers are more likely to perceive customer reviews that support their background knowledge of the said product or service as accurate. Therefore, they are willing to accept new information from the same source.

5. Conclusion

The usage of E-commerce platforms has become prevalent in today's age. With this, the usability of online reviews and their credibility add value to attract potential consumers, especially with the growing doubts and skepticism towards which online reviews are considered credible, as it ultimately affects the consumers' purchase intention.

Altogether, the findings of this study showcased that Review Credibility is indeed influenced by different determinants categorized as Peripheral or Central cues, as proposed by the ELM model. The results revealed that Peripheral Variables, specifically Review

Expertise, depict the most substantial influence on the credibility of online reviews. The consumers believe that the competence of the reviewer, as well as being able to provide enough insights, shows expertise; thus, it influences their assessment. Likewise, the following Central Variables, namely Accuracy and Timeliness, also significantly affect review credibility. Online shoppers consider reviews that are thoroughly written and precisely-formulated as accurate, which positively affects their perception of the credibility of the review. For timeliness, the same is true as consumers perceive more recent reviews as updated, especially in fast-changing industries like the fashion industry, as focused by this study. On the other hand, the study revealed that factors such as Completeness and Review Consistency are statistically insignificant in affecting review credibility. Supported by pertinent literature, consumers do not consider completeness a factor in the credibility of reviews mainly because they are not sure of its authenticity. Meanwhile, for review consistency, consumers are doubtful about the personal motive of reviewers when they do not like the product, contrary to what other reviewers posted. Moreover, buyers find it difficult to rely on consistency as each reviewer has different expectations and sentiments towards a brand or product. Above all, the findings show that Review Credibility and its determinants positively impact consumers' purchase intentions, indicating that the credibility of online reviews plays a vital role in the context of consumer behavior on whether or not a customer will buy a product. With that, the researchers recommend to businesses and marketers to give emphasis on the significant factors that affect review credibility as shown in this study to boost the purchase intention of online shoppers.

Through the use of SEM, the present study delves further to reveal supplementary information. Additional findings of this study include the negative-direct effect of Accuracy towards consumers' Purchase Intention, which surprised the researchers given the established positive effect of accuracy to review credibility. This can be attributed to increased awareness of deceptive practices or fake reviews on different e-commerce platforms like Shopee. In this regard, consumers tend to be suspicious to see very accurate numerous good reviews as they tend to see it as a deceptive practice of businesses as they are eager to obtain as many good reviews as possible to increase the customers' intention to purchase. Considering as well that this study focused on fashion products, reviews about the accuracy of the actual quality of the products can be subjective as expectations and prior knowledge about the products can vary. Lastly, an interesting finding of this study is that Review Quantity directly affects purchase intention, contrary to the initially hypothesized positive impact towards review credibility. An implication of this could be that the quantity of online reviews reduces consumer anxiety, knowing that many others have purchased their desired product or service. Given the number of people who have taken part, this equates to more reviews consumers can look into and have a peek at the overall experience. Therefore, the researchers recommend that e-commerce platforms encourage customers to submit reviews for the products they buy, as a high quantity of reviews acts as a cue that the product is worth talking about. In conjunction with this, they should not only actively encourage customers to leave online reviews but also ensure the reviews that the customers leave are in congruence with the established factors that positively affect review credibility as mentioned in this study by creating a system that helps in detecting online reviews deemed credible by customers.

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References

- [1] Alcocer, N. (2017) A Literature Review of Word of Mouth and Electronic Word of Mouth: Implications for Consumer Behavior, <https://doi.org/10.3389/fpsyg.2017.01256>
- [2] Baek, H., Ahn, J. H., & Choi, Y. (2012). Helpfulness of Online Consumer Reviews: Readers' Objectives and Review Cues. *International Journal of Electronic Commerce*, 17(2), 99–126. <https://doi.org/10.2753/jec1086-4415170204>
- [3] Banerjee, S., Bhattacharyya, S., & Bose, I. (2017). Whose online reviews to trust? Understanding reviewer trustworthiness and its impact on business. *Decision Support Systems*, 96, 17-26.
- [4] Bhale, S. & Tongare, K. (2018) A Conceptual Model of Helpfulness of Online Reviews in a Blink, *Indian Journal of Marketing*, DOI: 10.17010/ijom/2018/v48/i2/121331
- [5] Carbonell, G., Barbu, C., Vorgerd, L., & Brand, M. (2019). The impact of emotionality and trust cues on the perceived trustworthiness of online reviews. *Cogent Business & Management*, 6:1. DOI: 10.1080/23311975.2019.1586062
- [6] Chakraborty, U., & Bhat, S. (2017). The Effects of Credible Online Reviews on Brand Equity Dimensions and Its Consequence on Consumer Behavior. *Journal of Promotion Management*, 24:1, 57–82. DOI: 10.1080/10496491.2017.1346541

