



Working together
www.rcis.ro

Revista de Cercetare și Interventie Sociala

ISSN: 1583-3410 (print), ISSN: 1584-5397 (electronic)

THE INFLUENCE OF INFORMATION DISCLOSURE OF SOCIAL NETWORKING SITE ON CONSUMERS' FOOD SAFETY PERCEPTION IN TOURISM FACTORIES

Hsiu-Hui CHUANG, Hsien-Tang TSAI, Wei-Ling CHENG

Revista de cercetare și intervenție socială, 2020, vol. 71, pp. 264-284

<https://doi.org/10.33788/rcis.71.17>

Published by:
Expert Projects Publishing House



On behalf of:
„Alexandru Ioan Cuza” University,
Department of Sociology and Social Work
and
HoltIS Association

REVISTA DE CERCETARE SI INTERVENTIE SOCIALA
is indexed by Clarivate Analytics (Social Sciences Citation Index),
SCOPUS and CROSSREF

The Influence of Information Disclosure of Social Networking Site on Consumers' Food Safety Perception in Tourism Factories

Hsiu-Hui CHUANG¹, Hsien-Tang TSAI², Wei-Ling CHENG³

Abstract

Incidents relative to food safety issues have damaged consumers' trust in these food providers as well as their purchase intention. Hence, it is important to regain this trust and regain consumers' purchase intention. Information regarding products and food providers plays an essential role in enhancing consumers' trust in food safety. A total number of 398 valid survey samples was analysed by using the analytical methods of PROCESS. Accordingly, the results of this article indicate that trust in food safety mediate between information disclosure of social networking site and purchase intention. Different food types such as utilitarian and hedonic foods moderate between consumers' trust in food safety and purchase intention. The moderated mediation effect of information disclosure of social networking site on purchase intention via TFS is detailed and depends on food types.

Keywords: social networking site, trust in food safety, hedonic food, social responsibility, social distinction.

¹ Department of Business Management, National Sun Yat-sen University, Kaohsiung, TAIWAN. E-mail: sarachuang615@gmail.com (*Corresponding author*)

² Department of Business Management, National Sun Yat-sen University, Kaohsiung, TAIWAN. E-mail: tsaiht@gmail.com

³ Department of Hospitality Management, National Taitung Junior College, Taitung, TAIWAN. E-mail: lisaya0327@gmail.com

Introduction

In recent decades, food safety issues resulted from ongoing incidents relative to food safety in a number of countries: the 1996 mad cow disease in the UK, the 2008 milk scandal in China, the 2011 EHEC infection outbreak in Germany, and the 2017 meat scandal in Brazil. Such events could damage the related corporates' reputations, as well as consumers' trust. The latter could significantly influence a particular country's economic performance due to the low purchase intention of consumers after the emergence of food safety issues. For example, in September 2014 in Taiwan, a spate of tainted cooking oil occurred. As a result the turnover of the whole food industry dramatically decreased by 4.8% compared with the previous month (Ministry of Economic Affairs, 2016). Consumers started to boycott related companies' products throughout the entire country, which brought about extensive changes such as the rise of food safety standards by some food companies, and the new policy announcement of food safety control by the government. The policy of the Food Safety and Health Administration Act, for example, was announced in February 2015 by the Taiwanese government. The focus of this policy is the compulsive requirements of product information such as food additives, nutrition, ingredients, etc. which must be marked on the packaging (Ministry of Justice, 2015). However, contrary to negatively affected food providers, a company named I-Mei became a popular food brand as it has avoided all incidents related to food safety problems. Since its soya milk products, for instance, started selling in Family-Mart convenient stores, over a million bottles were sold in first two weeks which drove an 80% growth of whole milk commodity sales performance (Hsu, Lee, & Huang, 2015). This seems to indicate that consumers care more about the brand name than the product information, even though those companies that experienced the food safety crises had implemented remedial action (Liao, Luo & Zhu, 2020). For instance, they provided production traceability and emphasized the quality of ingredients by advertising to regain consumers' confidence in their products. Unfortunately, once consumers' trust in the food safety of products from these food providers collapsed, their purchase intention to buy the products was also adversely affected. For instance, another well-known food company in Taiwan sells a diversity of food products and held the majority of the market share for fresh milk products at 35% in the first half of 2014. However, it dramatically dropped to 15% in the fourth season of 2014, as the company was implicated in a number of problematic food safety incidents. When people stopped buying its fresh milk products, they tried to remedy the situation by offering attractive promotions such as 'buy one get one free'. Even so, in addition to boycotting its fresh milk products, and together with some restaurants and beverage shops that also used its fresh milk products, angry consumers protested to show their displeasure (Tsai, 2014). Therefore, while the governments and food providers improved the disclosure of product information to enhance consumers' trust and

encourage their purchase intention, consumers' concern about the food providers themselves may be an even more important issue to address.

The theoretical issues of information disclosure of social networking site have been discussed mainly in financial and medical fields. The higher the level of transparency and disclosure of corporate information, the more positive information of corporate value can be generated. Searching cost can thereby be reduced (Diamond, 1985). Furthermore, information disclosure of social networking site can be used as an important and essential reference for customers' purchase decision (Kalakota & Whinston, 1996; Wellisch, 1972). Past studies about information disclosure of social networking site and food products focused more on product information than producer information, such as food traceability and food labelling (Borgmeier & Westenhofer, 2009; Regattieri, Gamberi, & Manzini, 2007). Accordingly, it can be assumed from the above-mentioned examples that both food products and corporate information might be important relative to consumers' purchase consideration. Different from the previous research, this study investigates the impact of both food products and corporate information on consumers' purchase intention, which points to the research gap that we pursued. Based on the above, this study aims to investigate the importance of both product and corporate information in terms of consumers' concerns about food safety. The main objectives of this study were: (i) to examine the effect of information disclosure of social networking site on consumers' trust in food safety as well as their purchase intention; (ii) to identify the effect of consumers' trust in food safety on purchase intention depending on two different types of food as utilitarian and hedonic; and (iii) to evaluate the moderated mediation of information disclosure of social networking site on purchase intention via trust in food safety, depending on the two food types as utilitarian and hedonic.

