

The Influence of Product Quality Perception in the Green Market on the Word-of-Mouth of Consumers in Khon Kaen

Theenida Buntornwon* Thitaree Sirimongkol² and Rungnapa Kittilap³

Received : January 31, 2023 Revised : May 15, 2023 Accepted : June 7, 2023

Abstract

Since the emerging trend is related to health and wellness in Thailand, government agencies have initiated green market projects to encourage consumers to purchase non-toxic goods. This research studies the perceptions of product quality in the green market and how it affects word-of-mouth, using satisfaction, trust and commitment as intermediate variables. The results show that product quality does affect satisfaction. Satisfaction does affect trust, word of mouth and commitment. Trust has a positive influence on commitment. Although, trust does not have a significant direct influence on word of mouth. The research findings are beneficial for the entrepreneurs. They need to ensure the product quality in order to meet consumer expectations. If they want consumers to spread positive word-of-mouth, they need to build consumer satisfaction and commitment.

Keywords : Perceived Product Quality, Satisfaction, Trust, Commitment, Word-of-Mouth

*³ Lecturer, Faculty of Business Administration, Northeastern University, Khon Kaen

² Assistant Professor, Faculty of Business Administration, Northeastern University, Khon Kaen

² Corresponding author E-mail : thitaree.dur@neu.ac.th

1. Introduction

1.1 Background

Thailand's readiness for agriculture results in Thailand producing sufficient food for domestic consumption and being able to export food for distribution abroad. Thailand is recognised as the one of the world's largest net food exporting countries. Thailand exports over half of its total agricultural production (Office of Agricultural Economics, 2017). However, drought has affected the production of fruit and vegetable in the first half of 2020, resulting in an increase in fruit and vegetable prices (Piyasinchat, 2020).

The organic fruit and vegetable market has been less severely affected by the covid-19 pandemic than other markets, as there is a growing awareness of healthy and nutritional diets. Nevertheless, Thailand uses many fertilisers and chemicals in the production of agricultural products. The improper use of synthetic fertilisers, pesticides and herbicides can have adverse effects on the health of both consumers and farmers.

Thailand Health Promotion Foundation (ThaiHealth), an autonomous government agency established by the Health Promotion Act in 2001, has initiated green market projects to encourage the consumption of safe and nutritionally valuable fruits and vegetable, and create a distribution channel for farmers selling organic products. The green market is an alternative market in which farmers can sell products produced without the use of chemicals. Organic produce contains more protective antioxidants, less pesticide residue and lower levels of toxic metals. Moreover, the waste from the production process is minimal, easily disposed of and able to be reused in the community. This reduces residual chemicals in the environment (Uacharasphan, 2015).

Consumers can change their behaviour from purchasing chemical-involved products to purchasing organic products that are safe for their health, environmentally friendly, and supporting the local communities. Therefore, the green market is working towards a greener society, by building stable and sustainable economic communities. Supplying non-toxic agricultural products through conventional distribution channels, such as fresh markets, department stores and large wholesale markets, may cause the market not to notice that the value and quality of products has changed (Piyawan-on, 2013). The green market is a place for consumers to purchase vegetables that are free from contaminants, but it also stimulates trade in the community, helping communities to be sustainable and self-dependent while maintaining the environment (Meemak, 2010).

One issue for organic products is that they do not receive sufficient public attention. The advertising is restricted to a specific group (Wiriyakitkajorn et al., n.d.; Uacharasphan, 2015). Word of mouth, which is a type of integrated marketing communication, may be applied for spreading organic product information between consumers with low costs. The significant factor, which consumers always share with others, is satisfaction. The study of Konuk (2019) showed that the organic food quality affects satisfaction and satisfaction has a positive influence on word-of-mouth intention respectively. Therefore, this research studies the influence of perceived product quality on the word-of-mouth of consumers in the green market in Khon

Kaen province, Thailand. The results should help sellers in the green market offer products to consumers and create positive perceived product quality, leading to positive word-of-mouth to other potential consumers.

1.2 Objective

This current research aims to investigate the influence of product quality perception in the green market on the word-of-mouth of consumers in Khon Kaen province with mediator variables.

2. Literature review and hypotheses development

2.1 Product quality

Zeithaml (1988) defines perceived quality as “*an overall judgment concerning the excellence or superiority of a product or service*”. There are countless definitions of perceived quality, describing the tangible and intangible attributes of products or services. They include keywords such as performance, features, reliability, compliance, durability, trustworthiness, serviceability and aesthetics. For instance, Vantamay (2007) identifies perceived quality based on intrinsic and extrinsic cues. The intrinsic cues consist of the physical attributes of a product or service such as size, colour, aroma and taste. The external cues are external to the product such as price, brand image, retail store image, country of origin (Schiffman & Kanuk, 2000, cited in Vantamay, 2007), distribution channel, warranty, and store name (Vantamay, 2007).

