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A study on exploring the relationship between customer satisfaction and loyalty in the fast food industry: With relationship inertia as a mediator

Ching Chan Cheng[1], Shao-I Chiu[2], Hsiu-Yuan Hu[3]* and Ya-Yuan Chang[4]

[1]Department of Food and Beverage Management, Taipei College of Maritime Technology, No.212, Yen Ping N. Rd., Sec. 9, Taipei City, Taiwan.
[2]The Center for General Education, Taipei College of Maritime Technology, No.212, Yen Ping N. Road, Sec. 9, Taipei City, Taiwan.
[3]Department of Food Technology and Marketing Management, Taipei College of Maritime Technology, No.212, Yen Ping N. Road, Sec. 9, Taipei City, Taiwan.
[4]Department of Business administration, National Chung Hsing University, No. 250, Kuo Kuang Road, Taichung City, Taiwan.

The impact of negative news on fast food industry customers is often short and weak. Therefore, this study suspects whether other important variables exist in fast food industry consumer behavior patterns to support this result. This study tries to combine variables that are related to fast food industry characteristics, such as consumption frequency, perceived price and convenience, to propose an integrated model of customer satisfaction and loyalty in the fast food industry, and apply relationship inertia as the mediator to discover the major factors that impact customer satisfaction and loyalty in the fast food industry. This study has collected 594 effective questionnaires and applied structural equation modeling (SEM) to verify the various path relations of the study model. The study result found that in addition to being positively impacted by customer satisfaction, customer loyalty will be impacted by customer relationship inertia more. In the relationship of customer satisfaction and customer loyalty, customer relationship inertia plays a key mediator. In addition, perceived price has a negative impact on customer satisfaction and relationship inertia. Convenience will enhance customer satisfaction. Consumption frequency will enhance customer relationship inertia. Finally, this study expects to provide the study result to the fast food industry as a reference for enhancing the customer loyalty strategy.

Key words: Customer satisfaction, relationship inertia, customer loyalty, convenience, perceived price.

INTRODUCTION

The enhancement of national income and the change of consumption habits have resulted in the rapid growth of the market scale in the service industry. In 2008, the average ratio of the global service industry accounted for over 60% of the overall Gross National Product (GNP), the average ration for major developed countries reached over 70%, and at the same time Taiwan also reached 73.2% (Central Intelligence Agency, 2009).Taking Taiwan as an example, the total turnover of food retail was NT$261.4 billion in 2001, NT$302.7 billion in 2006, and NT$321.7 billion in 2009 (Ministry of Economic Affairs, R.O.C., 2010). This indicates that the business scale of food retail has the gradual growth trend every year in Taiwan, and its market competition will inevitably become more intense.

The fast food industry is the representative food retailer type in various countries. The overall fast food market in the US is expected to grow in the coming years and will cross the US$170 billion mark by 2010 (RNCOS, 2009).

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*Corresponding author. E-mail: m9019011@chu.edu.tw Tel: +886-2-28102292.Fax: +886-2-2810-6688.

The fast food industry in Asia's major countries, such as China, Japan, Korea and Taiwan can also create a production value over US$1 billion every year (Report buyer, 2009). However, occasionally, there will be some negative food safety events, such as the frying oil containing arsenic, and the beef event (Taiwan news, 2010), which will impact the image and performance of the corporation. However, after the storm has passed, the sales performance of fast food industry can all rise rapidly. This result, in addition to the response management of when the industry has a great crisis, is also a worthy exploration issue of consumers' purchasing behavior in the fast food industry.

