The Effect of Online Review on Online Purchase Intention

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Abstract

The primary goal of this research is to examine the effect of online reviews on online purchase intention. The study investigates the influence of review valence, review relevance and review accuracy on the online purchase intention. Cross-sectional data were collected using a self-administered questionnaire from 251 Nepalese from the eastern part. The data were then analyzed using structural equation modeling. Amos 21 was used to analyze the gathered data. The findings reveal that review accuracy has a favorable and significant impact on online purchase intention. Whereas, review valence and review relevance on other hand have no substantial impact on online purchase intention. The work founded on prior research basing review valence, review relevance and review accuracy adds limited but emerging literature on online purchase intention. Marketers and policymakers will be benefited from the findings while designing and implementing different policies to attract people to persuade online purchase.

Keywords: online review, review valence, review relevance, review accuracy, online purchase intention

Introduction

Online reviews are the indispensable facet of e-commerce that have an immense impact on consumer buying decisions accompanied by the amount of money they spent (Wu et al., 2020). In this internet-driven world exchange of information and ideas are via wireless connectivity which has given rise to electronic word-of-mouth, a requisite factor for online shoppers and online product/service reviews have turned to be the foremost face of electronic word-of-mouth (Zhu et al., 2020). More than 55% of U.S adults rely on product online review videos while making a purchase decision (Yin et al., 2021). The driving element for intensive advancement of online commerce is the Multi-sided platforms (MSP) allowing direct interaction between participant groups, peculiarly the buyers and the sellers (Pipitwanichakarn & Wongtada, 2020). Consumers look for an online review to recognize the utility of the brand that untimely boosts the purchase intent (Chakraborty, 2019). Online review is the product/service-related post by the consumers on the company's website or online platforms which they derive from

their present or previous experiences (Liang & Wang, 2019). Fang, Kucukusta & Law (2016) articulates the substantial growth of the internet and social media, opinions regarding products are shared through online reviews and many consumers account online reviews as a credible source of information against traditional information sources.

The drastic change in the level of awareness and shift in social structure has generated various forms of communication and interaction, online word-of-mouth is the cheapest, fastest and effective means, dominating the Nepalese market (Neupane, 2020). According to Rana (2018), Nepalese people are more stimulated by word-of-mouth and opinions presented by users on social media websites and Facebook that in turn directly effects the buying behavior. She even reveals that Nepalese consider the electronic reviews given by experts and market opinions leaders. An online survey conducted by Neupane, (2020) confirmed that more than 80% of Nepalese customers check the comments, views and opinions about the product and contrary to popular belief, more than 60% of the Nepalese Females customers were aware of online reviews. Word-of-mouth and opinion given by people affect the purchasing behavior of Nepalese customers (Kharel, 2018) and particularly a satisfied customer always renders positive word-of-mouth (Thapa Magar & Lamichhane, 2020). Nepalese consumers are not influenced by the views shared by family and friends rather trust the reviews done on social media (Rana, 2018).

According to the report of Nepal Telecommunication (NTA), more than 90% of the Nepalese population has internet access, providing a tremendous space for online reviews. There are few studies in context to electronic word-of-mouth from the Nepalese perspective. Social media marketing isn't new but a promising concept that will shift the traditional print to the electronic way of marketing (Neupane, 2020). However, no studies have been conducted in developing as well as developed countries examining the effect of review relevance and review accuracy (Cheong et al., 2020). Hence, the present study undertakes the influence of review valence, review relevance and review accuracy on the online purchase intention.

Therefore, the present study will add to the literature stock of online review in the context of developing and emerging nations. This study originally concentrates on the effect of review valence, review relevance and review accuracy on the purchase intention. Therefore, the first objective of the study is to examine how the various factors affect the purchase intention, The factors are review valence, review relevance and review accuracy. The second objective is to explore the factor that has the highest influence on purchase intention. The findings from the present study will be a base for

marketers and academicians regarding the factors that influence online purchase intention and formulate policies in accordance.

