ความสัมพันธ์ระหว่างลักษณะผู้บริโภคกับเนื้อหาทางการตลาดบนโซเชียลมีเดียเกี่ยวกับผลิตภัณฑ์ผักอินทรีย์: หลักฐานจากผู้ใช้เฟซบุ๊กในกรุงเทพมหานคร ประเทศไทย

The Relationship between Consumer Characteristics and Social Media Marketing Content Regarding Organic Vegetable Products: Evidence from Facebook Users in Bangkok, Thailand

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บทคัดย่อ

บทความนี้มีวัตถุประสงค์เพื่อศึกษาความสัมพันธ์ระหว่างลักษณะของผู้บริโภคผักอินทรีย์และเนื้อหาทางการตลาดบนโซเชียลมีเดีย จากการใช้วิธีการวิจัยเชิงสำรวจซึ่งรวบรวมข้อมูลจากผู้บริโภคผลิตภัณฑ์อินทรีย์ 400 รายซึ่งเป็นลูกค้าของผู้ค้าปลีกรายใหญ่ 4 รายในกรุงเทพฯ ได้แก่ บิ๊กซี เทสโก้โลตัส แมคโครและฟู้ดแลนด์ ด้วยการทดสอบไคสแควร์พบว่า เพศและอาชีพไม่มีความสัมพันธ์กับความคิดเห็นของผู้บริโภคที่มีต่อเนื้อหาต่าง ๆ บนเพจเฟซบุ๊กของบริษัท ในขณะที่พบความสัมพันธ์ดังกล่าวกับสถานที่ซื้อสินค้าที่ชื่นชอบ รายได้ อายุและระดับการศึกษาของผู้บริโภค โดยผู้บริโภคที่บิ๊กซีให้ความสำคัญกับเนื้อหาใน 5 รูปแบบจากทั้งหมด 6 รูปแบบ ส่วนผู้บริโภคที่มีรายได้สูงมักจะให้ความสำคัญกับการรับรองผลิตภัณฑ์อินทรีย์ ผู้บริโภคที่มีอายุมากกว่าให้ความสำคัญกับแหล่งการผลิตผลิตภัณฑ์อินทรีย์ ในขณะที่ผู้บริโภคที่มีระดับการศึกษาสูงขึ้นให้ความสนใจกับภาพเคลื่อนไหวอินโฟกราฟิก การศึกษานี้จึงมีส่วนต่อยอดกระบวนทัศน์การสื่อสารที่ริเริ่มโดยลูกค้าโดยการขยายความเข้าใจอย่างลึกซึ้งถึงความสัมพันธ์ระหว่างลักษณะผู้บริโภค (ได้แก่ เพศ สถานที่ซื้อสินค้าที่ชื่นชอบ ระดับรายได้ อายุ ระดับการศึกษาและอาชีพ) และรูปแบบเนื้อหาทางการตลาดบนหน้าเฟซบุ๊กของบริษัท บทความนี้จึงเสนอผลการวิจัยที่มีประโยชน์ต่อการสร้างเนื้อหาทางการตลาดบนเฟซบุ๊กอย่างเหมาะสมเพื่อดึงดูดความสนใจของผู้บริโภคผักอินทรีย์

คำสำคัญ: การตลาดผ่านโซเชียลมีเดีย เฟซบุ๊ก ผักอินทรีย์ ลักษณะผู้บริโภค

Abstract

The purpose of this paper is to investigate the relationship between the characteristics of organic vegetable consumers and social media marketing content. By utilizing a survey research method, we collected data from 400 organic product consumers that are clients of the big four retailers in Bangkok, Thailand: Big C, Tesco Lotus, Macro, and Foodland. The chi-squared tests revealed that gender and occupation were not related to the consumers' opinion of the contents on the companies' Facebook pages, while the consumers' favorite shopping places, income, age, and levels of education were. Consumers at Big C paid more attention to five out of the six contents, whilst consumers that had higher income tended to pay more attention to organic certification. Older consumers focused on sources of organic production, while consumers that had a higher educational level paid more attention to infographic animation. The current study contributes to a customer-initiated contact (CIC) communications perspective by providing a deeper understanding of the relationship between consumer characteristics (i.e., income level, favorite shopping places, gender, age, educational level, and occupation) and the perceived marketing contents of a company's Facebook page. Clearly, these findings are useful for effectively creating marketing content on Facebook in order to appropriately attract organic vegetable consumers.

