

VEGETARIAN FOOD SOCIAL MEDIA MESSAGE: AN EMPIRICAL STUDY OF
THE EFFECTS OF MESSAGE DESIGN ON CONSUMER BRAND ATTITUDE.

by

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Abstract

Despite a growing interest in social media communication as a marketing tool, research on its persuasive effects is limited. This is especially true for comparisons between brand-generated and user-generated content, despite the relevance of message control for marketing strategy. This present study examines two different message sources (brand vs user) and two message types (rational vs emotional) investigating their effects on consumer brand attitude through the creation of brand authenticity, content authenticity and source credibility while considering consumer food involvement. Participants ($N = 342$) viewed one of four fictional Facebook messages, which used either a rational or emotional message type and was from either a brand or a consumer.

Using regression analysis, and splitting the sample to high ($N = 172$) and low involvement ($N = 170$), we found for participants with a high degree of involvement, emotional brand-generated content created more positive brand attitudes than rational brand-generated content through perceived brand authenticity and source credibility. However, a rational message generated by a brand led to higher levels of effect on brand attitude with higher perceived content authenticity. For user-generated content, for highly involved consumers, rational messages are more persuasive than emotional

messages, creating more positive brand attitudes through brand authenticity and source credibility. Content authenticity had no impact on brand attitude in any user-generated message under high consumer involvement. Under low degrees of consumer involvement, emotional brand-generated messages did not significantly impact brand attitude. However, the effect was found in emotional user-generated messages through content authenticity. With regards to rational brand-generated messages, high perceptions of source credibility generated positive brand attitudes. A similar result has been found in user-generated rational messages. The final analysis showed that regardless of message type and message source, low or high consumer involvement, the positive effect of brand attitude on purchase intention is significant. The theoretical and practical implications of these findings are discussed.

Keywords: social media, vegetarian, user-generated content, brand-generated content, brand authenticity, content authenticity, source credibility, involvement

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1. INTRODUCTION

1.1 Background

Recently, there has been an increase in the popularity of vegan and vegetarian diets.

Google Trends reveals that the search for vegan-related terms, spiked in 2018 compared to previous years worldwide; it was 35% higher than in 2016 (Google trend, 2019). It is reasonable to believe the influence of this trend will continue to grow (Janssen et al. 2016) and will continuously affect consumption patterns as more brands expand their product lines to include vegetarian products.

Research on veganism and vegetarianism has been divided into three main areas: health, ethics, and consumption. The first area focuses on studying the nutritional intake of a vegetarian diet and its long-term effects on human beings. Craig (2009) found that vegans have lower risks of cardiovascular disease and blood-related cancer. In an exploratory study comparing a vegetarian diet to an omnivorous diet, vegetarianism was shown to show a reduction in the risk of diabetes through improving metabolic conditions (Glick-Bauer & Yeh, 2014). Another study, based on Chinese Buddhist vegetarianism, has shown lower BMI and risk of plasma glucose, which reduce people's risk of cardiovascular disease (Zhang et al., 2013). The second research area focuses on the moral concerns of vegetarian consumers. These studies, (Rozin, Markwith, & Stoess, 1997; McDonald, 2000) mainly discuss consumer concerns about animal rights and the environmental effects of meat-eating that lead them to seek meat substitution. These studies argue that once consumers begin to

process more profound thoughts towards the food they eat, they start to think about the treatment of animals, the effects of meat-eating on climate change, and therefore the decision to change their diets.

The third research area addresses consumption patterns related to vegan and vegetarianism. Empirical studies have found that vegetarian consumption is often linked to emotional types of purchase, especially the feeling of disgust connected with eating meat (Jabs, Devine, & Sobal, 1988; Radnitz, Beezhold, & DiMatteo, 2015). It also appears that people are becoming aware of food choices based on their life experience because changing a diet requires more effort to seek information and search for replacements for meat based on rationality (Schösler, Boer, & Boersem, 2012). In the study of vegetarian consumption, Cherry (2006) points out the importance of supportive networks to becoming vegetarian. The participants in her study described the importance of knowing other vegetarians within social networks. They claimed the feeling of closeness and connection is built once meeting other vegetarians on Social Networks. More importantly, the majority of vegetarians in her study described their connections to other vegetarians as the primary motivation to keep this diet. Research also suggests that studying social networks and vegetarian food choice is necessary to help discover more about vegetarian practices (Cherry, 2015).

The present study extends existing consumption studies of vegetarianism that link to social networking and further compares the effects of different messages on consumer attitudes towards vegetarian products and brands.

1.2 Social media communication and social networks

The expansion of Web 2.0 and social networking sites has had an enormous impact on the way businesses conduct marketing, leading to a lot of attention in this research area. Social networking sites are defined as directly affecting interpersonal communication and cooperation (Assaad & Gómez, 2011). Neti (2015) defined social networking sites as Internet-based communication platforms based on interpersonal interaction and information sharing. Barger, James, and Don (2016) describe social networking sites as platforms that allow users to share their emotions, content and experiences with others. Some popular social media tools include Facebook, Snapchat, Tik Tok, Instagram, YouTube, WhatsApp, Twitter, etc., which are all experiencing increasing usage. Facebook has the greatest number of active users at 2.603 billion, followed by YouTube (2 billion) and WhatsApp (2 billion) worldwide (Statista, 2019). As social media sites keep increasing in number, they have become an open resource where people can seek information from others.

Social media sites create interactive platforms for consumers to communicate and exchange product-related information with other consumers (Martín-Consuegra et al., 2019). People no longer receive advertisements and information from brands passively; they now actively participate in the communication around products. Some consumers view social media platforms as places where they can help others make their decisions when buying goods. They create social media content to exchange

their thoughts with other online consumers as a form of user-generated content (Kim, Jin, Kim, & Shin, 2012). Research has shown that social media sites are an effective tool to influence consumer decision-making and product evaluation. Arora's (2015) research suggests that most of the social media message recipients consider content generated by other users (UGC) to be a reliable source and admit it changes their decision-making around buying products. More research has shown that social media content from other users directly affects brand attitude and further enhances consumer purchase intention (Abzari, Ghassemi & Vosta, 2014).

Social media has not only changed the way consumers receive product information but also changed the way brands communicate with their customers (Bianchi & Andrews, 2015). It allows companies to communicate with their consumers intensively and personally in ways that align with organisational goals and images. Research has suggested that social media offers a cost-effective advertisement platform through which to access consumers, and therefore increasing numbers of brands are utilising social media to communicate with their prospective consumers (Neti, 2015). The interactive nature of social media benefits the brands by creating relationships with consumers. Therefore brand-generated content (BGC) on social media platforms has become a new way for firms to communicate with their consumers with real-time information.

A study by Ang (2011) investigated social media's effects on consumer relationship management, finding that social media outperformed other media because of its quick

nature. Consumers are accessing the latest information about a new brand, product, or a discount and are likely to share the latest updates with others; the information being shared encourages more sharing and replying to brand posts, thus creating closer relationships between consumers and brands. More studies on branded content have shown that social media content affects consumer purchase intention (Müller & Christandl, 2019; Colicev, Kumar, & O'Connor, 2019). The emergence of Facebook changes the way customers interact with each other and with brands. In particular, social media's interactive properties have allowed consumers to actively participate in any conversations regarding the brand, allowing brands to advertise to consumers (Dolan et al., 2017).

Therefore, it is understood that both brands and consumers create content that could influence consumer behavioural intention through content effects on social networks. Thus, comparing the effectiveness of two types of content: brand-generated content (BGC) and user-generated content (UGC) is of interest in this paper.

1.3 Overview and research question

The purpose of this study was to propose theoretical and empirical findings to understand the marketing communication effectiveness of different social media content characteristics in the vegetarian industry. With the designed BGC and UGC messages, we fulfill this paper's primary objective: to compare and contrast different message characteristics of brand and consumer-generated content and to study their effects on consumer attitude and purchase intention of vegetarian brands. The

concepts of brand authenticity, source credibility, consumer involvement and content authenticity have been introduced into the social media context to form the hypothesis.

Since there are mixed findings about the effects of different message characteristics on consumer communication outcome, the following research question (RQ) was posed:

1. What differences can be found between brand-generated content and user-generated content in communication outcomes?
2. What are the main effects of emotional/rational message manipulations on both brand-generated content and user-generated content?
3. What are the effects of intervening variables (brand authenticity, content authenticity, source credibility) and control variable (consumer involvement) on consumer brand attitude and purchase intention?

A more detailed discussion on formation of research questions will be discussed in the following chapter.

2. LITERATURE REVIEW

The review of literature is structured as follows. First, this study presents the definition of brand-generated content and user-generated content based on social media communication and marketing literature. Second, we discuss rational and emotional message types and their effects. Third, we present the review of studies on message characteristics as independent variables of social media communication outcome: consumer perceived brand authenticity, perceived content authenticity, and source credibility. The consideration of authenticity and credibility mainly built on the research by Batra and Keller (2016). The researchers suggest that for brands aiming to change consumer's value, visual cues could be delivered through authentic messages. And the perceived credibility was another factor of a message persuasiveness and consumers acceptance of brand message. Based on this study, this paper aims to test and explore whether a mixed of perceived authenticity and credibility characteristics in social media content will be seen as being more persuasive. The current study addressed the potential of these characteristics and to form a demonstration empirically.

Fourth, we investigated the importance of consumer involvement as control variables. In the varieties of social media communication studies, this current paper identifies the importance of consumer involvement on message efficiency. Different message strategies should be applied for consumers with different level of involvement in their message adopting process (Park and Lee, 2008). Finally, we propose an outcome of social media communication based on brand attitude and purchase intention. We then

conclude the literature review by discussing the research gaps and forming the research questions.

2.1 Brand-generated content and User-generated content

2.1.1 Brand-generated content

The messages businesses deliver through various media platforms are often referred to as brand-generated content (BGC) (Kumar et al., 2016). This type of content contains brand-related information, which could be an advertisement, product information, brand information, or promotional deals (Chen, Kim, & Lin, 2015; De Vires, Gensler, & Leeftang, 2012). The study of the different BGC communication covers several areas, all suggesting a persuasive effect of BGC on consumer behavioural intention or attitude. Brand-generated messages include traditional advertisement content (Mitchell & Olson, 1981; Gardner, 1985), online advertising content (Barnes, 2002; Mabry & Porter, 2010), mobile advertising content (Izquierdo-Yusta, Olarte-Pascual, & Reinares-Lara, 2015), and social media content (Schivinski & Dabrowski, 2016; Colicev et al., 2019; Goh, Heng, & Lin, 2013, Batra & Keller, 2016). The study of traditional advertising content suggests that the advertisement's positive valence produces a significant effect on attitude, belief, and consumer purchase intention (Mitchell & Olson, 1981). The perceived information usefulness in mobile advertising content positively enhances consumer intention to adopt the message and enhances consumer attitude towards the advertisement (Zhang & Mao, 2008). Regarding email content, Chiu, Hsieh, and Gao (2007) aimed their

research at finding the predictors of online word-of-mouth behaviour. They conducted a 2X2 experimental research on 240 Taiwanese students in which message source (friends or brands) and content type (informative or hedonic) were tested for their effects on behavioural intention. The findings suggest both highly informative and high hedonic content had a significant impact on consumer online word-of-mouth intention. The research also found content from friends was more effective than content from brands.

Social media offers a platform for marketers to communicate with consumers in real-time and is now a popular trend in BGC messaging. (Martín-Consuegra et al., 2019). It has become more common for brands to post brand or product-related information in real-time social media posts, which suggests social media brand content is the brand's essential marketing tool that has a commercial and persuasive intention (Alves, Fernandes, & Raposo, 2016; Hays, Page, & Buhalis, 2013). It attracts lots of attention from researchers who aim to measure the effectiveness of social media-based BGC.

There have been studies of brand-generated content on various social media platforms, including Twitter (Hays, Page, & Buhalis, 2013; Coyle James, Smith, & Platt, 2012; Leung, Bai, & Stahura, 2015; Bulearca & Bulearca, 2010), YouTube (Kim, 2012; Wu, 2016), Instagram (Virtanen, Björk, & Sjöström, 2017; Salmalina, Hashima, & Murphy, 2015; Sagala and Rachmawati, 2016), My space (Mabry & Porter, 2010), and Facebook (Ashley and Tuten, 2015; Schivinski & Dabrowski, 2016; Colicev et al.,

2019; Goh, Heng, & Lin, 2013; Chandrasekaran, Annamalai, & De, 2019; Chen, Kim, & Lin, 2015; De Vries, Gensler, and Leeftang, 2012).

Both content analysis research (Leung, Bai, & Stahura, 2015) and interview research (Bulearca & Bulearca, 2010) have been utilized to find Twitter's potential as a persuasive messaging tool for marketers. The results show that Twitter is more efficient in delivering real-time informative content such as the latest product information but is considered less interactive than Facebook. Research has implied that Twitter is a fast and immediate media, which very often requires brands to stay online, or else it would not be possible to actively engage with consumers. However, the privacy settings mean brands are unable to reach consumers widely, which means it is relatively hard to measure and manage the outcome of communication on Twitter.

As the second-largest social media platform, YouTube provides brands with the opportunity to advertise products through sponsorship and endorsement. It helps brands reach targeted consumer demographics for personalized recommendation videos (Wu, 2016). Xiao, Wang, and Chan-Olmsted (2018) found branded YouTube videos to be effective in enhancing brand perception. Their survey on viewers of more than 300 branded videos found a positive relationship between credibility and brand attitude in YouTube branded content, suggesting that marketers evaluate and ensure the brand's trustworthiness and credibility when creating video content.

Some studies examine the effects of Instagram branded content on brand perception and purchase intention in different studies. Sagala and Rachmawati (2016) examined the impact of BGC on purchase intention with questionnaires targeting college students. However, their results indicated that branded Instagram content types such as endorsement and bio did not significantly affect consumer purchase intention.

The biggest social media platform, Facebook, has the most amount of active global users at 2.603 billion, followed by YouTube (2 billion) and WhatsApp (2 billion) worldwide (Statista, 2019). As the most commonly used of the social media networks, Facebook has attracted the interest of most researchers. Facebook carries persuasive content that is intended to change consumer perceptions and actions. Most studies have measured the persuasive effect of BGC social media content along several dimensions:

1. Intention to share the content (Ashley and Tuten, 2015; Schulze, Schöler, & Skiera, 2014)
2. Attitude towards the content (Chen, Kim, & Lin, 2015; Leung, Bai, & Stahura, 2015)
3. Purchase intention towards the brand product (Colicev et al., 2019; Goh, Heng, & Lin, 2013; Mabry & Porter, 2013; Sagala and Rachmawati, 2016; Lee & Hong, 2016)
4. Intention to like and comment (De Vries, Gensler, and Leeftang, 2012; Chandrasekaran, Annamalai, & De, 2019)
5. Intention to adopt the message (Zhang & Mao, 2008)

6. Brand equity (Estrella-Ramón et al., 2019)
7. The indirect effect on brand attitude through credibility (Xiao, Wang, and Chan-Olmsted, 2018)
8. Offline purchase (Yang et al., 2019).

Most studies focusing on Facebook are researching the direct impact of the message on purchase intention (Colicev et al., 2019; Goh et al., 2013; Mabry & Porter, 2013; Sagala & Rachmawati, 2016; Lee & Hong, 2016), followed by the intention to share the content (Ashley & Tuten, 2015; Schulze et al., 2014), and intention to like and comment on brand-generated Facebook content (De Vries et al., 2012; Chandrasekaran et al., 2019). There is less research investigating the direct impact of brand-generated content on consumer brand attitude (Colicev et al., 2019). The findings suggest the importance of considering brand attitude when studying the content effect; yet, few existing studies have compared the content factors that directly affect consumer brand attitude, considering only the indirect effect on brand attitude (Chen, Kim, & Lin, 2015).

Therefore, this current paper aims to build a model that links brand-generated content to brand attitude with the consideration of various content characteristics.

2.1.2 User-generated content

While brand-generated content (BGC) gives marketers full control of the message, the development of online platforms is allowing consumers to generate their own content and conversations. User-generated content is considered a gathering of fact and

opinion, impression, experiences, and even rumours regarding the brands from end-users of the products (Lim, Chung, & Weaver, 2012, *p. 199*). Brand-related user-generated content (UGC) may contain persuasive elements but is not focused on creating sales; instead, it is a consumer's subjective expression of product experience, at times directed at persuading other consumers (Ertimur & Gilly, 2012). UGC can feature positive or negative statements from former, potential or current consumers about a brand or product and is available to other users and consumers through the Internet (Doh & Hwang, 2009).

There are varying forms of UGC such as online product reviews (Choi & Lee, 2017; Zhu & Zhang, 2010); videos of brand experience (Lim, Chung, & Weaver, 2012); social media content (Scholz et al., 2018; Kim & Johnson, 2016; Stieglitz & Dang-Xuan, 2013; Schivinski & Dabrowski, 2016); online recommendations (Kim et al., 2012) and electronic word-of-mouth (Cheung & Thadani, 2012; Kudeshia & Kumar, 2017.).