Garvin (1984) divides perceived quality into eight dimensions. The first is performance, which refers to the product's primary operating characteristics. The second is features, which are the secondary characteristics. The third dimension is reliability, which reflects probability of a product's failing within a specific period of time. Conformance, the fourth dimension, is the degree to which the product or service meets the standard requirements. The fifth dimension is durability, which is a measure of product life. Serviceability is the ability to provide service with speed, courtesy, competence and ease of repair. The seventh dimension is aesthetics, which is how a product looks, feels or likes. Lastly, perceived quality refers to how customers perceived about the quality of product. The perception of quality can be different from the actual product quality. This means that, even though the product quality may be good, there is always a possibility that consumers may have negative perceptions of the product.

From the literature review, there are a few existing studies which directly investigate the quality of fruit and vegetables. For instance, Chamhuri and Batt's (2015) study of consumer perceptions of food quality in Malaysia indicates that the quality of fruit and vegetables comprises freshness, food safety, nutrition and value. They define food safety as being safe to eat, free from chemical residues and free from pests and disease. Value is defined as consumers not being disappointed by the product, and the product being good value for money.

2.2 Levels of customers' satisfaction

Researchers define consumer satisfaction in various ways. For instance, Oliver (1999, cited in Ene & Ozkaya, 2014) summarises consumer satisfaction as the pleasing result of consumption. However, the common definition of consumer satisfaction focuses on a comparison of the consumer expected experience with the actual experience. For example, Amoako et al. (2019) compare the prior, during and post

experiences of consumption of products and services. Chamjuri and Batt (2015) and Ene and Ozkata (2014) compare the expectations and actual experiences of consumers after consuming products and services.

There are various dimensions of consumer satisfaction, such as good feeling (Matikiti, Mpinganjira, & Roberts-Lombard, 2020; Issock, Mpinganjira, & Roberts-Lombard, 2020; Ou, Shih, & Chen, 2015), meeting needs (Oraedu et al., 2020; Jalilvand et al., 2017) and overall satisfaction (Issock et al., 2020; Ahmadi, 2019; Matikiti et al., 2020; Sirimongkol, 2022).

This research defines consumer satisfaction as the decision of the consumer about whether a product meets or surpasses expectations, which comprises overall satisfaction, good feelings, good experiences and meeting expectations.

2.3 Trust

According to Moorman et al. (1993, cited in Tabrani, Amin, & Nizam, 2018), there are two general approaches to trust presented in the literature. The first views trust as belief, confidence or expectation about an exchange partner's trustworthiness, which results from the partner's expertise, reliability or intentionality. The second views trust as a behaviour which reflects a reliance on a partner and involves vulnerability and uncertainty on the part of the trustor.

Garbarino and Johnson (1999) define trust as confidence in the quality and trustworthiness of the products and services that a company presents. Chellappa and Sin (2015, cited in Boateng & Narteh, 2016) define trust as a consumer's willingness to rely on their exchange partner to be honest and reliable, and only engage in activities that yield the best possible outcomes. For dimensions of trust, previous studies have been applied various dimensions such as promise (Oraedu et al., 2020; Tabrani, Amin, & Nizam, 2018), integrity/honesty (Matikiti et al., 2020; Ou et al., 2015), reliability (Matikiti et al., 2020; Ou et al., 2015) and Trustworthy (Oraedu et al., 2020).

This research defines trust as the confidence of the consumer in the quality and trustworthiness of products sold by entrepreneurs. This includes confidence, trustworthiness, integrity and safety.

2.4 Consumer commitment

Blois (1997, cited in Amoako et al., 2019) defines consumer commitment as a willingness to establish and undertake activities that ensure the continued maintenance of a valuable business relationship. Gruen, Summers and Acito (2000) describe consumer commitment as the level of commitment that members have to an organisation. Gruen et al. (2000) mentioned that commitment has three dimensions, including continuance commitment, normative commitment and affective commitment. While, Dimitriades (2006) posited that continuance commitment and affective commitment are commitment factors.

This research defines commitment as consumer willingness to undertake activities that maintain a business relationship, including whether it is beneficial to retain a long-term relationship, willingness to retain a long-term relationship, sense of belonging and attachment.

2.5 Word-of-mouth

Kim (2019) says that word-of-mouth is an important mechanism that affects behaviour, especially when consumers purchase products or services for the first time. Jalilvand et al. (2017) suggest that word-of-mouth is the informal communication between consumers of products and services which involves evaluating the self-perception of others who are interested in the product or service. Similarly, the definition given by Westbrook (1987, cited in Ahmadi, 2019) describes word-of-mouth as the informal communication that informs others of the benefits and qualities of a product or service, or the seller. Word-of-mouth is recognised by scholars as one of the most effective forms of communication in terms of motivating consumers to purchase products or services, better than other commercial mediums. Maisam and Mahsa (2016) explain that consumers are more likely to trust others who have shared their consumption experience directly.