Gelb & Strawser (2001) pointed out that when companies spontaneously are willing to provide relevant information to the public, the corporate social responsibility (CSR) evaluation rankings often get higher ratings. In other words, the more information the public received from the company, the higher the degree of recognition of its CSR gained. As a result, the corporate image has improved, and even the purchase intention to consumers. In view of the ongoing food safety issues, the Taiwan government mandated in 2014 that food companies with capital exceeding 10 billion Taiwan Dollar must prepare a Corporate Social Responsibility (CSR) report, which includes the disclosure of sufficient products and corporate's information (Financial Supervisory Commission Taiwan, 2014). Industrial tourism, also known as tourism factories, such a crystal glass, food stuff and wineries, have been developed extensively in various industries in many countries. Since this offers an opportunity, especially for some traditional industries, to gain a competitive edge with a successful transformation in combination with tourism, the Taiwanese government initiated The Tourism Factory Project in 2003. This created a new travel choice and destination for tourists. In addition, it forms a

bridge of communication between manufacturers and consumers. Consumers can receive specific information during a visit to a tourism factory determined by a particular food provider; for example, production processes, ingredients, brand story, and corporate social responsibility. Both corporate and product information can be disclosed to consumers by its tourism factory. Once consumers have a better understanding of a particular company, their degree of trust in its products may increase. Consequently, it is possible that purchase intention could be encouraged as well (Tourism Factory, 2016; Xie, 2015). This research examines the importance of corporate information disclosure of social networking site (CIDSN) and product information disclosure of social networking site (PIDSN) relative to consumers' food safety concerns. As consumers find it hard to perceive both CIDSN and PIDSN in the market place, tourism factories present an opportunity for appropriate product and company information disclosure of social networking site. In order to meet the needs of this study, the service industry, as represented by food tourism factories, was selected. Thus, consumers who have experienced tourism factories are the subjects for the data collection in this study.

Literature review

Information disclosure of social networking site

The issues concerning information disclosure of social networking site have been widely discussed in financial circles. Corporate information is necessary for outside investors' consideration of investment in a particular company. In an efficient capital market, corporate information plays a significant role in the communication between firms and investors. Accordingly, information transparency can be enhanced by information disclosure of social networking site, which would increase investors' demand for firms' securities. In other words, firms' capital costs ultimately decrease due to the increase of investors' trust and investment intention (Fishman & Hagerty, 1989; Gelb & Strawser, 2001; Wu, Wang, Gao & Wei, 2020). Therefore, in order to decrease information asymmetry, investors can obtain the information from financial reports, internet sites, analysts' presentations, etc. Information intermediaries are other major bridges between firms and investors, such as industry experts and the financial press (Healy & Palepu, 2001).

Wellisch (1972) indicated that product information can reduce consumers' uncertainty when they make decisions. Whilst corporate information disclosure of social networking site is widely discussed in prior studies in finance and management fields, product information has received greater emphasis than corporate information in food safety research. For example, the food traceability system shows the resume of food products, and the information tracks the food products' physical trail. This builds consumers' trust in food safety and purchase

intention (Regattieri, Gamberi, & Manzini, 2007; Smith et al., 2005). Food labelling is another, similar way to provide consumers with product information such as ingredients and nutritional values. The content of food labels is a requirement in some countries in order to inform consumers of their rights with regard to the products that they buy. It is fair to say that consumers' purchase intention can be influenced by their perception of a product label. As a result, product information is one of the key factors in helping consumers to make purchase decisions (Borgmeier & Westenhoefer, 2009; Wu, Xu, Li & Yuan, 2020). It is also manifest that information related to food safety issues discloses more product information than corporate information. Kalakota & Whinston (1996) stated that consumers want sufficient information to make a rational purchase decision when they face unfamiliar products. As in the Taiwanese case that we mentioned earlier, it is accepted that both corporate and product information might be important in terms of consumers' trust, as well as their consumption decisions. In previous studies, the subject of information disclosure of social networking site relative to the discussion of food safety, is seldom seen. According to the literature reviewed, information disclosure of social networking site is divided into two main factors: corporate and product. Kuan, Cheng & Huang (2007) cited that the level of information disclosure of social networking site is related to brand equity and brand loyalty, based on their study of consumers who purchase aquatic products. The development of the scale of information disclosure of social networking site involved the following aspects: (i) product ingredients, (ii) moral responsibility, (iii) ordinance, (iv) information technology, and (v) information concealment. It can be organized in two major areas, namely corporate information and product information, which this study has taken and modified for the information disclosure of social networking site test. According to the literature review and discussion above, this study defines information disclosure of social networking site in food tourism factories as follows: *Information relative to food safety is supplied by the manufacturer in order to reduce buyers' uncertainty*. The aim of information disclosure of social networking site is to achieve a win-win situation.

Trust in food safety

The concept of trust has been discussed in multiple spheres, especially in the field of organization and marketing. It can be based on the degree of social interaction needed in order to carry out a variety of research, such as interpersonal interaction between groups and organizations. In the field of marketing, the role of trust can be defined as the relationship between the sellers who wish to retain their business and the buyers who are involved in the transaction process. In addition, trust is often linked to the consumers' expectations of the firm, which is based on the firm's ability, honesty and good will (Morgan & Hunt, 1994). Food safety can be divided into narrow and broad definitions; it can be explained narrowly as an opposite of food risk, while the broad definition stretches from the

nutritional quality of food to concerns about the characteristics of unfamiliar foods. In addition, food safety can be distinguished between subjective and objective perspectives. An objective perspective of food safety is a food risk assessment for buying a specific food by scientist and expert evaluations; while a subjective perspective is based on consumers' perception of a specific food product (Ritson & Mai, 1998). Thus, consumers' trust in food safety (TFS) is extremely important because this is the main characteristic of consumer behaviour, and drives the decision whether to purchase or not. Doney & Cannon (1997) cited that consumers have different levels of trust for different sources of information such as suppliers and salespeople, and they have developed scales of trust for investigation (Wu, Tsai & Tai, 2016). Accordingly, we have classified the information as corporate information disclosure of social networking site (CIDSN) and product information disclosure of social networking site (PIDSN) as different sources for consumers. Past studies have proven that information can affect trust, while trust can affect purchase intention. Consequently, it can be assumed that trust might be mediated between information disclosure of social networking site and purchase intention.