The research on UGC has measured the persuasive outcomes considering several dimensions:

1. Brand equity (Schivinski & Dabrowski, 2016; Estrella-Ramon et al., 2019;
2. Brand attitude (Schivinski & Dabrowski, 2016; Kudeshia & Kumar, 2017; Wu & Wang, 2011)
3. Purchase intention (Kim & Johnson, 2016; Doh & Hwang, 2009; Kudeshia & Kumar, 2017; Park & Lee, 2008)
4. Brand engagement (Rosado-Pinto, Loureiro, & Bilro, 2020)

5. Content adaption (Kim et al., 2012; Cheung & Thadani, 2012)
6. Message resend (Stieglitz & Dang-Xuan, 2013).

Attitude and purchase intention are the most investigated response variables in UGC communication studies (Cheung & Thadani, 2012). These researchers suggest UGC continuously and significantly affects other consumers' attitudes and purchase intentions through online content. Kudeshia and Kumar (2017) found a significant relationship between positive UGC and brand attitude and purchase intention in the 325 questionnaires they collected from Facebook. The researchers have shown that as long as the UGC valence is positive, the brand attitude and purchase intention of message receivers increased. Schivinski and Dabrowski (2016) also gave information on how branded social media communication affects consumer purchase intention. They gave participants branded content from various brand fan pages they were following on Facebook. Their finding indicates the positive effect of user content on purchase intention was mediated by brand attitude. Among several types of user content, the persuasive effect is found strongest in the beverage brand. The various studies all suggest the importance of UGC on consumer brand attitude.

Within identified research, the impact of various content characteristics that affect UGC's persuasiveness have been tested, as with BGC, and the factors include emotional or rational assessed content. This is due to the fact that studies have long been discussing how emotional (affective, hedonic) and rational (informative, utilitarian) content affect the persuasive effect of message content.

2.2 Message type effects

2.2.1 Emotional brand-generated content

The study of components of advertisements generated by brands has long been in the discussion of marketing restudy their marketing studies. Percy & Rossiter (1992) suggest it is critical for brand-generated advertising to contain emotional components in order to generate a sense of authenticity in the execution of the advertising. They further suggest this strategy is more important in low-involvement conditions when positive emotion is associated with the brand.

The brand-generated emotional messages are designed by marketers to form affective arousal in the audience through content that contains feeling and offers hedonic value (Lee & Hong, 2016). According to Lee & Hong, emotional BGC can be either negative (e.g. fear appeals, sad) or, more commonly, heighten positive feelings (e.g. happiness, love). Researchers suggest that emotional-related BGC has a more significant positive effect on consumer recommendations than an attribute or rational-related BGC (Gopinath, Thomas, & Krishnamurthi, 2014). Gopinath et al. (2014) have samely suggested a significantly positive relationship between emotional BGC on consumer recommendation and increasing business sales.

Even for brand-generated advertising using an informational component, consumers still perceive a somewhat emotional effect, which positively enhances brand attitude.

This suggests that viewers of advertisements are highly influenced by their feelings and emotions while viewing brand message (Yoo & MacInnis, 2005).

In advertising research, several studies have found emotional contents to be superior in effecting the formation of behavioural intention towards a brand than informational contents. Research by Lwin and Phau (2013) collected 320 questionnaires based on attitudes of young consumers to the context of boutique hotels. The researchers found a significant difference in consumer attitude towards the hotel website between brand content with rational cues and emotional cues; the emotional surpassed rational content. It also found that rational BGC does not lead to purchase intention, while advertisements with emotional cues do lead to it.

Chen, Kim, & Lin (2015) studied the indirect impacts of affective and cognitive elaboration of BGC views on social media on consumer attitudes towards the content. The study adopted a 2 (brand/consumer) X2 (hedonic/utilitarian) experimental design with fictitious posts provided to the participants. The results showed that affective components had a more significant indirect effect on attitudes toward the content than cognitive components. The researchers suggested that marketers should apply the messages design of BGC with emotional components. Thus, emotional BGC is considered an essential factor in influencing consumer attitude, when consumers are exposed to positive emotional expression in social media contexts, it could become the basis of their favourable feelings towards brands. This present study is going with the basis of emotional effects on brand attitude and purchase intention – particularly when involvement is considered messages work or not.

2.2.2 Rational brand-generated content

With various studies suggesting emotional BGC surpass rational BGC in terms of persuasiveness on purchase intention, Zhang et al. (2013) indicate that emotional messages lead to higher purchase intention than rational message for hedonic consumption such as dining. Andreu et al., (2015) defined the rational brand-generated content as the content present the facts related to the brand directly. Rational messages in BGC also focuses on the logical and rational information evaluative processes and provide detailed product attributes that allow consumers to process the message rationally (Gopinath, Thomas, & Krishnamurthi, 2014).

Some of the research suggests that informative BGC is not significant in persuading consumers. Goh, Heng, & Lin (2013) examined the effect of the message source (brand vs user) and content characteristics (informative vs persuasive) on consumer purchase intention. They applied a text-mining method on an existing clothing brand's Facebook pages. The research found persuasive brand content positively affects consumer purchase intention, yet not for informative BGC. Moreover, consumers were found in favour of the richness of brand information only in UGC but not BGC. De Vries, Gensler, and Leeflang (2012) explored the drivers of brand post popularity (measured by comment and like) of Facebook sites. They applied the content analysis method on 11 international brands (including beverages, foods and phones) with 355 brand posts. The results showed that vividness, interactivity and valence of the comment positively affect the popularity of Facebook posts. It is also

suggested that informative brand posts were not significantly related to brand popularity.

In contrast, another stream of studies suggests functional BGC persuades consumers effectively, but only with functional product types. When products or brands are linked more closely to rational and cognitive aspects, both emotional and aesthetic elements are less effective in influencing consumer brand attitudes than when the message does not contain such elements (Park & Young, 1983). An empirical study on BGC found problem-solving (rational) messages increase consumer perception of the brand to be helpful, hence indirectly increases positive brand attitude, and this effect was not found in an empathetic (emotional) messages (Coyle James, Smith, & Platt, 2012). The researchers argue that the different effectiveness of the message is due to product type and message type congruity; utilitarian products reach consumers with positive functional values; therefore, functional BGC would be more persuasive. Research also reveals more believable and informative brand-generated advertising content is positively linked to higher likeability towards brands for consumers. However, firms might need to ensure they keep rational content interesting enough to attract consumers (Danbury & Mortimer, 2011).

As the research on the brand advertisement has suggested, the place delivering the advertisement and product type heavily affect the persuasiveness of rational cues. For vegetarian products as new research areas, it would be interesting to find if there is any contrasting finding from previous literature. Ashley and Tuten (2015) performed

a content analysis on 446 Facebook brand pages in order to study the impacts of BGC on consumer intention to share the content. The coders in the research distinguished all of the posts into emotional and functional valence. The results indicate that in accordance with the elaboration likelihood model, an emotional BGC is suitable for low involvement consumers, and a functional message is more suitable for high involvement consumers. Ashley and Tuten (2015) indicated that although most of the brands researched in their study apply functional message strategies such as deals and information regarding their social media marketing strategies, there are limited studies on outcomes. Our study plans to build on Ashley and Tuten's (2015) research on brand social media content and expand understanding of the creative strategy (rational and emotional) on brand outcomes and communication consequences. Since studying vegetarian food consumption is a product type yet to be tested and examined, it is interesting to determine whether emotional messages outperform rational BGC, indirectly affecting consumer brand attitude and purchase intention (Coursaris et al., 2015).

2.2.3 Emotional user-generated content

Emotional user-generated content is linked to consumer affection through happiness and often contains food with product images, or it could merely be the expression of consumer love for a product (Ertimur & Gilly, 2012). Research has shown that user-generated emotional posts form certain impacts on other consumers, especially significantly in affecting information and message diffusion on social media platforms. This is due to emotions being contagious, with the messages affecting

consumers' behaviour and often going viral (Stieglitz & Dang-Xuan, 2013). Because the message receiver experiences a similar emotion in the content from the message receiver, it leads to the sharing of the message and change of emotions (Li, Chong, & Ch'ng, 2015). Stieglitz & Dang-Xuan (2013) applied a sentiment analysis in their research on a total of over 250,000 tweets. The findings suggested that affective dimensions (either positive or negative valence) of consumer-generated Twitter messages are significantly associated with retweet behaviours.

It is also stated that perceived emotional values in UGC significantly and positively affect the adoption of UGC (Kim et al., 2012). Their analysis of 259 questionnaires suggested that when the consumers think UGC is emotional, interesting and fun, they tend to reuse it or send it to others on UGC platforms. Emotional components are therefore considered essential parts of consumer message adoption of UGC. It will be interesting to test if the emotional setting of UGC significantly affects consumer brand attitude as well, as few existing studies have considered this communication outcome.

2.2.4 Rational user-generated content

Rational (attribute-based) consumer reviews are perceived as more informative than emotional (simple recommendation) reviews, and further lead to higher purchase intentions of high involvement consumers (Park & Lee, 2008).

Research on user-created eWOM messages suggests that rational messages, which give more information on product attributes, effectively influence consumer behaviour (Wu & Wang, 2011). In their quantitative research, Wu and Wang (2011)

have concluded that positive rational messages lead to positive brand attitudes more effectively than emotional messages, and further, this leads to greater consumer purchase intention. This is because rational messages include more detailed product-related information, which fosters more cognitive thinking by consumers about the products and reduces their perceived risk, increasing their willingness to buy branded products.

In research by Kim and Johnson (2016), 533 questionnaires were collected, which used Facebook pages as stimuli of emotional and cognitive response. The researchers adopted arousal and pleasure to measure emotionally oriented responses and perceived information quality to measure cognitive oriented responses. The findings suggest that both emotional and cognitive processing of UGC positively increases purchase intention and information sharing intention.

Park and Lee (2008) employed an experimental design in their research to compare rational UGC (product attribute review) to emotional UGC (simple recommendation), considering the moderating role of consumer involvement on purchase intention. The context is electronic word-of-mouth consumer reviews. The findings suggested rational UGC can be more effective in influencing purchase intention for high-involvement consumers and emotional content more persuasive for low-involvement consumers. Following the research by Park and Lee, this current study compares the persuasiveness of emotional and rational UGC on consumer brand attitude with consideration of low and high consumer involvement. The study suggests a mediating role of brand attitude, proposing that purchase intention is

enhanced through brand attitude.

2.3 Message characteristic effects: brand authenticity, content authenticity, source credibility

Besides rational and emotional message types that affect brand and consumer message persuasiveness, consumer perceived authenticity and source credibility are other message factors considered by researchers. Batra and Keller (2016) provide a thorough review of the literature regarding the antecedents, various social media platforms, consumer characteristics, and their effects on communication outcomes. They emphasised the importance of studying the variables of various types of Facebook posts. Their findings suggested that even when consumers receive the persuasive message, there might not be sufficient proof to motivate them to purchase the brand. They highlighted the importance of source credibility and perceived authenticity in the message content. They further suggested that communications from a brand using social media platforms should enhance trust and confidence in the brand with credible information. Credible information helps build a sense of trust and confidence in the provider of the message and the brand behind the message. As for brands aiming to change consumers' values, identities, and actions, communications require the utilisation of cultural and symbolic cues — delivered through “authentic” messages. It is indicated that expertise and credibility facilitate consumer acceptance of the brand message. At the same time, message authenticity activates brand trust,

which leads to successful persuasion of consumer behavioural intention. (Batra & Keller, 2016).

Therefore, besides considering the emotional and rational components of BGC, this study expands Batra and Keller's study by exploring the authenticity and credibility of social media content and their effect on consumer attitude formation. Although the definitions and suggestions are useful in their study, it can be worth testing if these characteristics would act as significant factors in effecting the persuasiveness of message. Based on their study, this present paper further discussed consumer perceived brand authenticity and content authenticity separately since we found various studies have distinguished the two concepts. Following by that, this study provides a review of existing literature around source credibility and its impact on communication outcome.

2.3.1 Brand authenticity

The word authenticity derives from the ancient Greek word *authentikos*, meaning trustworthy (Guignon, 1984). Authenticity in psychology research is defined as “being true to oneself”. Authenticity does not come from external factors but is considered the reflection of one’s desire and beliefs (Assiouras et al., 2014). The incongruity between a person’s inner self and their outer expression would result in depressive symptoms due to lack of subjective authenticity (English & John, 2013). A number of existing tourism researchers discuss authenticity as an essential part of the tourist’s experience (Wang, 1999; Lu et al., 2015), with existential authenticity

being discussed the most. It is defined as a “true and original” feeling activated in the tourism experience. It could be created through a tour with a sense of historical setting and connection to traditional cultures with a place or a service brand (Beverland et al., 2008). Consumers consider the positive personal experiences and subjective feelings generated in tourism activities to create existential authenticity, which serves as an important factor when choosing the destination for a trip.

Authenticity has become an increasingly discussed topic in marketing research because of its impact on message communication effectiveness and consumer decision-making process. In reviewing the literature, this current study found most of the marketing research on authenticity cited the book of Gilmore & Pine (2007)

Authenticity: What Consumers Really Want. The researchers took the consumer's perspective to rethink what really is “true” in our daily lives and stated that most the information about products that are controlled, commercialised and not authentic.

They pointed out the importance of studying how a brand can be perceived to be authentic: being natural, staying honest, and having its own original business process. This would result in a consumer's positive response to brand perceptions. The current study builds on Gilmore & Pine's (2007) suggestion, investigating whether brands can be seen as natural and original through social media content.

Further research defines brand authenticity as a brand having “genuine, true, real, and original” characteristics (Lee & Chung, 2019). In qualitative research by Bruhn et al. (2012), it is suggested that brand authenticity consists of four main aspects: originality, reliability, continuity, and naturalness. In order to achieve consumer perceived brand

authenticity, businesses need to ensure they are creative and original, providing reliable and trustworthy services and products, keeping their business promises in each channel of communication, and staying natural and genuine. Jang, Ha, and Park (2012) researched the perceived authenticity of a Korean restaurant brand and its effect on purchase intention. They collected 3,491 samples of questionnaires from non-Korean Americans. The research indicated that perceived food brand authenticity elicited positive emotions, which further led to enhanced purchase intention. This suggests authenticity is an essential factor throughout the consumer dining experience with the brand. While this current paper focused on the context of the vegetarian food brand, it would follow this research and test to see if the perceived authenticity of a food brand will be persuasive to consumers in a different context.

2.3.1.1 Brand authenticity in brand-generated content

Consumer-perceived brand authenticity in brand-generated content exists in various contexts: the authenticity of a brand in traditional advertising (Guèvremont & Grohmann, 2015), the authenticity of influencer and celebrity brand on social media (Audrezet, de Kerviler, and Moulard, 2020), and the authenticity of a brand on social media (Kowalczyk and Pounders, 2016). In the first stream of studies on perceived brand authenticity in traditional advertising settings, researchers describe an authentic brand to be dependable, reliable, truly care for its consumers, and helping consumers to construct their self-identity and self-expression (Guèvremont & Grohmann, 2015). Interview research by Serazio (2017) focused on the advertisement of American

political brands, where findings suggest that political brand authenticity is often linked to emotions instead of rationality, and it is these emotions that often lead to citizen behavioural intention. The researcher brought up the importance of political brand needing to be “real” and “in-person” in order to create emotional connections with their supporters.

Beverland (2008), in his tourism study, provides thorough literature reviews with the aim of finding the factors that create brand authenticity. In tourism, perceived brand authenticity can be suggested through visual cues. Such cues include a historical and traditional setting of pictures on the advertisements and online travelling related content. It is also suggested that in order to create brand authenticity, the advertisement should be simple and clear in its product statement.

The second stream of branded influencers and celebrity brand authenticity focuses on the interpersonal relationship between the content receiver and the commercialised influencer content. The research found brand-sponsored celebrity content is considered to be genuine when the celebrity brand behaves according to brand promise and values (Kowalczyk & Pounders, 2016). Kowalczyk and Pounders (2016) undertook a pilot study in their research on 20 informants. The study found that celebrity brand content with perceived brand authenticity enhances consumers' emotional attachment, which further raises consumer purchase intention. The study highlights the importance of brand authenticity in celebrity brand content, suggesting perceived brand authenticity to be an important factor in social media communication.

In the third stream of studies into consumer perceived brand authenticity in social media, Audrezet, de Kerviler, and Moulard (2020) suggest that the formation of brand authenticity in social media content features both fact-based informational and personal experience with the brand. Their content analysis research suggests that both emotional BGC (passion and desire) and rational BGC (trustworthy information) form consumer perceived brand authenticity. Posts containing these two components could signal a sense of brand authenticity from the message.

Although studies in the social media context have determined the probable formation of brand authenticity (Reinecke & Trepte, 2014), limited research has studied how brand authenticity affects consumer brand attitude as a communication outcome in social media marketing research. Since Audrezet, de Kerviler, and Moulard (2020) are suggesting two types of content generate perceived brand authenticity differently; it would be interesting to compare the message persuasiveness in both emotional and rational BGC.