This research views word-of-mouth as the informal communication of consumers about the consumption experience of a product. The dimensions of word-of-mouth include saying positive things, recommendation, sharing experience and encouraging other prospective customers.

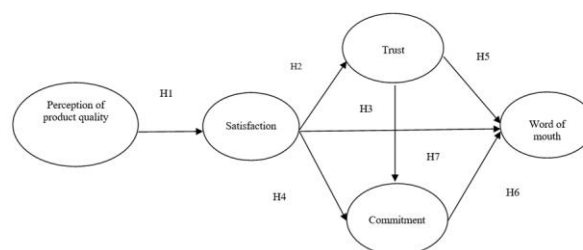
As theories and concepts mentioned above, the researchers decide to study the influence of perceived product quality on the word-of-mouth of consumers in the green market by having satisfaction, trust and commitment as intermediate variables and provide hypotheses development as bellow.

2.5 Hypotheses development

This study investigates the relationship between the quality of fresh fruit and vegetables, satisfaction, trust, commitment and word-of-mouth in the green market. The proposed model is illustrated in Figure 1.

Figure 1

The proposed model



2.5.1 The impact of perceived product quality on satisfaction

Previous literature in the food industry highlights the positive impact of perceived product quality on consumer satisfaction. For instance, the investigation of Jalilvand et al. (2017) shows that quality of food has a positive impact on consumer satisfaction during food festivals. Likewise, Beckman, Shu and Pan (2020) study consumer satisfaction in the restaurant business, and find similar results. Supporting this, Ali et al. (2019) comes to similar findings for local food quality and the satisfaction of tourists in Pakistan. Thus, this research develops the following hypothesis:

H1: Quality of product has a positive effect on satisfaction.

2.5.2 The impact of satisfaction on trust

The literature on various service industries reveals that satisfaction has a positive effect on trust; for instance, the studies of Jalilvand et al. (2017) in the food industry, Islam et al. (2021) in the telecommunications business, and Ou et al. (2015) in financial institutions. Likewise, study of this relationship in green markets and among green consumers points to the satisfaction of the consumer leading to trust (Issock et al., 2020). Based on this, H2 is given as:

H2: Satisfaction has a positive effect on trust.

2.5.3 The impact of satisfaction on word-of-mouth

Kim (2019) postulates that satisfied consumers display positive word-of-mouth intentions. Also, Issock et al. (2020) posit that positive word of mouth is impacted by green customer satisfaction. This is consistent to many studies of the service industry. For example, the study of Jalilvand et al. (2017), in the context of restaurants, establishes a strong relationship between satisfaction and word-of-mouth. Similar results are shown in the organic food business (Kim, 2019), and other service businesses such as department stores (Slack, Singh, & Sharma, 2020), telecommunications (Oraedu et al., 2020), airlines (Ahmadi, 2019) and museums (Vesci et al., 2020). Based on the aforementioned statement, the following hypothesis is, therefore, proposed:

H3: Satisfaction has a positive effect on word-of-mouth.

2.5.4 The impact of satisfaction on commitment

Previous research acknowledges that consumer satisfaction positively affects commitment. For instance, Jalilvand et al. (2017) establish a positive impact of consumer satisfaction on commitment in the context of restaurants. In other contexts, such as airlines (Matikiti et al., 2020) and financial institutions (Ou et al., 2015), similar research findings are revealed. Therefore, it is proposed that:

H4: Satisfaction has a positive effect on consumer commitment.

2.5.5 The impact of trust on word-of-mouth

Trust is strongly associated with positive word-of-mouth intention. Earlier research empirically demonstrates the positive impact of trust on word-of-mouth; for example, in the restaurant business (Jalilvand et al., 2017), telecommunications business (Oraedu et al., 2020) and banking (Tonder et al., 2018). However, Issock et al. (2020) contend that the relationship is not found for green consumers. In line with the majority of studies which support the positive influence of trust on word-of-mouth, this research proposes:

H5: Trust has a positive effect on the word-of-mouth of consumers.

2.5.6 The impact of commitment on word-of-mouth

Jalilvand et al. (2017) suggest that consumer commitment to a company can positively affect word-of-mouth. Matikiti et al. (2020) confirm this result for airline businesses. Tonder et al. (2018) show that continuous commitment is positively associated with word-of-mouth in banking. Thus, it is anticipated that commitment leads to positive word-of-mouth:

H6: Consumer commitment has a positive effect on the word-of-mouth of consumers.

