

INTERACTIVE IMPACT OF EWOM MESSAGE CHARACTERISTICS ON ONLINE BRAND OUTCOMES: TOWARDS AN INTEGRATIVE FRAMEWORK

Abstract

Despite growing interest in the rising popularity of electronic word of mouth (EWOM), many unanswered questions remain about its effects on online brand outcomes. This paper explores the interactive impact of message characteristics (valence, credibility and format) on online brand evaluation and engagement. We tested our hypotheses using a web-experiment with a fictitious airline brand as the research context to collect data from a sample of Facebook users (N=480) drawn from an online Australian consumer panel. All the participants were randomly assigned to one of 16 conditions in a 2 (EWOM message valence: negative vs. positive) x 2 (EWOM message credibility: low and high) x 4 (message format: text, picture, audio-visual and audio) between-subjects factorial design. We found a positive effect of message valence on online brand evaluation that is positively moderated (enhanced) by credibility. We also found significant differences in the impact of valence (but not credibility) on brand evaluation across different message formats. Finally, brand evaluation mediates the impact of message valence (but not credibility) on online brand engagement.

Key Contributions

This paper explores the interactive impact of EWOM message characteristics (valence and credibility) and message formats (text, picture, audio-visual and audio) on online brand evaluation and engagement. Specifically, we examine the differences in the effects of message valence (positive vs. negative) and message credibility (low vs. high) on online brand evaluation across different message formats (text, picture, audio-visual and audio). We also test if brand evaluation mediates the impact of message valence and credibility on online brand engagement. We find a positive effect of message valence on online brand evaluation that is further strengthened by credibility. We also find significant differences in the impact of valence (but not credibility) across different message formats. Finally, we also confirm the mediating role of brand evaluation in the impact of message valence (but not credibility) on online brand engagement. This paper contributes to the growing EWOM literature by introducing an integrative conceptual model (figure 1) that combines three different message characteristics (valence, credibility and format) and studies their interactive impact on two important online brand outcomes (evaluation and engagement). Our findings will provide useful theoretical insights to the academic marketing researchers into the process by which social media users share EWOM with each other. In addition, our results would also provide practical knowledge about the role of message characteristics (valence, credibility and format) to social media managers as well as brand managers who aim to use EWOM by users of social media (e.g., Facebook) to promote their brands. Finally, the use of a web-experiment in this study may encourage other researchers to use this method to test cause-and-effect relationships in EWOM field (Voorveld et al., 2018).

Introduction

Social media has become a significant part of the daily communication lexicon and is described as an electronic communication channel where a broad audience can share or convey information among themselves quite easily (Borges-Tiago et al., 2019). Despite rapid growth in EWOM research in the past two decades (Lamberton & Stephen, 2016), there are still some areas on the EWOM evaluation stage that needs more research (Rosario et al., 2020), particularly with the fast-growing visual platforms (King et al., 2014). Research indicates that the message characteristics (e.g., valence and credibility) can affect the customers' perceptions, affecting their evaluations (Dillard et al., 2007; Tang et al., 2014) regarding brands image. Lim and Chung (2011) found that valence message affects individuals' assessments of products. Wathen and Burkell (2002) shows that message credibility is a significant characteristic in convincing individuals. Thus, further research is required to explore the differences in the impact of the EWOM message characteristics (valence and credibility) on brand evaluation. Furthermore, with the currently available technological affordance of the developed visual platforms such as Facebook, EWOM message can be presented in various formats other than numerical rating and textual (Rosario et al., 2020). Thus, further research is needed to explore the effects of the message formats (e.g., text, picture, audio-visual and audio) on the impact of EWOM message characteristics (e.g., valence and credibility; Gruen et al., 2006) on brand evaluation (Rosario et al., 2020). Thus, the objectives of this paper are as follows:

1. To explore the differences in the impact of EWOM message characteristics (valence and credibility) on brand evaluation.
2. To explore the moderating effect of the EWOM message formats (text, picture, audio-visual and audio) on the impact of EWOM message characteristics on brand evaluation.
3. To investigate the mediating role of brand evaluation in the interactive impact of EWOM message characteristics and format on online brand engagement

Background and Conceptual Model

EWOM Message Characteristics

Word of mouth (WOM) moved into a new era in the virtual world due to the internet revolution and has received world-wide attention due to the continuous developments of new and emerging communication modes (Dellarocas, 2003). As a result, customers are now able to directly share and exchange their consumption experiences and evaluations with others through distributing EWOM without the firms' intervention, which is now a new phase in the progression of customer WOM (Hennig-Thurau et al., 2004). Typically, customers express their experiences online in different formats such as textual or pictorial shapes for various purposes such as sharing, revaluation or seeking for online recommendations from others (Lin et al., 2012). Thus, other customers might be influenced by these published EWOM messages (Chevalier & Mayzlin, 2006). Some marketing studies consider EWOM message characteristics from the information aspect, such as the valence (e.g., negative or positive) of the EWOMs message (Luo et al., 2013; Park & Lee, 2008). For this reason, researchers have given immense attention to understanding the different facets of EWOM message characteristics (Lin, 2012), because the variations of EWOM message characteristics can have a crucial impact on customers' persuasion (Voorveld, 2019). Valence and credibility message characteristics are now discussed in more detail.