For the service industry, the cost of developing a new customer is at least 5 to 9 times the cost to maintain an old customer (Raphel and Raphel, 1995). How to enhance customer satisfaction and customer loyalty will be the important factor that impacts the operating performance of the food retailer. Past studies indicate that customer loyalty will be positively impacted by customer satisfaction (Fornell, 1992; Gwinner et al., 1998; Hennig-Thurau et al., 2002; Terblanche, 2006; Hsu, 2008). However, Bruhn and Grund (2000) pointed out that the factors that impact customer loyalty may have some other important factors which are not included in the consideration. Some scholars found that when customers benefit from the past frequent consumption behavior, relationship inertia will be formed, and the past consumer behavior will be continued (Ouellette and Wood, 1998), then there will be no strong motivation to look for alternative plans (Colgate and Danaher, 2000), and the service provider can therefore maintain the current relationship with the customer (Gounaris and Stathakopoulos, 2004). In the study of Carrasco et al. (2005), it also verified that in the consumption of food and service, consumers have the inertia behavior. In addition, consumers will have the habitual repeated purchase behavior due to convenient purchase or other factors (Heiens and Pleshko, 1997). When competitors offer a lower price, it will enhance the possibility of the customer changing the purchase behavior (Wathne et al., 2001), and also undermine the consumer's consumption inertia for the original company.

The study found that there are three issues existing in the studies of customer purchasing behavior in the fast food industry:

(1) Why can consumers rapidly return in such a short period of time after a fast food industry negative news outbreak, or even not be impacted at all. Therefore, regarding the factors that impact customer loyalty in the fast food industry, in addition to customer satisfaction, are there any other important impact factors?

(2) The fast food industry is different from the general food retailer. It has the characteristics of being rapid, convenient, and having a low price; however, the commonly seen customer satisfaction model (e.g. American Customer Satisfaction Index; European Customer Satisfaction Index) cannot really present these characteristics.

(3) Inertial behavior exists in the food purchasing behavior (Carrasco et al., 2005). However, there have been no scholars who have applied it to explore the relation between customer satisfaction and loyalty in the fast food industry. It can be seen that there is an important study gap that exists in the exploration of customer satisfaction and loyalty in the fast food industry; therefore, it creates the motive for the study to explore this issue. The major study purpose of the study is to integrate the related variables of fast food industry characteristics, such as consumption frequency, perceived price and convenience, and propose a customer satisfaction and loyalty integrated model for the fast food industry, and apply relationship inertia as the mediator to find out the major factor that impacted the customer satisfaction and loyalty in fast food industry, with the expectation to provide it as a reference for the fast food industry in developing the improvement strategy of customer satisfaction and customer loyalty.

LITERATURE REVIEW

Customer satisfaction

The primary task of a corporation is to create customer satisfaction. Profit is not the most important result; after all, it is only the feedback after satisfying the customer (Drucker, 1954). As long as the customer is satisfied, the corporation's profit will relatively increase. Along with the more and more intense market competition and the rise of consumer awareness, customer satisfaction has a significant impact on corporate profits, and it can provide the future product or service quality of the corporation as a reference according the past consumption experience and assessment of customers. Therefore, customer satisfaction has become a recognized index which can be broadly applied in measuring customer consumption behavior. Customer satisfaction is regarded as customers can get more benefits than their cost (Liu and Yen, 2010). Different scholars' definitions for customer satisfaction can be summarized as follows:

Oliver (1981) thinks that customer satisfaction is the comments made by the surprising experience of product obtainment or consumption. Fornell (1992) pointed out that customer satisfaction is the overall measurement after a customer has purchased the product or used the service. It is the overall attitude created based on experience, which is the comparison of before (expectation) and after (feeling) the customer received the service (product). If the actual feeling after receiving the service exceeded the expectation before receiving the service, then the customer will be satisfied; if it is to the contrary, the customer will not be satisfied.

In addition, Kotler (1997) thinks that customer satisfaction is a person's happiness or disappointment, which is formed by comparing his/her perceived product performance (or result) and his/her product expectation. To be more specific, satisfaction is the function of perceived performance and expectation. Lin (2007) pointed out that good service quality will indeed satisfy the diversified demands of the customer, which means customer satisfaction is the overall assessment of products and services processed by customers according to the past experience. When the actual service result provided by the service provider is higher than the customer service expectation, then the customer will be very satisfied; if it is to the contrary, the customer will be very dissatisfied (Joewono and Kubota, 2007). In addition, Fornell et al. (1996) pointed out that the measurement of customer satisfaction can be divided into the overall satisfaction level of a customer on a corpora-tion, the difference between expectation and actual feeling, and the difference between actual feeling and ideal perfect service (product). Combining all of the above-mentioned scholars' dissertations, customer satis-faction is the result of comparing customer expectation and experience.