Purchase intention

Purchase intention means the willingness of consumers to buy a specific product. Once perceived value is generated by consumers, purchase intention will be further enhanced, which usually depends on the products' benefits and value (Zeithaml, 1988; Dodds, Monroe, & Grewal, 1991; Grewal, Monroe, & Krishnan, 1998). Engel, Blackwell, & Miniard (1995) cited that consumers' buying behaviour is a continuous process in which consumers' final choices are determined by several influencing factors such as motivation, information processing, and the environment. Thus, the source of information will affect consumers' preference for the products, and thereby influence their purchase intention. Consequently, both CID and PID are important for consumers' TFS and purchase intention, adopted in the research model shown in Figure 1 below. Food tourism factories act as information intermediates to consumers in this study. Based on the literature reviews with regard to information disclosure of social networking site, TFS and purchase intention, the following hypotheses are proposed:

H1: Corporate information disclosure of social networking site will positively affect trust in food safety.

H2: Product information disclosure of social networking site will positively affect trust in food safety.

H3: Trust in food safety will positively affect purchase intention.

H4: Trust in food safety will mediate the relationship between corporate information disclosure of social networking site and purchase intention.

H5: Trust in food safety will mediate the relationship between product information disclosure of social networking site and purchase intention.

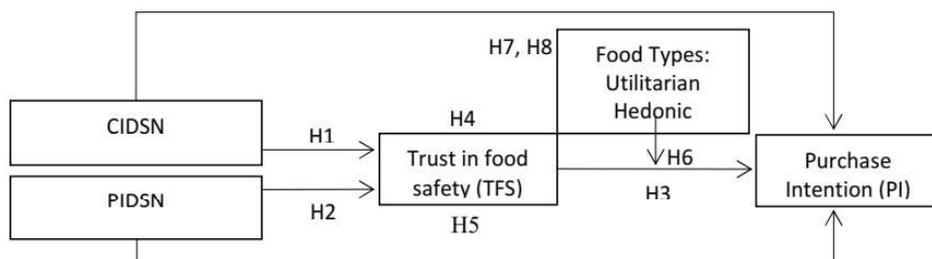


Figure 1. The model of the influence of information disclosure of social networking site in tourism factories relative to consumers' food safety perception

Utilitarian and hedonic food types

In theory, consumers' attitudes have shown a distinction between utilitarian and hedonic consumption, which results in differences in their choices. The behaviour of utilitarian consumption can be characterized as cognitive and rational consideration in decision making; whereas hedonic consumption can be considered as affective and emotional (Batra, 1991; Cramer & Antonides, 2011; Wu, Gao, Wang & Yuan, 2020). As part of consumables, food products can also be divided into utilitarian and hedonic types. In past research, food products with utilitarian value are called health food types. Consumers are more concerned about how the food products can help them rather than the satisfaction they can obtain from buying health food. Factors such as nutrition, ingredients, and health promoting qualities could be taken into account in decision making. Hence, it can be perceived that people are more cautious and rational when buying utilitarian food. Contrary to this, it has been found that taste, joyfulness, positive feelings, and other emotions are important for consumers when buying hedonic food products (Roininen, Lähtenmäki, & Tuorila, 1999). This indicates that consumers buying utilitarian food products should have a higher expectation of TFS to purchase intention than those consumers buying hedonic food products, as H6 proposes. Furthermore, it is worth estimating the difference of TFS as a mediator from CID/PID to purchase intention, which might incur a moderated mediation effect between the food types – utilitarian and hedonic food products. Baron & Kenny (1986) cited the examination and the analytical procedure of moderation and mediation, as well as some types of combination effect. Moderated mediation, known as conditional indirect effect, is one of the combinations that we have assumed existed in the research model. Moderated mediation can be explained as the difference between the level of mediation effect in the research model depending on the value of the

moderator variable (Muller, Judd, & Yzerbyt, 2005). In this study, it implies that the different levels of the mediation effect depend on different food types when consumers consider purchasing a food product. Thus, both H7 and H8 can be proposed as shown below.

H6: Food types moderate the effect of TFS on purchase intention.

H7: The moderated mediation effect of CIDSN on purchase intention via TFS depends on food types; utilitarian type is stronger than hedonic type.

H8: The moderated mediation effect of PIDSN on purchase intention via TFS depends on food types; utilitarian type is stronger than hedonic type.

Methodology

Data collection and sample

Two different types of food tourism factories were selected for the data collection in the study. One is the Brand's Health Museum, which sells chicken essence, clam extract and other nutritional food products, as the types of utilitarian food that this study represents; whereas Black Bridge Sausage Museum represents the provider of hedonic food types, and mainly sells multiple flavours of sausage. Both famous and well-known food brands in Taiwan, and have officially registered their own tourism factories, and charge no entry fee for visitors. People can acquire both corporate and product information through their visits, such as brand story, branding, production processes of food products. In addition, both factories set up a shop for selling their products at the end of tour, which assists in the understanding of people's purchase intention after a visit to the factory. Both tourism factories were contacted for their permission before the data collection. Since there are more visitors during weekends at the above-mentioned tourism factories, samples were collected by an on-site survey over four weekends, two weekends for each tourism factory. We worked from 10.00am to 5.00pm for each working day. Two research assistants and one research member attended each day of data collection. Before the survey was given, each respondent was confirmed to be over 18, to have completed the visit and was able to do the survey. It was arranged for them to complete the survey in a quiet area near the exit with table and chair. Each respondent given a small thank you gift once they had finished the survey.