EWOM Message Valence

The information contained by EWOM can help customers create a mental image and, through that, build a trustworthy relationship with the targeted brands. According to Maxham and Netemeyer (2002), most WOM messages comprise either positive or negative information. Typically, customers are now able to see their online friends (customers) expressing their consumption stories through positive or negative EWOM messages based on their experiences on social media platforms (Lee & Youn, 2009). Therefore, there is a clear need to study and investigate the effectiveness level of the EWOM valence message on customers in the context of current social media communication platforms. This is critical given that positive WOM is more accessible and diagnostic to the customer than negative forms (Showronski & Carlson, 1989). Moreover, given extremely positive information has a more significant impact on the evaluation of customers on brands than extreme negative information (Gershoff et al., 2003), and customers often adopt a positive attitude towards brands in general (East et al., 2007; Naylor & Kleiser, 2000), which firms may be able to take advantage of this variation.

However, research also shows that the low effect of positive (versus negative) information on brand evaluation could be illustrated by applying the diagnostic role (Herr et al., 1991; Skowronski & Carlston, 1989). Furthermore, customers are more observant to negative comments than positive ones, and they tend to give more weight to the negatives during their assessments of objects (Ito et al., 1998). Kahneman and Tversky (1984) also report that customers give more attention to negative information than positive information because they want to avoid the threat of a potential loss. As a result, the negative information is deemed as more trustworthy than positive information in terms of experience customers have with brands (Pan & Chiou, 2011). Thus, based on the previous studies, the impact of EWOM valence message characteristics on brand evaluation is hypothesised as follows:

H1a: EWOM message valence has a positive effect on brand evaluation

EWOM Message Credibility

Credibility often acts synonymously with believability in the digital interaction field between customers (Lin et al., 2012). Early researchers examined credibility and found that it contains two components: trustworthiness and expertise (Hovland & Weiss, 1951). Trustworthiness refers to honesty, fairness, and good intention (Fogg & Taseng, 1999), and expertise as experience and knowledge that the message sender has about the products or brands. Credibility researchers described the credibility concept as a realised quality (Fogg & Taseng, 1999). Cheung et al. (2009) focus on message credibility and define it as the extent to which customers consider the message to be honest, realistic, and rational. Bataineh (2015) also states that message credibility refers to the reliability of content that customers might rely on to evaluate. Others define message credibility as a customer's evaluation of the reliability of the message's content (Appelman & Sundar, 2016). Moreover, it has been pointed out that message credibility positively affects customers' attitudes toward objects (Emery et al., 2014). In addition, researchers indicate that message credibility also has an indirect influence on the message valence, positive or negative message (Kusumasondjaja et al., 2012).

Brand Evaluation

Evaluation is an essential stage among the three communication stages (creation, exposure and evaluation) that online customers (EWOM receivers) might adopt on social media platforms to express their decisions regarding brands (Kannan & Li, 2017). Brand evaluation refers to the process of evaluating what customers do in their minds by relying on the general tangible and intangible features of brands as a product and the brand as a person (Gilbert & Hewlett, 2003;

Swoboda et al., 2012; Puzakova et al., 2013a, 2013b). Although the evaluation of brand would be based on various numbers of attributes tuned to especially valued brands, not surprising for most research projects, a subset of these attributes is used as the basis for evaluating the brand such as brand image, reputation, and others' experiences (Gilbert & Hewlett, 2003). Rosario et al. (2020) show that interests, readiness, needs and willingness are the motivational items used to evaluate the EWOM message which can be affected by the receivers' personalities (e.g., gender, age, and level of involvement; Naylor et al., 2012), and message characteristics (e.g., valence, credibility; Dillard et al., 2007; Tang et al., 2014). Moreover, EWOM opportunities are shaped by message context such as message format, for instance, the message formats (e.g., audio-visual or textual; Park & Jeon, 2018; Risselada et al., 2018). Although many studies have investigated the persuasiveness of positive and negative EWOMs and the persuasiveness of single-sided and double-sided messages. Therefore, the current study is looking at the interactive impact of message characteristics (positive, negative, neutral, etc.) on brand evaluation. Therefore, we hypothesize as follows:

H1b: EWOM message credibility has a positive effect on brand evaluation.