Therefore, the study will refer to the perspective and measurement dimension of Fornell et al. (1996) as the basis for measuring food retailer satisfaction.

Customer loyalty

For the service industry, the cost of developing a new customer is at least 5 to 9 times the cost to maintain an old customer. If the customer loyalty can be increased 5% effectively, then 25-85% profit can be increased (Raphel and Raphel, 1995). Therefore, if the service industry wants to reduce the expenditures on money and time cost, it shall focus on maintaining customers, not obtaining new customers (Oliver, 1999). It will bring a long-term or short-term profit by maintaining a long-term relationship with the customer, because maintaining a long-term relationship refers to keeping the customer and obtaining his/her loyalty (Ranaweera and Prabhu, 2003). It can be seen that the importance of customer loyalty establishment on the service industry operation cannot be understated. If the food service industry can keep the customer and make him/her a loyal customer, then it will also be able to bring long-term operating efficiency.

Dick and Basu (1994) pointed out that customer loyalty can be divided into true loyalty, false loyalty, potential loyalty and no loyalty according to the strength level of the relationship between the personal attitude and re-purchase behavior. Schneider and Bowen (1999) pointed out that customer loyalty refers to a customer's possible repurchase behavior, and willingness to become a member of the service institution. Neal (1999) thinks that customer loyalty is the performance of a consumer still

choosing the same product or service after comparing it with other competitor's products with the premise that the competitive product can be easily purchased, and it will go through the four stages of perceived loyalty, emotional loyalty, intentional loyalty and action loyalty (Oliver, 1999).

In the measurement of customer loyalty, Zeithaml et al. (1996) pointed out that the measurement items of customer loyalty in customer behavior intention include: repurchase after the price has increased (price tole-rance), priority purchase and recommendation. Fornell et al. (1996) thinks that customer loyalty can be measured by the repurchase will and customer price tolerance. Gronholdt et al. (2000) pointed out that customer loyalty be constructed by the four measurement indexes of the repurchase will, the will of recommending the company or brand to others, price tolerance and cross-purchase will of the customer. Finally, the study mainly refers to the perspectives of Fornell et al. (1996) and Zeithaml et al. (1996) and the service characteristics of the food retailer to summarize the measurement method of customer loyalty in the behavior dimension of the four measure-ment indexes, which are repurchase will, recommending to others, price tolerance and priority repurchase.

Relationship inertia

Relationship inertia is a fixed consumption pattern. With all consumption, customers will purchase the same pro-duct because of habit, without the need to spend energy or time to think too much during the decision making process (Assael, 1998). The reason for this type of consumer purchasing the same brand or purchasing the same product repeatedly is that they feel comfortable due to not having to make new choices. When purchasing the same brand again, it can save time, and by being familiar with the brand, there will be no sense of difference, and also can reduce the perceived risk (Bloemer and Kasper, 1994). Dick and Basu (1994) pointed out that the false loyalty in customer loyalty has the characteristic of low preference attitude, and high repeat purchase rate, and inertia is a kind of false loyalty performance. In addition, Oliver (1999) pointed out that after the consumer decides to be on the relationship inertia track of action loyalty with a brand, then the previous assessment, trial and elimination in the consumption process can be removed, therefore, relationship inertia is the performance of action loyalty.

Colgate and Danaher (2000) proposed that relationship inertia is the basis of human nature. When the customer is used to a specific thing, he/she will not have the motive that is too strong to look for alternatives plans, which means habit is an automatic behavioral tendency respon-ding to a person's past development (Limayem and Hirt, 2003). In other words, inertia is a specific future behavioral intension a person usually does and also

shows, which allows the current behavior to continue. Therefore people will continue and repeatedly do things in the way they are used to. Inertia is guided by rapid, easy, and the least attention grabbing perceived process, and can be a parallel processed with other activities, which does not have further thought or rational analysis on their behavior, and is just based on the habit (Ouellette and Wood, 1998; Gefen, 2003). After combining the aforementioned perspectives and the characteristics of food retail, the study defines the relationship inertia of the fast food industry customer as: customers often form a dependent and characteristic relationship with a specific food or service quality with their own habit factor. They will not have a motive that is too strong to look for alternative food service.