A total of 453 samples were collected, but 55 samples were rejected as invalid samples due to clicking the same answer for all questions, missing answers, or answering too casually. Thus, a total of 398 valid survey samples were analysed for the research, which included 202 (50.8%) samples from Brand's Health Museum as utilitarian food type and 196 (49.2%) samples from Black Bridge Sausage Museum as hedonic food type. In addition, the valid samples include 229 (57.5%) female and 169 (42.5%) male respondents.

Measurement and method

A structured questionnaire was applied with a 7-point Likert-type scale ranging from 1 as completely disagree, to 7 as completely agree for all continuous variables – corporate information disclosure of social networking site (CIDSN), product information disclosure of social networking site (PIDSN), trust in food safety (TFS), and purchase intention (PI), and all scales were applied from previous studies. The scales of information disclosure of social networking site were adapted from the research of Kuan, Cheng & Huang (2007) for the investigation of information disclosure of social networking site on consumers’ purchase intention towards aquatic products, and were divided into two areas CIDSN and PIDSN. An efficient scale of CIDSN with six items and PIDSN with six items was confirmed. The scales TFS were adapted with eight items from Doney & Cannon (1997) that are widely used for the research areas of trust. In addition, three items of purchase intention scales were taken from the research of Zeithaml (1988) for the evaluation of consumers’ willingness to buy. A factor analysis of all continuous variables (KMO=0.954) was done as shown in Table 1. It was divided into four factors as CIDSN, PIDSN, TFS and PI with factor loading of each item over 0.6. Concerning the reliability of scale, all the variables passed the requirement as over 0.7 of Cronbach’s alpha. Furthermore, mean, standard deviation, correction of constructs and collinearity diagnostics (VIF<10) were assessed as Table 2. Thus, all scales were subject to the assessment of the measurement analysis.

Table 1. Factor analysis

	Items	Factors				Cronbach’s Alpha
		TFS	PIDSN	CIDSN	PI	
06 TFS	I trust in the food safety of this factory’s food products.	.824				0.963
02 TFS	This factory is always honest with its consumers.	.820				
03 TFS	This factory’s food safety is trustworthy.	.806				
07 TFS	I believe the information on food products that the factory provides to its consumers.	.805				
04 TFS	When making important decisions, this factory considers its consumers’ welfare as well as its own.	.786				

01 TFS	This factory keeps promises it makes to its consumers.	.785				
05 TFS	I trust this factory keeps our best interests in mind.	.775				
08 TFS	This factory is genuinely concerned about the health of its consumers.	.752				
03 PIDSN	Through the visit experience to the factory, I understand the functional utility of its food products.		.762			0.902
04 PIDSN	Through the visit experience to the factory, I understand the safety of its food products.		.757			
05 PIDSN	Through the visit experience to the factory, I understand the edible methods of its food products.		.740			
02 PIDSN	Through the visit experience to the factory, I understand the ingredients of its food products.		.729			
01 PIDSN	Through the visit experience to the factory, I understand the production sources of its food products.		.712			
06 PIDSN	Through the visit experience to the factory, I understand the quality grade of its food products.		.613			
04 CIDSN	Through the visit experience to the factory, it shows the factory selects their distributors carefully.			.710		

06 CIDSN	Through the visit experience in the factory, I believe the factory is qualified to meet the requirements of its distributors.			.710		0.889
05 CIDSN	Through the visit experience to the factory, I believe the factory has followed the laws and regulations of the government.			.691		
03 CIDSN	Through the visit experience to the factory, the moral responsibilities of the factory became clear.			.690		
01 CIDSN	Through the visit experience to the factory, I believe the factory is qualified to meet the needs of consumers.			.617		
02 CIDSN	Through the visit experience to the factory, I believe the factory sees food information disclosure of social networking site as a necessary step.			.599		
03 PI	I have a high level of intention to buy this factory's food products in the future.				.838	0.931
02 PI	Compared with other similar brands, there is high probability that I will buy this factory's food products.				.810	
01 PI	I will buy the factory's food products.				.810	

Table 2. Mean, SD, correlations of constructs, and VIF

Construct	Mean	SD	1	2	3	4	VIF
1. CIDSN	5.864	0.808	1	0.710	0.653	0.554	2.476
2. PIDSN	5.785	0.852		1	0.693	0.600	2.243
3. TFS	5.720	0.885			1	0.622	2.141
4. Purchase intention	5.779	1.028				1	
5. Utilitarian food type	50.8%						
6. Hedonic food type	49.2%						

Note: *N*=398; *SD*: standard deviation; correlations are significant all at $p < 0.01$.

Hayes (2012) proposed a new analytical tool based on the regression approach and named PROCESS macro for SPSS and SAS. It provided an easy and add-on method for statistical analysis of observed variable moderation, mediation, and conditional process modelling. Hayes (2013) cited the total of 76 applicable models of PROCESS based on the common research models for users. According to the research model, the model 1, 4 and 14 of PROCESS are suitable and used for the analysis. In addition, PROCESS generates percentile-based bootstrap confidence intervals which this study adopted for a series of bootstrapping analyses with 5000 bootstrap samples in 95% confidence interval, as Hayes recommend for scientific publications.

Results and discussion

The mediation effect of TFS

With regard to the mediation test by PROCESS, it is necessary to report the total, direct, and indirect effect in order to check the level of mediation. This establishes whether a partial or full mediation effect exists. Following the analytical procedure of PROCESS (Hayes, 2012), it can be divided into two steps for the confirmation of mediation effect. Firstly, by checking the indirect effect of independent variable on dependent variable, it can be determined that the statistical significance of mediation effect exists once zero does not lie between lower and upper 95% confidence interval estimation. This means that the mediation effect exists. Secondly, checking the type of mediation effect, whether a partial or full one, by direct effect of independent variable on dependent variable, if zero does not lie between lower and upper 95% confidence interval estimation, the direct effect is existent and partial mediation effect is therefore present. In contrast, if

zero lies between lower and upper 95% confidence interval estimation, it means that direct effect does not exist and therefore mediation effect will be confirmed as full mediation effect.