- [7] Chang, H. H., Fang, P. W., & Huang, C. H. (2016). The Impact of On-Line Consumer Reviews on Value Perception. *Web Design and Development*, 1498–1524. <https://doi.org/10.4018/978-1-4666-8619-9.ch068>
- [8] Changchit, C., Klaus, T., & Lonkani, R. (2020): Online Reviews: What Drives Consumers to Use Them, *Journal of Computer Information Systems*, DOI: 10.1080/08874417.2020.1779149
- [9] Chen, C.-C., & Chang, Y.-C. (2018). What drives purchase intention on Airbnb? Perspectives of consumer reviews, information quality, and media richness. *Telematics and Informatics*, 35(5), 1512–1523. doi:10.1016/j.tele.2018.03.019
- [10] Chen, L. & Yuan, S. (2019) Influencer Marketing: How Message Value and Credibility Affect Consumer Trust of Branded Content on Social Media, *Journal of Interactive Advertising*, 19:1, 58-73, DOI: 10.1080/15252019.2018.1533501
- [11] Cheng, Y.-H., & Ho, H.-Y. (2015). Social influence's impact on reader perceptions of online reviews. *Journal of Business Research*, 68(4), 883–887. <https://doi.org/10.1016/j.jbusres.2014.11.046>
- [12] Cheung, C. M. K., & Thadani, D. R. (2012). The impact of electronic word-of-mouth communication: A literature analysis and integrative model. *Decision Support Systems*, 54(1), 461–470. <https://doi.org/10.1016/j.dss.2012.06.008>
- [13] Clare, C., Wright, G., Standford, P., Caceres, A. (2016): Why should I believe this? Deciphering the qualities of a credible online customer review, *Journal of Marketing Communications*, DOI: 10.1080/13527266.2016.113813
- [14] Fan, Y.-W., Miao, Y.-F., Fang, Y.-H., & Lin, R.-Y. (2013). Establishing the Adoption of Electronic Word-of-Mouth through Consumers' Perceived Credibility. *International Business Research*, 6(3). <https://doi.org/10.5539/ibr.v6n3p58>
- [15] Filieri, R., Hofacker, C. F., & Alguezaui, S. (2018). What makes the information in online consumer reviews diagnostic over time? The role of review relevancy, factuality, currency, source credibility and ranking score. *Computers in Human Behavior*, 80, 122–131. doi:10.1016/j.chb.2017.10.039
- [16] Hazari, S., Bergiel, B., & Sethna, B. (2016): Hedonic and utilitarian use of user-generated content on online shopping websites, *Journal of Marketing Communications*, DOI: 10.1080/13527266.2016.1143383
- [17] Hong, S., & Pittman, M. (2020): eWOM anatomy of online product reviews: interaction effects of review number, valence, and star ratings on perceived credibility, *International Journal of Advertising*, DOI: 10.1080/02650487.2019.1703386
- [18] Hsieh, J.-K., & Li, Y.-J. (2020). Will You Ever Trust the Review Website Again? The Importance of Source Credibility. *International Journal of Electronic Commerce*, 24(2), 255–275. doi:10.1080/10864415.2020.1715528
- [19] Jung-Kuei Hsieh & Yi-Jin Li (2020) Will You Ever Trust the Review Website Again? The Importance of Source Credibility, *International Journal of Electronic Commerce*, 24:2, 255-275, DOI: 10.1080/10864415.2020.1715528
- [20] Karabas, I., Kareklas, I., T.J. Weber & Darrel D. Muehling (2020): The impact of review valence and awareness of deceptive practices on consumers' responses to online product ratings and reviews, *Journal of Marketing Communications*, DOI: 10.1080/13527266.2020.1759120
- [21] Li, Y. & Zhang, L. (2020): Do online reviews truly matter? A study of the characteristics of consumers involved in different online review scenarios, *Behaviour & Information Technology*, DOI: 10.1080/0144929X.2020.1759691
- [22] Liu, S. Q., Ozanne, M., & Mattila, A. S. (2018). Does expressing subjectivity in online reviews enhance persuasion? *Journal of Consumer Marketing*, 35(4), 403–413. doi:10.1108/jcm-02-2017-2109
- [23] Luo, C., Luo, X. (R.), Schatzberg, L., & Sia, C. L. (2013). Impact of informational factors on online recommendation credibility: The moderating role of source credibility. *Decision Support Systems*, 56, 92–102. <https://doi.org/10.1016/j.dss.2013.05.005>
- [24] Luo, C., Luo, X. (R.), Xu, Y., Warkentin, M., & Sia, C. L. (2015). Examining the moderating role of sense of membership in online review evaluations. *Information & Management*, 52(3), 305–316. <https://doi.org/10.1016/j.im.2014.12.008>