H1c: EWOM message credibility moderates the effect of message valence on brand evaluation.

EWOM Message formats

In the recent past, most online customers often relied on a textual format to express their experiences (Xu et al., 2015). However, with the rapid growth of technology in visual social media platforms, such as Facebook (Rosario et al., 2020), customers currently are enabled to distribute and/or share their EWOM messages in different formats on such platforms, such as audio-visual, pictorial, textual and audio (Berger, 2014; Jiang & Guo, 2015). Each format has different effects on customers' persuasion, especially during the presentation of EWOM information (Schweidel & Moe, 2014). Thus, as scholars note that these EWOM message formats need to be considered and deeply researched (King et al. 2014, Rosario et al., 2020). Xu et al. (2015) find pictorial advertisements more effective than textual ones because these influence customers to generate positive attitudes toward brands (Mitchell & Olson, 1981). Moreover, Then and DeLong (1999) found the more data a vendor provides in a pictorial format presentation, the more customers were able to associate with brand image online. Kisielius and Sternthal (1984) do point out that the combined textual and pictorial format in a presentation results in negative responses than simply textual format alone, suggesting that using multiple message formats to communicate the brand to the customer can also have a 'multiplier effect' on the negative messages customers communicate about that brand. Therefore, understanding the various message formats on both the positive and negative images that customers can potentially portray about the brand, using EWOM, is a central aspect of this research.

Moderating Effect of Message Format

Researchers show that online sellers are recommended to understand how to coordinate between their message formats and message characteristics in order to have an effective EWOM in social media platforms, which is an influential business tool (Park & Lee, 2009). Also, social media platforms are deemed as suitable channels for EWOM messages (Erkan & Evans, 2014; Kim et al., 2014) because these platforms permit online customers to share their messages in various formats such as audio-visual, pictorial or textual (Sohn, 2014). Shon (2014) indicates that audio-visual EWOM messages tend to be more enjoyable and attractive than other EWOM message formats. According to Blanco (2010), the audio-visual format of EWOM messages is more influential than the textual format as it adequately supports online customers to process information. David and Glore (2010) indicate that the pictorial designs of

websites significantly affect the customers' evaluation of websites' credibility. Also, Fogg et al. (2003) report that 45 percent of the online customers evaluate the credibility of websites based on their designs, such as the picture design. Moreover, Kim and Moon (1998) found that the well-design of websites interfaces, such as layout and colours, can increase the customers' credibility on these websites. However, early research focused on the influence of pictorial and textual message formats, particularly in traditional media or electronic commerce websites online (Im et al., 2010; Rosario et al., 2020). Furthermore, researchers show that video format is considered as more credible and effective than other formats on customers (Xu et al., 2015).

In this context, a recent study shows that posting visual information (e.g., audio-visual and pictorial formats) became a global phenomenon as customers and marketers display their high interests in these formats (Farace et al., 2017). Fox et al. (2018) indicate that the audio-visual message format could have a more emotional effect over the EWOM receivers than textual, particularly through the new visual platforms. As a result, marketing practitioners devote their efforts to working on EWOM suitability for customers in an effort to maintain brand image (Rosario et al., 2020). Although the importance of considering this phenomenon and the fast-growing in visual social platforms such as Snapchat, few researchers addressed the impact of different EWOM message formats (Rosario et al., 2020). As a result, this research will explore the difference in the influence of the EWOM message valence (positive vs. negative) on the Brand evaluation by applying the following four message formats (audio-visual, pictorial, textual and audio) respectively. Thus, this paper addresses the following hypotheses:

H2a: The effect of EWOM message valence on brand evaluation is stronger for the text format compared to picture, Audio-visual and audio formats, respectively.

H2b: The impact of EWOM message credibility on brand evaluation is stronger for the Audio-visual format compared to picture, text and audio formats, respectively.

Online Brand Engagement

In recent years, marketing researchers and practitioners have focused their attention on customer engagement (Leckie et al., 2009). Since current research mainly focuses on online brand engagement which aligns with the research context such as social media platforms (Brodie et al., 2011; Hollebeek et al., 2014), Lin et al., (2014) describe this term as customers engagement with online brands such as cognitive, emotional, and behavioural obligations with certain brands through active relationships. For more illustration, Riley et al., (2016) describe cognitive engagement as customers' interests and awareness toward a central brand on social media platforms which may also refer to other activities such as watching the brand's videos or images. However, emotional engagement refers to how the uploaded contents by the brand on social media platforms make online customers recognise and feel about the brand and then consequently interact either positively or negatively towards that brand. Lastly, behavioural engagement manifests on online customers' activities which refers to the initial interactions by online customers such as evaluating brand's content, following or adding the brand's page or an account, posting likes, and sharing or re-sharing content on social media platforms such as Facebook and Snapchat (Khan, 2017; Riley et al., 2016).