Applying model 4 of PROCESS for mediation analysis, the results support H1 and H2 that corporate information disclosure of social networking site (CIDSN) was positively related to trust in food safety (TFS) (coefficient=0.507, $p<0.05$) as well as that product information disclosure of social networking site (PIDSN) was also positively related to TFS (coefficient=0.337, $p<0.05$). As a result, it can be determined that both CIDSN and PIDSN are significant for participants' TFS, and CIDSN is somehow more important than PID. In addition, H3 also confirmed that TFS significantly influences consumers' purchase intention (coefficient=0.409, $p<0.05$). Furthermore, as per Table 3, participants' answers confirmed that TFS acted as an essential mediation variable between CIDSN/PIDSN and purchase intention. Based on the indirect effect of CIDSN on purchase intention, the mediation effect of TFS is established (effect=0.207, CI=0.127, 0.327) when zero was not included in 95% confidence interval. Subsequently, the direct effect of CIDSN on purchase intention did not include zero in the estimation of 95% confidence interval (effect=0.323, CI=0.176, 0.470), the partial mediation effect therefore was confirmed as H4. In estimating H5, the existence of partial mediation effect was significant between PIDSN and purchase intention according to the indirect effect of PIDSN on purchase intention (effect=0.138, CI=0.077, 0.223), and direct effect of PIDSN on purchase intention (effect=0.173, CI=0.040, 0.306). Therefore, TFS acts as an important partial mediation between CIDSN/PIDSN and purchase intention when consumers consider buying food products. Due to the confirmation of TFS as partial mediation effect between CIDSN/PIDSN and purchase intention, both CIDSN and PIDSN can directly affect purchase intention. Concerning the influence of CIDSN/PIDSN to purchase intention, it was found that CIDSN is positively related to purchase intention (coefficient=0.530, $p<0.05$) while PIDSN is also positively related to purchase intention (coefficient=0.311, $p<0.05$). This confirmed that CIDSN is somehow more important than PIDSN relative to purchase intention, and also to TFS, as per the above-mentioned analysis.

Based on these results, it can be determined that both CIDSN and PIDSN are important for the positive influence of TFS and purchase intention, whilst CIDSN is more important than PIDSN. Therefore, in order to increase consumers' TFS and purchase intention, it will be beneficial to the sellers if they not only provide product information as per government regulations, but also information about the food providers themselves. Furthermore, as TFS plays a mediation role between CIDSN/PIDSN and purchase intention, the selection of information content for disclosure to consumers is very important relative to their purchase intention. Consequently, to meet food providers' benefits and consumers' needs, the type of information should be chosen carefully, so that a win-win situation could result from an appropriated CIDSN/PIDSN.

Table 3. Model 4 of PROCESS for the test of mediation effects

Path	Effect	SE	95% CI	
			Lower	Upper
Mediation model: CIDSN → TFS → Purchase intention				
Total effect of CIDSN on purchase intention	0.530*	0.071	0.391	0.670
Direct effect of CIDSN on purchase intention	0.323*	0.075	0.176	0.470
Indirect effect of CIDSN on purchase intention	0.207*	0.050	0.127	0.327
Mediation model: PIDSN → TFS → Purchase intention				
Total effect of PIDSN on purchase intention	0.311*	0.067	0.179	0.443
Direct effect of PIDSN on purchase intention	0.173*	0.067	0.040	0.306
Indirect effect of PIDSN on purchase intention	0.138*	0.036	0.077	0.223
Note: * indicates it is significant at $\alpha=0.05$.				

The moderation effect of TFS on purchase intention depends on food types

Following Hayes’ guidance (2012), a moderation analysis was implemented based on the specifications of the model 1 of PROCESS as a simple moderation model to test H6. The interaction of TFS and food types on purchase intention ($t=-2.067, p<0.05, CI=-0.364, -0.009$) is significantly related, as supporting H6. Furthermore, the result of conditional effect of TFS on purchase intention at values of utilitarian food is 0.833 ($CI=0.703, 0.963$) compared to that of hedonic food, which is 0.647 ($CI=0.526, 0.768$). This illustrates that TFS is critical to consumers when buying food products, especially utilitarian food products. Figure 2 displays a typical diagram of reinforcement interaction effect (Kutner et al., 2005). It has a similar reach point of purchase intention when consumers of utilitarian food and hedonic food both have high TFS. However, in the area of low TFS, consumers of utilitarian food have lower purchase intention compared with consumers of hedonic food. Consequently, this supports the inference of available literature. In practice, consumers of utilitarian food need a sufficient degree of TFS to buy food products due to health reasons, while consumers of hedonic food mainly pursue feelings of satisfaction (Roininen, Lähteenmäki, & Tuorila, 1999). Therefore, although TFS is important to both types of consumers when they consider buying food products, it is especially important for consumers of utilitarian food as well

as the food providers. Furthermore, the Johnson-Neyman (1936) technique was adopted to examine the significance of interaction patterns. It has found that the interaction is significant when TFS is under 6.4 (CI=-0.052, 0.343), whereas it is not significant relative to purchase intention between these two food types when consumers' TFS reach over 6.4. As a result, it is extremely important that food providers put greater effort in gaining consumers' TFS of their food products, regardless of them being utilitarian or hedonic food providers. Especially, for utilitarian food providers, this should be given priority.

