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The impact of online reviews on e-commerce sales in India: a case study

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ABSTRACT

Customers can choose to buy products online without certain sensory experiences, such as touching, smelling or tasting. Consequently, product reviews are extremely important to implement online marketing strategies. While reviews can influence customers' purchase decisions, how they affect the decisions of potential consumers in the case of a growing emerging economy such as India has hitherto not been studied. Positive and negative reviews affect the way customers understand and interpret product information. This study provides multiple methods to identify the relationship between reviews and customer decisions in the case of tier 1, tier 2 and tier 3 Indian cities. The outcomes in tier 1 cities ($n = 1200$) reveal that reviews have a positive effect on buying decisions. Our empirical findings suggest that online reviews affect consumer attitudes and can significantly influence e-commerce sales in India.

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1. Introduction

E-commerce portals in India rely on more than 380 million Internet potential users, with constantly growing Internet traffic. Given that the market is driven mainly by cost and quality, which are typical concerns of the urban middle class of a developing country such as India, product reviews grossly affect sales. The existing literature on the effects of reviews is still at its nascent stage (Moore, 2015). Facts presented in reviews have more influence than emotions (Moore, 2015). Emotions, however, play a significant role in the purchasing process of luxury and hedonic items (Kronrod & Danziger, 2013). When customers buy luxury products, they are more predisposed to emotions in reviews and when buying products that are bought for their performance rather than looks, they are more likely to seek facts (Sen & Lerman, 2007). Moreover,

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Ejaz et al. (2020) argued that globalisation, high communication technology and advent of multinational companies have a significant contribution in reducing international investment blockades. On the other hand, Spulbar et al. (2019) highlighted the importance sustainability given the current challenges and revealed that ‘consumers are willing to pay higher prices for environmentally and socially responsible products’.

Emotions affect the value of products (Felbermayr & Nanopoulos, 2016). Various researchers have provided value to information based on reviews (Sen & Lerman, 2007). Indian middle-class customers evaluate a product based on its usefulness and pleasantness (Felbermayr & Nanopoulos, 2016). All these aspects together form a buyer’s attitude (Chitturi et al., 2008; Dhar & Wertenbroch, 2000; Voss et al., 2003). Some products, however, may be luxurious as well as daily-use items such as smartphones, as both aspects contribute to their attractiveness (Voss et al., 2003). Consumers in South India are less aggressive and communicative, while consumers in North India are aggressive and outgoing (Hawaldar et al., 2019; Ullal & Hawaldar, 2018). Self-construal theory suggests that the display of one person’s personality is due to cultural impact. Consumers from North India see themselves as independent, while consumers from South India are more integrated as part of their families and groups. On the other hand, Spulbar et al. (2020) suggested that global financial liberalisation implies a lower influence on emerging economies such as India, compared to developed economies.

2. Literature review and hypothesis formulation

In this section, we discuss previously published research studies and formulate our hypotheses. The eagerness of a customer expressed in the review section is considered more beneficial than any negative emotion such as anger (Yin et al., 2014). Emotion such as fear is more helpful in medical segments than in beauty products (Felbermayr & Nanopoulos, 2016). Emotions are usually conveyed with language rather than numbers, which helps develop an inclination towards the purchase of luxury and vanity products (Kronrod & Danziger, 2013). Reviews have been shown to be actions or reactions (Moore, 2015). Actions are more from a logical perspective, whereas reactions are more from an emotional viewpoint. Positive and negative valence has been observed in online reviews, where valence indicates the evaluative direction of review (Zablocki et al., 2019) and can be positive, negative or neutral (Purnawirawan et al., 2012). Earlier research on electronic word of mouth suggests that negative valence provides data that show products negatively and positive valence provides data that show products positively. The evaluative description is absent in the case of neutral valence. Valence offers product information that helps form an attitude towards a product. Reviews could be emotional and still be neutral, but a positive review will show a product’s strength. Reviews could be viewed as negative when customers share their undesirable experience online. The impact of reviews, combined with other factors, has been well researched (Purnawirawan et al., 2015). However, beyond the information provided by reviews, the emotions embedded in them need to be researched further. The ability of reviews to combine emotions with

other factors is difficult to measure as they have varying effects on buyer attitudes (Lerner & Keltner, 2000). Similar emotions provide different experiences and reactions. The combined power, which is called valence, has been observed to be pleasant when the experience is emotional (Russell & Barrett, 1999). Reviews cause spikes in interest in the minds of customers, which could be either high or low (Lo et al., 2016). It is difficult to understand reviews combining power and valence because there are various types and emotions.