2.3.1.2 Brand authenticity in user-generated content

Consumer perceived brand authenticity in user-generated content has been considered to be directly and positively linked to consumer behaviour due to the congruity of

brand identity and consumer self-identity. This led to increased brand trust and perceived brand authenticity and further affects purchase behaviour (Arnhold, 2010). Other research further indicates that in user-generated content, brand authenticity exists when consumers consider a brand mentioned in the content to be sincere, therefore enhancing consumer's brand trust towards the brand (Arya et al., 2019). Arya et al. (2019) propose a model that links brand authenticity in UGC to consumer brand attachment and purchase intention, thereby contributing to the theoretical understanding of brand authenticity in communication studies. Answers to an online questionnaire sent to 361 participants on social network sites were collected based on the NIKE online brand community. The findings presented a positive relationship between perceived brand authenticity and brand attachment, further enhance purchase intention. The findings also revealed that when consumer engagement is higher within a brand community, the moderation effect on purchase intention increases.

The research of Rosado-Pinto, Loureiro, & Bilro (2020) suggests there are limited studies into the effect of brand authenticity in a social media context, especially user-generated media content. The researchers created their research on the social media platform Yelp for the restaurant sector. The method was based on text mining of 3,877 user-generated reviews. The findings suggest the reviews that led to consumer brand engagement were most commonly found in the reviews that brought up brand love, brand authenticity, and consumer need for uniqueness, with this content often having effective features. Following the research, they suggest only limited studies on brand authenticity have been conducted in UGC. This current paper

plans to build on the social media context to study the impacts of affective (emotional) UGC impact on consumer perceived brand authenticity and further compares effective components to rational components. Additionally, this study proposes effects on brand attitude as an outcome of communication.

Besides perceived brand authenticity, content authenticity has also been found to affect consumer perceptions towards the message creators and the brand. In past studies, consumer-generated content is considered to have greater content authenticity than a brand-created message. The content created by other consumers is perceived as more “true to self” than commercial content (Beverland et al., 2008). Some studies also argue that content authenticity is created in brand-generated content when the viewers perceive the content to be true to itself (Ertimur and Gilly, 2012); this literature review will discuss the effect of perceived content authenticity in both brand and user-generated content.

2.3.2 Content authenticity

Content authenticity is defined as content perceived to be genuine and true to the content receivers (Beverland et al., 2008). The term content authenticity is a rather new term. Content authenticity in social media had not been discussed before the apparent rise in the number of social network users in 2009 (Pronschinske, Groza, and Walker, 2012). After Facebook launched in 2004, it allowed both brands and users to create posts and pages in their own interest. By 2020, Facebook had more than 2.6

billion active users. An increasing number of marketers and consumers generate their own and genuine content on Facebook. A study by Pronschinske et al. (2012) suggested that brands embrace more fans on Facebook brand pages when they embed authenticity factors in the content. Note the importance of content authenticity, therefore, in building a relationship with consumers.

2.3.2.1 Content authenticity in brand-generated content

Brand-generated reviews are defined as fictitious opinions that have been purposefully written by brands to sound authentic (Beverland & Farrelly, 2009). The writing style of this type of content is considered by consumers to be promotional, commercial and less authentic than non-sponsored consumer content (Beverland & Farrelly, 2009). Henderson and Bowley (2010) defined perceived authenticity in the brand-created advertising as dialogue that stays honest and supports the truth. The researcher further suggests more research is needed into brand content authenticity in an organisation's social media communication with consumers. Percy & Rossiter (1992) suggest it is critical for effective brand-generated advertising to contain emotional components that create consumer perceived authenticity towards the content in the execution of the advertising. They further suggest that this strategy is more important, especially in low-involvement conditions, when positive emotion is associated with the brand. Most studies link content authenticity with emotional components such as feeling creative and emotional attachment; few have examined the relationship between perceived content authenticity and rational components. In

the discussion of content authenticity in BGC, this study will examine the rational components of the message and compare its persuasiveness with an emotional message.

2.3.2.2 Content authenticity in user-generated content

In the discussion of consumer perceived authenticity in brand-generated content, Ertimur and Gilly (2012) conducted an in-depth interview of 14 consumers to compare the perceived authenticity in BGC and UGC. The in-depth interviews suggest UGC is considered as having more content authenticity and perceived credibility than BGC. Their findings also suggest higher perceived content authenticity in UGC than BGC. The researchers further indicate that while brand-generated advertisements try to communicate authenticity, little is known about how consumers respond to content authenticity. This current research wishes to test the effect of content authenticity on consumer reaction in both BGC and UGC as researchers suggest there is limited research in this area.

Wise and Farzin (2018) studied perceived authenticity in the tourism sector of UGC with the content analysis method. The study analysed 200 posts on Facebook and suggested the content most perceived as authentic embraced the factors of culture, tradition, and food. All of the content includes an image in the setting.

The researchers suggested the perceived authenticity of the content must involve the personal subjective expression of a consumer based on their consumption experience with the brand. The experience includes personal interaction and actual encounters

that consumers have had with the brand, which served as cues of content authenticity to other users (Beverland et al., 2008). As UGC is considered to lack an economical drive, the content is seen as an authentic expression of consumer opinions about products. This type of content's writing style is a consumer-spoken style, with pictures created by the consumer (Filieri, 2016). In tourism studies, perceived authenticity in consumer-generated reviews is defined as if the travellers consider the experience described in the content to be a "real" experience (Kim & Kim, 2019). Kim and Kim aimed their research to demonstrate the importance of perceived authenticity in consumer-generated reviews. The study recruited 1200 participants from 15 online travel agents to complete the questionnaires. The findings show that perceived content authenticity in UGC significantly affects consumer cognitive and affective trust, further increasing behavioural intention in favour of the reviews, and travelling to the destination. With limited research on content authenticity in UGC, this study plans to test the effect of how this type of content can form content authenticity and the communication outcome of it.

2.3.3 Source credibility

Source credibility can be defined as the perceived capability of providing accurate content (expertise) and believable and truthful information to message receivers (trustworthiness)(Cheung & Thadani, 2012; Lim et al., 2017). In Bahtara and Muda's research (2016), they defined source credibility as positive traits of content generators that persuade the message receiver to consider the information to be correct and

accept it. In social media communication research, source credibility is defined as the extent to which message receivers consider the source to have knowledge, skills or objective point of view (Belch & Belch, 2003). Source credibility also refers to the extent to which the source of the message is perceived as a credible means of product and brand-related information in marketing research (Chakraborty & Bhat, 2018).

2.3.3.1 Source credibility in brand-generated content

Advertising messages that are considered believable and truthful are created by an expert source and are perceived as more credible (Mills and Jellison, 1967). Source credibility of the product and brand-related content refers to the extent to which the content source can be trusted to give an objective opinion of the product (Shan, 2016). It's been decades since the discussion of source credibility effects on message persuasiveness started in marketing research. Studies suggest that source credibility in brand advertising is associated with greater persuasiveness and leads to better brand perception (Friedman & Friedman, 1979). Friedman and Friedman obtained the result that higher source credibility results in better company attitudes compared to lower source credibility (1979).

Later social media studies have also pointed out the important persuasiveness of source credibility in affecting consumer behavioural intention and consumer attitude.

Xiao, Wang, and Chan-Olmsted (2018) collected 309 surveys from a group of viewers of a certain YouTube video. The study aims to investigate how credible YouTube influencers were perceived to be and what the outcome of social media

communication was. The findings revealed perceived source credibility positively correlates with the attitude towards the product mentioned in the branded video. Consumers' involvement was also positively correlated with perceived source credibility (Xiao et al., 2018).

Colicev et al., (2019) investigated the impacts of message source (brand vs consumer) and posted valence (positivity, vividness) on consumer brand awareness, purchase intent and satisfaction within social media context. They used a content analysis method on 19 international brands and measured the variables using a text-mining system. The research found that vivid brand content has positive relationships with consumer brand consideration and purchase intention, and this positive relationship is moderated by source credibility. The findings suggest that as message receivers pay attention to the source of the message, it is essential to ensure the brand has higher credibility to enhance consumer's intention to purchase.

Irelli & Chaerudin (2020) further examined in their empirical study that high source credibility in BGC leads to more interest from consumers, more positive attitudes towards the brand, and leads to heighten of purchase intention. Researchers suggest that marketers create a sense of credibility by providing original and detailed information about the product to reduce consumer-perceived risk.

Based on the literature, it is suggested that source credibility has a significant relationship with purchase intention and brand attitude, and involvement plays an important role in the relationship.

Yoo & MacLnnis (2005) further examined the effect of advertisements with a separate discussion on emotional and rational content. They applied an experimental design for emotional and rational brand content. The questionnaire responses from 202 students revealed that in both emotional and rational BGC conditions, source credibility enhances message receivers' positive feelings and, in turn, positively affects brand attitude. The finding is especially interesting for indicating that source credibility in both emotional and rational condition execution positively enhances consumer brand attitude. This study follows the research by examining the effect of source credibility on the brand attitude of emotional and rational content execution, and it expands the context from traditional advertisements to social media brand content.

2.3.3.2 Source credibility in user-generated content

Source credibility in user-generated content appears when the message receivers consider that consumers who create messages are experts with experience and knowledge of the products (Owusu et al., 2014).

Filieri (2016) suggested the importance of source credibility in user-generated content processing. He tested the effect of various factors on the persuasion of consumer-generated reviews based on the largest user-generated online tourism website, TripAdvisor.com. The study used an interview survey in order to explore the detailed processing of the message by consumers. His findings reveal that consumers considered the source credibility of user-generated reviews to be a significant factor

when processing the message. The perceived source credibility is based on the content quality and writing style of the message. In order to be credible, a specific and precise writing style is necessary. Factual, detailed, and relevant information is essential factors in content.

However, most researchers found BGC created more source credibility than UGC. Researchers found that advertising messages are considered more believable and truthful; therefore, the content from a business is perceived as more credible than consumer-created messages (Moore, Hausknecht, & Thamodaran, 1986). It is also suggested that BGC outperformed UGC in terms of source credibility in message persuasiveness, which further dominates the effects on consumer purchase intention (Colicev et al., 2019).

In contrast to these findings, Morris, Choi, and Ju (2016) demonstrate there is a more powerful effect of source credibility in UGC messages than BGC messages. They focused their research on comparing perceived source credibility of the brand and consumer content on social networks platforms. Questionnaires answered by 228 university students showed that, on Facebook, content from other users (friends) is considered to have higher source credibility than content from advertisers. Correlation analysis found emotional responses linked to the source credibility of UGC. It is further indicated in the research by Hayes & Carr (2015) that source credibility is significant in effecting consumer brand attitude in user-generated blog content. They collected 527 questionnaires from Qualtrics answered by U.S. citizens. The findings revealed that source credibility in user-generated blogs significantly and positively

affects brand attitude and purchase intention. The effect of the social media context is yet to be tested. This study proposes a model using a social media context within which to study message persuasiveness of UGC on brand attitude with the consideration of source credibility.

The contrasting findings of whether UGC led to source credibility and further impact consumer attitude and behavioural intention has encouraged us to study this empirically. As researchers more often linked UGC source credibility to affective content, it is worth testing if UGC is linked to rational aspects as well. This study shall therefore examine the differential effect of source credibility by BGC and UGC with consideration of the message type: emotional and rational. And further, this present study shall compare the effect on brand attitude and purchase intention.

2.4 Control Variable: Consumer involvement

To further provide a more robust test of the theoretical framework, this study used usage consumer message involvement to control for exploring and comparing the difference between group as well as making sure the empirical results are not due to covariance with other variables.

Involvement is the perceived importance for consumers of a stimulus based on their needs, values, and interests when making evaluations and purchasing decisions about a brand (Chen, Kim, & Lin, 2015).

According to the ELM (elaboration likelihood model), source credibility and other

suggestive cues affect message persuasiveness through the peripheral route, equating to low involvement message processing (Petty and Cacioppo, 1986). When there is low consumer involvement, source credibility becomes an important determinant of how consumers perceive brands and messages (Buda & Zhang, 2000). Involvement is therefore, an important factor to consider when investigating the effect of source credibility on message persuasiveness. In their empirical research, Percy & Rossiter (1992) suggest it is critical for brand-generated advertisements to contain emotional components that create authenticity and that this strategy is more important, especially for low-involvement consumers.

Ashley and Tuten (2015) built their research on consumer intention to share content on Facebook. The result indicated that in accordance with the ELM, emotional BGC is suitable for low-involvement consumers, and the functional message is more suitable for high-involvement persuasiveness.

Wu & Wang (2011) suggest that involvement strengthens the relationship between source credibility and brand attitude in an eWOM message. Their research suggests that high source credibility leads to a more positive brand attitude regardless of product type. This effect is stronger for high-involvement consumers than low-involvement consumers, interestingly in contrast with ELM. Similar effects have been found in the 2 X 2 experimental research by Gotlieb and Sarel (1991). They suggested that with high-involvement consumers, higher source credibility has a more positive effect on consumers' purchase intention.

High-consumer involvement is also correlated with perceived source credibility in consumer attitudes towards products in BGC YouTube Videos (Xiao, Wang, & Chan-Olmsted, 2018). But the research does not consider whether the videos in the study are rational or emotional types of content.

Based on the review of the existing literature, this study found it important to test the role of consumer involvement between different variables in message conditions and consumer brand outcomes. Therefore, in this present research, it proposes a model that links emotional and rational types of UGC and BGC to source credibility, perceived brand authenticity, perceived content authenticity, with separation of high and low consumer involvement, and it proposes to further test the message effect on brand attitude and purchase intention.

2.5 Dependent variables

2.5.1 Brand attitude

Brand attitude is defined as a consumer's overall perception of a brand (Sherif et al., 1982), with respect to its perceived ability to meet relevant motivations and needs (Percy & Rossiter, 1992). It is also an individual's internal evaluation of a brand that reflects consumer self-belief. The literature concurs with the idea that consumers' brand attitude is affected by how a brand is experienced in a consumer's actual purchase and the advertisement a consumer received regarding the brand (Mitchell & Olson, 1981).

Mitchell (1986) found advertising content affects the formation of brand attitude.

Different message components will impact the attitude formation of some advertised products. Previous research has demonstrated that the construction of attitudes toward the advertisement has its influence on attitudes toward the brand (MacKenzie and Lutz, 1983; MacKenzie et al., 1986). Yoo and MacInnis (2005) further revealed both emotional and informational advertisements create favourable evaluative thoughts and enable a strong form of beliefs after consumers have received the advertisement.

Positive evaluation of the advertisement leads to a positive effect on feelings for the brand, thus enhancing brand attitude.

However, in a social media research context, there is a limited number of studies of the impacts of BGC on brand attitude; most focus on direct message effects on purchase intention (Colicev et al., 2019; Goh, Heng, & Lin, 2013; Mabry & Porter, 2013; Sagala and Rachmawati; 2016; Lee & Hong, 2016). It is therefore essential to test the effect of social media BGC on brand attitude since brand attitude is known as a major predictor of purchase intention in the theory of planned behaviour (Ajzen, 1991).

Besides emotional and rational components, various studies have considered brand authenticity, content authenticity and source credibility as significant in forming brand attitude, with consideration of involvement as an important factor.

As Miller argues, content authenticity also affects message persuasiveness on brand attitude. This research demonstrated the importance of content authenticity when the brand successfully provides correct information for consumers to ensure they know

the truth about the brand (Miller, 2015). Miller asserts that perceived brand-generated advertising positively influences brand attitude. This finding conveys the essential role of content authentic features in a brand outcome. However, their study was not an empirical setting. This study argues that it would be necessary to examine the impacts of content authenticity on brand attitude.

It is indicated in the research by Hayes & Carr (2015) that source credibility is significant in effecting consumer brand attitude in user-generated content.

Another 2X2 between-subjects experimental designed research by Tormala et al. (2006) suggests that high source credibility leads to an effect of a more positive brand attitude when the arguments are strong. Interestingly, source credibility was considered not to be significant in affecting consumer brand attitude in the research by Lim et al., (2017). The contrasting findings make it worthwhile researching what the message factors affects the relationship between source credibility and brand attitude with different message types. This study considers it might be the components of the message designed in the research which affect the persuasiveness of source credibility; therefore, this paper shall further examine research that explores the research which has separated emotional and rational content when discussing how perceived source credibility, perceived brand authenticity, and perceived content authenticity affect consumer brand attitude.

2.5.2 Purchase intention

When there is a fit between consumer perceptions and a brand's core value, the sense

of intention to purchase is created (Wu & Lo, 2009). It also appears when consumers found a strong association with the brand-related message that urges their intention to behave (Pradhan, Duraipandian, & Sethi, 2016). Better communication between brands and consumers will ensure that the brands express value well, enhance the opportunity of a consumer to like the brand, and increase consumers purchase intention (Pradhan, Duraipandian, & Sethi, 2016).