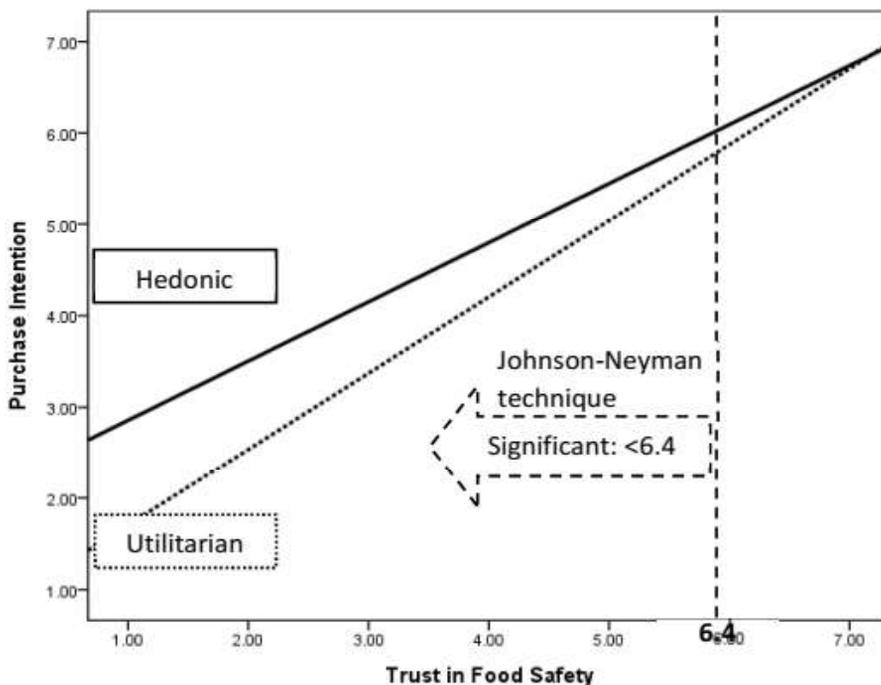


Figure 2. The reinforcement interaction effect of food types between TFS and purchase intention with Johnson-Neyman technique

The moderated mediation effect depends on food types

Furthermore, to test moderated mediation of food types as H7 and H8 in the model, the model 14 of PROCESS is used (Hayes, 2012). The analytical results as per Table 4, have illustrated certain important and meaningful findings: Firstly, the comparison between CIDSN and PIDSN in the model for both food types, shows that the mediation effect of TFS relative to purchase intention is stronger for CIDSN than PIDSN. For utilitarian food, the mediation effect of TFS between CIDSN and purchase intention is 0.245 (CI=0.144, 0.366) which is stronger

than between PID and purchase intention which is 0.163 (CI=0.093, 0.262). For hedonic food, the mediation effect of TFS between CIDSN and purchase intention is stronger at 0.199 (CI=0.118, 0.315) than 0.132 (CI=0.073, 0.221) than between PIDSN and purchase intention. Secondly, with regard to the mediation effect of TFS for food types, it was found that it exists between CIDSN/PIDSN and purchase intention, regardless of food types (zero is not in 95% CI). Thirdly, the test of moderated mediation examines the different levels of mediation between food types. It has found that utilitarian food has a stronger mediation effect from CIDSN to purchase intention via TFS than hedonic food (0.245>0.199) as H7 indicates. TFS shows a higher degree from PIDSN to purchase intention for utilitarian type than hedonic type (0.163>0.132) as H8 infers. The gap, however, has not reached the significant difference statistically due to the results of the index of moderated mediation as shown in Table 4 (CI=-0.140, 0.045 for path one; CI=-0.096, 0.026 for path two). In fact, the result conveys a very important message that no matter what kind of food it is, information disclosure of social networking site is important for consumers to generate purchase intention via TFS. Although the moderated mediation effect has not reached statistical significance, it makes a significant contribution when reflecting the actual situation.

In summary, the results indicate that CIDSN is more important than PIDSN to purchase intention via TFS for both food types, especially in terms of utilitarian food consumption. Furthermore, although it has not achieved statistical significance for moderated mediation effect, it again indicates the importance of information disclosure of social networking site for all food providers, in order to achieve improvement in their consumers' purchase intention via TFS.

Table 4. Model 14 of PROCESS for the test of moderated mediation effects

Types	Effect	95% CI	
		Lower	Upper
Path one: CIDSN → TFS → Purchase intention			
Utilitarian	0.245*	0.144	0.366
Hedonic	0.199*	0.118	0.315
Index of moderated mediation		-0.140	0.045
Path two: PIDSN → TFS → Purchase intention			
Utilitarian	0.163*	0.093	0.262
Hedonic	0.132*	0.073	0.221
Index of moderated mediation		-0.096	0.026

Note: * indicates it is significant at $\alpha=0.05$.

Conclusion

Information disclosure of social networking site from food providers has a significant impact on consumers' purchase intention. In order to understand how information disclosure of social networking site affects consumers' perception, food tourism factories were selected for data collection, as consumers can acquire comprehensive information through visiting a particular tourism factory. In this article, we divide information disclosure of social networking site into two parts as product and corporate information. The importance of CIDSN and PIDSN are significant relative to their roles in consumers' TFS and purchase intention; CIDSN has stronger effect than PIDSN. We examined the mediation effect of TFS between CIDSN/PIDSN and purchase intention, and found that partial mediation effect significantly exists. In addition, it was found that two food types as utilitarian and hedonic have a significant moderation effect of TFS on purchase intention. The pattern of reinforcement interaction effect indicates that TFS is a crucial factor in purchase intention; however, TFS for utilitarian food consumers is more important than the hedonic one. Furthermore, we also examined the moderated mediation of CIDSN/PIDSN on purchase intention via TFS depending on food types. Although it has no significant effect of moderated mediation, it delivers an important message that CIDSN/PIDSN both play vital roles in consumers' purchase intention no matter what type of food product is. Based on the aim of this study, the overall findings indicate the importance of CIDSN, PIDSN, and TFS on consumers' purchase intention for two food types; especially TFS relative to utilitarian type has stronger effect than hedonic type.