Keywords: Social Media Marketing, Facebook, Organic Vegetables, Consumer Characteristics

Introduction

Organic products have been continually attracting Thai consumers. Since 2017, the market size of organic products has been increasing, with an estimated growth rate of 6.6% compound annual growth rate (CAGR) [1], and represented a value of US$20.2 million in 2019 [2]. Due to the current trend of health consciousness, the increased demand for food safety has rapidly increased the number of healthy food businesses in Thailand, which has led to the expansion of the production of organic vegetables. Organic food distribution has also expanded to the big four retailers in Bangkok: Big C, Tesco Lotus[5], Macro, and Foodland [3].

Organic vegetables (as one of the organic products) have been selected for study because the demand for these products in the market, especially on the part of the big four retailers, has continually increased every year [3]. However, it seems that the organic product market is still in its infancy, and the quantity of research on consumer characteristics and social media marketing for these vegetables in Thailand is limited [3]. It also seems that the consumers of these vegetables have been influenced by social media marketing, especially Facebook. Despite the importance of understanding whether organic product consumers, who have different characteristics, have the same opinion of the content on the company's Facebook page, there have been few studies focusing on this area.

By narrowing down the scope of the issue presented above, this paper aims to investigate the relationship between the characteristics of Thai organic product consumers and their opinions of the content on the company's Facebook page regarding organic vegetable products that have not been empirically examined before. The rest of the paper is organized as follows. First, the organic vegetable market in Thailand and the concepts of social media marketing and consumer characteristics are discussed. Next, research hypotheses concerning the relationship between consumer characteristics and the content of the company's Facebook page regarding organic vegetable products are then developed. After that, the research methodology and analyses of the results are presented. Finally, the implications of the findings, limitations, and recommendations are discussed.

Objective

The objective of this paper is to investigate the relationship between the characteristics of organic vegetable consumers and social media marketing content.

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5 As data were collected in 2016, and we use the name of the company: "Tesco Lotus" in this paper. The name of this comnay changed to "Lotus's" in Febuary, 2021.

Literature Review and Research Hypotheses

The Organic Vegetable Market in Thailand

It seems that Thai organic vegetable consumers are paying greater attention to information related to a product that they intend to purchase in order to ensure that they will receive an actual organic product [3, 4]. There are several terms in the literature that are associated with the definition of organic food [5]. Examples are biological, ecological, natural, alternative, unsprayed, free of pesticides, and environmentally friendly production. Akaichi et al. [5] explain that organic vegetables have been grown and delivered without chemical pesticides, herbicides, fertilizers, or other additives, on land that conforms to the standards of an organic certification board. Therefore, organic products are unlikely to contain residues of these chemicals.

Many organic product consumers are also concerned with the source of the products delivered to a retailer and how these products are cultivated. They hence expect that organic agriculture is likely to involve environmentally-conscious cultivation and production, taking into account the balance of nature and biodiversity by employing non-chemical synthesis without the use of chemical fertilizers, pesticides, hormones, or genetically modified organisms (GMOs) but where manure, compost manure, and fertilizer can be used. Examples of organic farming practices include using natural fertilizers to feed the soil and plants, and using crop rotation or mulch to manage weeds [6].

As consumers have been increasingly paid more attention to health consciousness, they demand food safety. This situation increased the number of healthy food businesses in Thailand. Consequently, there was an expansion of the production of organic vegetables and an increase in competition in the market. The key players in organic food distribution include Big C, Tesco Lotus, Macro, and Foodland[3]. As more and more players have entered the market, this situation has led to increased competition. All players, therefore, have paid more attention to creating a series of marketing campaigns to attract prospective customers. Because of the advent of the Internet, social media marketing is well recognized as an effective marketing strategy in the market. It is appealing because it overcomes consumer resistance, costs significantly little, and delivers products quickly—especially through technology such as social media and mobile technologies [7]. Some of the concepts related to social media marketing are presented in the next section.