Marketing research relies heavily on the formation of favourable brand attitudes as a predictor of brand purchase intention. It has long been shown in research that consumers are more likely to change behaviour when they have positive attitudes towards the products and brand (Ajzen, 1985). The theory of planned behaviour (TPB) has been applied to a rich amount of research explaining the positive relationship between attitude and behavioural intention (Fishbein and Ajzen, 1975). The theory indicates that individuals' intention to perform a behaviour is influenced by their attitude (i.e. attitude towards the action of choosing this brand), perceived behavioural control (i.e. to what extent consumers believe they could control their behaviour), and subjective norms (i.e. how important others' opinions are). Al-Swidi et al. (2014) especially apply TPB in their research for food consumption. The researcher found a positive attitude towards buying organic and healthy food leads to the intention of purchasing the food. This research expands their finding by investigating not the attitude towards the action but, rather, the attitude towards the food brand and its effect on purchase intention, which suits the interest of this current research. More research found consumers' brand attitudes would positively affect their

intention to purchase brand products in brand-to-consumer communication (Aaker and Keller, 1990). In terms of purchase intention in brand-generated content, some literature discusses the impact of online advertisements on brand attitude and consumer purchase intention (Barnes, 2002; Lwin and Phau, 2013). Although existing literature has found online advertising affects brand attitudes and leads to purchase intention, few researchers have studied a social media communication context (Kudeshia & Kumar, 2017).

As for research investigating user-created content effects on purchase intention, there is a rich discussion mostly suggesting the effect on buyers' purchase intention was moderated by the positive brand attitude (Bahtar & Muda, 2015; Cheung & Thadani, 2012; Erkan & Evans, 2016). Bahtar and Muda found that positive UGC leads to positive attitudes towards the message and further enhances purchase intention (2015). Cheung and Thadani (2012) suggest that the relationship between attitude and purchase intention is being investigated most in UGC research. Erkan and Evans (2016) examined a significant relationship between attitudes toward user-generated content and consumer purchase intention. Wu and Wang (2011) have been focused on the relationship of brand attitude to purchase intention. This research intends to provide a study that links brand attitude to purchase intention and a more detailed comparison of both UGC and BGC social media communication, which will help build a more thorough understanding of this research area.

2.6 Synthesis

2.6.1 Research gaps

Through the review of the literature, this research has identified several gaps.

First of all, little empirical research has been conducted on vegetarian consumption within the social media context. This paper found most of the existing studies on vegetarianism have studied nutrition and the health outcomes of adopting this type of diet (Glick-Bauer & Yeh, 2014) along with the moral concerns of animal eating (Rozin, Markwith, & Stoess, 1997). Whether or how vegetarian consumption links to social media communication is yet to be observed.

Secondly, little research has been conducted to compare BGC to UGC with considerations of various content characteristics, including rational and emotional valence, perceived brand authenticity, perceived content authenticity, and perceived source credibility in social media communication research. This study has found each has been discussed widely in research yet hasn't been tested together in a model.

Thirdly, research analysing the message effects of BGC in a social media context is most relevant to (1) Intention to share the content (Ashley and Tuten, 2015); (2) Purchase intention towards the brand product (Colicev et al., 2019); and (3) Intention to like the content (De Vries, Gensler, and Leeftang, 2012). However, none of these has measured consumer brand attitude. According to the theory of planned behavioural (Ajzen, 1985), brand attitude is considered the strongest predictor of behavioural intention. However, the potential of BGC on social media communication

for generating brand attitude as an overall predictor of consumer behavioural intention remains unexplored.

Fourthly, this current study found most communication studies regarding the effects on brand attitude of perceived brand authenticity, content authenticity and source credibility have been linked to emotional message components (Percy & Rossiter, 1992; Morris, Choi, and Ju, 2016). The message effect with rational components is rather under-researched, especially in a social media context (Yoo & MacLnnis, 2005).

Fifthly, according to the elaboration likelihood model, consumer involvement influences consumer message processing (Petty and Cacioppo, 1986) and has been shown to positively enhance the relationship between message types and purchase intention (Park & Lee, 2008). Comparing message type effects on brand attitude with different involvement groups appears to remain untested.

2.6.2 Research question

Based on the research gap, these are the research questions:

1. What differences can be found between brand-generated content and user-generated content in communication outcomes?
2. What are the main effects of emotional/rational message manipulations on both brand-generated content and user-generated content?
3. What are the effects of intervening variables (brand authenticity, content authenticity, source credibility) and control variable (consumer involvement) on consumer brand attitude and purchase intention?

3. HYPOTHESES

To answer the research question regarding effects of brand-generated content and user-generated content on communication outcome (brand attitude and purchase intention), this current study builds on previous studies in hypothesizing significant positive and different effects of message source (brand/user) and message type (emotional/rational) on purchase intention.

Most existing studies have found that brand-generated content and user-generated content both directly affect consumer behavioural intention.

In the BGC research field, Lwin and Phau (2013) found the emotional online advertisement to be of greater significance in the formation of behavioural intention towards a brand than informational content. Chen, Kim, & Lin (2015) adopted a 2 (brand/consumer) X2 (cognitive/affective) experimental design and found that affective components had a greater indirect effect on attitudes toward the content than cognitive components with brand social media message. More researchers have suggested informative brand content is less effective in influencing the purchase intention of consumers (Goh, Heng, & Lin, 2013). Therefore this current paper predicts the effect on consumer purchase intention is different for rational BGC and emotional BGC.

In UGC research field, Li, Chong, & Ch'ng (2015) suggest emotional UGC be effective in leading to consumer message share intention. Stieglitz & Dang-Xuan (2013) found that affective tweets lead to re-tweet behaviour. Wu and Wang (2011) concluded that rational messages lead to positive purchase intention better than

emotional messages. In contrast, Kim and Johnson (2016) suggest both emotive and cognitive process of UGC positively enhances purchase intention and sharing intention. The investigation of content type in existing research suggests UGC be significant in leading to behavioural intention. The present research study expands on the finding, but differs in that this research is testing rational and emotional message type effects on purchase intention.

H1: For both BGC and UGC, message source manipulations (brand/ consumer) and message type manipulations (emotional/rational) will lead to direct and different effects on purchase intention.

To answer research question three, what are the effects of message characteristic effects (brand authenticity, content authenticity, source credibility, consumer involvement) on BGC and UGC persuasiveness? This study proposes a empirical finding that compares the indirect effect of emotional and rational BGC on brand attitude with consideration of three message characteristics, controlling for consumer food information involvement.

Miller (2015) suggests that content authenticity affects the persuasiveness of a message when measured by brand attitude. Miller also asserts the importance of content authenticity in providing correct information, so that consumers consider they know the truth and facts about the brand. Percy & Rossiter (1992) demonstrate that

successful brand-generated advertising contains emotional components which create a sense of content authenticity in the advertising message. These authors further suggest that this strategy is more important for low involvement consumers. Building on the findings of both Miller (2015) and Percy & Rossiter (1992), this study hypothesizes that for low involvement consumers, greater effects of consumer perceived content authenticity will be found on brand attitude when emotional messages are used. Past studies of BGC has not suggested a possible outcome of communication where consumer involvement is high in terms of content authenticity, thus, we decided that it would be more reasonable to hypothesized on only the low consumer involvement group in *H2*.

H2: For BGC, where consumer involvement is low, the effect of consumer perceived content authenticity on brand attitude will be higher when emotional messages are used than a rational message.

When brand-created advertisements use an emotional design, brand attitudes are driven through consumer's feeling responses (Chen, Kim, & Lin, 2015). Positive feelings enhance consumer evaluations of source credibility, which further enhance consumer brand attitude (Yoo & MacInnis, 2005). Based on the ELM (elaboration likelihood model), source credibility impacts message processing via the peripheral route, which is the low involvement message processing (Petty and Cacioppo, 1986). When consumer involvement is low, source credibility becomes a critical determinant of how consumers perceive brands, especially when connected to a consumer's

emotional response (Percy & Rossiter, 1992). Therefore, it is suggested that when an emotional message is used, perceived source credibility has a significant effect on brand attitude for low involvement consumers. Past studies of BGC has not suggested a possible outcome of communication where consumer involvement is high in terms of source credibility, thus, we decided that it would be more reasonable to hypothesized on only the low consumer involvement group in *H3*.

H3: For BGC, where consumer involvement is low, the effect of source credibility on brand attitude will be higher when emotional messages are used than a rational message.

Morhart et al. (2015) suggest consumer perceived brand authenticity is positively influenced by brand communication. Beverland (2008) suggests that perceived brand authenticity could be suggested by visual cues in the advertisement. Audrezet, de Kerviler, and Moulard (2020) further reveal that brand posts containing emotive and informative components would form consumer perceived brand authenticity. Research also suggests perceived brand authenticity in BGC communication positively and significantly influences consumer purchase intention (Morhart et al., 2015). Existing studies have mostly tested the effect of brand authenticity on behavioural intention (Jang, Ha, and Park, 2012; Morhart et al., 2015). The positive outcome of consumer brand attitude is yet to be tested, and the relationship between consumers perceived brand authenticity and consumer involvement is currently

unknown. However based on the BGC literature, in low involvement conditions, an emotional message is more persuasive than a rational message (Lwin and Phau, 2013, Miller, 2015) and therefore is hypothesized to have a stronger effect on brand attitude. This current paper proposes a similar effect with perceived brand authenticity. Past studies of BGC has not suggested a possible outcome of communication where consumer involvement is high in terms of consumer perceived brand authenticity, thus, we decided that it would be more reasonable to hypothesized on only the low consumer involvement group in *H4*.

H4: Under a low degree of consumer involvement, the effect of perceived brand authenticity on brand attitude will be higher when emotional messages are used than a rational message in BGC.

The creation of perceived content authenticity in user-generated content involves the personal subjective expression of consumer experience with the brand (Wise and Farzin, 2018). As long as user-generated content creates feelings that include personal interaction with the brand, this serves as a cue of content authenticity to other users. Empirical studies by Kim and Kim (2019) have found that perceived content authenticity in UGC positively affects both cognitive and affective access of message, which leads to increased behavioural intention. Therefore, it could be concluded that both rational and emotional UGC signal the formation of content authenticity. The relationship between involvement and UGC content authenticity is untested. However, Park and Lee (2008) suggest that rational UGC is more effective in influencing

purchase intention for high involvement consumers and emotional content is more persuasive for low involvement consumers. Past studies of has suggested a possible different outcome of communication based on whether consumer involvement is high or low in terms of consumer perceived content authenticity, thus, we decided that it would be more reasonable to hypothesized on both low and high consumer involvement group in *H5*.

H5a: In UGC, where consumer involvement is low, the effect of consumer perceived content authenticity on brand attitude will be higher when emotional messages are used than rational messages.

H5b: In UGC, Where consumer involvement is high, the effect of consumer perceived content authenticity on brand attitude will be higher when rational messages are used than emotional messages.

Filieri (2016) studied the formation of source credibility in UGC, suggesting that precise, factual, detailed, and relevant information in UGC are essential factors in creating source credibility. Morris, Choi, and Ju (2016) also found emotional responses to be generated from the perceived source credibility of UGC. Suggesting that factual rational message and emotional message in UGC would help generate source credibility. Hayes and Carr (2015) found source credibility to be significant in affecting consumer brand attitude in user-generated blog content. Xiao et al. (2018) further found perceived source credibility in influencer videos positively leads to the content receiver's favourable attitude towards the video content and the brands

included in the videos. They further suggested that high involvement users prefer a strong and credible argument, which provides them with facts and knowledge as a reference to make purchase decision. Past studies of UGC has not suggested a possible outcome of communication where consumer involvement is low in terms of source credibility, thus, we decided that it would be more reasonable to hypothesized on only the high consumer involvement group in *H6*. Based on the findings, the hypothesis is created:

H6: For UGC, where consumer involvement is high, the effects of source credibility on brand attitude is higher when rational messages are used than emotional messages.

Although there are no empirical studies that have shown the formation of brand authenticity through user-generated content, several communication studies have emphasized that brand authenticity might be both emotionally and rationally connected with UGC communication. Brand authenticity can be communicated by consumers in a way that expresses consumer subjective feelings, impression and experiences with the brand. It allows consumers to be true to themselves while getting in touch with brands (Rosado-Pinto, Loureiro, & Bilro, 2020). Whether a rational or emotional UGC message works better in creating perceived brand authenticity currently remains untested. However, brand authenticity in UGC research has been defined as a rationally created characteristic of communication that informs consumer's perceptions of a brand instead of an emotionally created trait (Bruhn,

Schoenmuller, & Heinrich, 2012). Thus, it could be seen that brand authenticity in UGC might connect more to rational aspects than emotional aspects. Regarding involvement and its effect on message persuasiveness, this is untested, but Arya et al. (2019) suggest that the effect of perceived brand authenticity on purchase intention, mediated through brand trust, is higher when consumer engagement in the brand community is higher. Past studies of UGC has not suggested a possible outcome of communication where consumer involvement is low in terms of brand authenticity, thus, we decided that it would be more reasonable to hypothesized on only the high consumer involvement group in *H7*. Based on the findings, this current paper proposes rational UGC has increased persuasion effects when consumers have higher involvement levels.

H7: In UGC, where consumer involvement is high, the effect of perceived brand authenticity on brand attitude will be higher when rational messages are used than an emotional message.

Previous research has established the influential role of attitude on purchase intention since the development of the theory of planned behaviour by Ajzen (1991). Following this theory, people are more likely to perform a real purchase after forming a favourable attitude towards the brand (Al-Swidi et al., 2014). In terms of how content leads to a change in purchase intention through brand attitude, different sources of content have been investigated. In BGC research by Lwin and Phau (2013), researchers suggest emotional content will generate positive consumer attitude

towards a hotel brand, which further leads to purchase intention. Another BGC study by Zhang et al. (2014) indicates that emotional messages were only effective in influence purchasing intention for hedonic consumption such as dining. This study intends to find out if vegetarian consumption fits into this finding by comparing the effect of both rational BGC and UGC on purchase intention through brand attitude. In UGC research, attitude and purchase intention are the most investigated dependent variables. Most of the research found a positive and significant relationship between attitude and purchase intention (Wu & Wang, 2011; Bahtar & Muda, 2015). Wu and Wang (2011) concluded that rational UGC leads to positive brand attitude more effectively than emotional messages, which leads to greater consumer purchase intention. It is worth studying whether both emotional and rational messages help create purchase intention through brand attitude.

H8: Regardless of consumer involvement and message design, brand attitude positively leads to purchase intention as the communication outcome

4. METHODOLOGY

4.1 Research method

The current study applies a positivist paradigm (i.e. a quantitative method) since it is more appropriate for existing theory testing rather than theory generation to test the hypotheses and their relationships with the scale validation (Foroudi, 2019). The observation and experience are regarded as essential sources of knowledge, and thus

the research problem shall be examined empirically in positivist research (Arnhold, 2010).

This study employed a 2 X 2 factorial design and tested with an attached questionnaire. The two variables were the message source (brand-generated/ consumer-generated) and message type (emotional/rational). The experimental design suits this research because previous similar research all uses this type of research design. Atwood and Morosan (2015) used a 2 X 2 factorial design to investigate the interaction effect of involvement and source credibility on consumer brand attitude in a social media context. Tormala et al. (2006) adopted the 2X2 experimental design in their research of source credibility and argument quality on brand attitude. Also, in Shan's UGC research (2016) on argument quality and brand familiarity, a between-subjects factorial design was conducted via an online questionnaire.

Following previous research studying how a manipulated social media message could effect message receivers' attitude and purchase intention, an experimental design is the most direct and effective method to study the effect of different types of messages (Zhang et al., 2014). The researchers are able to control the message content to provide the exact message type and to record the reaction of participants to certain types of messages.

In this study, Facebook messages of a fictional vegetarian brand were designed to look like actual content; with persuasive messages containing a burger image and attached opinion text manipulated according to the conditions of the experiment (brand vs user/ emotional vs rational) (Atwood & Morosan, 2015).

A fictional brand name is applied to remove the effect of previous experience and knowledge with a brand (Andreu, Casado-Diaz, & Mattila, 2015). Facebook was chosen as the platform because consumers have access, and the messaging strategy could be altered between conditions. Besides, users of the Facebook post have access to both brand and user-generated communication message on this platform (Kudeshia & Kumar, 2017).

4.2 Message development

4.2.1 Choose of vegetarian product message

The vegetarian burger was chosen as the experiment product. There were three reasons why the vegetarian burger was identified as the most appropriate. Firstly, plant-based vegetarian burgers have caused lots of discussion on social media nowadays. Secondly, Taiwanese vegetarians like to share their experience with vegetarian restaurants with their Facebook groups. Others consider the opinions by consumers with actual experience as an important motivation for them to have a trial. Third, most Facebook-based vegetarian groups in Taiwan are food-related groups. The biggest group this study reached called “vegetarian delicious cuisine” have over three hundred thousand Taiwanese members who share new vegetarian recipes and food pictures amongst each other. These types of food messages seem to attract vegetarians the most.