Literature Review and research hypothesis

Review Valence

Review valence is the average numerical ratings found in reviews, the proportion of positive to a negative review, or the absence of negative reviews on the websites (Blal & Sturman, 2014). According to Carolyn & Xiaowen (2017) review valence is one of the significant factors that influences the purchase intention. Several studies have revealed that review valence has a direct effect on the performance of the business wherein positive reviews increase the performance and vice versa (De Pelsmacker et al., 2018). Cheong et al. (2020) examined the effect of review valance on online purchase intention with 215 respondents using partial least square structural equation modeling (PLS-SEM) depicted moderate significance. Based on the above findings, the following hypothesis is presented:

H1: Review valence positively influences online purchase intention.

Review Relevance

Review relevance is the relevancy or similarity the reader of the review has with the user, the feeling that the user and reader share (Mumuni et al., 2020). According to O'Reilly et al. (2016) review credibility isn't the only factor that determines online product review but relevance is also a predicting variable. He adds that review relevance exhibits the reviewer's personality traits and makes the review more interesting and relevant to the readers. According to Dunk (2004) relevance is an important factor that impacts the decision-making of an individual. Additionally, Rabjohn et al. (2008) found that relevance has a significant impact on information usefulness. According to Mumuni et al. (2020) review relevance is a key driving element for an online product review. Based on the above studies, the following hypothesis has been proposed:

H2: Review relevance positively influences online purchase intention.

Review Accuracy

Review accuracy is the degree to which online review text resembles the product description promised by the organization which is different from review consistency that defines the degree to which review text is identical with other review text regarding the similar product (Aghakhani et al., 2018). Schindler & Bickart (2012) revealed that accuracy in review content increases the credibility of the reviewer

leading to the perceived usefulness of the online review. Aghakhani et al. (2018) studied the effect of review accuracy and review consistency on review usefulness found that review accuracy has a positive and significant impact on review usefulness which tends people to believe the review text by other reviewers. Whereas, information accuracy of eWOM content has no significant association with travelers' eWOM use behavior. Based on the above studies, the following hypothesis has been proposed:

H3: Review accuracy positively influences online purchase intention.

Online Purchase Intention

Online purchase intention originated from purchase intention is the readiness of customers to purchase from the internet (Kamalul Ariffin et al., 2018). The intent of the customers plays a pivotal role in adopting technology and eventually summing to actual purchase and online purchase intention is an indicator to reach the goal of actual purchase (Dewi et al., 2020). A study conducted by Huang et al. (2019) based on four empirical studies in China examined the role of online review tactile clues in consumer's purchase intention in absence of direct experience in online shopping revealed that online reviews tactile clues had a favorable and significant effect on purchase intention. If a consumer has a positive attitude towards eWOM information, it has a strong and significant impact on behavioral intention, such as purchase intention (Abedi et al., 2020). Another study conducted by Prasad et al. (2019) articulates there exists a stronger association between eWOM and purchase intention if mediated by a firm's brand reputation. The findings showed that the influence of eWOM in social network sites is an essential proposition for marketers that can assist marketers design and discover methods to market their message via social network sites and develop a positive eWOM towards the product and organization.
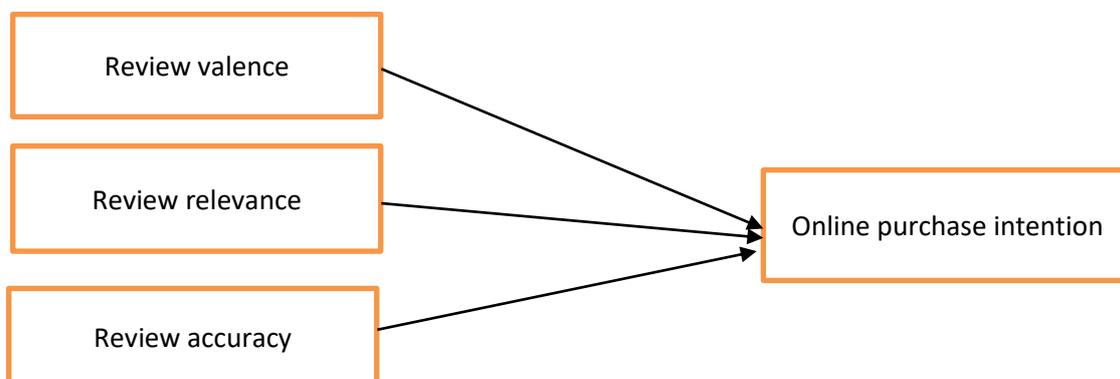