- [25] Moriuchi, E. (2018) Is That Really an Honest Online Review? The Effectiveness of Disclaimers in online reviews, *Journal of Marketing Theory and Practice*, 26:3, 309-327, DOI: 10.1080/10696679.2018.1451257
- [26] Mumuni, A., O'Reilly, K., MacMillan, A., Cowley, S., & Kelley, B. (2019): Online Product Review Impact: The Relative Effects of Review Credibility and Review Relevance, *Journal of Internet Commerce*, DOI: 10.1080/15332861.2019.1700740
- [27] Munzel, A. (2016). Assisting consumers in detecting fake reviews: The role of identity information disclosure and consensus. *Journal of Retailing and Consumer Services*, 32, 96–108. <https://doi.org/10.1016/j.jretconser.2016.06.002>
- [28] Muralidharan, S., Yoon, H. J., Sung, Y., Miller, J., & Lee, A. (2017). Following the breadcrumbs: An analysis of online product review characteristics by online shoppers. *Journal of Marketing Communications*, 23(2), 113–134. doi:10.1080/13527266.2014.949824
- [29] Raassens, N., and H. Haans. 2017. NPS and Online WOM: Investigating the Relationship between Customers' Promoter Scores and EWOM Behavior. *Journal of Service Research* 20 (3): 322–334. doi:10.1177/1094670517696965.
- [30] Roy, G., Datta, B., & Mukherjee, S. (2018): Role of electronic word-of-mouth content and valence in influencing online purchase behavior, *Journal of Marketing Communications*, DOI: 10.1080/13527266.2018.1497681
- [31] Singh, J. P., Irani, S., Rana, N. P., Dwivedi, Y. K., Saumya, S., & Kumar Roy, P. (2017). Predicting the "helpfulness" of online consumer reviews. *Journal of Business Research*, 70, 346–355. doi:10.1016/j.jbusres.2016.08.008
- [32] Racherla, P. and W. Friske, "Perceived 'Usefulness' of Online Consumer Reviews: An Exploratory Investigation across Three Services Categories," *Electronic Commerce Research and Applications*. 11(6): 548–559, 2012.
- [33] Ruiz-Mafe, C., Chatzipanagiotou, K. and Curras-Perez, R. (2018) The role of emotions and conflicting online reviews on consumers' purchase intentions. *Journal of Business Research*, 89. 336-344. (doi:10.1016/j.jbusres.2018.01.027)
- [34] Thomas, J., Wirtz, B., & Weyerer, J. (2019). Determinants of Online Review Credibility and Purchase Intention. *Journal of Electronic Commerce Research* 20, 1, 2019
- [35] Vendemia, M. A., Coduto, K. D., & Lee-Won, R. J. (2019). When are emotional online product reviews persuasive? Exploring the effects of reviewer status and valence in consumer purchase decisions. *Communication Research Reports*, 36(5), 437- 448. doi:10.1080/08824096.2019.1683532
- [36] Wang, Y., Wang, J., & Yao, T. (2018). What makes a helpful online review? A meta-analysis of review characteristics. *Electronic Commerce Research*. doi:10.1007/s10660-018-9310-2
- [37] Xia, H., Pan, X., An, W., & Zhang, Z. (2019): Can Online Rating Reflect Authentic Customer Purchase Feelings? Understanding How Customer Dissatisfaction Relates to Negative Reviews, *Journal of Computer Information Systems*, DOI: 10.1080/08874417.2019.1647766

- [38] Xiaobing Gan, Zhang, Y., Yanan Yu, & Yanmin Jiao. (2017). The impact of information factors on online recommendation adoption. 2017 International Conference on Service Systems and Service Management. doi:10.1109/icsssm.2017.7996140
- [39] Xiaolin Lin, Xuequn Wang & Nick Hajli (2019) Building E-Commerce Satisfaction and Boosting Sales: The Role of Social Commerce Trust and Its Antecedents, *International Journal of Electronic Commerce*, 23:3, 328-363, DOI: 10.1080/10864415.2019.1619907
- [40] Zhang, K. Z. K., Xu, H., Zhao, S., & Yu, Y. (2018). Online reviews and impulse buying behavior: the role of browsing and impulsiveness. *Internet Research*, 28(3), 522–543. doi:10.1108/intr-12-2016-0377
- [41] Zhu, L., Li, H., Wang, F.-K., He, W., & Tian, Z. (2020). How online reviews affect purchase intention: a new model based on the stimulus-organism-response (S-O-R) framework. *Aslib Journal of Information Management*, ahead-of-print(ahead-of-print). doi:10.1108/ajim-11-2019-0308