Social Media Marketing

Social media marketing is the process of gaining website traffic or attention through social media sites [8]. Social media marketing content is usually created to attract attention and encourage readers to share it across their social networks. Online consumer reviews

appearing on a company's Facebook page are considered the electronic word of mouth (eWOM). According to Filieri [9], these reviews are conceptualized as any positive, neutral, or negative information about a product, service, company, or brand created and published on a consumer review platform or social media sites by a potential, former, or actual customer. When the underlying reviews spread from user to user, this would have an impact on the image of the product, service, company, or brand. These reviews presumably resonate as they are created by a trusted, third-party source.

There are four types of social media: social or online communities (e.g., Facebook), blogs, microblogs, and RSS (real simple syndication). Companies can use one or more of these to market products, services, and even other companies. Once a company has chosen a particular medium of networking, the marketing content needs to be creatively developed [10]. Among the four types of social media mentioned above, Facebook is the most popular and is based on Thai consumers' perceptions. Facebook can be used to achieve a company's marketing objectives, such as customer engagement and branding [11].

Previous studies [12-14] investigated marketing communication motifs applied on Facebook, and it was found that the usage of images was a powerful marketing communication tool. Some marketers use nonprofessional images accompanying recommendations. These images give the impression of organic content posted by an ordinary user that has had experience in consuming such products. Further, repeated recommendations have been commonly found on companies' Facebook pages. Marketing communication will not settle for a single recommendation for a product or service but will do so multiple times on a variety of different dates. Such recommendations help to increase the intention to purchase. Roth-Cohen and Lahav [12] found that social media serve as a tool for tourists, who are frequently not capable of coping with the volume and diversity of destination choices. A prospective customer, hence, requires advice and recommendations. Because user experience cannot be evaluated prior to consumption, personal recommendations are very influential. This means that a new customer relies heavily on the advice of current customers that have a positive view of a product or service. In the same way, this viewpoint may be applied to the case of organic products.

The top four retailers in Bangkok, i.e., Big C, Tesco Lotus, Macro, and Foodland, have chosen Facebook as their marketing "weapon." Based on our previous project [3], these companies provide useful information related to their products and sales promotions through their Facebook page. Especially with regards to organic vegetables, the companies provide "VDO clips presenting experts' opinions on the benefits from consuming organic vegetables,", "infographic animation presenting information related to organic vegetables," and "suggestions

for useful links providing in-depth information related to organic vegetables raw materials, and ingredients," "pictures presenting the differences between organic vegetables and conventional products," "sources of organic production," and "in-depth information related to organic certification." By providing these contents, the companies believe that consumers would be possibly motivated to purchase organic vegetables. These contents have also been mentioned in previous studies [12-14]. Therefore, these contents are the focus of this study.

Consumer Characteristics

Consumer characteristics are generally related to various demographic, psychographic, behavioristic, and geographic traits. According to marketing literature related to market segmentation [15, 16], it is effective to target customers based on a mixture of socio-demographic, behavioral, and psychographic characteristics. The consumer characteristics included in this study are intended to represent different preferences in terms of the social media marketing content appearing on Facebook. Accordingly, consumer characteristics such as income level, favorite shopping places, gender, age, educational level, and occupation will help to identify and address customers for example *via* marketing communication.

The relationship between consumer characteristics and the perceived content on the company's Facebook Page

Social media interactions are already recognized as a valuable tool for building customer–firm interaction management. Facebook brand pages are not only channels for delivering brand messages, but they are also vital platforms for customer-initiated contact (CIC) [13]. By applying a customer-initiated contact (CIC) communications perspective, CIC is defined as "any communication with a manufacturer that is initiated by a customer (or prospective customer)" [17]. For example, consumer packaged goods sold through retail channels include inquiries about a product's use, availability, and reformulation; requests for refunds; and complaints about performance. Companies have been increasingly viewing each contact with their customers as an opportunity that needs to be managed. Customer-initiated contacts (CICs) are an important source of richer information about customers' needs, concerns, questions, and so forth.