Figure 1: Proposed conceptual framework

Methodology

The data from the respondents were collected online using Google Docs. In two-section including demographic variables (gender, age, education and family income) and four latent variables (review valence, review relevance, review accuracy and online purchase intention), a closed-ended questionnaire was used to collect data. Structural equation modeling was used to test the proposed hypothesis. Two-step procedures by Gerbing and Anderson using Amos 21 were used to test the proposed hypothesis. The measurement model is the first step which includes EFA , item-to-item correlation, Cronbach's alpha and confirmatory factor analysis whereas the second step is the structural model which includes goodness to fit of the model.

The Measures

The measurement scale consisting of multiple scales from previous studies was adapted, as illustrated in table 1.

Research construct	Code	Evaluative statement	Sources
RV	RV1	The review was negative.	Baker & Kim 2019
	RV2	The review was positive.	
	RV3	The review received a negative rating.	
	RV4	The review received a positive rating.	
RR	RR1	The review is relevant to me.	Mumuni et al. 2020
	RR2	The review is appropriate for my needs.	
	RR3	The review is not according to my needs.	
	RR4	The review is closely connected to me.	
RA	RA1	The review provided the correct information for my purchase.	Wang et al. 2020
	RA2	There were a few errors in the information I obtained from the review.	
	RA3	The information from the review tends to be accurate.	
	RA4	The review provided me with complete information for my purchase.	
PI	PI1	I plan to make a purchase(s) through online shopping channels in the future.	Celik (2016)
	PI2	I predict I would make a purchase(s) through online shopping channels in the future.	
	PI3	I intend to make a purchase(s) through online shopping channels in the future	

Table 1. Measurement scale of the constructs

Sampling and data collection

Questionnaires were sent to the participants using social media mostly Facebook and Twitter. A convenience sample of 300 in the Eastern part of Nepal was invited to participate in the survey. After deleting invalid questionnaires (missing and incomplete responses), 251 valid questionnaires were received which accounted for an 83.66 percent return rate. Of the total, 75.7 percent of respondents were male and 39.8 percent of the respondents had obtained a master's degree. Furthermore, 57 percent of the respondents were in the age range of 31-40 years and 23.1 percent had a family income above Rs. 60,000. Sample characteristics are shown in Table 2.

Demographic	Characteristics	No of Respondents	Percent
Gender	Female	48	24.3
	Male	138	75.7
Age	18-30 years	70	27.9
	31-40 years	143	57
	41-50 years	28	11.1
	Above 50 years	10	4
Education	Schooling	-	-
	Higher secondary (+2)	11	4.4
	Bachelors	89	35.5
	Masters	100	39.8
	Above Masters	51	20.3
Family Income	Less than Rs. 15000	51	20.3
	Rs. 15001 to Rs 30000	46	18.3
	Rs. 30001 to Rs 45000	41	16.3
	Rs. 45001 to Rs. 60000	55	21.9
	Above Rs. 60000	58	23.1