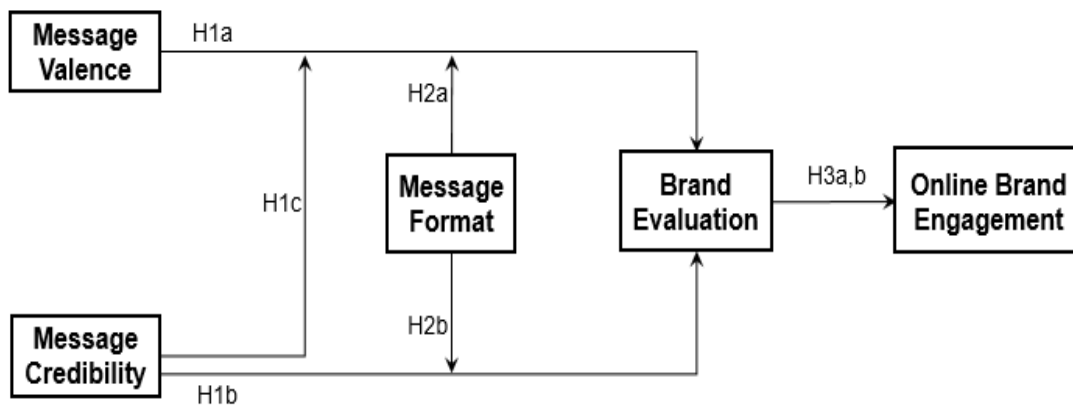
With recent technological growth and the hype surrounding the usage of social media platforms by customers, firms started working differently towards engaging customers with their online brands (Felix et al., 2017). Ashley and Tuten (2015) also point out that it is not surprising to see some firms have relied on social media platforms' metrics as a marketing tool for their communication activities in order to realise the nature of how to reach and engage with online customers. Moreover, various studies report that more than one billion social media platform users worldwide have saliently been involved in the various transformations in the last decade

such as the avenues of how customers acquire, share and evaluate information, customers' experiences, and online brand engagement (Anderson et al., 2016; Karikari et al., 2017). Therefore, it has become an imperative basis for firms to expand their understanding of how customers' participation leads to online brand engagement (Baldus et al., 2015). This can potentially help enhance online brands' performance, for example, through the posted EWOM message evaluations (Hollebeek et al., 2014). Xun also indicates (2014) that through the massive uploaded information on social media platforms, online customers are exposed to different EWOM evaluation messages which might influence their engagements with brands (Xun, 2014), and suffice to say, 40 million customers rely on EWOM evaluation messages (Chakraborty & Bhat, 2018). As a result, EWOM messages, particularly the evaluation ones, affect the development of the online customers' relationship toward brand engagement (Huang & Benyoucef, 2015). Thus, we hypothesize as follow:

H3: Brand evaluation mediates the effects of EWOM message a) valence and b) credibility on online brand engagement.

Figure 1 presents our conceptual model with all these hypothesized relationships.

Figure 1: Conceptual Model



Methodology

We utilize a quantitative method by implementing a web-experiment strategy on Facebook to better understand the interactive impact of the EWOM message characteristics. We started creating a fictitious brand to employ 16 experimental conditions, 2 (EWOM message valence: negative vs. positive) x 2 (EWOM message credibility: low and high) x 4 (message formats: text, picture, audio-visual and audio), using between-subject factorial design. We then developed three manipulation checks to ensure the participants can understand and be able to recognise the designed EWOM message correctly. After that, we moved to develop a structured questionnaire adopting well-established scales to measure all the constructs shown in our conceptual model. After complete building the questionnaire, we collected the data utilising an Australian online consumer panel from the Facebook users (N=480) between the age of 18 and 64. Next, we moved to test our hypotheses by utilising the SPSSA and AMOS (Venkatesh & Bala, 2013). Our findings are discussed in the next section.