Emotions play a major role in customers' decisions (Zablocki et al., 2019). Emotions are more in persuasive advertisements (Lau-Gesk & Meyers-Levy, 2009), and the feeling developed towards the advertisement is the feeling towards the brand (Orth & Holancova, 2003; Ullal et al., 2020). Advertisements are aimed at capturing customers' emotions and increasing sales (Kotler & Rath, 1984) and at branding products emotionally (Park et al., 2010). The Indian e-commerce market and the role played by emotion in building attitudes (Richard, 2005) and buying decisions are also identified. E-commerce marketers affect customers' feelings and attitudes, which, in turn, result in accepting or rejecting a product (Eroglu et al., 2003). The attractiveness of websites leads to joy, which drives customers to search for more products, thereby making them vulnerable to sales promotion tactics (Menon & Kahn, 2002; Nethravathi et al., 2020; Vinish et al., 2020). Joy positively affects customer attitudes towards e-commerce portals (Richard & Chebat, 2016). Feelings and beliefs affect e-commerce market and the decisions of online customers (Zablocki et al., 2019). The product types negating the effects of bad reviews on luxury and daily-use products have been documented in the extant literature (Sen & Lerman, 2007).

Emotional reviews increase sales. Customers judge a product based on its features that satisfy them, as their emotional responses on the luxury and feel-good features provide more satisfaction than those on the utility it offers. Negative reviews, however, affect the utility aspect more than the luxury aspect. Therefore, the following hypotheses are based on positive and negative online reviews and their influence on luxury and daily-use attributes of products.

H1a: Positive reviews increase buying decision probabilities of a product.

H1b: Positive reviews increase the luxury aspects more than daily-use aspects of the feelings toward a product.

H2a: Negative reviews reduce buying decision probabilities of a product.

H2b: Negative reviews reduce daily-use aspects of a product.

The power of reviews on e-commerce portals can be varied, which can be combined in different ways for different marketing aspects. Reviews with both positive and negative comments are evaluated based on how each comment is assessed more than on any other aspect (Schlosser, 2011; Zhang et al., 2010), with scholars identifying theories to understand the aspects of reviews' apparent usefulness in expressing this occurrence. Usefulness differs across various factors, such as product use (Zhang et al., 2010), product type (Mudambi & Schuff, 2010), the importance of reviewers (Schlosser, 2011) and the review's perceived persuasive power (Zhang et al., 2010). Reviews contain both negative and positive factors (Schlosser, 2011). Reviews that comprise extremely positive or negative factors are helpful when the rating is high.

Indian customers associate a certain amount of risk with online purchases, which may get nullified by reviews of credible reviewers.

H3a: Emotions consisting of both positive and negative factors reduce the feelings toward a product.

H3b: Emotions consisting of both positive and negative factors reduce the daily-use dimension more than the luxury dimension of the feelings toward a product.

The literature review on self-construal shows that North Indians perceive themselves as more outgoing and independent, whereas South Indians are more concerned about acceptable and unacceptable group behaviours, imitating a greater dependent self-construal (Markus & Kitayama, 1991). Attitudes are mostly untouched by social context and one is supposed to be a portion of an individual's self (Hogg & Vaughan, 2008; Oishi et al., 2004). People with dependent self-construal think themselves as being part of a group. This affects their emotions, which are negative and are considered as distraught (Burlinson, 2003). Anger is perceived differently in different regions. For instance, Indians do not appreciate anger when compared to customers from the United States. Violation of rules is the primary cause of anger.