2.5.7 The impact of trust on commitment

Previous research perceives trust as an antecedent of valuable relationship commitment, in various contexts such as the hospitality industry (Amoako et al., 2019), restaurants (Jalilvand et al., 2017), airlines (Matikiti et al., 2020) and financial institutions (Tabrani et al., 2018; Tonder et al., 2018; Ou et al., 2015).

Expecting the same in the context of the current study, this research anticipates:

H7: Trust has a positive effect on consumer commitment.

3. Methodology

3.1 Scale development

The questionnaire used in this study has five parts: perceived product quality, satisfaction, trust, commitment and word-of-mouth. All the items are adapted from the literature review and suggestions from experts in the field, modified to fit fresh produce in the green market.

Section 1 examines the respondents' perceptions of product quality using fifteen items modified from Chamhuri and Batt (2015) to assess fresh produce, including food safety issues, value for money, utility of packaging and freshness. Section 2 identifies customer satisfaction with twelve items adapted from several studies, including Ou et al. (2015), Kim (2019), Beckman et al. (2020), and Matikiti et al. (2020). Section 3 captures trust using fourteen items taken from Jalilvand et al. (2017), Tabrani et al. (2018), Matikiti et al. (2020), and Islam et al. (2021). Section 4 measures respondents' commitment using thirteen items modified from Ou et al. (2015), Kim (2019), Tabrani et al. (2018), and Matikiti et al. (2020). Section 5 captures word-of-mouth using twelve items taken from Tonder et al. (2018), Kim (2019), Oraedu (2020), Leon and Choi (2020), and Matikiti et al. (2020). The questionnaire items are answered using a five-point Likert scale, with responses ranging from "strongly disagree" to "strongly agree".

3.2 Sample selection and data collection

Before finalising the questionnaire, experts and researchers in the field of business reviewed it to ensure content validity. Minor modifications were made from their comments and suggestions. After completing the questionnaire, a pilot study ensured the reliability of each construct. The survey was administered to a convenience sample of 30 green market customers in Khon Kaen province. In the main data collection process, questionnaires were self-distributed to green market customers. The data screening process resulted in 399 usable data points for analysis.

4. Results

4.1 Respondents' profiles

The demographic information of the respondents includes more females than males (female = 78.2%; male = 21.8%). Most respondents were between 26 and 40 years of age and graduated at bachelor's degree levels (26-40 years of age = 39.8%; bachelor's degree levels = 40.1%). The average income per month was 20,001-30,000 baht (20,001-30,000 baht = 33.6%).

4.2 Reliability test

Cronbach's α is used to determine the reliability of the questionnaire. The results for the reliabilities of the variables are given in Table 1. The results show that scale reliabilities are considered acceptable (none of the reliability estimates fall below 0.70) (Morera and Stokes, 2016).

Table 1 Results of the reliability tests

Category	No. of items	Cronbach's Alpha
Perceived product quality	15	.921
Satisfaction	12	.908
Trust	14	.927
Commitment	13	.910
Word-of-mouth	12	.925
Total	66	.973

4.3 Structural model results

After distributing and collecting the questionnaires, the data were analysed by a structural equation modelling method using statistical software SPSS18 and Amos20. The indices of the overall fit of the model include normed minimum discrepancy per degree of freedom (CMIN/DF), goodness-of-fit index (GFI), adjusted goodness-of-fit index (AGFI), comparative fit index (CFI), root mean square residual (RMR) and root mean squared error of approximation (RMSEA). All the items have large and significant factor loadings, indicating evidence of good construct validity.