Table 2. Sample Characteristics

Measurement Model

According to Jackson & Tweed (1980), the functional communalities and canonical correlations between common factors and observed factors is square multiple correlations and reflects the value of predicting variables showing the reliability of measurement and the variance percentage that can be explained by the latent variables (R^2) shown in table 3. As discussed earlier, the data are evaluated in a two-step

procedure i.e., measurement model and structural model. Table 3 shows the SMCs value that depicts each variable is greater than the criterion value of 0.70. Cronbach's alpha was used to test the reliability of the data. The Cronbach's alpha value of review valance is 0.899, review relevance is 0.866, review accuracy is 0.922 and online purchase intention is 0.939 indicating the reliability of data. The convergent validity should meet the following three conditions: (a) Factor loading significantly should be greater than 0.50, (b) Composite reliability should be higher than 0 and (c) Average variance extracted should be greater than 0.50 (Fornell & Larcker, 1981). As shown in table 3, the factor loadings are greater than 0.50 (ranging from 0.773 to 0.911), composite reliability is greater than 0 (ranging from 0.866 to 0.939) and the average variance extracted of each construct is greater than 0.50 (ranging from 0.7329 to 0.8852) indicating the reliability of the constructs. To check the validity of the construct, discriminant validity is performed by comparing the correlation between the constructs and the square root of AVE and is indicated by the AVE of each multi-item construct and is greater than the shared variance between constructs. The square value of AVE is greater than the correlation values describing the discriminant validity as shown in table 4.

Constructs	Items	Factor Loadings	SMC	Cronbach's Alpha	CR	AVE
Review Valence	RV1	0.788	0.878	0.899	0.9173	0.8
	RV2	0.898	0.887			
	RV3	0.827	0.751			
	RV4	0.773	0.767			
Review Relevance	RR1	0.81	0.796	0.866	0.8701	0.7329
	RR2	0.798	0.76			
	RR3	0.749	0.711			
	RR4	0.882	0.819			
Review Accuracy	RA1	0.884	0.821	0.922	0.9001	0.8852
	RA2	0.834	0.799			
	RA3	0.82	0.799			
	RA4	0.751	0.724			
Online purchase Intention	PI1	0.89	0.854	0.939	0.9386	0.8296
	PI2	0.911	0.891			
	PI3	0.776	0.714			

Table 3. Reliability and validity of constructs

Structural Model

A covariance matrix was used to examine the structural model and was estimated using maximum likelihood in AMOS. The overall fit indices of the structural model (CMIN/df=3.743, GFI=0.903, RMESA=0.0345 and AGFI= 0.923) were acceptable. And CFI was 0.914 which is above the threshold value of 0.90. To get the optimal model fit, the researcher removed three item RV1, RR1 and RA3 from review valence, review relevance and review accuracy respectively. Three hypotheses were proposed for the study and t-statistics was produced to measure the significance level. The relationship between review accuracy and online purchase intention was significant with the value of 0.41 (t=8.212, p=0.000) whereas the relationship of review valence and review relevance with online purchase intention was insignificant with the value of 0.07 (t=1.541, p=0.123) and 0.04 (t=0.718, p=0.473) respectively. The result doesn't support H1 and H2 whereas supports H3.

Variables	RV	RR	RA	PI
RV	0.8043			
RR	.770**	0.8389		
RA	.727**	.724**	0.9557	
PI	.794**	.754**	.844**	0.9004

Table 4. Squared correlation matrix of constructs
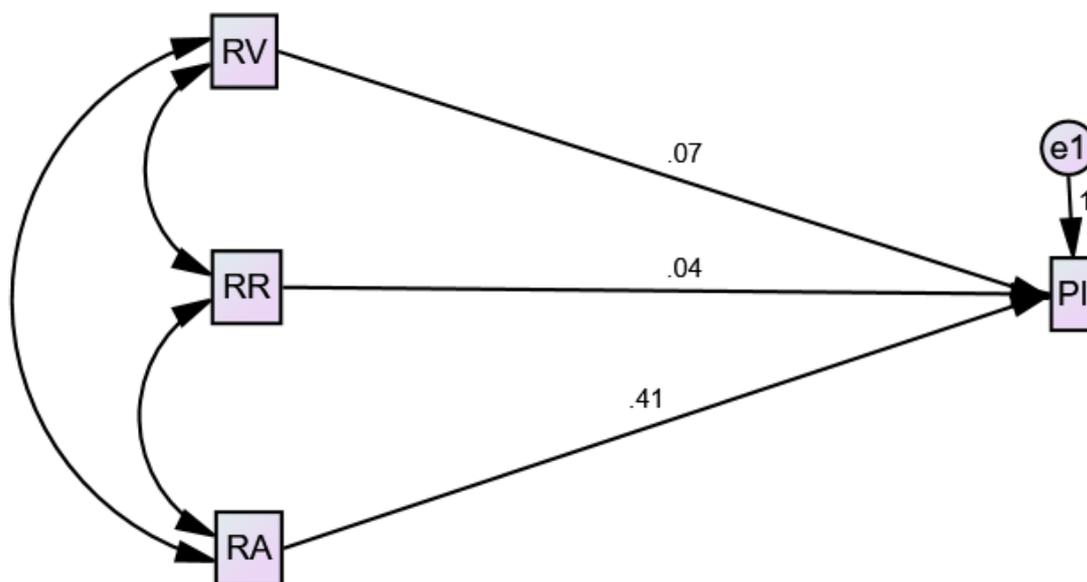
Figure 2. SEM results for hypothesis testing