People with a dependent self-construal attitude are much more unhappy (sad) than others (Fernandez et al., 2008), and Indian customers with more Western influence are more affected by fear. However, being miserable is a serious issue. Individual cultures stress individual targets (Mesquita, 2001). People show negative emotions more when goals are not reached (Burlinson, 2003). In certain parts of India which were affected by Western culture, most customers value joy and pleasure more than in traditional cultures (Ullal & Hawaldar, 2018). People also express positive and negative feelings (Kim et al., 2014). However, in parts of India influenced by Western culture, people perceive both emotions together as being contradicting (Schimmack et al., 2002).

Personality developed based on feelings defines the attitudes of a person, based on which he or she acts (e.g., Kashima et al., 1992). However, a co-dependent person's attitude is important when the attitudes of the person's group are identified (Hawaldar et al., 2019; Markus & Kitayama, 1991). Acceptance by the group is important to these individuals, and they know that their internal qualities are not accepted as their most important characteristics and are rarely considered as a genuine explanation of their behaviour. In the case of evaluative decision making, deciding on an individual's experience while avoiding rules of a group is incorrect (Suh et al., 1998). Customers with interdependent self-construal consider attitudes while buying a product. Seeking approval, people with interdependent self-construal accept sensible motives, but people with independent self-construal consider their views to a lesser extent when making purchases. Individuals consider emotions, and dependence on feelings is more important for people with an independent self-construal, which leads to a substantial effect of feelings and judgements on changes in attitudes. This leads to the fourth hypothesis:

H4: The impact of reviews that are emotional in attitude towards a product will be higher for customers with an independent self-construal than for customers with an interdependent self-construal.

3. Empirical research

To analyse the impact of reviews, emotions on product attitudes were identified through multiple studies using a sample of 1200 customers. The objective was to identify the hypothesis that majorly influenced the findings of this study. Identifying the impact of emotion in reviews on buyer attitudes is much more difficult than shown in the data on reviews. The valence and emotion of online reviews can be differentiated based on the impacts on feelings and attitudes. The second study was conducted to test hypotheses H1(a) to H3(b) and to understand the research outcomes on how product attitude differs in response to emotional signals in reviews using information from Indian customers. These outcomes were simplified by conducting the second study under various environments. It identifies the controlling role of self-construal on the impact of emotional reviews and empirically measures H4. The outcomes of customers from more Westernised cities are compared with more interdependent tier 2 and 3 cities.

3.1. Study 1 (methodology, research design and samples)

This research study was conducted in Mangalore employing the full factorial mixed design using the content of reviews along with its valence combined with attitudes. The content of reviews was operationalised among subjects and observed at multiple levels to collect information on both valence and emotion. Review valence was operationalised and observed again at multiple levels and controlled for content, which provides mixed product reviews. Variations in customer attitudes were used within the subject feature, differentiating between luxury and daily-use products as a reaction to reviews. A total of 1400 customers participated in the research. To identify the impact of content and valence of reviews, a three-way analysis of variance (ANOVA) was conducted. The variations among the experiments were tested using comparison methods.

The participants were asked to rate the worthiness of online reviews and the frequency of reading reviews on a scale of 1–5 (adapted from Park & Lee, 2009). Participants were shown actual e-commerce portals with luxury as well as daily-use products. The purchase of luxury products involves more logical thinking than that of daily-use products (Dhar & Wertenbroch, 2000). Therefore, in the first experiment, a 65-inch ultra-high-definition television (UHD TV) was shown to participants, because emotions affecting the attitude towards the product is high (Chitturi et al., 2008). Brands unknown among middle-class individuals were used to overcome already built up attitudes. The participants gave their judgement on the product, which was examined using the method provided by Voss et al. (2003). The daily-use aspect of a UHD TV was identified by employing multiple point dimensions. Table 1 lists various aspects measured in this study. All participants have provided reviews on various factors.

To obtain information about reviews on UHD TVs, all reviews about TVs were collected from the top five online portals of India by volume of sales. Data on reviews were built using the Shaver model, which comprises over 100 words to describe emotions. To examine the influence of positive and negative reviews, words from the

Table 1. Measured variables.