Furthermore, such interactions are becoming more widespread as a result of shifting customer attitudes and social media platforms (e.g., Facebook) that enable customers' active participation with an aggressive pursuit of information from businesses. CICs are an important aspect of a company's customer relationship management because they can collect more detailed information about consumers, interact with them more frequently, and design more appropriate replies to them. Firms are beginning to see CICs as a chance to establish and manage customer loyalty and influence electronic word of mouth (eWoM), particularly in

areas where the expense of personally engaging customers is prohibitively high (e.g., consumer packaged goods) [17].

As CIC (customer-initiated contact) is discussed in the context of customer–firm interaction management [13], the current study applies the CIC communication model [17] to extend the understanding of the relationship between consumer characteristics and the perceived marketing contents on a company's Facebook page. It seems that empirical study related to this relationship is quite rare. By analyzing the literature related to online shopping [18], we found that researchers pay more attention to demographics and the shopping experience of consumers. The most frequently-studied factors according to the demographics are age [19, 20] and gender [19, 21]. On the other hand, some researchers have examined education [19], household income, and family composition [21] as the demographic factors affecting shopping online. However, the results of the demographic characteristics and motivation for shopping online are mixed [18].

According to Krause and Battenfeld's [15] literature review, several researchers found relationships between consumer characteristics: gender, educational achievement and age, and consumer behavior. For example, the consumption of green products is predominately exercised by higher-educated women and younger consumers [22]. The hypotheses regarding income level, favorite shopping places, gender, age, educational level, and occupation follow the overall picture of previous studies as follows:

Research Hypothesis 1. Organic product consumers that have different income levels have different opinions of the content on the company's Facebook page.

Research Hypothesis 2. Organic product consumers that have different favorite shopping places have different opinions of the content on the company's Facebook page.

Research Hypothesis 3. Male and female organic product consumers have different opinions of the content on the company's Facebook page.

Research Hypothesis 4. Organic product consumers that have different ages have different opinions of the content on the company's Facebook page.

Research Hypothesis 5. Organic product consumers that have different educational levels have different opinions of the content on the company's Facebook page.

Research Hypothesis 6. Organic product consumers that have different occupations have different opinions of the content on the company's Facebook page.

Methodology

Population and sample

In this study, the individual consumer of an organic product is considered the unit

of analysis. As far as we have known, the number of consumers of this product is unclear. Hence, we adopted Cochran's [23] formula for calculating sample size when the population is infinite as shown below.

$$n_0 = \frac{(z^2\, pq)}{e^2}$$

Where n_0 is the sample size, z is the selected critical value of desired confidence level, p is the estimated proportion of an attribute that is present in the population, q = 1– p, and e is the desired level of precision. Suppose we wanted to calculate a sample size of a large population whose degree of variability was not known. Assuming the maximum variability, which was equal to 50% (p = 0.5) and taking 95% confidence level with ± 5% precision, the calculation for the required sample size was as follows.

$$n_0 = \frac{(1.96)^2\,(0.5)\,(0.5)}{(0.05)^2} = 384.16 = 384$$

Note: p = 0.5 and hence q =1-0.5 = 0.5; e = 0.05; z =1.96

In utilizing the survey research method, data from 400 organic product consumers that were clients of the big four retailers (cited earlier) in Bangkok, Thailand were collected in 2016. The multistage random sampling technique was utilized to select the samples. First, we proportionally calculated the sample for each of the four retailers based on its size (number of branches) compared to the others. Secondly, we randomly selected the geographical areas where the branch of each retailer was located. We also calculated the sample size per branch based on proportional allocation. Finally, a questionnaire was proportionally selected for each consumer on-site (a chosen branch) based on gender and educational level. Due to space limitations, a sample classified by favorite shopping places is available upon request.

Data collection and research instrument

The research tool used in this study is questionnaires which the questions are referred to from the literature review and relevant studies. The questionnaires can be divided into 3 parts as follows: -

Part 1: Screening questions for collecting the consumers who live in the Bangkok Metropolitan Region.