Recommendations

Following the conceptual model that considers corporate information disclosure of social networking site (CIDSN), product information disclosure of social networking site (PIDSN), trust in food safety (TFS) and food types as significant variables to consumers' purchase intention, the work of this research resulted in some contributions. Different to past studies that focus mostly on PIDSN in association with food safety issues, both CIDSN and PIDSN were taken into account with regard to consumers' TFS and purchase intention discussions. It was found that both are important in the model. As supporting H1 and H2, CID and PID both positively affect TFS, and CIDSN has a higher degree of effect on TFS than PIDSN. It indicates that although governments have required information disclosure of social networking site about food products, it would help food providers to obtain more trust from consumers in their food products if corporate information is properly disclosed. Besides, it was also found that both CIDSN and PIDSN positively affect purchase intention, and CIDSN affects positive purchase intention to a higher degree than PID. As the results show, consumers are not only concerned about food products information, but more importantly, food providers'

information plays a significant role in consumers' considerations and decisions. Experiencing a tour in a tourism factory is an easy way to disclose both CIDSN and PIDSN to consumers. However, consumers find it hard to get sufficient information from a food product pack since, due to government regulations, it usually emphasizes PIDSN rather than CIDSN. Thus, for the purpose of increasing consumers' trust and purchase intention, it might help to show not only product information such as ingredients and production dates, but also some information regarding its providers. In turn, this might lead to an improvement of TFS and purchase intention which would benefit food providers.

TFS was found to play an important role in positively affecting purchase intention, as supporting H3, which shows that TFS is essential for consumers to increase their purchase intention. Consequently, food providers should strengthen consumers' TFS via its marketing strategies for the increase of purchase intention. In addition, TFS was found to have an important mediating effect between CIDSN/PIDSN and purchase intention as supporting H4 and H5. Therefore, both CIDSN and PIDSN will aid to increase purchase intention via TFS. Nevertheless, the mediation effect of TFS between CIDSN and purchase intention is stronger than between PIDSN and purchase intention, which suggests that food providers should pay attention to the content of information disclosure of social networking site: the latter should contain information about products as well as the suppliers, and thus consumption via TFS can be stimulated. In addition, the two types of food products as utilitarian and hedonic, were found to moderate between TFS and purchase intention as supporting H6. Figure 1 illustrates a reinforcement interaction effect which means that more TFS generates more purchase intention no matter which type of food product consumers consider buying. However, it can be concluded from the result, that the value effect of TFS has a stronger influence on purchase intention relative to consumers' consideration of purchasing utilitarian food products, compared to hedonic foods. Hence, for food providers, managers should be even more careful to maintain TFS with regard to the current consumers, as this might attract more consumption from potential consumers. As far as health oriented food products are concerned, the food providers should take care in considering consumers' TFS. This is especially true for consumers of utilitarian food, since they buy it for health purposes. In addition, we have found that the moderated mediation effect is not present here, although it is significant when comparing utilitarian and hedonic food; however, it is not statistically significant. Practically, it explains that TFS plays an important role no matter what type of food products that consumers purchase. Thus, food providers should prioritize TFS in order to achieve greater purchase intention in consumers' buying decisions.

As mentioned earlier, the Taiwan government requires that food corporates with capital exceeding 10 billion Taiwan Dollar must compile corporate social responsibility (CSR) reports to public, which includes corporate and products information disclose. Food is an essential part of living. Food providers are responsible to secure food safety for their consumers' health care. Consumers have

the right to relevant information in respect of food providers and the products that they purchase and eat. According to our findings, it can be concluded that timely disclosure of corporate and product information would be beneficial for food providers, and consumers will feel more secure as far as food safety is concerned. Information disclosure of social networking site can be an effective marketing tool for food providers, and result in consumers being more confident when making purchasing decision. In addition, TFS plays an important role as far as the consumers' mind-sets are concerned when they do their shopping. An appropriate level of information disclosure of social networking site will help consumers in their purchase decisions, and stimulate the development of trustworthy food providers. This is a win-win situation for consumers and food providers regardless of utilitarian or hedonic food types.

Acknowledgements

This research is supported by Ministry of Science and Technology, R.O.C under the grant MOST 104-2410-H-110-080 to National Sun Yat-sen University.

References

- Baron, R.M. & Kenny, D.A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical consideration. *Journal of Personality and Social Psychological*, 51(6), 1173-1182, DOI: 10.1037//0022-3514.51.6.1173.
- Batra, R. & Ahtola, O.T. (1991). Measuring the hedonic and utilitarian sources of consumer attitudes. *Marketing Letters*, 2(2), 159-170, DOI: 10.1007/BF00436035.
- Borgmeier, I. & Westenhoefer, J. (2009). Impact of different food label formats on healthiness evaluation and food choice of consumers: a randomized-controlled study. *BMC Public Health*, 9(1), 184, DOI:10.1186/1471-2458-9-184.
- Cramer, L. & Antonides, G. (2011). Endowment effect for hedonic and utilitarian food products. *Food Quality and Preference*, 22(1), 3-10, DOI: 10.1016/j.foodqual.2010.05.020.
- Diamond, D. W., 1985. Optional Release of Information by Firms, *Journal of Finance*, 40(4), 828-862, DOI: 10.1111/j.1540-6261.1985.tb02364.x.
- Dodds, W.B., Monroe, K. B., & Grewal, D. (1991). Effects of price, brand, and store information on buyers' product evaluations. *Journal of Marketing Research*, 28(3), 307-319, DOI: 10.2307/3172866.
- Doney, P.M., & Cannon, J.P. (1997). An examination of the nature of trust in buyer-seller relationships. *The Journal of Marketing*, 61(2), 35-51, DOI: 10.2307/1251829.
- Engel, J.F., Blackwell, R.D., & Miniard, P.W. (1995). *Consumer Behavior*, 8th. New York: Dryder.
- Fishman, M.J. & Hagerty, K.M. (1989). Disclosure decisions by firms and the competition for price efficiency. *The Journal of Finance*, 44(3), 633-646, DOI: 10.2307/2328774.