4.2.2 Brand and user-generated message

To suit our context, this present paper manipulated the content source by modifying the wording and subject of the message source (Choi & Lee, 2017). The BGC included the terms “we” and “our product”, to refer to a business or organisation and UGC contained “I” and “their product” to refer to consumer personal experience with the brand. Moreover, this study captures BGC via “brand posts” from brands' actual brand Facebook pages and found BGC message mentioned the official brand name more apparently than the UGC on their brand wall same as suggested by the previous literature (Colicev et al., 2019).

4.2.3 Type of message development

Message manipulation was performed in the text to accompany the same visual image in a Facebook-like post. The image in the experiment featured a plant-based burger with light and bright setting. This type of image ensures participants sense the appearance of the food (Dube & Cantin, 2000) and previous message design studies provide images of both the content generators (De Veirman, Cauberghe, & Hudders, 2017) and the products (Leung, Bai, & Stahura, 2015). Brand posts were created alongside the brand’s profile picture with brand logo and the fictional brand name. Consumer posts were created alongside the profile pictures of random posters with fictitious names in line with previous design experiment (Chen, Kim, & Lin, 2015). The emotional messages aim at creating a positive affective experience to influence consumers during their decision-making process (Achar et al., 2016; Andreu, Casado-Díaz, & Mattila, 2015). The emotional message was designed to include

various components of affective bases. Firstly, past research which used experimental designs to adapt enjoyment in the consumption experience (Zhang et al., 2014), passion and pleasure for the product chosen (Williams & Drolet, 2005). Secondly, some empirical research on emotional content focused especially on consumer subjective relevance and happiness with the designated message (Rosselli, Skelly, & Mackie, 1995). Thirdly, in the context of food, the emotional message mostly focuses on the taste, how gratifying the food is, and the mouth-feel (Cantin & Dube, 1999). Lastly, food liking was also an element of emotional food messaging (Dube & Cantin, 2000).

This current paper presents a review of existing marketing communication literature on the topic of rational content to find the essential components. Firstly, the rational message offers informational evidence to receivers that refer to facts straightforwardly and objectively (Andreu, Casado-Díaz, & Mattila, 2015). Secondly, rational messages also seek to persuade consumers to change their belief and behaviour through cognitive processing of the message (Jin, Phua, & Lee, 2015).

Thirdly, rational messages regarding the purchase of brands and products are essential to include factors such as service accolades, and factual cues of the brand (Lwin and Phau, 2013). Fourthly, the rational cues often features information of pricing, consumer perceived quality, and service guarantee (Mattila, 2001; Zhang et al., 2014). Lastly, in the context of food, the rational message is especially crucial to describing economic value (Williams & Drolet, 2005), the ingredients, and the nutritious value of purchasing the food (Cantin & Dube, 1999). The present study combines these

factors in the existing studies and creates the rational content with these traits.

The empirical study used the same questionnaire items for four message conditions.

The questionnaire was administered in Mandarin to suit for Taiwanese participants.



Experiment procedure

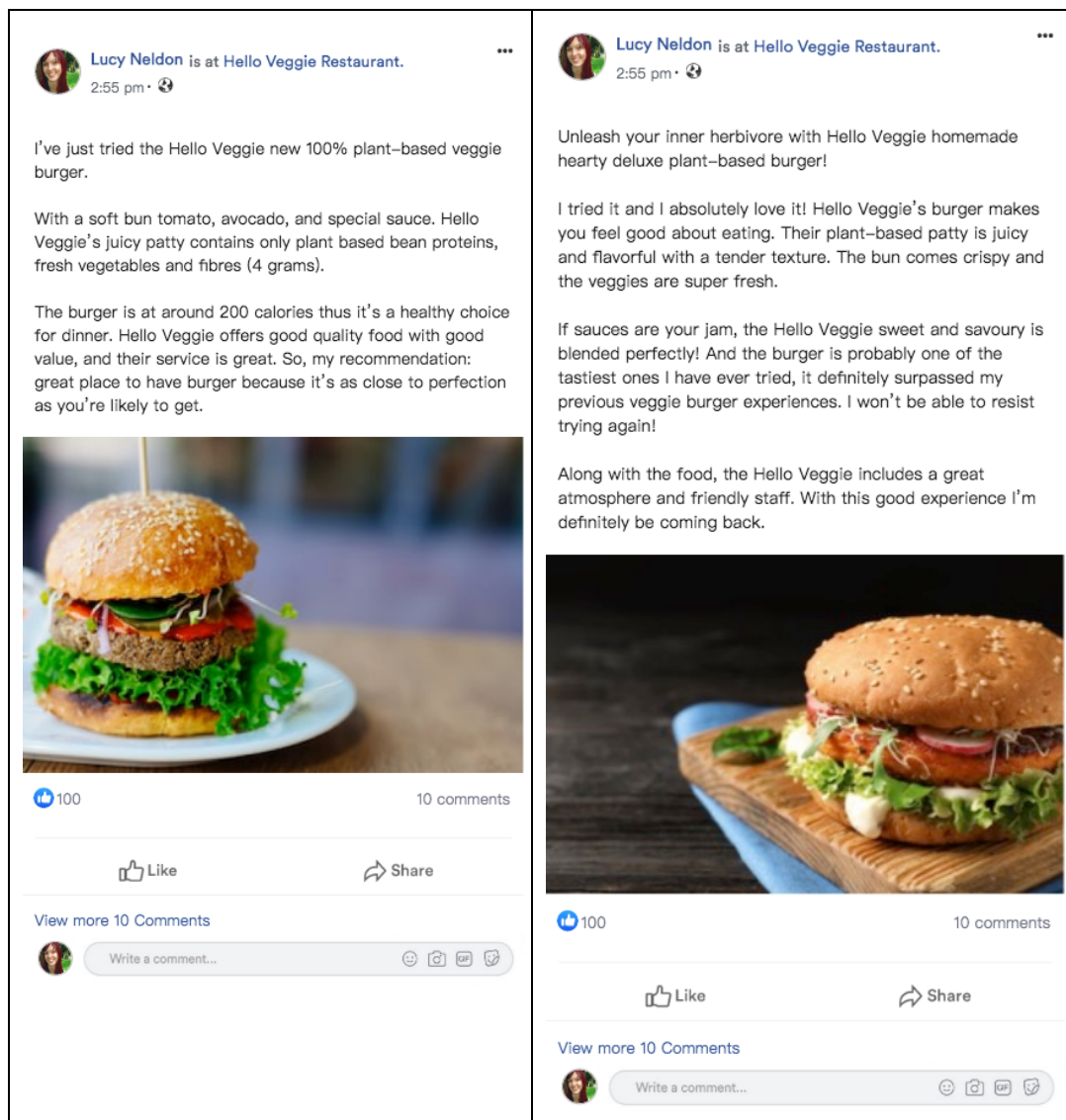
In this experiment, participants were randomly assigned to four persuasive messages for a vegetarian burger from a fictional post on Facebook. Message 1 and 2 are formatted as brand-generated content. Message 3 and 4 are classified as user-generated content. Message 1 and 3 contained rational components and conditions. Message 2 and 4 contains emotional components and conditions. An overview of the manipulation stimuli can be found in below table (see figure 1).

Figure 1

Message Design

Rational BGC-message1	Emotional BGC-message 2
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<div data-bbox="284 208 331 257"></div> <div data-bbox="341 208 683 230">HELLO VEGGIE is at Hello Veggie Restaurant.</div> <div data-bbox="341 235 427 257">2:55 pm • </div> <p>Have you tried our Hello Veggie new 100% plant-based veggie burger?</p> <p>With a soft bun tomato, avocado, and special sauce. The Hello Veggie juicy patty contains only plant based bean protein, fresh vegetables and natural fibres (4 grams).</p> <p>The burger is at around 200 calories we say it's a healthy choice for dinner. Our Hello Veggie's food is having good quality and value, and we offer great service. So, come to our place and have a burger because it's as close to perfection as you're likely to get.</p>  <div data-bbox="284 947 331 969"> 100</div> <div data-bbox="671 947 767 969">10 comments</div> <div data-bbox="368 1016 427 1039"> Like</div> <div data-bbox="619 1016 687 1039"> Share</div> <div data-bbox="284 1070 464 1093">View more 10 Comments</div> <div data-bbox="284 1099 331 1137"></div> <div data-bbox="360 1106 469 1128">Write a comment...</div> <div data-bbox="655 1106 762 1128"> </div>	<div data-bbox="815 208 863 257"></div> <div data-bbox="873 208 1214 230">HELLO VEGGIE is at Hello Veggie Restaurant.</div> <div data-bbox="873 235 959 257">2:55 pm • </div> <p>Unleash your inner herbivore with our Hello Veggie hearty deluxe plant-based burger!</p> <p>Hello Veggie's burger makes you feel good about eating. Our plant-based patty is juicy and flavorful with a tender texture. The bun comes crispy and the veggies are super fresh.</p> <p>If sauces are your jam, our Hello Veggie homemade sweet and savoury is blended perfectly! And our burger will be one of the tastiest ones you have ever tried, in fact, we guarantee it will surpass your previous veggie burger experiences. You won't be able to resist trying!</p> <p>Along with the food, our Hello Veggie includes a great atmosphere and friendly staff. With the good experience you'll be definitely coming back!</p>  <div data-bbox="815 1048 863 1070"> 100</div> <div data-bbox="1203 1048 1299 1070">10 comments</div> <div data-bbox="900 1117 959 1140"> Like</div> <div data-bbox="1150 1117 1219 1140"> Share</div> <div data-bbox="815 1171 995 1193">View more 10 Comments</div> <div data-bbox="815 1200 863 1238"></div> <div data-bbox="892 1207 1000 1229">Write a comment...</div> <div data-bbox="1187 1207 1294 1229"> </div>
Rational UGC-message 3	Emotional UGC-message 4



The online experiment used Qualtrics as a platform, and at the start of the online experiment, participants were given directions indicating that they should read the instructions carefully and complete the experiment only once.

Participants were randomly assigned to one of the four manipulated messages. The message includes a picture of the vegetarian products and reviews, including attributes and factorial information or emotional opinions around the products. The message given to participants was formatted to look similar to a Facebook post. After

being exposed to the stimuli, participants clicked through to a website page where they were asked to fill in the questionnaire. The questionnaire began with asking consumer their diet and food involvement. Then after seeing the messages, we conducted manipulation checks to test message effects. Following that, we measured the perceived message characteristics, including perceived brand authenticity, perceived content authenticity, and perceived source credibility. Nonetheless, the dependent variables of brand attitude and purchase intention were measured. Demographic information of the participation was collected in the last section of the questionnaire to better understand the vegetarian respondents background in this study (Park & Lee, 2008).

4.3 Sampling

Marketers regularly update content such as product-related deals and new product information to attract consumers, use Facebook as a platform for brand conversation and monitor Facebook posts in communicating with consumers (Choi & Lee, 2017. Goh, Heng, & Lin, 2013). User-generated content on Facebook helps provide genuine advice and experience for other consumers, reducing the perceived risk of purchasing products (Colicev et al., 2019). Facebook embraces the largest reach and most amount of active global users at 2.603 billion, in Taiwan, there are 18 million of active users, which account for 80% of the whole population that are using Facebook. It is also an important platform for vegetarian communities, with over 20 different vegetarian

Facebook groups created, and with most of them having more than two thousand active members.

This paper investigated vegetarian Facebook users in order to observe the impact of firm-created and user-generated social media communication on brand attitude and purchase intention. Past research on social media communication investigated the same platform (Schivinski & Dabrowski, 2016).

This research sent the Questionnaire link to three Facebook groups based in Taiwan “vegetarian delicious cuisine” “vegetarian, best food” and one religious “vegetarian and healthy” group on Facebook. The link was available on Facebook for four weeks from April 20 to May 20, 2020. A sample of 342 in the vegetarian groups were collected. The choice of brand pages was based on the following criteria: a) it provides vegetarian product information; b) there were more than two thousand active members in vegetarian food discussion; c) there was brand-created content and user-generated content in the group to ensure the members were familiar with different content types (Schivinski & Dabrowski, 2016). We further generated a sample of 154 participants to non-vegetarian specified groups based in Taiwan “food information” “delicious food information” “we love food-Taipei” on Facebook. After clicking the link, the respondent was redirected to the Qualtrics questionnaire. The experimental design randomly assigned participants to one of four messages. After being exposed to the manipulation stimuli, participants filled out a questionnaire. The screening questions were used to ensure that the respondents used Facebook and

were vegetarians. The screening questions were:

(1) Please choose your diet: a) vegan, b) vegetarian, c) omnivore.

The respondents choosing the omnivore were removed from the analysis.

Participants completed the questionnaire with their answers stored in the researchers' computer as electronic file with password so that the analysis could be completed and secured.

5. RESULTS

5.1 Sample Characteristics

In this study, participants were asked about demographic information following completion of the questionnaires. The results are discussed below and reported in the table below (see Table 1).

Eleven data from the vegetarian group were deleted as the participants reported they were vegetarian at the beginning of the study but responded as never been vegetarian in the data validation check. After screening, the total sample used for the vegetarian group is (N = 342) with 106 males and 236 female participants. In the non-vegetarian group, the sample number is 154, female=107, male=47. The result show that over half of the participants in the study are female (61%).

For the education distribution, the largest group has a university degree, 47.1 % (N= 161). followed by secondary school education = 26.9% (N= 92). The third group has a Master's degree, 16.1 % (N= 55). The smallest group in the sample holds a doctoral degree = 1.2 % (N= 4).

The observation from the age distribution showed that 49.1% of the sample is aged 45 and above (N= 168). The main reason for this is likely because one of the social

media groups reached is people whose religious beliefs include veganism or vegetarianism. Following the first group, 25.1% of the sample falls in 35 to 44 age range (N= 86). The third group in the sample is aged between 25 to 34 years old, with a percentage of 19.0 % (N=65).

Monthly income information was collected, and income ranged between \$10,000 to greater than 150,000 New Taiwan dollar. The reported median of annual income was \$25,000 to \$49,999, 70.8% of participants made less than 49,999 in their monthly income. Most of the participants have income in this range (34.2%, N= 117). The average monthly income of Taiwan is \$41,883, which exactly falls in this range.

Table 1

Respondents' demographic profile and report of vegetarian experience (n = 342).

Sample demographics (n= 342)	%
<i>Gender</i>	
Male	31
Female	69
<i>Education</i>	
Doctoral Degree	1.2
Master's degree	16.1
Bachelor's degree with honours	3.5
Bachelor's degree (University)	47.1
Professional school	1.8
Secondary education (High school & middle school)	26.9

Primary education (Elementary School)	2.0
No indication	1.5
<i>Age</i>	
<18	0.9
18-24	5.8
25-34	19.0
35-44	25.1
>45	49.1
<i>Income (NTD)</i>	
> \$150,000	4.7
\$100,000 to 149,999	2.9
\$75,000 to 99,999	9.9
\$50 000 to 74 999	19.0
\$25 000 to 49 999	34.2
\$10 000 to \$24 999	5.3
\$1 to \$9 999	10.2
No indication	13.7
<i>Vegetarian experience</i>	
Vegetarian up to 6 months	1.5
Vegetarian 6 months–1 year	1.8
Vegetarian 1–2 years	3.5
Vegetarian 2–5 years	4.4
Vegetarian for over 5-9 years	7.3
Vegetarian for over 10 years	81.6

5.2 Manipulation check

Two sets of questions followed each message and were delivered to participants to assess the manipulation check. The first set used a five-point Likert scale and asked

participants whether the post was brand-created or consumer-created (Brand=5, Consumer=1) (Liljander et al., 2014). The second set used a seven-point Likert Scale from (strongly disagree =1, strongly agree=7) to assess whether the participants viewed the messages as either rational or emotional. The questions asked each participant to rate the message they received as logical, objective, factual for the rational manipulation and emotional, subjective, and non-factual to check the emotional manipulation (see Appendix). The listed questions drew on established scales used by Andreu, Casado-Díaz, & Mattila (2015) with the original reliability $\alpha > 0.7$.

Vegetarian group manipulation check

Brand and User. Independent sample t-tests were used to test the manipulations. In the first set of questions asking if participants thought the message to be brand or user-created (Brand = 5, Consumer = 1), participants rated the brand message to be more likely as brand-generated than user-generated ($M = 4.52$, $SD = 1.17$) and rated the consumer message to be more likely as user-generated than brand-generated ($M = 2.65$, $SD = 1.52$), $t(313.74) = 12.736$, $p < .001$.

Rational and Emotional. Furthermore, participants rated the emotional message significantly more emotional ($M = 5.16$, $SD = 1.04$) than rational ($M = 4.67$, $SD = 0.90$), $t(337.28) = 4.667$, $p < .001$. And rated the rational message significantly more rational ($M = 5.16$, $SD = 1.00$) than emotional ($M = 4.38$, $SD = .93$), $t(332.17) = 7.367$, $p < .001$.

These results indicate that the manipulations performed in this study in the vegetarian group were successful.