Part 2: Demographic questions of the respondents include income level, favorite shopping places, gender, age, educational level, and occupation

Part 3: The questions regarding a consumer's opinion on the content on the companies' Facebook page. By applying Dokyun, Hosanagar, and Nair's [14] study, the six

items of the content on the companies' Facebook pages were rated on a five-point scale from "not important" (1) to "very important" (5). These items included Content 1: "VDO clips presenting experts' opinions on the benefits of consuming organic vegetables"; Content 2: "infographic animation presenting information related to organic vegetables"; Content 3: "suggestions for useful links providing in-depth information related to organic vegetables, raw materials, and ingredients"; Content 4: "pictures presenting the differences between organic vegetables and conventional vegetables"; Content 5: "sources of organic production"; and Content 6: "in-depth information related to organic certification." A questionnaire was launched to each consumer on-site (a chosen branch). Sample classified by favorite shopping places is available upon request.

Scale Validity and Reliability

The Index of Item-Objective Congruence (IoC) developed by Rovinelli and Hambleton [1977, cited in 24] was used to evaluate the content validity. The questionnaire was reviewed and scored by three experts in the field of academic research and business to test the content validity and suitability of wording. The meaning of the score is as follows: congruent = +1, questionable = 0, and incongruent = -1. The items that had scored lower than 0.6 were revised. On the other hand, the items that had scored higher than or equal to 0.6 were reserved. We found that all items had scored higher than 0.6, so this meant that there was no problem related to the content validity.

In general, single-item measures are commonly accepted practices, such as those measuring self-reported facts, e.g., income level, favorite shopping places, gender, age, educational level, and occupation [25]. Each item of content on the company's Facebook page was treated as a variable and considered a single-item measure too. Hence, reliability is not likely to be a significant issue in this study.

Potential non-response bias

We checked the data for potential non-response bias by comparing the opinions on the content on the company's Facebook page between the early and late respondents. By following the procedure proposed by Tharenou, Donohue, and Cooper [26], the chi-squared tests for both categories indicated no statistically-significant differences between the two groups of respondents.

Results and Discussion

As presented in Table 1, the chi-squared tests revealed that gender and occupation were not related to the consumers' opinion of the content on the company's Facebook page, while the consumers' favorite shopping places (Big C, Tesco Lotus, Macro, and Foodland),

income, age, and level of education were related to this opinion. Due to space limitations, the findings of the cross-tabulation analysis are available upon request. Note that the five-point scale from "not important" (1) to "very important" (5) was regrouped from "not important" (1) to "very important" (3) concerning the assumptions of the chi-squared (i.e., the value of the cell expected should be 5 or more in at least 80% of the cells, and no cell should have an expected of less than one) [27].

Table 1 Key findings

Consumer characteristics	Content 1	Content 2	Content 3	Content 4	Content 5	Content 6	Hypothesis Test Summary
(H1) Income level	NS†	NS†	NS†	NS†	NS†	.028*	Supported only Content 6
(H2) Favorite shopping places	.000*	.000*	.008*	NS†	.043*	.005*	Supported only Contents 1, 2, 3, 5, 6
(H3) Gender	NS†	NS†	NS†	NS†	NS†	NS†	Rejected
(H4) Age	NS†	NS†	NS†	NS†	.028*	NS†	Supported only Content 5
(H5) Educational level	NS†	.049*	NS†	NS†	NS†	NS†	Supported only Content 2
(H6) Occupation	NS†	NS†	NS†	NS†	NS†	NS†	Rejected

† Not significant at the 0.05 level ($p > 0.05$)

* P-value, significant at the 0.05 level

The findings partially supported Hypothesis 1 (see Table 1). While organic product consumers that have different income levels have the same opinions toward Contents 1, 2, 3, 4, and 5, consumers that have higher income tend to pay more attention to Content 6: "suggestions for useful links providing in-depth information related to organic certification". These findings are consistent with our understanding that consumers that have higher income usually are well educated. Therefore, they are happier to receive in-depth information relating to organic certification. Due to space limitations, the findings of the cross-tabulation analysis are presented in Appendix.