Luxury item	Daily-use item
Fun	Efficiency
Delight	Usefulness
Thrill	Necessary
Enjoyment	Safety
Sensuous	Problem solving

Source: Author's own contribution.

model's reviews have been selected based on simple random sampling. To obtain combination reviews, a mix of positive and negative words from the list was selected. The length of the reviews was limited to four lines.

3.2. Empirical outcomes 1

A total of 2612 customers registered for this test. To identify good perceptions of customers about reviews, a single sample *t*-test was conducted, and the frequency was found to be 2.7. Differences were present between review use [$M = 2.74$, $SD = 0.56$, $t(261) = 20.88$, $p = 0$] and how often it was used [$M = 2.42$, $SD = 0.52$, $t(260) = 15.54$, $p = 0$]. Variations in the attitude of customers were identified using different variables. The attitudes corresponding to daily-use products were identified as the difference in attitude towards products before and after reading reviews, whereas change in attitude towards luxury products was identified by corresponding attitude scores. The impact of reviews was identified through three-way ANOVA ($F(1455) = 7.22$, $p = 0$), the important effect of valance of review ($F(2210) = 89.76$, $p = 0$) and the main impact of change in attitude measurement ($F(2210) = 89.76$, $p = 0$). Important transactions are observed between the review contents and attitude variety [$F(1455) = 5.45$, $p = .01$], showing that changes in luxury and daily-use goods differ among informational and emotional aspects of online reviews. Thus, a relationship exists between review valence and attitude change [$F(2210) = 24.22$, $p = 0$]. The ANOVA on valence, content and attitude change was not significant [$F(2210) = 1.8$, $p = .42$]. Outcomes show that emotions are more powerful than information for middle-class customers' attitudes in the Indian online market. The impact of emotion on attitude changes under varied valence circumstances. The next set of tests examines the hypothesis on the change in attitudes of customers after observing emotional online reviews.

3.3. Study 2 (methodology, research design and samples)

For testing H1a–H3b, experiments for examining emotional reviews and changes in attitudes were conducted in tier 2 and 3 cities of India. Emotions have been used among subject factors and examined at multiple levels and controlled for online reviews, which led to specific emotions. Changes in attitude were used among subject factors, with attitudes varying between luxury and daily-use products due to reviews. A total of 2612 customers participated in the study. Two-way ANOVA was conducted to investigate changes in attitude across reviews and to understand variations among experimental conditions.

Study 1 varies from Research 1 by excluding informational reviews. The samples here were shown emotional reviews. Thus, we can identify a stimulus.

Table 2. *T*-test results for Research 1.

Valence	Content	Luxury attitude			Daily use attitude		
		Mean	SD	<i>T</i> -test	Mean	SD	<i>T</i> -test
Positive review (<i>n</i> = 250)	Informational (<i>n</i> = 30)	0.10–0.29	0.45	2.2 (0.03)	0.10	0.36	2.1 (0.004)
	Emotional (<i>n</i> = 46)		0.39		0.30	0.38	
Negative review (<i>n</i> = 250)	Informational (<i>n</i> = 30)	0.51	0.61	–2.2	0.72	0.78	–3.81 (0.02)
	Emotional (<i>n</i> = 43)	0.82	0.52		1.29	0.68	
Mixed review (<i>n</i> = 250)	Informational (<i>n</i> = 58)	0.69	0.45	–1.8	0.67	0.78	–2.2 (0.02)
	Emotional (<i>n</i> = 65)	0.29	0.46		0.95	0.68	

Source: Author's own contribution.

Table 3. Paired sample *t*-test showing luxury and daily-use features in tier 3 cities before and after reading reviews.

Conditions	Luxury			Daily use		
	<i>M</i> after – before (SD)	<i>t</i> Value	<i>p</i> Value	<i>M</i> after – before (SD)	<i>t</i> Value	<i>p</i> Value
Positive review (<i>n</i> = 250)	0.13 (0.56)	1.8	0.00	0.12	2.10	.04
Negative review (<i>n</i> = 250)	–0.45(0.77)	–8.32	0.00	0.95	–9.98	.00
Mixed review (<i>n</i> = 250)	–0.18(0.62)	–3.92	0.00	–0.68	–12.24	.00

Source: Author's own contribution.