Non-vegetarian group manipulation check

Brand and User. A series of independent samples t-tests indicated was performed in the second set of study if check if the manipulation were successful for a non-vegetarian group study ($N=154$). In the first set of questions asking if they think the message to be brand or user created (Brand = 5, Consumer = 1), participants rates the brand message to be more likely as brand-generated than user-generated ($M = 4.47$, $SD = 1.04$) and rates the consumer message to be more likely as user-generated than brand-generated ($M = 2.71$, $SD = 1.62$), $t(127.25) = 8.00$, $p < .001$.

Rational and Emotional. Participants in the non-vegetarian group rated the rational message significantly more rational ($M = 5.01$, $SD=1.00$) than emotional ($M = 4.62$, $SD = .93$), $t(148) = 2.515$, $p < 0.05$. However, the emotional message was not significantly more emotional ($M = 4.66$, $SD = 1.211$) than rational ($M = 4.76$, $SD = 0.88$), $t(156) = 0.58$, $p > 0.05$. Meaning that participants in the non-vegetarian group did not consider emotional message to be significantly emotional. We could see the manipulation for emotional message did not work for non-vegetarian group.

Therefore the present paper removed the non-vegetarian group from the analysis of the hypotheses testing.

5.3 Measures

Food involvement.

Participants filled out four questions to measure their involvement with food before they accessed the test message. Participants responded to three food involvement questions ranging from (Strongly disagree / Strongly agree) on a seven-point interval scale (see Appendix). These items drew on established scales used in the literature and were adapted to the current research context with original reliability $\alpha = .93$ (Teng & Lu, 2016). The items were averaged to form a composite score in this current paper (Cronbach's $\alpha = .843$; $M = 5.50$; $SD = 1.01$). 172 of participants were categorized as “High involvement” (participants whose food involvement placed them higher than the mean score), and 170 of participants were categorized as “Low involvement” (participants whose food involvement placed them lower than the mean score) in vegetarian group.

Perceived brand authenticity

Each participant completed the perceived brand authenticity scale, including three items using a 7-point Likert scale (Strongly Disagree / Strongly Agree). These assessed the perceived authenticity of the brand mentioned in the social media message (see Appendix), with original reliability $\alpha = .93$ (Moulard et al., 2016). The items were averaged to form a composite score in this present paper (Cronbach's $\alpha = .876$; $M = 5.39$; $SD = .90$).

Perceived content authenticity

After the participants were asked about the perceived brand authenticity, they were provided with a series of questions regarding their perceptions of content authenticity with 7-point Likert scale (Strongly Disagree/ Strongly Agree). The questions were slightly modified from Moulard, Garrity, and Rice (2015) to suit this research, with the original reliability $\alpha = .87$ (see Appendix). The items were averaged to form a composite score in this current paper (Cronbach's $\alpha = .924$; $M = 5.38$; $SD = .940$).

Source credibility

Participants were given a series of questions regarding their thoughts on the source of the social media message. There are two dimensions within the scale, trustworthiness and expertise which is derived from previous literature (see Appendix), with the original reliability α (Trustworthiness) = .81 and α (Expertise) = .94 (Shan, 2016). The reliability test done for two dimensions list a score as below in this study (Cronbach's α trustworthiness = .957; $M = 5.273$; $SD = .956$; Cronbach's α expertise = .939; $M = 5.251$; $SD = .970$; Cronbach's α combine = .929).

Brand Attitude

Toward the end of the questionnaire, the participants were delivered four questions regarding their attitude towards the brand seen in the manipulated messages. The four questions built on a scale generated in previous literature (see Appendix), with original reliability $\alpha = .97$ (Pongjit & Beise-Zee, 2015). The reliability test and mean

score have been calculated for the items in this study (Cronbach's $\alpha = .927$; $M = 5.330$; $SD = 0.945$).

Purchase Intention

A series of three questions were asked after the manipulations to check on the purchase intention of the participants (see Appendix), with the original reliability $\alpha = .937$. (Schivinski & Dąbrowski, 2013). The responses were coded into numbers and formed a reliability test in this current paper (Cronbach's $\alpha = .905$; $M = 5.284$; $SD = .984$). The results of the scale tests are reported in the table below (see Table 2).

Table 2

Measurement Items

Measurement Items of the Constructs for vegetarian group.					
Variable	Measurement instruments	Factor Loading	Cronbach's alpha	Construct Reliability (CR)	Average Variance extracted (AVE)
Food Involvement	FI1	0.734	0.843	0.897	0.686
	FI2	0.861			
	FI3	0.844			
	FI4	0.866			
Brand Authenticity	BAU1	0.880	0.876	0.925	0.804
	BAU2	0.912			
	BAU3	0.898			
Content Authenticity	CA1	0.894	0.924	0.920	0.568
	CA2	0.951			
	CA3	0.949			
Source	SC_T1	0.931	0.939	0.980	0.830

Credibility	SC_T2	0.918			
	SC_T3	0.944			
	SC_T4	0.964			
	SC_T5	0.864			
	SC_E1	0.907	0.957		
	SC_E2	0.904			
	SC_E3	0.885			
	SC_E4	0.905			
	SC_E5	0.885			
Brand attitude	BA1	0.936	0.927	0.950	0.824
	BA2	0.914			
	BA3	0.917			
	BA4	0.863			
Purchase intention	PI1	0.91	0.905	0.942	0.845
	PI2	0.933			
	PI3	0.915			

Among the non-vegetarian group, a series of factorial analysis was conducted.

The twenty-seven items for measuring food involvement, perceived brand authenticity, perceived content authenticity, source credibility, brand attitude, and purchase intention were factor analysed. The factor analysis with a strict loading condition ($> .7$) reveals all 27 items are found to fulfil this condition. The factor analysis of six factors including twenty-seven items (four items for food involvement: Cronbach's $\alpha = 0.89$; three items for perceived brand authenticity: Cronbach's $\alpha = 0.89$; three items for perceived content authenticity: Cronbach's $\alpha = 0.90$; ten items for source credibility: Cronbach's α (trustworthiness) = 0.98, Cronbach's α (expertise) = 0.95; four items for brand attitude: Cronbach's $\alpha = 0.96$; three items for purchasing

intention: Cronbach's $\alpha = 0.94$) were generated.

This current paper further conducted series of ANOVA tests and revealed the two groups were led to significantly different social media communication outcome.

Using one-way ANOVA, a significant difference on brand attitude ($p = 0.000$), purchase intention ($p = 0.000$), perceived brand authenticity ($p = 0.003$), perceived content authenticity ($p = 0.000$), and source credibility ($p = 0.000$) were found between vegetarian consumers and non-vegetarian consumers (see Table 3).

However, since the manipulation for non-vegetarian group participants were not successful, the 142 data was extracted from hypothesis testing.

Table 3 Vegetarian and non-vegetarian group significance test			
Variables	Vegetarian group ($N = 342$)	Non-vegetarian group ($N = 142$)	Significance
Brand attitude	$M = 5.33, SD = .94$	$M = 4.91, SD = 1.02$	$F(1,492) = 19.520$ $p = 0.000$
Purchase intention	$M = 5.28, SD = .98$	$M = 4.63, SD = 1.16$	$F(1,492) = 41.108$ $p = 0.000$
Perceived Brand authenticity	$M = 5.39, SD = .90$	$M = 5.12, SD = .93$	$F(1,492) = 9.221$ $p = 0.003$
Perceived content authenticity	$M = 5.39, SD = .94$	$M = 5.02, SD = 1.02$	$F(1,492) = 15.178$ $p = 0.000$
Source credibility	$M = 5.26, SD = .90$	$M = 4.89, SD = 1.02$	$F(1,492) = 16.984$ $p = 0.000$

5.4 Hypothesis testing

Overall, this paper conducts an analysis in four steps. First, this current paper analysed the direct effect of the content generator (brand vs user) and message type (rational vs emotional) on purchase intention. Second, to compare and contrast the different message effects on brand attitude, a series of multiple regression analysis were conducted for each of the four design conditions to assess the effects of the message characteristic effects (brand authenticity, source credibility, and content authenticity) on brand attitude. This enabled a comparison of the effect in each condition. In the third step, the influence of the control variable-involvement was assessed by dividing the data into two involvement groups (high vs low) prior to measuring the effect of BAU, CA, and SC on the formation of brand attitude. Lastly, this current study conducted a linear regression to assess the influence of brand attitude on purchase intention within each condition (message type: rational/emotional; message source: brand/consumer). The results of the analysis are reported as hypothesis testing in the following sections.

Hypothesis 1 stated that for both BGC and UGC, message source manipulations (brand/ consumer) and message type manipulations (emotional/rational) would lead to direct and significantly different effects on purchase intention. A comparison between message sources and message types on purchase intention is analyzed using one-way between-subjects ANOVAs. The ANOVA tests revealed no significant different

effect on purchase intention for message type. The rational messages ratings ($M = 5.25$, $SE = .076$) did not differ significantly from the emotional message ($M = 5.32$, $SE = .075$, $F(1,341) = .474$, $p = .492$). The analysis also revealed no significantly different effect on purchase intention for message source. The brand-generated messages ratings on purchase intention ($M = 5.35$, $SE = .075$) did not differ significantly from the user-generated message ($M = 5.21$, $SE = .076$), $F(1,341) = 1.731$, $p = 0.190$). A further regression analysis is tested and revealed no direct relationship from content type ($\beta = .073$, $p > .05$) to purchase intention and from source type ($\beta = -.140$, $p > .05$) to purchase intention. Therefore, in contrast to previous literature stating there are direct and different effects of message type and message source on purchase intention, this paper did not find a significant difference. H1 was not supported.

To test further hypotheses ($H2$ to $H8$), the participants have been separated into low and high involvement groups. This present study conducted ANOVA test for comparing the different message persuasiveness between high and low involvement consumers.

Before conducting the hypotheses testing, we conducted ANOVA tests to ensure controlling the difference between high and low involvement group. Using one-way ANOVA, a significant difference on brand attitude ($p = 0.000$), purchase intention ($p = 0.000$), perceived brand authenticity ($p = 0.000$), perceived content authenticity ($p = 0.000$), and source credibility ($p = 0.000$) were found between high and low

involvement groups of vegetarians. The results of these analyses are summarised in Table 4, and the analysis following are therefore separated into high and low consumer involvement groups.

<p>Table 4</p> <p>Involvement group significance test</p>			
Variables	High involvement (<i>N</i> = 172)	Low involvement (<i>N</i> = 170)	Significance
Brand attitude	<i>M</i> = 5.59, <i>SD</i> = .88	<i>M</i> = 5.06, <i>SD</i> = .93	<i>F</i> (1,340)= 28.413 <i>p</i> = 0.000
Purchase intention	<i>M</i> = 5.60, <i>SD</i> = .92	<i>M</i> = 4.97, <i>SD</i> = .95	<i>F</i> (1,340)= 38.939 <i>p</i> = 0.000
Perceived Brand authenticity	<i>M</i> = 5.61, <i>SD</i> = .81	<i>M</i> = 5.14, <i>SD</i> = .92	<i>F</i> (1,340)= 28.336 <i>p</i> = 0.000
Perceived content authenticity	<i>M</i> = 5.61, <i>SD</i> = .87	<i>M</i> = 5.15, <i>SD</i> = .95	<i>F</i> (1,340)= 21.348 <i>p</i> = 0.000
Source credibility	<i>M</i> = 5.52, <i>SD</i> = .87	<i>M</i> = 5.00, <i>SD</i> = .85	<i>F</i> (1,340)= 31.742 <i>p</i> = 0.000

Low involvement consumer group

Hypothesis 2 states that for brand-generated content, where consumer involvement is

low, the effect of perceived content authenticity on brand attitude will be higher when emotional messages are used rather than a rational message. A regression analysis is conducted for both rational and emotional brand-generated content. The results show that under low consumer involvement, perceived content authenticity does not lead to increased positive brand attitude in either emotional BGC ($\beta = .16, p = .134$) or rational BGC ($\beta = .21, p = .271$), thus hypothesis 2 is rejected.

Hypothesis 3 states that for brand-generated content, where consumer involvement is low, the effect of source credibility on brand attitude will be higher when emotional messages are used than a rational message. Regression results show that perceived source credibility is only significant in effecting consumer brand attitude in rational BGC ($\beta = .44, p = .007$) instead of emotional BGC ($\beta = .10, p = .472$). Therefore hypothesis 3 is rejected. This unexpected result will be considered further in the discussion.

Hypothesis 4 states that for brand-generated content, under a low degree of consumer involvement, the effect of perceived brand authenticity on brand attitude will be higher when emotional messages are used than a rational message. The regression analysis revealed that under low consumer involvement, perceived brand authenticity does not significantly lead to positive brand attitude in either emotional ($\beta = .18, p = .136$) or rational BGC ($\beta = .16, p = .225$). Therefore hypothesis 4 is rejected.

Hypothesis 5a states that in user-generated content, where consumer involvement is low, the effect of perceived content authenticity on brand attitude will be higher when emotional messages are used rather than rational messages. The analysis found that under low degrees of consumer involvement, consumer perceived content authenticity is significant in leading to positive consumer brand attitude in emotional UGC ($\beta = .28, p = .049$), the effect is not found in rational UGC ($\beta = .02, p = .885$). Therefore hypothesis 5a is accepted. The combined results of low involvement group can be found in Table 5.

Table 5
Low involvement group significance test

Low Involvement group significance test

<u>Rational BGC</u>	Coefficients	t-value	<u>Rational UGC</u>	Coefficients	t-value
<i>H2:</i> Content authenticity → BA	.16	1.12	<i>H5a:</i> Content authenticity → BA	.02	.15
<i>H3:</i> Source Credibility → BA	.44	2.82**	Source Credibility → BA	.47	4.50***
<i>H4:</i> Brand authenticity → BA	.16	1.23	Brand authenticity → BA	.16	1.61
<i>H8:</i> BA → PI	.74	6.2***	<i>H8:</i> BA → PI	.69	6.55***
<u>Emotional BGC</u>	Coefficients	t-value	<u>Emotional UGC</u>	Coefficients	t-value
<i>H2:</i> Content authenticity → BA	.21	1.54	<i>H5a:</i> Content authenticity → BA	.28	2.05*
<i>H3:</i> Source Credibility → BA	.10	.73	Source Credibility → BA	.34	2.00
<i>H4:</i> Brand authenticity → BA	.18	1.53	Brand authenticity → BA	.18	1.34
<i>H8:</i> BA → PI	.87	10.06***	<i>H8:</i> BA → PI	.87	10.61***

BA=brand attitude

PI=purchase intention

* $p < .05$.

** $P < .01$.

*** $p < .001$

High involvement consumer group

Hypothesis 5b states that under high degrees of consumer involvement, the effect of perceived content authenticity on brand attitude for rational user-generated content would be higher than that of emotional user-generated content. The results suggest that perceived content authenticity is not significant in affecting consumer brand attitude for either emotional ($\beta = -.06, p = .549$) or rational UGC ($\beta = .12, p = .208$) under high involvement. Therefore the hypothesis 5b is rejected.

Hypothesis 6 states that for UGC, where consumer involvement is high, the effect of source credibility on brand attitude is higher when rational messages are used than emotional messages being used. The regression analysis showed that the effect of source credibility on brand attitude is greater for rational UGC than emotional UGC, although significant effects for source credibility were found for both message types β rational = .61, $p = .000$) (β emotional = .32, $p = .012$). Therefore hypothesis 6 is accepted.

Hypothesis 7 states that for UGC, where consumer involvement is high, the effect of perceived brand authenticity on brand attitude will be higher when rational messages are used than an emotional message. The regression analysis revealed that rational UGC is significant in leading to positive consumer brand attitude ($\beta = .28, p = .024$) while the effect is not found in emotional UGC ($\beta = .12, p = .310$). Hypothesis 7 is

accepted. More detailed and combined results of high involvement group are in Table 6.

Hypothesis 8 states that brand attitude positively leads to purchase intention both BGC and UGC, emotional and rational message. The regression analysis for four conditions showed that regardless of message source (brand/consumer) and message type (emotional/rational), consumer involvement (high/low) the effect of brand attitude on purchase intention is significant ($p < .001$). Hypothesis 8 accepted.

Table 6
High involvement group significance test

High Involvement group significance test

<i>Rational BGC</i>	Coefficients	t-value	<i>Rational UGC</i>	Coefficients	t-value
Content authenticity → BA	.43	3.34**	<i>H5b:</i> Content authenticity → BA	-.06	-.61
Source Credibility → BA	.43	2.84**	<i>H6:</i> Source Credibility → BA	.62	4.20***
Brand authenticity → BA	-.55	-.54	<i>H7:</i> Brand authenticity → BA	.28	2.39*
<i>H8:</i> BA → PI	.82	26.45***	<i>H8:</i> BA → PI	.84	7.91***
<i>Emotional BGC</i>	Coefficients	t-value	<i>Emotional UGC</i>	Coefficients	t-value
Content authenticity → BA	-.01	-.07	<i>H5b:</i> Content authenticity → BA	.15	1.28
Source Credibility → BA	.65	3.78***	<i>H6:</i> Source Credibility → BA	.34	2.64*
Brand authenticity → BA	.35	2.95**	<i>H7:</i> Brand authenticity → BA	.11	1.03
<i>H8:</i> BA → PI	.75	8.60***	<i>H8:</i> BA → PI	.99	11.76***

BA=brand attitude

PI=purchase intention

* $p < .05$.