The findings partially supported Hypothesis 2 (see Table 1). Organic product consumers that have different favorite shopping places have different opinions toward Content 1: "VDO clips presenting experts' opinions on benefits from consuming organic vegetables"; Content 2:"infographic animation (motion graphics) presenting information relating to organic

vegetables"; Content 3: "suggestions for useful links providing in-depth information related to organic vegetables, raw materials, and ingredients"; Content 5: "appearance of sources of organic production"; and Content 6: "suggestions for useful links providing in-depth information relating to organic certification" but not Content 4: "pictures presenting the differences between organic vegetables and conventional products." When compared with consumers from other stores, the consumers from Big C paid more attention to Content 1, 2, 3, 5, and 6. These findings are very interesting since they are new, and there is no existing knowledge explaining why this happened. Therefore, future research may investigate this issue further. Note that the findings of the cross-tabulation analysis are presented in Appendix.

The findings rejected Hypothesis 3. This means that the men and women in this study had the same opinions of the content on the company's Facebook page. This would explain that organic vegetables have become a unisex product that requires the same content strategy.

The findings partially support Hypothesis 4. The older consumers paid more attention to Content 5: "appearance of sources of organic production" when compared with the younger consumers. However, the consumers that had different ages had the same opinion of the other content. It can be argued that older consumers are normally aware of more details of what they plan to eat due to higher levels of health concerns. That is why they are more concerned with the sources of organic production. Note that the findings of the cross-tabulation analysis are presented in Appendix.

The findings partially supported Hypothesis 5. The consumers that had a higher educational level paid more attention to Content 2: "infographic animation (motion graphics) presenting information related to organic vegetables" when compared with others. Nevertheless, other consumers had the same opinion of other content. It can be argued that well-educated consumers are normally interested in how information is presented. Generally, infographic animation (motion graphics) gains more attention from an audience when compared with other presentation techniques. Note that the findings of the cross-tabulation analysis are presented in Appendix.

Finally, the findings rejected Hypothesis 6. This means that consumers that have different occupations have the same opinions of the content on the company's Facebook page. This would explain why organic vegetables have become a common product based on the view of bureaucrats, state enterprise officers, the company's staff, business owners, and students. Therefore, the content on a Facebook page could be developed in the same way regardless of occupation.

Implications, Limitations, and Recommendations

The purpose of this paper was to investigate the relationship between consumer characteristics and the consumers' opinion of the contents on the company's Facebook page. Descriptive statistics that are related to the research objective are presented in Appendix. The chi-squared tests revealed that the consumers' favorite shopping places (Big C, Tesco Lotus, Macro, and Foodland), income, age, and level of education were related to this opinion. On the other hand, gender and occupation were not related to the consumers' opinion of the content on the company's Facebook page when compared with the younger individuals.

This current study contributes to a customer-initiated contact (CIC) communications perspective by extending a deeper understanding of the relationship between consumer characteristics (i.e., income level, favorite shopping places, gender, age, educational level, and occupation) and perceived marketing content on a company's Facebook page. This paper supports that CIC is significantly useful in the context of customer–firm interaction management [13, 17] as follows.

First, this paper explains how to use a Facebook page more effectively by ordering the content that organic product consumers thought was the most important and that would benefit them the most. By providing this content, the companies believe that consumers would be possibly motivated to purchase organic vegetables. Facebook can be used to achieve a company's marketing objectives, such as customer engagement, as suggested by Jarvinen, Tollinen, Karjaluoto, and Jayawardhena [11]. As mentioned by Carlson and Lee [10], this paper provided answers to the questions that have been asked by academicians and marketers.

Secondly, according to the findings, we may assume that organic product consumers are normally attracted to how well the information is presented on the company's Facebook page. Generally, Content 4: "pictures presenting the differences between organic vegetables and conventional vegetables" gain attention from most of the audiences regardless of any differences in their characteristics (i.e., the consumers' favorite shopping places, income, age, and level of education). Therefore, retailers may post pictures that present the differences between organic vegetables and conventional vegetables on their Facebook pages. This would attract the attention of a customer.

Thirdly, gender and occupation were seen to not be related to the consumers' opinion of the content on the company's Facebook page. The findings would help marketers design the content and appearance of a banner posted on a Facebook page. For example, marketers may focus on unisex positioning aiming to please both men and women at the same time.