Table 4. Three-way ANOVA for Research 3.

ANOVA	<i>F</i> -value	Significance
Self-construal	70.92	<i>p</i> < .0
Reviews emotional	26.25	<i>p</i> < .0
Attitude change	27.75	<i>p</i> < .0
Attitude combined with emotional review	8.11	<i>p</i> < .0
Attitude change combined with self-construal	7.96	<i>p</i> < .2
Attitude change combined with emotional review and self-construal	0.24	<i>p</i> < .0

Source: Author's own contribution.

3.4. Empirical outcomes 2

Of 1553 participants, all accepted that reviews were emotional and not rational. A *t*-test was conducted to investigate whether participants accepted online reviews as real and whether usage of reviews was considerably high. Outcomes indicate a variation in usefulness [$M = 3.25$, $SD = 0.6$; $t(2612) = 21.3$, $p = 0$] and frequency [$M = 3.20$, $SD = 0.7$; $t(2612) = 12.12$, $p = 0$]. The variations in attitudes towards luxury and daily-use products were assessed based on differences in attitude before and after reading reviews of respective products. Two-way ANOVA shows the impact of emotional reviews [$F(2, 2612) = 36$, $p = 0$] and attitude [$F(1, 2612) = 73.22$, $p = 0$]. Communication between emotion and attitude is observed [$F(2, 2612) = 18.11$, $p = 0$], showing variations in luxury and daily-use products due to emotional online reviews. The outcome patterns for negative comments are as expected, but for positive comments, conditions for the differences in the changes in attitude among different emotions need to be further examined (see Tables 2 and 3).

Changes in luxury and daily-use products represent an important aspect of our hypothesis. Table 4 is a representation of the change in emotions. As illustrated, the changes are high for positive reviews for both types of product attitudes.

Luxury and daily-use aspects of products are affected by negative reviews and neutral reviews to some extent. This establishes our first three hypotheses. The examination of H1(b), H2(b) and H3(b) shows repeated trends in attitude variations for

luxury products that are more than daily-use products for all emotions compared. A comparison of changes in the attitude towards luxury and daily-use products for positive reviews ($M_{Hed_dif} - U_{t_dif} = -0.02$, $SD = 0.5$) does not reveal any differences, which lead us to reject H1(b) [$t(700) = -0.4$, $p = .9$]. Therefore, reviews have positive effects on the attitudes towards both luxury and daily-use products. By contrast, variations in attitudes towards luxury and daily-use products on reviews based on emotions ($M_{Hed_dif} - U_{t_dif} = 0.4$, $SD = 0.7$) experience a considerable change [$t(425) = 7.1$, $p = 0$]; thus, we accept H2(b). Negative reviews affect Indian customers' attitudes towards product performance. A comparison of changes in attitude towards daily-use and luxury products for mixed reviews ($M_{Hed_dif} - U_{t_dif} = 0.5$, $SD = 0.7$) shows a considerable difference [$t(475) = 11.2$, $p = 0$]; thus we accept H3(b). Our findings seem to prove that in the Indian e-commerce market, customers perceive negative and mixed reviews similarly. Moreover, Indian customers are more emotional.

3.5. Outcomes

Product attitude drastically deteriorates with negative and mixed reviews. Surprisingly, this outcome is more evident in daily-use products than luxury products. After reading negative or mixed reviews, customers in India are unable to suitably interpret the features of products online. The impact of mixed reviews on attitude is higher for daily-use products than luxury products. Positive reviews raise attitudes towards both luxury and daily-use products. Given that this empirical study is specific to India, the results hold only for the Indian online market and cannot be generalised to Western countries.

To be very specific, this research study was conducted in 30 Indian cities on emotional reviews, in which participants used as subjects were examined for their responses to positive, negative and neutral reviews. Self-construal was used in tier 2 and 3 cities, which have two independent and interdependent samples. Changes in attitude were used as subject factors, differentiating between luxury and daily-use products in response to reviews that consisted of 2612 customer searches from tier 1 and tier 2 cities. Data collection was undertaken by research teams with over 12 years of field experience. A three-way ANOVA was performed to examine the impact of emotional reviews and changes in attitude. Interactions were conducted group wise to examine variations among the conditions of the experiments.