Hypothesis	Effect	P value	Path coefficients	Remarks
H1	RV-PI	0.123	0.07	Rejected
H2	RR-PI	0.473	0.04	Rejected
H3	RA-PI	0.000	0.41	Supported

Table 5. Path analysis results

Discussions and Conclusions

This study aimed to examine if the model could predict the effect of online review on online purchase intention. The study shows a positive and significant association between review accuracy and online purchase intention. Review accuracy has the greatest impact on online purchase intention. The finding matches Schindler & Bickart (2012) and Aghakhani et al. (2018). As a result, review accuracy is a critical predictor of online purchase intention in Nepal as reviews provide them with the correct information for purchase. Nepalese online shoppers even believe that online review has few errors and were accurate. All the online review provided substantial and complete information required for making a purchase decision. However, review valence and review relevance have no significant effect on online purchase intention which contradicts the findings of Carolyn & Xiaowen (2017) and Mumuni et al. (2020) respectively. Carolyn & Xiaowen (2017) confirmed in their study that review valence is a key predictor of online purchase intention. Additionally, Mumuni et al. (2020) depicted review relevance as a chief factor that influences significantly the online purchase review. This study didn't show a significant relationship between review valence and review relevance with online purchase intention. Nepalese online shoppers don't rely on the rating provided by other reviewers and don't find their experience similar to the reviews of products and services on social media.

Implications

Three essential variables namely review valence, review relevance and review accuracy should be considered by the marketing manager while creating policies and strategies. Marketing managers can influence online shoppers by providing a live video rating by the various user of the product and service as well as circulating the live rating videos at various social media sites. Such a live rating campaign should be initiated by the marketing manager at different intervals of time frame. Also, regular efforts should be considered by the organization on how to increase the rating of the products and services by standing up to the promise they have made while promoting

the products and services. A satisfied customer is surely going to positively rate the organization's goods and services. Marketers should repeatedly check the review provided by the users. They should crisscross the review of the users. They should make sure the reviews are relevant or not. There can be users that can review the product with no experience but just by word-of-mouth. The reviews should be filtered according to the requirement and should eliminate those reviews that are false and hoaxed. Accurate and complete information can make the purchase easy. Marketers should highlight the most accurate and informative review by users that can ease the reader and assist in making a purchase decision. They should arrange different events that project authentic and exact information on the satisfaction level of users. Different pop-ups ads should be boosted so that can motivate people to purchase online. There are various limitations of this study. This study has only concentrated on the major cities of Eastern Nepal including Biratnagar, Itahari, Dharan and Damak. Further research should choose a much bigger sample size and obtain their response from various channels ensuring the participation of all parts of Nepal. Moreover, the constructs used in the study are based on past research, thus further researchers can investigate the same topic adding more constructs. The final limitation of the study is that online purchase intention is examined in general rather than specifically to a single product or service. Finally, the proposed conceptual model should be tested using various moderators and mediators.

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