Fourthly, consumers' favorite shopping places (Big C, Tesco Lotus, Macro, and Foodland), income, age, and level of education were related to this opinion. Consumers at Big C paid more attention to five out of the six contents. Therefore, Big C's marketers should

frequently update "VDO clips presenting experts' opinions on the benefits from consuming organic vegetables," "infographic animation presenting information related to organic vegetables," "suggestions for useful links providing in-depth information related to organic vegetables, raw materials, and ingredients," "sources of organic production," and "in-depth information related to organic certification."

Consumers that have higher income tend to pay more attention to "suggestions for useful links providing in-depth information relating to organic certification." In Thailand, consumers that have a higher income are usually well educated. Therefore, they are happier to receive in-depth information related to organic certification. Hence, the marketers of the big four retailers, especially Big C, should always update the in-depth information related to organic certification regarding their organic vegetable products. Further, the retailers may consider mainly selecting a supplier that can provide certified organic vegetables, as well as information related to certification.

Older consumers were seen to pay more attention to the "appearance of sources of organic production" when compared with younger consumers. Therefore, the marketers of the big four retailers, especially Big C, should provide in-depth information related to the sources of organic production. As a result, these consumers will understand how well organic vegetables are produced, and then have more confidence in purchasing and consuming these vegetables.

Consumers that have a higher educational level were seen to pay more attention to "infographic animation (motion graphics) presenting information related to organic vegetables." This means that well-educated consumers are interested in how information is presented. Generally, infographic animation gains more attention from an audience as it is more quickly understandable when compared with other techniques. Consequently, marketers should use infographic animation to present information related to organic vegetables if they want to attract target groups that hold bachelor's, master's, or doctoral degrees.

Despite the above findings and contributions, this research was limited by the time constraints involved in completing the research project, both regarding the breadth and depth of the analysis and the interpretation of results. The following specific limitations were identified while conducting this research. Since we used the cross-sectional survey method, causal inferences must be made with caution [28]. We recommend a longitudinal or experimental study to strengthen the causal inferences. Finally, this study provides unique insights into the relationship between consumer characteristics and opinions on the content on the companies' Facebook pages in the context of Bangkok, Thailand. The findings from this study may apply to other cities in Thailand, as well as emerging economies in Asia. Hence replicating and extending this work to other cities and emerging economies may provide a basis for external validation of the findings of this study.

Appendix (cross-tabulation tables present only research hypotheses that are supported)

Research Hypothesis 1: Organic product consumers that have different income levels have different opinions of the content on the company's Facebook page.

Income	Content 6: "in-depth information related to organic certification."						Total		Chi-square Value	Chi-Square prob
	Not important		Important		Very important					
	Count	% within Income	Count	% within Income	Count	% within Income	Count	% within Income		
USD 127 – 401	9	9.0%	22	22.0%	69	69.0%	100	100	14.115[a]	.028
USD 402 – 568	18	13.9%	51	39.2%	61	46.9%	130	100		
USD 569 – 852	8	8.7%	28	30.4%	56	60.9%	92	100		
USD 853 – 2,841	10	12.8%	30	38.5%	38	48.7%	78	100		

a.0 cells (.0%) have an expected count of less than 5. The minimum expected count is 8.78.

Research Hypothesis 2: Organic product consumers that have different favorite shopping places have different opinions of the content on the company's Facebook page.

Favorite shopping places	Content 1: "VDO clips presenting experts' opinions on the benefits of consuming organic vegetables"						Total		Chi-square Value	Chi-Square prob
	Not important		Important		Very important					
	Count	% within Favorite shopping places	Count	% within Favorite shopping places	Count	% within Favorite shopping places	Count	% within Favorite shopping places		
Macro	2	4.2%	22	45.8%	24	50.0%	48	100	26.407[a]	.000
Big C	11	7.8%	25	17.7%	105	74.5%	141	100		
Tesco Lotus	7	5.0%	42	29.8%	92	65.2%	141	100		
Foodland	10	14.3%	27	38.6%	33	47.1%	70	100		

a.cells (8.3%) have an expected count of less than 5. The minimum expected count is 3.60.