Table 2 Total fit indices for the measurement models

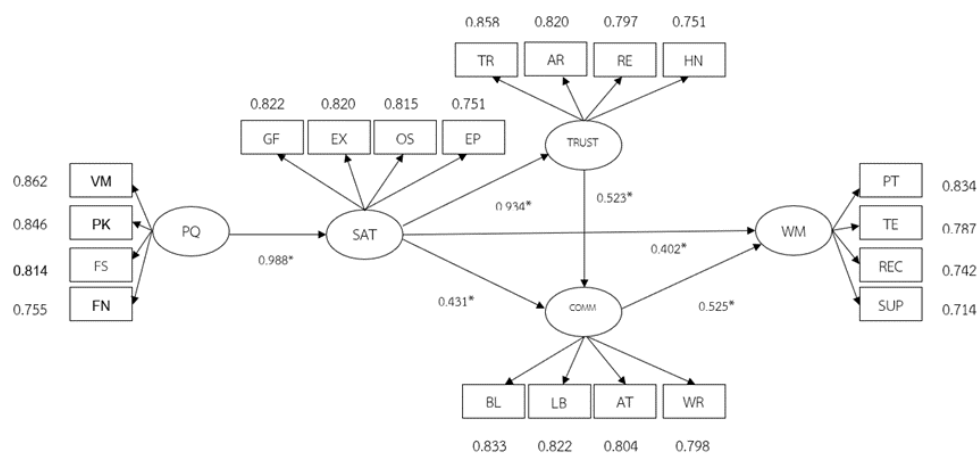
Variable	CMIN/DF	GFI	AGFI	CFI	RMSEA	RMR
Product quality	1.494	.996	.981	.999	.035	.003
Satisfaction	.608	.998	.992	1.000	.000	.002
Trust	.604	.998	.992	1.000	.000	.002
Commitment	1.304	.997	.983	.999	.028	.002
Word-of-mouth	1.016	.997	.987	1.000	.006	.002
Acceptable amount	≤ 2 (Schermele-Engel & Moosbrugger, 2003)	≥ 0.90 (Hooper et al., 2008)	≥ 0.90 (Hooper et al., 2008)	≥ 0.95 (Hu & Bentler, 1999)	< 0.08 (Hooper et al., 2008)	nearly 0 (Schermele-Engel & Moosbrugger, 2003)

Table 3 Total fit indices for the structural model

Variable	CMIN/DF	GFI	AGFI	CFI	RMSEA	RMR
Final model	0.997	0.969	0.950	1.000	0.000	0.005
Acceptable amount	≤ 2	≥ 0.90	≥ 0.90	≥ 0.95 (Hu and Bentler, 1999)	< 0.08	nearly 0
	(Schermerle-Engel and Moosbrugger, 2003)	(Hooper et al., 2008)	(Hooper et al., 2008)		(Hooper et al., 2008)	(Schermerle-Engel and Moosbrugger, 2003)

To determine the acceptable level of each index, five measurement models are analysed separately. Table 2 shows the overall fit indices for the measurement models. By comparing the fit indices and their acceptable amounts, it can be concluded that the measurement models have good fits; in other words, the overall indices approve that the data properly support them. After testing the overall fit of the measurement models, the structural equation model is used to test the hypotheses. Table 3 shows the overall fit indices of the structural equations model.

Figure 2
Structural model



The proposed model with five constructs is estimated using the structural equation model. Table 4 gives the path coefficients for all hypothesised paths in the model, and Figure 2 gives a visualisation of the paths. For the overall model of the original sample, the chi-square statistic of the structural model is 130.605 with 131 degrees of freedom (GFI = .969; AGFI = .950; CFI = 1.000; RMR = .005; RMSEA = .000), indicating that the model's fit is acceptable. Table 4 presents the results of the individual tests for the significance of the relationship among constructs.

Table 4 Structural parameter estimates

Hypothesised path	Coefficient	Result
Hypothesis 1: Product quality→Satisfaction	0.988*	Supported
Hypothesis 2: Satisfaction →Trust	0.934*	Supported
Hypothesis 3: Satisfaction→Word-of-mouth	0.402*	Supported
Hypothesis 4: Satisfaction→Commitment	0.431*	Supported
Hypothesis 5: Trust→Word-of-mouth	0.091	Not supported
Hypothesis 6: Commitment →Word-of-mouth	0.525*	Supported
Hypothesis 7: Trust→Commitment	0.523*	Supported

*p<.05

Hypothesis 1 proposes a positive effect of perceived product quality on satisfaction; the result shows that the relationship is supported with a standard coefficient of 0.988.

Hypothesis 2 proposes a positive effect of satisfaction on trust; the result shows that the relationship is supported with a standard coefficient of 0.934.

Hypothesis 3 proposes a positive effect of satisfaction on word-of-mouth; the result shows that the relationship is supported with a standard coefficient of 0.402.

Hypothesis 4 proposes a positive effect of satisfaction on commitment; the result shows that the relationship is supported with a standard coefficient of 0.431.

Hypothesis 5 proposes a positive effect of trust on word-of-mouth, but the relationship is not supported statistically.

Hypothesis 6 proposes a positive effect of commitment on word-of-mouth; the result shows that the relationship is supported with a standard coefficient of 0.525.

Hypothesis 7 proposes a positive effect of trust on commitment; the result shows that the relationship is supported with a standard coefficient of 0.523.

The total effect estimates for word-of-mouth verify the effect of product quality on word-of-mouth indirectly via satisfaction, trust and commitment (Table 5).