Data Analysis and Results

After confirming the success of the three manipulation checks, we conducted the two-stage approach of structural equational modelling (SEM) to analyse our data. We started to test our measurement model using confirmatory factor analysis to assess all constructs' reliability and validity. As a result, we obtained good fitness indices for our measurement model ($\chi^2 =$

1140.054, $df = 619$, $\chi^2/df = 1.842$, CFI = 0.97, RMSEA = 0.042, SRMR = 0.039). Moreover, we found that the factor loading of all scales are high (> 0.70), and also the composite reliability (CR) are high (> 0.90), which confirms the achievement of reliability. Furthermore, the average variance extracted (AVE) values are high (> 0.60), which also indicates the achievement of convergent validity. Lastly, the discriminant validity was achieved too, which is based on the square roots of the AVE being greater than any inter factor correlation.

Due to the heavy dependence in this study on the experimental manipulation of the key features of EWOM messages (categorical variables: valence, credibility, and formats) and the metrics of outcomes (brand evaluation and online brand engagement), we implemented ANOVA and PROCESS Macro (Hayes et al., 2017) with SPSS software to test all the hypotheses, particularly the moderated mediation model presented in this study analyses in order to attain the objectives of this study and obtain accurate results, as shown in Table 1-3. We found a positive effect of message valence on online brand evaluation that is positively moderated (enhanced) by credibility. We also found significant differences in the impact of valence (but not credibility) on brand evaluation across different message formats. Finally, brand evaluation mediates the impact of message valence (but not credibility) on online brand engagement.

Table 1. The Direct Effect of EWOM Message Valence and Credibility on Brand Evaluation

Hypothesis		β	R^2	F	t	p	Result
H1a	VAL \rightarrow BE	.584	.343	124.699	15.745	.001	Supported
H1b	CRD \rightarrow BE	.045	.343	124.699	1.220	.223	Not Supported

Note: VAL= valence; CRD=credibility; BE=brand evaluation; R^2 : Adjusted R Squared; F : F-value; β = standardized beta coefficients; t : T-value; * $p < .05$, ** $p < .01$, *** $p < .001$

Table 2. The Moderating Effect of Message Formats

Hypothesis	β	T value	p -value	Percentile bootstrap 95% confidence interval		Result	
				LLCI	ULCI		
H1c	.6871	2.7686	0.006	.1994	1.1748	Supported	
H2a	T	2.5181	10.220	.001	2.0340	3.0023	Supported
	P	-1.3818	-3.9508	.001	-2.0691	-.6945	
	A/V	-.3742	-1.0695	.2854	-1.0618	.3134	
	AU	-.5547	-1.5859	.1134	-1.2419	.1326	
H2a	T	.1454	.4715	.6375	-.4607	.7515	Not Supported
	P	-.1568	-.3600	.7190	-1.0128	.6992	
	A/V	.0137	.0313	.9750	-.08468	.8742	
	AU	.1955	.4489	.6537	-.6602	1.0512	

Note. T= text; P= picture; A/V= audio-visual; AU=audio; * $p < .05$, ** $p < .01$, *** $p < .001$; β = coefficients beta

Table 3. *The Mediation Effects of Brand Evaluation*

H#	Hypotheses	Model 1 Direct Effect				Result
		β	T value	Percentile bootstrap 95% confidence interval		
				LLCI	ULCI	
	VAL \rightarrow OBE	-.1435	-.9618	-.4366	.1496	
	CRD \rightarrow OBE	.1281	1.0531	-.1109	.3672	
Model 2 Mediation Effect						
H3a	VAL \rightarrow BE \rightarrow OBE	.2601	2.624	.0211	.1191	Supported
H3b	CRD \rightarrow BE \rightarrow OBE	.0168	.8795	-.0156	.0612	Not Supported

Note. β = coefficients beta; VAL= valence; CRD= credibility; BE=brand evaluation; OBE=online brand engagement

Discussion and Implications

Using a web-experiment with a fictitious airline brand on Facebook as our research context, we find a positive effect of message valence on online brand evaluation that is further strengthened by credibility. We also find significant differences in the impact of valence (but not credibility) across different message formats. Finally, we also confirm the mediating role of brand evaluation in the impact of message valence (but not credibility) on online brand engagement. This paper contributes to the growing EWOM literature by introducing an integrative conceptual model (figure 1) that combines three different message characteristics (valence, credibility and format) and studies their interactive impact on two important online brand outcomes (evaluation and engagement). Our findings will provide useful theoretical insights to the academic marketing researchers into the process by which social media users share EWOM and practical knowledge about the role of message characteristics (valence, credibility and format) to social media managers and brand managers who use EWOM by users of social media (e.g., Facebook) to promote their brands. Finally, the use of a web-experiment in this study may encourage other researchers to use this method to test cause-and-effect relationships in EWOM field (Voorveld et al., 2018). Future research may aim to validate our results using different message characteristics and social media platforms.

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