Favorite shopping places	Content 2: “infographic animation presenting information related to organic vegetables”						Total		Chi-square Value	Chi-Square prob
	Not important		Important		Very important					
	Count	% within Favorite shopping places	Count	% within Favorite shopping places	Count	% within Favorite shopping places	Count	% within Favorite shopping places		
Macro	3	6.3%	20	41.7%	25	52.1%	48	100	33.830[a]	.000
Big C	10	7.1%	38	27.0%	93	66.0%	141	100		
Tesco Lotus	13	9.2%	45	31.9%	83	58.9%	141	100		
Foodland	21	30.0%	11	15.7%	38	54.3%	70	100		

a.0 cells .)0 (%have an expected count of less than 5 .The minimum expected count is 5.64.

Favorite shopping places	Content 3: "suggestions for useful links providing in-depth information related to organic vegetables, raw materials, and ingredients"						Total		Chi-square Value	Chi-Square prob
	Not important		Important		Very important					
	Count	% within Favorite shopping places	Count	% within Favorite shopping places	Count	% within Favorite shopping places	Count	% within Favorite shopping places		
Macro	3	6.3%	22	45.8%	23	47.9%	48	100	17.281[a]	.008
Big C	12	8.5%	31	22.0%	98	69.5%	141	100		
Tesco Lotus	9	6.4%	52	36.9%	80	56.7%	141	100		
Foodland	9	12.9%	28	40.0%	33	47.1%	70	100		

a. 1 cell (8.3%) has an expected count of less than 5. The minimum expected count is 3.96.

Favorite shopping places	Content 5: "sources of organic production"						Total		Chi-square Value	Chi-Square prob
	Not important		Important		Very important					
	Count	% within Favorite shopping places	Count	% within Favorite shopping places	Count	% within Favorite shopping places	Count	% within Favorite shopping places		
Macro	5	10.4%	14	29.2%	29	60.4%	48	100	13.009a	.043
Big C	19	13.5%	31	22.0%	91	64.5%	141	100		
Tesco Lotus	21	14.9%	47	33.3%	73	51.8%	141	100		
Foodland	17	24.3%	23	32.9%	30	42.9%	70	100		

a. 0 cells (.0%) have an expected count of less than 5. The minimum expected count is 7.44.

Favorite shopping places	Content 6: "in-depth information related to organic certification"						Total		Chi-square Value	Chi-Square prob
	Not important		Important		Very important					
	Count	% within Favorite shopping places	Count	% within Favorite shopping places	Count	% within Favorite shopping places	Count	% within Favorite shopping places		
Macro	5	10.4%	22	45.8%	21	43.8%	48	100	18.358a	.005
Big C	12	8.5%	31	22.0%	98	69.5%	141	100		
Tesco Lotus	20	14.2%	50	35.5%	71	50.4%	141	100		
Foodland	8	11.4%	28	40.0%	34	48.6%	70	100		

a.0 cell has an expected count of less than 5 .The minimum expected count is 5.40

Research Hypothesis 4: Organic product consumers that have different ages have different opinions of the content on the company's Facebook page.

Age	Content 5: "sources of organic production"						Total		Chi-square Value	Chi-Square prob
	Not important		Important		Very important					
	Count	% within Age	Count	% within Age	Count	% within Age	Count	% within Age		
Under 25 years	20	16.1%	27	21.8%	77	62.1%	124	100	14.161[a]	.028
26-35 years	27	19.6%	43	31.2%	68	49.3%	138	100		
36-45 years	5	6.4%	31	39.7%	42	53.8%	78	100		
Over 46 years	10	16.7%	14	23.3%	36	60.0%	60	100		

a. 0 cells (.0%) have an expected count of less than 5. The minimum expected count is 9.30.

Research Hypothesis 5: Organic product consumers that have different educational levels have different opinions of the content on the company's Facebook page.

Education level	Content 2: "infographic animation (motion graphics) presenting information relating to organic vegetables"						Total		Chi-square Value	Chi-Square prob
	Not important		Important		Very important					
	Count	% within Education	Count	% within Education	Count	% within Education	Count	% within Education		
Undergraduate	4	5.6%	24	33.8%	43	60.6%	71	100	9.523[a]	.049
Bachelor Degree	36	13.3%	81	30.0%	153	56.7%	270	100		
Higher Education	7	11.9%	9	15.3%	43	72.9%	59	100		

a. 0 cells (.0%) have an expected count of less than 5. The minimum expected count is 6.93.

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