Table 5 Total effect estimates

Dependent variable	Independent variable				
	Effect	PQ	SAT	TRUST	COMM
Satisfaction	DE	0.988*	0.000	0.000	0.000
	IE	0.000	0.000	0.000	0.000
	TE	0.988*	0.000	0.000	0.000
Trust	DE	0.000	0.934*	0.000	0.000
	IE	0.923*	0.000	0.000	0.000
	TE	0.923*	0.934*	0.000	0.000
Commitment	DE	0.000	0.431*	0.523*	0.000
	IE	0.909*	0.488*	0.000	0.000
	TE	0.909*	0.919*	0.523*	0.000
Word-of-mouth	DE	0.000	0.402*	0.091	0.525*
	IE	0.959*	0.568*	0.275*	0.000
	TE	0.959*	0.970*	0.365*	0.525*
R ²		0.991			

*p<.05

5. Discussion

This study examines the relationship between product quality, satisfaction, trust, commitment and word-of-mouth. Hypothetical implications and managerial implications are presented.

5.1 Hypothetical implications

The findings of the study show that the quality of a product is positively associated with consumer satisfaction. This is consistent with the findings of Jalilvand et al. (2017), Ali et al. (2019), and Beckman et al. (2020). When the quality of a product meets or surpasses consumer expectations, the result is customer satisfaction (Oliver, 1999, cited in Ene & Ozkaya, 2014).

The study underlines the idea that satisfaction is a crucial predictor of trust, word-of-mouth and commitment. This confirms the studies of Jalilvand et al. (2017), who demonstrate the positive impact of satisfaction on trust in the context of restaurants, Ou et al. (2015) who show the same for financial institutions, and Issock et al. (2020) who show the same for green products. The results of this study indicate that trust can be strengthened if consumers are satisfied. Moreover, the positive effect of satisfaction on word-of-mouth aligns with previous research (Batouei et al., 2020; Beckman et al., 2020; Oraedu et al., 2020; Slack et al., 2020; Vesci et al., 2020; Kim, 2019; Jalilvand et al., 2017). The behaviour of consumers after consuming products or services is to review their experience. Consequently, if consumers are satisfied with the product or services, they are likely to endorse it to others with encouraging word-of-mouth. The results confirm that

consumer satisfaction can lead to consumer commitment. Some authors find indications that support a relationship between consumer satisfaction and consumer commitment (Matikiti et al., 2020; Jalilvand et al., 2017; Ou et al., 2015).

The finding of this study of an insignificant effect of trust on word-of-mouth is in accordance with Issock et al. (2020), but is in contrast to other researches (Oraedu et al., 2020; Tonder et al., 2018; Jalilvand et al., 2017). This might be because trust in a product or service is a matter of personal opinion, and consumers may not always want to share their experiences with other prospective customers. On the other hand, consumer commitment is shown to have a positive effect on word-of-mouth. This supports previous literature such as Jalilvand et al. (2017), who point out that commitment has an effect on word-of-mouth in the restaurant business, and Matikiti et al. (2020) who show the same for the airline business. Tonder et al. (2018) find that continuous commitment can influence the word-of-mouth of customers in the banking business. This might be because commitment is a stronger emotional feeling than trust, and consumers are more likely to want others to be as committed as they are.

Trust is revealed to be an antecedent of commitment for consumers. Similarly, the influence of trust on commitment is found by the studies of Jalilvand et al. (2017) in the restaurant business, Matikiti et al. (2020) in the airline business, Ou et al. (2015) in financial institutions, and Tabrani et al. (2018) in Islamic banks. Tonder et al. (2018) find that trust in competence has effect on continuous commitment in banking. This relationship might be explained by the value which emerges when both parties trust each other. This value reduces consumers' perceived levels of risk as they believe the other party would not exploit their vulnerabilities and, consequently, there is commitment to the relationship (Corritone et al., 2003, cited in Casalo, Flavián, & Guinaliú, 2007).

There is an interesting finding for this research. The result revealed that trust does not affect directly to word of mouth. This is inconsistent with a majority of previous research. However, Issock, Mpinganjira, and Roberts-Lombard (2020) have a similar result, which showed that green customer trust does not have an impact on positive word of mouth. Customers may feel uncomfortable to talk about their trust towards products to others because trust is an individual belief and a sensitive aspect. They are worried that other customers may have different beliefs, which lead to have an argument later.

5.2 Managerial implications

The purpose of this study is to investigate how the perception of product quality in the green market affects word-of-mouth, with satisfaction, trust and commitment as intermediate variables, along with the effect of trust on commitment. Based on the findings of the research, a series of managerial implications are proposed.

Firstly, sellers in green markets must ensure the quality of the fruit and vegetables sold in order to meet or surpass consumer expectations. This can be done, for example, by bringing newly harvested fruit and vegetables to the market, improving the processes of harvesting or logistics and selecting suitable packaging for fruit and vegetables to retain freshness.