Study 3 follows the processes performed in study 2, except for analysing self-construal theory. The method employed was developed by Singelis (1994), which identifies multiple independent and interdependent self-construal items.

3.6. Empirical outcomes 3

A total of 2600 customers were interviewed in tier 1, 2 and 3 cities. In tier 1, 1200 customers (females = 43%, $M_{age} = 36.8$, $SD = 12$) were interviewed, out of which three were rejected as data provided were not compatible with our study objectives. A total of 1400 customers (females = 48%, $M_{age} = 28$, $SD = 6.55$) from tier 2 and 3 cities were included, and a *t*-test was performed to ensure respondents understood

Table 5. Paired sample *t*-test showing luxury and daily-use product attitude changes in tier 1 & 2 cities.

Conditions	City	Luxury			Daily use		
		<i>M</i> after – before (SD)	<i>t</i> Value	<i>p</i> Value	<i>M</i> after – before (SD)	<i>t</i> Value	<i>p</i> Value
Positive emotions	Tier 1	0.15 (0.42)	3.41	0.06	0.12 (0.32)	3.41	.00
	Tier 2	0.06 (0.24)	2.04	0.06	0.14 (0.26)	4.62	.00
Negative emotions	Tier 1	-1.05 (1.15)	-9.20	0.00	-1.18 (1.31)	-9.86	.00
	Tier 2	-0.45 (0.66)	-7.05	0.00	-0.57 (0.97)	-6.74	.00
Neutral	Tier 1	-0.42 (0.78)	-8.53	0.00	-0.62 (0.84)	-11.85	.00
	Tier 2	-0.16 (0.48)	-5.74	0.00	-0.35 (0.65)	-7.86	.00

Source: Author's own contribution.

the reviews. In all the cities, the respondents' sensitivity was more than the halfway-mark [$MTier1 = 3.6$, $SDTier1 = 0.99$; $t(1612) = 24$, $p = .003$, and $MTier 2 = 3.99$, $SDTier 2 = 0.55$; $t(1612) = 35.2$, $p = .002$]. The rate of reviews used was more than the halfway mark [$MTier1 = 3.88$, $SDTier1 = 0.96$; $t(1612) = 21.22$, $p = .002$ and $MTier 2 = 4.27$, $SDTier 2 = 0.713$; $t(1612) = 31.99$, $p = .002$]. *T*-tests were conducted to confirm that city consumers indeed have independent and interdependent self-construal profiles. Self-construal was established through independence for tier 1 [$Mindep - interdep = 0.18$, $SD = 0.49$; $t(1612) = 8.922$, $p = .002$]; a unique interdependent self-construal was identified in tier 2 cities [$Mindep - interdep = -0.12$, $SD = 0.29$; $t(1612) = -8.76$, $p = .002$] and tier 2 cities [$Mindep - interdep = -0.12$, $SD = 0.29$; $t(1612) = -9.11$, $p = .002$]. More *t*-tests related to independent and interdependent self-construal between tier 1 and tier 2 consumers were performed. Independent self-construal for tier 1 ($M = 3.99$, $SD = 0.7$) was more than for tier 2 [$M = 3.68$, $SD = 0.49$]; $t(1612) = 1.90$; $p = .05$], while interdependent self-construal ($M = 3.99$, $SD = 0.7$) was less [$M = 3.88$; $SD = 0.5$; $t(1612) = -6.45$; $p = .002$]. When compared, they show how customers in these cities view themselves and agree to various self-construal methods. The three-way ANOVA in Table 5 shows the effect of reviews that are emotional and the effect of attitude. The attitude effect was found to be the same in tier 1 and 2 cities, as shown in Table 4.

Positive reviews show a varying condition in attitude, which is different from tier 1 cities. The change in attitude towards daily-use products in tier 2 cities was higher than that of luxury products. To draw variations, self-construal and attitude were combined and ANOVA was applied, considering slightly positive reviews. The outcomes of this bl showed that $F(1, 150) = 4.98$, $p = 0.4$, implying a change in attitude towards luxury and daily-use products for positive reviews. The outcomes, however, do not completely support the hypothesis.