** $p < .01$.

*** $p < .001$

Conclusion of the results

Firstly, the results overall suggest that emotional brand-generated content does not lead to positive brand attitude with consideration of any of the variables (source credibility, brand authenticity, and content authenticity) when the involvement of consumer is low. Secondly, in contrast, rational brand-generated content is persuasive with the creation of source credibility with low consumer involvement. Third, rational user-generated content is effective in influencing consumer brand attitude with the creation of source credibility with low consumer involvement. Finally, while emotional BGC does not lead to positive brand attitude with low consumer involvement, and emotional UGC leads to positive brand attitude with perceived content authenticity as variables.

As for high involvement consumers, the analysis revealed that whether the message is rational/emotional, brand/user, the post is significantly leading to positive brand attitude by enhancing source credibility for highly involved consumers. Besides, the only positive effect on brand attitude by perceived content authenticity is found in rational brand-generated content. Furthermore, the significant impacts of brand authenticity on brand attitude could be found in contrasting message type: Rational UGC and Emotional BGC for high involvement consumers. Lastly, we found that regardless of high or low involvement, rational or emotional content, brand or user-generated content, the effect of brand attitude on consumer purchase intention is significant.

6. DISCUSSION

6.1 Theoretical implications

This current paper extends existing vegetarian studies to include a social media marketing perspective by discovering differences in persuasive types of content. We expand existing communication studies to a comprehensive comparison of two main message types: brand-generated content and user-generated content. This present paper further examines and compares the effectiveness of social media message source (brand and user) in influencing brand attitude and purchase intention of vegetarian food products with the consideration of message type (rational and emotional). To answer the research questions posed in the early part of the study, the test results of hypotheses are discussed below (see Table 7).

Table 7

Result of hypotheses test

Hyp.	Relation	Coefficients	<i>t</i>	Supported
<i>H1</i>	Source X Type→PI	-0.14/0.07	-1.32/.070	No
<i>H2</i>	BGCE: CA→BA (low)	0.21	1.54	No
<i>H3</i>	BGCE: SC→BA (low)	0.10	0.73	No
<i>H4</i>	BGCE: BAU→BA (low)	0.18	1.53	No
<i>H5a</i>	UGCE: CA→BA (low)	0.28	2.05*	Yes
<i>H5b</i>	UGCR: CA→BA (high)	-0.06	-0.61	No

<i>H6</i>	UGCR: SC→BA (high)	0.62	4.20***	Yes
<i>H7</i>	UGCR: BAU→BA (high)	0.28	2.39*	Yes
<i>H8</i>	BA→PI	0.86	26.46***	Yes

Research questions

This current paper examines how the variables related to each other with a set of research questions. The below theoretical implications have been written as the response to these research questions.

1. What differences can be found between brand-generated content and user-generated content in communication outcomes?
2. What are the main effects of emotional/rational message manipulations on both brand-generated content and user-generated content?
3. What are the effects of intervening variables (brand authenticity, content authenticity, source credibility) and control variable (consumer involvement) on consumer brand attitude and purchase intention?

6.1.1 Implications for direct effect on purchase intention

To answer the research question one regarding the different communication outcome of BGC and UGC, the first hypothesis is formed. The results of the first hypothesis showed that neither of the two factors, message source (brand/ user) and message type (rational/ emotional), emerged as a direct and significant influence on purchase intention. Therefore in terms of RQ1, no significant differences were found as the

main effects of message source directly on purchase intention.

This current paper proposed a direct and significantly different effect on purchase intention with different message sources (brand/user) and message type (emotional/rational) built on several studies that suggested the direct effect was found on consumer behavioural intention (Lwin and Phau, 2013; Li, Chong, & Ch'ng, 2015). Chiu, Hsieh, and Gao's study (2017) suggests content types to have a significant and positive effect on consumer word-of-mouth intention. Our study revealed no direct effect of either UGC or BGC on purchase intention, and a different persuasive outcome on purchase intention was not found in either of the conditions.

In answering RQ2, the ANOVA analysis reveals that purchase intention is not significantly different between rational/emotional message and brand/user message. The finding contrasts to existing BGC research, which mostly suggests an emotional, and affective message is more persuasive in affecting communication outcomes (Lwin and Phau, 2013; Chen, Kim, & Lin, 2015). The finding also contrast to the UGC research by Kim and Johnson (2016), which suggests that both emotive and cognitive processes of UGC positively enhance purchase intention and sharing intention. It appears that when considering an unfamiliar food brand such as a new vegetarian brand, consumers may not be prepared to buy if they have not had a chance to build an association with the brand through communication (Chang & Chen, 2008).

In addressing RQ3, this study controlled for personal involvement and analysed the high involvement and low involvement groups separately to determine any effects on brand attitude. The following section discusses implications for the low involvement group followed by implications for the high involvement group.

6.1.2 Implications for Low level of Involvement consumers

Content Authenticity

Firstly, this paper found under low consumer involvement, emotional user-generated messages were found to significantly affect brand attitude with positive perceived content authenticity, yet not for emotional brand-generated content. One possible explanation for this is that consumer perceived content authenticity involves the personal subjective expression of the brands based on consumer consumption experiences (Beverland et al., 2008). UGC appears to serve as a cue for content authenticity because it involves another consumer's personal experience with the brand and low involvement consumers tend to rely on other consumers' opinions (Park and Lee, 2008). As for brand-generated content, Miller (2015) suggests the importance of content authenticity in providing correct information, truth, and facts about a brand to the consumers. This present paper's findings suggest that brand-generated emotional content may be considered to lack this type of information, therefore, it does not lead to a positive increase in brand attitude by the creation of content authenticity. It would not be expected that high levels of content authenticity

would result from an emotional message for consumers with low levels of involvement exposed to an emotional message. With limited existing literature around content authenticity's communication outcome, it is worth future research around content authenticity in UGC communication.

Source Credibility

Yoo & MacLnnis (2005) have suggested that source credibility would positively enhance consumer brand attitude with low levels of involvement in emotional brand-generated content. However, the results of this present paper revealed emotional BGC did not significantly impact brand attitude through any factors (content authenticity, source credibility, and brand authenticity). This is unlike findings in prior studies that suggested an emotional brand-generated message to be more persuasive (Percy & Rossiter, 1992; Chen, Kim, & Lin, 2015).

This unexpected finding also contrasts the concepts in the elaboration likelihood model, which suggests an emotional advertisement is being processed through a peripheral route and enhances consumer brand attitude through source credibility especially with low involvement consumers (Percy & Rossiter, 1992). It might be that an emotional BGC is considered to be less credible for the following reasons. Irelli and Chaerudin (2020) suggest that marketers create a sense of credibility by providing original and detailed information about the product to reduce consumer-perceived risk as the essential factors affecting consumer behavioural intention. An emotional

content might be considered less informative and factual; therefore, the source was not credible enough to the low involvement consumers. It is also possible that the source itself was overlooked by those in the low involvement group, whose interest in the subject is limited. Low involvement consumers did not put into much effort on what features the content had (Park and Lee, 2008). Furthermore, it is also possible that because the brand mentioned in this study is a fictional brand, for low involvement consumers the emotional attachment was not easily be built, and this would explain why source credibility did not influence consumer brand attitude. Moreover, James, Smith, & Platt (2012) in their empirical study on BGC found problem-solving (rational) messages indirectly lead to increasing of consumer brand attitude, and this effect is not found in an empathetic (emotional) message due to product type and message type congruity; utilitarian products reach consumers with positive functional values; therefore, emotional BGC would be less persuasive with this product type. The low involvement consumers may consider the vegetarian brand to be in a functional brand category instead of an emotional brand category; therefore, they seek more rational and detailed product information, which is missing in emotional content. The above reasons make emotional brand-generated content less effective and less credible in brand communication. This argument becomes more likely when it is considered that for low involvement, consumers were exposed to rational brand-generated messages, positive brand attitudes were generated through high perceptions of source credibility.

Brand Authenticity

This study found that under low consumer involvement, both emotional/ rational and user/brand message do not cause any direct and significant effect on brand attitude through perceived brand authenticity. Since there is a lack of studies that examined the relationship between consumer perceived brand authenticity and brand attitude, this present paper filled this gap by building on the study by Kowalczyk and Pounders (2016), who suggested brand content features perceived brand authenticity enhances consumers' emotional thoughts, further raise consumer purchase intention. The present study proposes the same effect between consumer perceived brand authenticity and brand attitude. However, the contradicted result conveyed for low involvement consumers; they can not be persuaded by perceived brand authenticity in the content. It is possible that the significant finding only occurs when the brand is a real brand because previous studies found the significant effects were often on existing brands (Kowalczyk and Pounders, 2016; Arya et al., 2019). Lee and Chung (2019) also define brand authenticity as having "genuine, true, real, and original" characteristics; it is unlikely for participants to find brand authenticity in a manipulated message. Besides, low-involvement consumers are not likely to elaborately engage in message processing, and they often rely on characteristics as a simple sign like the number of likes instead of the content itself or what is being mentioned in the content (Park & Lee, 2008). Therefore they put less effort into thinking whether the brand mentioned in the content was authentic or not.

Additional findings in low levels of consumer involvement group

Additional findings that were not hypothesised became apparent in the regression analysis, which found that rational UGC generated a more positive brand attitude than emotional UGC with higher perceptions of source credibility under low consumer involvement. UGC communicators are often perceived to be more credible than brand communicators (Fileri, 2016). Because this study's context is vegetarian food products, and the message manipulations provide nutrient facts, it is suggested that rational type of health-related UGC could raise consumer awareness of health and reduce perceived health risks during their choice making process (Kareklas, Muehling, & Weber, 2015). Therefore, source credibility in user-generated content appears when the message receivers consider the sources that create the messages are experienced with and are knowledgeable about the products. This appears to reduce perceived purchase risk and enhance brand perception (Owusu et al., 2014).

In answering RQ3, this current paper concluded that for low involvement consumers, both rational user-generated content and rational brand-generated content are persuasive with positive source credibility with rich information provided.

Unexpectedly, emotional brand-generated content is not persuasive in affecting brand perceptions, although emotional user-generated content is persuasive with higher perceived content authenticity. Likely this is because the unfamiliar brand used meant that brand attachment could not easily be built.

6.1.3 Implications for High level of Involvement consumers

Content authenticity

For high involvement consumers, neither emotional user-generated content nor rational user-generated content significantly affects brand attitude with positive content authenticity. This is in contrast to our hypothesis. Our study built on the finding of Kim and Kim (2019), which indicated that perceived content authenticity in UGC positively affects both cognitive and affective access of the message, which leads to an increase in behavioural intention. However, this current paper found that the relationship was not between content authenticity and brand attitude in user-generated content. The combination of product and story behind the real brand ensured a substantive connection and reinforced the consumer's view of content authenticity (Beverland et al., 2008). The fictional brand setting in this current paper does not allow consumers to have a similarly deep connection through real experience with the brand, nor are there authenticity features present that symbolise a brand's heritage, which limits the cues for building content authenticity (Bruhn et al., 2012). Moreover, the demographic analysis showed that in this present research, 80% of the participants have more than ten years of vegetarian experience, they are more aware of the message (Wu & Wang, 2011). It also appears that consumers are becoming aware of food choices based on their life experience because a vegetarian diet requires more effort to seek information (Schösler, Boer, & Boersema, 2011). High involvement consumers may decide not to adopt the cues available on a social media website if such cues are not believed to be authentic and genuine. While this current

study has looked at message manipulation constructs, it is suggested that there is more research to be done here on content and brand authenticity with unfamiliar brands through online communication.

Source Credibility

For participants with a high level of involvement, the effects of source credibility on brand attitude are highest when rational messages are used in user-generated content. The analysis showed that the effect of source credibility on brand attitude for rational UGC is more persuasive than emotional UGC, although both significantly influence brand attitude. This finding is aligned with previous empirical research that suggests that influential UGC features factual and detailed rational information (Filieri, 2016) and emotional factors (Morris, Choi, and Ju, 2016) in creating source credibility. Xiao et al. (2018) suggested that high-involvement consumers favour a strong and credible argument, which provides them with factual knowledge as a reference to make their a purchase decision. This current paper found a similar result: high involvement consumers prefer rational UGC than emotional UGC, heightening perceptions of source credibility.

Interestingly, this present study found that no matter high or low involvement, rational content enhance consumer brand attitude through source credibility. Suggesting rational content is credible and persuasive for vegetarian consumers. Schösler, Boer, and Boersema (2012) found that vegetarians are generally more aware of food choices and more effort to seek information and search for meat replacements. Rational

content may be considered as more informative and detailed. Therefore, no matter it is from users or brands, it is considered credible and persuasive.

Brand Authenticity

For participants with a high level of involvement, the effect of perceived brand authenticity on brand attitude is highest when rational factors are used in user-generated content. This current study filled the gap indicated by Rosado-Pinto, Loureiro, & Bilro (2020) that suggests there are limited studies into the communication outcome of brand authenticity in a social media context by finding that rational UGC could positively enhance brand attitude with high-perceived brand authenticity. So far, there is limited existing literature that has suggested this positive relationship. This current paper built on the study by Arya et al. (2019) suggested the significant and positive effect of perceived brand authenticity on purchase intention when consumer engagement in the brand community is high by finding this significant effect on consumer brand attitude. The relationship only appears with rational UGC instead of emotional UGC, and this is consistent with the findings by Bruhn et al. (2012), who suggest that brand authenticity is a rationally created characteristic informing an individual's subjective perceptions.

Additional findings in high levels of consumer involvement group

Although not being hypothesised, we found for high involvement consumers, the effect of brand-generated content (both message type: emotional/ rational) on brand

attitude is significant with positive level of source credibility. The significant effect of source credibility could be explained according to ELM. When the involvement is high (when the personal importance of the vegetarian topic/food increases), consumers will apply the central route and access cognitive thought to process advertising message, and this is a significant determinant of source credibility (Petty & Cacioppo, 1986). The higher the consumer's involvement in the product to be purchased, the higher their effort to assess the credibility of content (Filiari, 2016).

We conclude that brand advertisement findings could be applied to brand social media communication with both rational BGC and emotional BGC.

Additionally, although not being hypothesised, a positive and significant impact on brand attitude was found for emotional BGC with positive brand authenticity for highly involved consumers. This result is in line with previous research in other contexts, including Serazio (2017) and Kowalczyk and Pounders (2016).

Serazio (2017) suggested in his advertising research of American political brands that political brand authenticity is often linked to an emotional response instead of rationality, and it is these emotions often lead to citizen action to support the political brands. Kowalczyk and Pounders (2016) also undertook a study, which found that celebrity brand content with perceived brand authenticity enhances consumers' emotional attachment and further raises consumer purchase intention. Building on both these research suggesting the persuasiveness of emotional brand-generated content, the current results extend these previous results into a further context: brand social media content.

Moreover, a positive and significant impact on brand attitude was found for rational BGC with positive content authenticity for highly involved consumers. This contrasts with the previous BGC study that suggests this type of message is considered by consumers to be promotional, commercial, and less authentic than UGC (Beverland & Farrelly, 2010; Ertimur and Gilly, 2012). This finding revealed that the brand-generated content can still be perceived to be authentic for high involvement consumers. Besides, most existing advertising studies link content authenticity to emotional components such as feelings and emotional attachment; few have examined the relationship between perceived content authenticity and rational components (Ertimur and Gilly, 2012; Percy & Rossiter, 1992). The facts that rational BGC in this current study described the truth and facts about the brands, this study contributes by finding the link between content authenticity and rational brand content

The relations between brand attitude and purchase intention

The regression analysis in the current paper showed that regardless of message type and message source, low or high consumer involvement, the positive effect of brand attitude on purchase intention is significant. The result reveals a brand attitude to affect purchase intentions in each of the message condition positively. These findings are consistent with previous BGC studies that suggest people are more likely to conduct a real purchase after forming a favourable attitude towards the brand (Al-Swidi et al., 2014; Ajzen, 1991). The study also expands the findings by Lwin and Phau (2013) that suggest that emotional content effectively leads to purchase intention

through positive brand attitude, and the results revealed a significant effect with rational content. The finding is also consistent with previous UGC research that suggests a positive and significant relationship between attitude and purchase intention (Wu & Wang, 2011; Bahtar & Muda, 2015).

6.2 Practical implications

This study fulfilled a practical purpose in determining the effectiveness of persuasive communication in UGC and BGC studies in the context of social media. Based on the results, creating effective persuasive messages involves applying criteria such as brand authenticity, source credibility, and content authenticity. Several managerial implications can be drawn from the results of this current study.