Secondly, consumers' satisfaction is generated if consumers' expectations are met. Therefore, sellers can create consumer satisfaction by delivering products reaching the needs of consumers in terms of freshness, quantity or product lists, and by creating positive feelings and experiences (Such as providing sample for consumers to taste and having good design of displays) for consumers prior, during and post purchase. This positively influences trust and commitment, and consequently leads to positive word-of-mouth.

Thirdly, sellers can consider various aspects of constructing trust. For example, certificates issue by relevant organisations, ensure the excellence of the cultivation, harvesting and transportation processes, and sellers can present these certificates at the point of sale. Sellers may consider providing genuine information to consumers, leading to consumers appreciating the sincerity of the seller, resulting in commitment.

Lastly, sellers should take into account the importance of building consumer commitment, which can ensure positive word-of-mouth to other prospective customers, by building consumer satisfaction and trust. This can be done by communicating the benefits of consuming fresh, non-toxic fruit and vegetable in the long term and the benefits of purchasing directly from farmers in a green market.

6. Suggestion for future research

Future researchers may further investigate the other independent variables such as the perception of service quality, brand name and packaging. Also, the other lagged responses may be applied for future research such as loyalty, repurchase and patronage. Finally, the scope of research may be applied for other products such as healthcare products and local community products.

References

- Ahmadi, A. (2019). Thai Airways: key influencing factors on customers' word of mouth. *International Journal of Quality & Reliability Management*, 36(1), 40-57.
- Ali, M., Puah, C.-H., Ayob, N., & Raza, S.A. (2019), Factors influencing tourist's satisfaction, loyalty, and word of mouth in selection of local foods in Pakistan. *British Food Journal*, 122(6), 2021-2043.
- Amoako, G. K., Neequaye, E. K., Kutu-Adu, S. G., Caesar, L. D., & Ofor, K. S. (2019). Relationship marketing and customer satisfaction in the Ghanaian hospitality industry, An empirical examination of trust and commitment. *Journal of Hospitality and Tourism Insights*, 2(4), 326-340.
- Batouei, A., Iranmanesh, M., Mustafa, H., Nikbin, D., & Ping, T. A. (2020). Components of airport experience and their roles in eliciting passengers' satisfaction and behavioural intentions. *Journal of Research in Transportation Business & Management*, 37(2020), 100585.
- Beckman, E., Shu, F., & Pan, T. (2020). The application of enduring involvement theory in the development of a success model for a craft beer and food festival. *International Journal of Event and Festival Management*, 11(4), 397-411.
- Boateng, S. L., & Narteh, B. (2016). Online relationship marketing and affective customer commitment – The mediating role of trust. *Journal of Financial Services Marketing*, 21(2), 127–140.

- Casalo, L. V., Flavián, C., & Guinalíu, M. (2007). The influence of satisfaction, perceived reputation and trust on a consumer's commitment to a website. *Journal of Marketing Communications*, 13(1), 1-17.
- Chamhuri, N., & Batt, P.J. (2015). Consumer perceptions of food quality in Malaysia. *British Food Journal*, 117(3), 1168-1187.
- Ene, S., & Özkaya, B. (2014). A Study on corporate image, customer satisfaction and brand loyalty in the context of retail stores. *Asian Social Science*, 10(14), 52-66.
- Garbarino, E., & Johnson, M.S. (1999). The different roles of satisfaction, trust, and commitment in customer relationships. *Journal of Marketing*, 63(2), 70-87.
- Garvin, D. A. (1984). What does "product quality" really mean? *Sloan Management Review*, Fall(1984), 25-43.
- Gruen, T. W., Summers, J. O., & Acito, F. (2000). Relationship marketing activities, commitment, and membership behaviors in professional associations. *Journal of Marketing*, 64(July 2000), 34-49.
- Hooper, D., Coughlan, J., & Mullen, M. R. (2008). Structural equation modelling: Guidelines for determining model fit. *The Electronic Journal of Business Research Methods*, 6(1), 53-60.
- Hu, L. -T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modelling: A Multidisciplinary Journal*, 6(1), 1-55.
- Islam, T., Islam, R., Pitaifi, A. H., Xiaobei, L., Rehmani, M., Irfan, M., & Mubarak, M. S. (2021). The impact of corporate social responsibility on customer loyalty: The mediating role of corporate reputation, customer satisfaction, and trust. *Sustainable Production and Consumption*, 25(2021), 123-135.
- Issock, P. B., Mpinganjira, M., & Roberts-Lombard, M. (2020). Modelling green customer loyalty and positive word of mouth. Can environmental knowledge make the difference in an emerging market? *International Journal of Emerging Markets*, 15(3), 405-426.
- Jalilvand, M. R., Salimipour, S., Elyasi, M., & Mohammadi, M. (2017). Factors influencing word of mouth behaviour in the restaurant industry. *Marketing Intelligence & Planning*, 35(1), 81-110.
- Konuk, F. A. (2019). The influence of perceived food quality, price fairness, perceived value and satisfaction on customers' revisit and word-of-mouth intentions towards organic food restaurants. *Journal of Retailing and Consumer Services*, 50(2019), 103-110.
- Kim, Y. H. (2019). Organic shoppers' involvement in organic foods: self and identity. *British Food Journal*, 121(1), 139-156.
- Leon, S., & Choi, H. (2020). Satisfaction and word-of-mouth moderated by choice: a service industry perspective. *Journal of Consumer Marketing*, 37(7), 869-881.
- Maisam, S., & Mahsa, R. -D. (2016). Positive word of mouth marketing: Explaining the roles of value congruity and brand love. *Journal of Competitiveness*, 8(1), 19 – 37.