4. Post-experiment analysis and empirical results

Hypotheses H1(a), H2(a) and H3(a) for both types of cities are illustrated in Table 6. Changes in the attitude towards daily-use and luxury products are proved despite self-construal dominance. In tier 1 cities, evaluations of H1(b), H2(b) and H3(b) show that relative changes in luxury and daily-use products are the same as in Study 2. Changes in the attitude towards luxury and daily-use products corresponding to positive emotional reviews ($MHed_dif - Ut_dif = -0.04$, $SD = 0.38$) did not show any

significant outcomes [$t(100) = 1.2, p = .29$], thus proving H1(b). Differences in outcomes for attitude towards luxury product as compared to daily-use products for negative reviews (MHed_dif – Ut_dif = 0.19, SD = 0.61) were significant [$t(100) = 4.287, p = .001$], thus confirming H2(b).

Neutral reviews and variations in attitude towards luxury goods compared with daily-use products (MLux_dif – Daily-use dif = 0.18, SD = 0.5) were also significant [$t(300) = 5.2, p = .002$], which proves H3(b). Neutral reviews are similar to negative reviews, which affect buying attitudes towards luxury products more than daily-use products.

Tier 2 cities have different outcomes for positive reviews. The change in attitudes towards luxury and daily-use products (MHed_dif – Ut_dif = -0.06, SD = 0.27) was significant [$t(250) = -2.49, p = .04$], which disproves H1(b). Positive reviews impact luxury goods sales more than daily-use products. However, for negative reviews, variations in attitudes towards luxury products are greater than those for daily-use products [MLux_dif – DU_dif = 0.09, SD = 0.48; $t(250) = 2.1, p = .04$], thus accepting H2(b).

Similarity for reviews with positive and negative aspects was also examined to observe whether changes in attitude towards luxury products increased compared to those towards daily-use products [MLux_dif – Daily-usedif = 0.11, SD = 0.39; $t(250) = 3.8, p = .002$], which confirms H3(b). Similar to the outcomes of Study 2, negative and mixed reviews are found to be similar in building buyer behaviour, leading to sales.

In all the 30 cities, positive reviews heightened good attitudes towards products, whereas negative and neutral reviews reduced attitudes to buying. Irrespective of self-construal, respondents showed similar changes in behaviour. When examined closely, negative and mixed reviews have a greater effect on daily-use product sales. A change can be seen as far as the impact of positive reviews and its effects on attitudes towards luxury and daily-use products are concerned. The mix of buyer attitude, emotional reviews and self-construal did not have a significant effect, as shown in Table 5. In tier 1 and tier 3 cities, when independent self-construal is considered, positive reviews affect attitudes alike towards both luxury and daily-use products.

In tier 2 cities, the interdependent self-construal effect of positive reviews is more on luxury products than daily-use products. Emotional reviews interdependent respondents have more positive effects on the luxury aspects of products than the features and benefits of the products. Independent consumers positively impact luxury aspects and daily-use features. Independent respondents had more points on changes in attitude in all the 30 cities than interdependent respondents. The outcomes of ANOVA, as shown in Table 5, impact self-construal. This shows that self-construal subdues connections between emotional reviews and attitudes towards products. This affects customers who have independent self-construal profiles and get affected by emotional reviews rather than interdependent self-construal customers, which proves H4. In tier 1 cities, where respondents were independent, emotional reviews had a greater impact on changing attitudes towards products than tier 2 respondents, who were interdependent.

To find the effect of reviews that are emotional on product attitudes, the review contents have not been researched. This study distinguished between valence and

emotion in reviews, showing how emotions in reviews significantly impact attitudes towards products more than mere information. The prominence of emotion in customer reviews online and its role in identifying essential and non-essential reviews is important (Felbermayr & Nanopoulos, 2016). Emotions are one of the key determinants of buying behaviour. In the experiments, emotions were moderated to observe changes in attitude towards products in experimental groups. This research contributes to the effect of emotion in reviews and its impact on buyer behaviour. The findings show that buyer behaviour is positively affected by positive reviews and negatively affected by negative or neutral reviews. This affects the daily-use products more than luxury products.