- Gelb, D.S. & Strawser, J.A. (2001). Corporate social responsibility and financial disclosures: An alternative explanation for increased disclosure. *Journal of Business Ethics*, 33(1), 1-13, DOI: 10.1023/A:1011941212444.
- Grewal, D., Monroe, K. B., & Krishnan, R. (1998). The effects of price-comparison advertising on buyers' perceptions of acquisition value, transaction value, and behavioral intentions. *The Journal of Marketing*, 62(2), 46-59, DOI: 10.2307/1252160.
- Hayes, A.F. (2012). *PROCESS: A versatile computational tool for observed variable mediation, moderation and conditional process modelling*. [White paper]. Retrieved from <http://www.afhayes.com/public/process2012.pdf>
- Hayes, A.F. (2013). *An introduction to mediation, moderation and conditional process analysis: A regression-based approach*. New York, USA: Guilford Press.
- Healy, P.M. & Palepu, K.G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics*, 31(2), 405-440, DOI: 10.1016/S0165-4101(01)00018-0.
- Hsu, H.H., Lee, C.H., & Huang, C.H. (2015, March). Cover story of I-Mei. *Business Today*, 953, 78-101.
- Johnson, P.O., & Neyman, J. (1936). Tests of certain linear hypotheses and their application to some educational problems. *Statistical research memoirs*, 1, 57-93.
- Kalakota, R., & Whinston, A. B. (1996). *Frontiers of Electronic Commerce*. Reading, MA: Addison-Wesley.
- Kuan, F.Y., Cheng, Y.H., & Huang, H.C. (2007). The study of the relation between aquatic product information disclosure of social networking site and brand equity. *Logistics Management Review*, 2(1), 37-50, DOI: 10.29836/LMR.200704.0005.
- Kutner, M.H., Nachtsheim, C.J., Neter, J., & Li. W. (2005) *Applied linear statistical model*. New York, NY: McGraw-Hill.
- Liao, C., Luo, Y., & Zhu, W. (2020). Food safety trust, risk perception, and consumers' response to company trust repair actions in food recall crises. *International Journal of Environmental Research and Public Health*, 17(4), 1270, DOI: 10.3390/ijerph17041270.
- Ministry of Economic Affairs. (2016). *Industrial Production, Shipment & Inventory Statistics Survey*. Taipei: Ministry of Economic Affairs.
- Ministry of Justice. (2015). *Food Safety and Health Administration Act*. Taipei: Ministry of Justice.
- Morgan, R.M., & Hunt, S.D. (1994). The commitment-trust theory of relationship marketing. *The Journal of Marketing*, 58(3), 20-38, DOI: 10.1177/002224299405800302.
- Muller, D., Judd, C.M., & Yzerbyt, V.Y. (2005). When moderation is mediated and mediation is moderated. *Journal of Personality and Social Psychology*, 89(6), 852-863, DOI: 10.1037/0022-3514.89.6.852.
- Regattieri, A., Gamberi, M., & Manzini, R. (2007). Traceability of food products: General framework and experimental evidence. *Journal of Food Engineering*, 81(2), 347-356, DOI: 10.1016/j.jfoodeng.2006.10.032.
- Ritson, C., & Mai, L.W. (1998). The economics of food safety. *Nutrition & Food Science*, 98(5), 253-259, DOI: 10.1108/00346659810224163.

- Roininen, K., Lähteenmäki, L., & Tuorila, H. (1999). Quantification of consumer attitudes to health and hedonic characteristics of foods. *Appetite*, 33(1), 71-88, DOI: 10.1006/appe.1999.0232.
- Smith, G.C., Tatum, J.D., Belk, K. E., Scanga, J.A., Grandin, T., & Sofos, J.N. (2005). Traceability from a US perspective. *Meat Science*, 71(1), 174-193, DOI: 10.1016/j.meatsci.2005.04.002.
- Tourism Factory. (2016). *About the Tourism Factory Assistance Project*. Taipei: Tourism Bureau of Taiwan.
- Tsai, M.X. (2014, Oct 19). Exclusive news. Market share of fresh milk products. *TVBS News*. Retrieved October 10, 2016 from <http://.news.tvbs.com.tw/life//551013>.
- Wellisch, H. (1972). From information science to informatics: A terminological investigation. *Journal of Librarianship and Information Science*, 4(3), 157-187, DOI: 10.1177/096100067200400302.
- Wu, T.J., Gao, J.Y., Wang, L.Y., & Yuan, K.S. (2020). Exploring links between polychronicity and job performance from the person–environment fit perspective—The mediating role of well-being. *International Journal of Environmental Research and Public Health*, 17(10), 3711. DOI: 10.3390/ijerph17103711
- Wu, T.J., Tsai, H.T., & Tai, Y.N. (2016). Would corporate social responsibility affect consumers' attitudes towards brand and purchase behavior? Buyer-seller guanxi as the moderator. *Revista de Cercetare si Interventie Sociala*, 53, 272-287.
- Wu, T.J., Wang, L.Y., Gao, J.Y., & Wei, A.P. (2020). Social support and well-being of Chinese special education teachers—An emotional labor perspective. *International Journal of Environmental Research and Public Health*, 17(18), 6884. DOI: 10.3390/ijerph17186884
- Wu, T.J., Xu, T., Li, L.Q., & Yuan, K.S. (2020). Touching with heart, reasoning by truth! The impact of Brand cues on mini-film advertising effect. *International Journal of Advertising*, 1-29. DOI: 10.1080/02650487.2020.1755184
- Xie, P.F. (2015). *Industrial heritage tourism*. Bristol, UK: Channel View Publications.
- Zeithaml, V.A. (1988). Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. *The Journal of Marketing*, 52(3), 2-22, DOI: 10.1177/002224298805200302.