- Matikiti, R., Mpinganjira, M., & Roberts-Lombard, M. (2020). Service recovery satisfaction and customer commitment in the airline business an emerging African market perspective. *African Journal of Economic and Management Studies*, 11(1), 91-108.
- Meemak, W. (2010). Green market and people empowerment; a case study of Surin province. *Journal of Economics and Public Policy*, 1(2), 101-114. (In Thai)
- Morera, O. F., & Stokes, S. M. (2016). Coefficient α as a measure of test score reliability: review of 3 popular misconceptions. *American Journal of Public Health*, 106(3), 458-461.
- Office of Agricultural Economics. (2017). Thailand as the potential kitchen of the world; penetrating the Thai food security index ranked 3rd in Asean. Retrieved on 17 September 2019. From <http://www.oae.go.th>. (In Thai)
- Oraedu, C., Izogo, E. E., Nnabuko, J., & Ogba, I. -E. (2020). Understanding electronic and face-to-face word-of-mouth influencers: an emerging market perspective. *Management Research Review*, 44(1), 112-132.
- Ou, W. -M., Shih, C. -M., & Chen, C. -Y. (2015). Effects of ethical sales behaviour on satisfaction, trust, commitment, retention and words-of-mouth. *International Journal of Commerce and Management*, 25(4), 673-686.
- Piyasinchat, N. (2020). The evaluation of Thai agriculture after covid-19. Accessed 17 September 2019. <https://www.tmbbank.com/newsroom/news/pr/view/analytic-evaluate-agricultural.html>. (In Thai)
- Piyawan-On. (2013). Green market: create a green consumer society. Retrieved on 17 September 2020. From <https://www.thaihealth.or.th/>. (In Thai)
- Schermelleh-Engel, K., & Moosbrugger, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Methods of Psychological Research Online* 2003, 8(2), 23-74.
- Sirimongkol, T. (2022). The Effects of Servicescape in Non-Franchise Coffee Shops Influencing on Consumers' Behavioral Intention to Use Services with Mediator Variables. *Songklanakarin Journal of Management Sciences*, 29(2), 75-100. (In Thai)
- Slack, N., Singh, G., & Sharma, S. (2020). The effect of supermarket service quality dimensions and customer satisfaction on customer loyalty and disloyalty dimensions. *International Journal of Quality and Service Sciences*, 12(3), 297-318.
- Tabrani, M., Amin, M., & Nizam, A. (2018). Trust, commitment, customer intimacy and customer loyalty in Islamic banking relationships. *International Journal of Bank Marketing*, 36(5), 823-848.
- Tonder, E. V., Petzer, D. J., Vuuren, N. V., & De Beer, L. T. (2018). Perceived value, relationship quality and positive WOM intention in banking. *International Journal of Bank Marketing*, 36(7), 1347-1366.
- Uacharasphan, A. (2015). Communication for the development of green market network. *Academic Journal of Innovative Social Communication*, 33(1), 26-37. (In Thai)

- Vantamay, S. (2007). Understanding of perceived product quality: Reviews and recommendations. *BU Academic Review*, 6(1), 110-117.
- Vesci, M., Conti, E., Rossato, C., & Castellani, P. (2020). The mediating role of visitor satisfaction in the relationship between museum experience and word of mouth: evidence from Italy. *The TQM Journal*, 33(1), 141-162.
- Wiriyakitkajorn, S., Insawang P., Chaiduangkuam, N., Nakomon, P., Nurek, S., & Deethongon, W. (n.d.). The project to increase the efficient of green market. Retrieved on 1 May 2020, From <https://bit.ly/3Ecjc61> (In Thai)
- Zeithaml, V. (1988). Consumer Perceptions of Price, Quality and Value: A Means-End Model and Synthesis of Evidence. *Journal of Marketing*, 52(3), 2-22.