Negative reviews overshadow positive ones as negative reviews have a greater impact on buying behaviour (Rozin & Royzman, 2001). Consumers tend to reject a product with negative emotional content online, which shows the difference between luxury and daily-use products.

5. Conclusions

The main aim of this study is to examine the outcomes between customers in independent (tier 1) and interdependent (tier 2 and 3) Indian cities. The findings suggest that moderating emotions in reviews and attitudes are not affected by emotions instead of self-construal theory. The results of tier 1 cities show similarity with tier 3 cities. Independent self-construal consumers have a negative luxury and daily-use product attitudes when they read negative reviews and this effect is more dominant on daily-use products. Positive reviews in independent self-construal consumers affect both luxury and daily-use products alike. In tier 2 and 3 cities, the impact of positive emotions is greater for luxury products. However, this contradicts the general belief that tier 1 city customers consume more luxury products, where they buy emotions along with the luxury products, while interdependent self-construal consumers get this emotional belongingness from their groups (Wang & Lin, 2009). Emotions do not exist in e-commerce markets with interdependent self-construal customers; thus, they focus on luxury products to moderate for nameless reviews in the Indian market. Indian customers somehow feel the need to justify their buying behaviour to groups in tier 2 and tier 3 cities. Positive reviews show approval, which is very important for Indian customers living in tier 2 and tier 3 cities. Customers from tier 1 cities with independent self-construal do not seek group acceptance but follow the course of their thoughts. Study 3 adds to the self-construal research by demonstrating a greater effect of feelings by reviews in independent self-construal than interdependent self-construal.

This study provides important managerial and industry implications for decision making. The outcomes of our research throw light on facts that are important to marketing decision-makers. The impact of emotional content in reviews has a greater effect on customers than informational reviews in influencing buying behaviour. Positive reviews increase attitudes towards buying a product. This provides information to decision-makers about requesting customers to share their positive feelings online in the Indian e-commerce market. The key take away for managers is that

they should ask customers to share their views online with instigating questions. This encourages customers to pour their heart out, which is an effective method of availing group approval. Our research proves that luxury and daily-use attributes are two different aspects of products and are affected differently by emotional reviews. Negative emotions negatively affect these dimensions, with daily-use attributes surprisingly being more affected than luxury aspects. Neutral comments are perceived as negative comments in India, as customers are wary of making wrong purchases. Independent and interdependent self-construal variations for both luxury and daily-use features for negative reviews are the same across all the 30 cities. Marketers can rely on this finding to manage negative reviews online. Customers evaluate a product on luxury and daily-use aspects of products. These aspects do not compete with each other but add to product appeal. Negative and neutral reviews affect daily-use attributes such as buying behaviour more. However, changing attitudes and increasing features will help counter these comments by marketers. By contrast, positive reviews affect both aspects of the product with luxury aspects affected more than daily-use aspects in interdependent self-construal. Indians from tier 2 and tier 3 cities who grew up in groups and joint families have interdependent self-construal because of their cultural background.

This study urges marketing decision-makers to take positive reviews that are emotional in the form of feedback when functioning in Indian online markets. Besides, emotions drive buying behaviour, which is affected by product features. For managers, this highlights the importance of developing and building emotions into their brands, which should continue even after buying because feedback is written after purchase. Attitudes affect buyer decisions, which relate products to customers, and this should be the focus of managers to target customers at every stage of the buying cycle.

Our study is limited to 16 products that were selected based on their popularity in the Indian market. Future research could focus on more products. Emotions that could not be classified as positive or negative were excluded from the study. Future researchers can also include these emotions to throw further light on reviews and self-construal theory. In addition, researchers can focus on theories in which negative emotions do not overpower positive responses in reviews. Therefore, the aim should be to interact with emotions and the valence of reviews. The valence and ratings in reviews were not considered due to certain constraints. However, other researchers could focus on this issue in order to elaborate future empirical studies.

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