For highly involved vegetarian consumers, to positively influence their brand attitude with design in perceived brand authenticity in the communication, an emotional brand-generated content should be applied. The emotional BGC should be generated with a "real" and "in-person" tone to speak to vegetarian consumers through social media. The marketing manager could deliver the message that the brand truly cares for its consumers by building emotional attachment on brand pages, describing the heritage and tradition of the brand's story in the BGC communication (Beverland et al., 2008). Further, rational user-generated content is also suggested to persuade highly involved consumers with perceived brand authenticity. Although brands cannot directly control consumers' content, they can attempt to find ways to highlight

the rational aspects of reviews and thereby facilitate the message receivers' perceived brand authenticity. The vegetarian brand could encourage consumers to create reviews based on their own designed rating scale, for instance, by asking consumers to rank originality, sincerity, naturalness, and authenticity in their reviews and reward reviewers that follow the brands' designed rating scale with vegetarian food discount.

In this way, the brands can provide high involved consumers with facts straightforwardly and help ensure the quality and rationality of online reviews.

In terms of content authenticity, this is a relatively new term for managers to understand. Pronschinske et al. (2012) suggested that brands will have more fans on Facebook brand pages when embedding authenticity factors into the content. In order to make a brand's content be perceived as authentic, marketers need to ensure the brand stays honest and tells the truth in the message (Henderson and Bowley, 2010).

To target vegetarian consumers, a brand could provide detailed nutrient facts and the processing procedure for their plant-based food to ensure they give the correct product attribute in the content. Health benefits like lower risks of cardiovascular disease and blood-related cancer can also be mentioned in the content since an effective rational BGC is suggested to provide problem-solving and reduce risk features (James, Smith, & Platt, 2012).

For low involvement consumers, emotional user-generated content should be applied. Perceived authenticity in consumer-generated reviews is defined as if the consumers consider the experience described in the content to be a "real" experience (Kim & Kim, 2019). A possible strategy is to allow consumers to report any online reviews of

personal experience. The share of experience could include personal interaction and actual encounters with the brand, which serve as cues of content authenticity to other users. To encourage consumers to create brand-related emotional UGC, brands could provide incentives such as free vegetarian vouchers for consumers to write their reviews with the brands. Since emotion is contagious, consumers might be encouraged to convey their emotional responses in consumer posts (Stieglitz & Dang-Xuan, 2013). In this way, other low involvement consumers might feel the same positive emotional attachment with brands.

The present paper found that consumers, no matter it is from users or brands, rational content, is considered credible and persuasive in affecting brand attitude.

Therefore, brand-generated advertising should contain rational components that create a sense of source credibility in food messages, such as health value, perceived food quality, and service guarantee. Additionally, brands could initiate rewards to recognize reputable consumers who consistently post high-quality reviews, as the quality is dependent on how other consumers rank and respond to reviews. Having a good rating system to reward and improve source credibility would be beneficial to low involvement readers in forming their judgments of review credibility in a short time. The brands could then re-post credible user reviews on their own pages with their responses to comments or plans of improvements. This may encourage more consumers to create their own content because they see the brands actually interacting with them and responding to their opinions (Schösler, Boer, & Boersem, 2011).

7. LIMITATIONS

One of the main limitations of this study lies in the way authenticity was implemented in the experimental materials. In our experimental design, each participant was exposed to a message condition in which the brand and the post mentioning the brand is completely fictional. Although the UGC and BGC were carefully designed based on existing literature, they are still different from an actual brand and user content. Thus, the full measures of consumer perceived content authenticity and consumer perceived brand authenticity in a truly existing content were not tested in this current paper (Zhang, Hu, & Zhao, 2014). Future research may seek to create a study focusing on actual persuasiveness of existing brand posts, comparing brand attitude before viewing the message and after viewing the message, to assess the naturalistic effects of engaging in social media communication.

Furthermore, our study focuses on Taiwanese vegetarian consumers, and we found most of the participants were in higher age groups (over 75% is over 35 years old) which is quite different from usual social media users. Social media messages regarding health and diet have been found to be powerful predictors of future behaviour, especially in young people (Jin, Phua, & Lee, 2015). A different age group involved in this context might explain the contrasting findings with previous research. The future study may find a more recent trend toward moving directly to a vegetarian diet with younger participants.

Moreover, our study shows that for low involvement consumers, rational messages work better than emotional messages. This study provides limited evidence to explain the difference of this finding with existing ELM research for low consumers involvement levels. Future research with improved measures or manipulations of involvement may investigate this question further. Also, the involvement studied in this paper is consumer personal involvement with food information. If future studies compared and measured the involvement participants have towards the message in the experiment, the result might have differed.

Nonetheless, observer and participants bias, and other experimental effects occur when researchers' expectations influence the outcome of the experimental study. The bias appears when researchers expect a certain result or have an incentive to produce data that confirm predictions (Holman, Head, Lanfear, & Jennions, 2015). In the case, this current paper predicted the emotional and rational message to have effects on vegetarian consumer groups. This current study informed the participants of the message manipulation. Thus the participants had the expectation they were being persuaded by the content in the experiment. Researchers suggest if blinding efforts were applied and successful, the participants would not be able to guess the intervention of the experiment, therefore reducing the experimental bias. In any case, not being aware of the intervention received and perceptions of the experimental design can reduce the biased psychological responses of the participants towards the experiment (Schulz & Grimes, 2002).

Additionally, the present study did not measure the motivation of vegetarian

consumers. Previous studies have shown the different efforts respondents put into processing the vegetarian information depending on their motivation of becoming vegetarians (McDonald, 2000). Research has found health-driven vegetarians pay more attention to nutritional-related vegetarian information while animal-driven vegetarians are more aware of animal welfare related content (Jabs et al., 1988).

Further studies could measure the communication outcome based on different motivations of vegetarian consumers.

This current paper also acknowledges an important limitation. This study examined reports of purchase intention immediately subsequent to the message. Consumer responses to rational and emotional content may need more time after exposure to them. Over time, consumers may come to trust what they initially regarded as not credible (Obermiller, Spangenberg, and MacLachlan, 2015). The relationship between source credibility and purchase intention over the long term should be investigated further.

Lastly, this study expands existing vegetarian studies to social media communication fields by focusing on the reaction of consumers towards vegetarian brands. It would be worth studying consumer brand attitude towards the non-vegetarian brands as vegetarian brand purchase intention is not only generated from positive attitude for the brand but also the rejection and negativity for non-vegetarian brands (Alipour & Sabzikaran, 2018).

8. CONCLUSION

Brand-generated content (BGC) and User-generated content (UGC) are not new research areas; many studies have been conducted since the development of Web 2.0 in the 2000s. UGC is a form of online users self value-expression through their emotional or rational point of views, personal experience and feedback on brand-related products or service. The contents nowadays are mostly shared on social media because consumers believe the information will change or reinforce other's beliefs in making their purchase decisions. BGC is a form of a message created by the brand intended to persuade consumers to like, interact, or purchase from the brand. Judging by the result with vegetarian consumers in these Facebook groups, inputs from others (both brand and consumers) does influence a person's decision to purchase through positive impacts on brand attitude.

Previous studies mainly focus on measuring the direct message effect on behavioural intention. Thus, this study aimed to understand how UGC and BGC can influence social media message users brand attitude before influencing purchase intention towards products. Three content-based factors (consumer perceived brand authenticity, source credibility, and consumer perceived content authenticity) significantly influenced consumer brand attitude in different levels of personal consumer involvement. The study demonstrates that for highly involved consumers (in both two types of message), source credibility is significant in affecting consumer brand attitude. We also found for lowly involved consumers, rational messages is

significantly affecting brand attitude with positive source credibility regardless of source. This paper also revealed that emotional BGC is not significant in affecting consumer brand attitude for low involved consumers. The present study makes theoretical contributions demonstrating a contrasting finding of the Elaboration Likelihood Model in a different context, particularly the non-significant influence of emotional brand message on brand attitude through variables with low involvement consumers. It further examines the effects of two different message types and suggests a suitable message strategy for different involvement consumers. The study also makes a practical contribution to social media marketers for the design and management of online content. This study hopes that it will encourage future research to seek a greater understanding of vegetarian consumers in different purchasing scenarios, age group, and involvement with the brand.

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Appendix

Online Questionnaires

Screening Question

1. What is your diet?
 1)vegan 2)vegetarian 3)omnivore

Manipulation check

I perceived the shown picture and related text as a form of...

" 1 = Consumer's post, 5 = Brand/ Restaurant's post (Liljander et al., 2014)

Please choose the best description for the message.

I think the message is...

The message is logical

The message is objective

The message is factual

The message is emotional

The message is subjective

The message is non-factual

1) Strongly Disagree 2) Disagree 3) Somewhat disagree 4) Neither agree
 nor disagree 5) Somewhat agree 6) Agree 7) Strongly Agree

Original Reliability >0.7, Andreu,Casado-Díaz, & Mattila (2015)

Perceived Brand authenticity Scale

1. Hello Veggie seems to have a true passion for its business.
2. Hello Veggie wants to do its best at providing its product/service.
3. Hello Veggie is devoted to what it does.

Strongly Disagree 2) Disagree 3) Somewhat disagree 4) Neither agree nor
 disagree 5) Somewhat agree 6) Agree 7) Strongly Agree

Original Cronbach's alphas:0.93, Moulard et al. (2016)

Perceived Content authenticity Scale

1. I think the content is genuine
2. I think the content seems real to me
3. I think the content is authentic.

1) Strongly Disagree 2) Disagree 3) Somewhat disagree 4) Neither agree nor disagree 5) Somewhat agree 6) Agree 7) Strongly Agree

Original Cronbach's alpha: 0.87, Moulard, Garrity, & Rice (2015)

Source credibility Scale

Trustworthiness

I consider the source of this social media post to be...

1. Dependable
2. Honest
3. Reliable
4. Sincere
5. Trustworthy

Original Cronbach's alpha: 0.81

Expertise

I consider the source of this social media post to be...

1. An expert
2. Experienced
3. Knowledgable
4. Qualified
5. Skilled

1) Strongly Disagree 2) Disagree 3) Somewhat disagree 4) Neither agree nor disagree 5) Somewhat agree 6) Agree 7) Strongly Agree

Original Cronbach's alpha: 0.94, Shan (2016)

Attitude towards the brand Scale

This brand is a good brand.

1. I like this brand very much.
 2. This brand seems to have good quality.
 3. This brand is better than similar brands.
- 1) Strongly Disagree 2) Disagree 3) Somewhat disagree 4) Neither agree nor disagree 5) Somewhat agree 6) Agree 7) Strongly Agree
- Original Cronbach's alpha: 0.97, Pongjit & Beise-Zee (2015)

Purchase intention Scale

1. I would buy this product/brand rather than other brands available product in the future in the future.
 2. I intend to purchase this product/brand in the future.
 3. I am willing to recommend that others buy this product/brand.
- 1) Strongly Disagree 2) Disagree 3) Somewhat disagree 4) Neither agree nor disagree 5) Somewhat agree 6) Agree 7) Strongly Agree
- Original Cronbach's alpha: 0.937, Schivinski & Dąbrowski (2013)

Consumer Food Involvement Scale

1. Eating is very important for me.
 2. Food is continually of interest to me.
 3. Issues related to food have a great concern with me.
 4. I am highly involved in searching and reading information about food.
- 1) Strongly Disagree 2) Disagree 3) Somewhat disagree 4) Neither agree nor disagree 5) Somewhat agree 6) Agree 7) Strongly Agree
- Original Cronbach's alphas: 0.936, Teng & Lu (2016)

Demographic Questions

What is your gender?

☐Male ☐Female ☐Other

Please select your age

☐Under 18 ☐18-24 ☐25-34 ☐35-44 ☐45 and above

☐Prefer not to answer

Please select your highest education degree

☐Doctoral Degree ☐Master's degree ☐Bachelor's degree with honours

☐Bachelor's degree (University) ☐Secondary education (High school & middle

school) ☐Primary education (Elementary School ☐Other____

Which of these describes your income last year?

☐\$0 ☐\$1 to \$9 999 ☐\$10 000 to \$24 999 ☐\$25 000 to 49 999 ☐\$50 000 to 74

999 ☐\$75 000 to 99 999 ☐\$100 000 to 149 999 ☐\$150 000 and greater ☐Prefer

not to answer

Please report your vegetarian experiences

(Skrzypiec & Worsley, 1998)

☐Never been a vegetarian ☐Vegetarian up to 6 months ☐Vegetarian 6 months–1

year ☐Vegetarian 1–2 years

☐Vegetarian 2–5 years ☐Vegetarian for over 5 years ☐Always been a vegetarian

Mandarin Version

中文譯本

Online Questionnaires

Screening Question

1. 請選擇你的飲食習慣?

- 1) 全素食 2) 蛋奶素食 3) 葷食者

Manipulation check

我認為這篇文章的來源是...

" 1 = 消費者, 5 = 店家 (Liljander et al., 2014)

我認為剛剛閱讀的文章是

邏輯性的

客觀的

事實的

帶有情感的

主觀的

非事實的

- 1) 非常不同意 2) 不同意 3) 有點不同意 4) 不同意也不反對 5) 有點同意 6) 同意 7) 非常同意

Original Reliability >0.7, Andreu,Casado-Díaz, & Mattila (2015)

Perceived Brand authenticity Scale

1. Hello Veggie 是有熱忱的的店家

2. Hello Veggie 會提供最好的服務跟食物

3. Hello Veggie 盡力在服務消費者

- 1) 非常不同意 2) 不同意 3) 有點不同意 4) 不同意也不反對 5) 有點同意 6) 同意 7) 非常同意

Original Cronbach's alphas:0.93, Moulard et al. (2016)

Perceived Content authenticity Scale

1. 我覺得文章是真誠的
2. 我覺得文章是確有其事的
3. 我覺的文章是具有真實性的
 - 1) 非常不同意 2) 不同意 3) 有點不同意 4) 不同意也不反對 5) 有點同意 6) 同意 7) 非常同意

Original Cronbach's alpha: 0.87, Moulard, Garrity, & Rice (2015)

Source credibility Scale

Trustworthiness

關於這篇文章的撰寫者，我認為是.....

1. 可靠的
2. 誠實的
3. 可依賴的
4. 真摯的
5. 可信任的

Original Cronbach's alpha: 0.81

Expertise

關於這篇文章的撰寫者，我認為是.....

6. 專業的
7. 有經驗的
8. 充滿知識的
9. 有資格的
10. 有技術的
 - 1) 非常不同意 2) 不同意 3) 有點不同意 4) 不同意也不反對 5) 有點同意 6) 同意 7) 非常同意

Original Cronbach's alpha: 0.94, Shan (2016)

Attitude towards the brand Scale

閱讀完文章後，我認為...

1. 這是一個不錯的餐廳
2. 我喜歡這個餐廳
3. 這家餐廳會提供好的品質的服務
4. 這家餐廳有一些過人之處
 - 1) 非常不同意 2) 不同意 3) 有點不同意 4) 不同意也不反對 5) 有點同意 6) 同意 7) 非常同意

Original Cronbach's alpha: 0.97, Pongjit & Beise-Zee (2015)

Purchase intention Scale

閱讀完文章後，我認為...

1. 我會在未來到這家餐廳消費而不是其他餐廳
2. 我在未來會購買這家餐廳的食物
3. 我會想和朋友推薦這家餐廳
 - 1) 非常不同意 2) 不同意 3) 有點不同意 4) 不同意也不反對 5) 有點同意 6) 同意 7) 非常同意

Original Cronbach's alpha: 0.937, Schivinski & Dąbrowski (2013)

Consumer Food Involvement Scale

請選擇你對食物的投入程度

1. 吃對於我來說是非常重要的事情
2. 我對於研究食物很有興趣
3. 我十分關注食物的議題
4. 我熱衷於搜尋和閱讀食物有關的資料
 - 1) 非常不同意 2) 不同意 3) 有點不同意 4) 不同意也不反對 5) 有點同意 6) 同意 7) 非常同意

Original Cronbach's alphas: 0.936, Teng & Lu (2016)

Demographic Questions

請選擇您的性別？ ☐男 ☐女 ☐其他

請選擇你的年齡

☐ 18 歲以下 ☐19-24 歲 ☐25-34 歲 ☐35-44 歲 ☐45 歲以上

☐Prefer not to answer

請選擇你的最高學歷

☐博士學位 ☐碩士學位 ☐大學學位

☐大學榮譽學位 ☐國中與高中學位 ☐小學學位 ☐其他____

請選擇您的月薪

☐無收入 ☐\$1 到\$20,000 ☐\$20 000 到\$39 999 ☐\$40 000 到 59 999 ☐\$60 000

到 79 999 ☐\$80 000 到 99 999 ☐\$100 000 以上☐不願意回答

請問您吃素多久了

(Skrzypiec & Worsley, 1998)

☐從未長期吃素 ☐半年 ☐半年-一年 ☐一到二年

☐二到五年 ☐五到九年☐九年以上