Gremler (1995) defined relationship inertia as the inertial behavior during repeat purchase of consumers avoiding decision making and having high-repeatable visits. Therefore, "If there are no other reasons, the original store service will still be chosen", "Unless I'm not satisfied, the original store service will still be chosen", and "It is most unlikely for me to shop in the store" are used to measure relationship inertia. Carrasco et al. (2005) applied Panel data to view whether the customers' consumption behavior has inertia, and found that indeed there is inertia behavior for consumers in the food and service consumption. From the abovementioned studies, the study refers to the perspectives of many scholars (Gremler, 1995; Gefen, 2003; Carrasco et al., 2005) and combines them with the consumer characteristics of the fast food industry, and derived five items to measure the customer relationship inertia of the fast food industry. The items are respectively the fast food store visit inertia, familiarity, impression, will of continuous selection and will of enjoying to consume in this store.

Consumption frequency

Sonmez and Graefe (1998) pointed out that past consumption frequency is the best way to predict future customer behavior; people will receive high interests through past frequent behavior to form inertia, and then tend to continue the past behavior (Ouellette and Wood, 1998). In other words, the higher the interaction frequency between the service provider and customer, the higher the service experience satisfaction will be (Zeithaml et al., 1996). It can be seen that, when the frequency of customers making consumptions in the shop is high, the store satisfaction will be increased, because we can understand some consumption behaviors through customers shopping in the store at a fixed time. Therefore, the study explores the relation between relationship inertia and customer satisfaction through past food consumption frequency. Wind (1978) applied consumption frequency as the market segment variable of customer specific characteristics.

It can be known from the abovementioned scholars' perspectives that past frequency is often applied in measuring customer behavior intention, and to further understand consumer future behavior intention. With the frequency exploration of the abovementioned scholars, the study will apply the store consumption frequency at a specific time to measure the food consumption frequency.

Perceived price

Since the operating environment of the service industry changes rapidly, service industry suppliers often apply the method of reducing service quality to correspond to the dilemma of little profit, which therefore results in the lose-lose predicament of consumers and suppliers. From the consumer perspective, price is the amount which needs to be paid for the consumer to obtain the product (Hawkins et al., 1983), or the price that the consumer must give up or sacrifice to obtain a product (Zeithaml, 1998). However, consumers do not always clearly remember the actual price of the product, therefore, they will usually predetermine the actual price with a method which is more meaningful to them, that is turning the price into the perceived price approach of expensive or cheap to be memorized easily (Dickson and Sawyer, 1986; Zeithaml, 1988).

Varki and Colgate (2001) also once pointed out that price is the part that requires payment or sacrifice to obtain the product. Xia et al. (2004) also proposed that price comparison can be explicit or implicit. Explicit price comparison refers to people comparing the price of a product with other prices. It is the comparison between price and price.

Therefore, people will often compare the money they spend on buying the same kind of product. This kind of behavior is explicit price comparison.

In contrast, implicit price comparison is not the comparison between price and price. Customers only assess one price. Wathne et al. (2001) proposed that studies have verified that when the competitor offers a lower price, it will increase the possibility of customer change, which will undermine the relationship inertia of consumers on the original store, therefore, it can be seen that the high and low of price will result in the consumer inertia being undermined, and if coping with promotional activities, it will not only result in habit destruction, but also have the function of habit formation (Fornell et al., 1985).

It can be known that price is the money that is required to be paid for a consumer to exchange for a product or service, and consumers will have price awareness of the product, the high and low prices will impact the purchase behavior of customers.

Convenience

The most important thing for a corporation to keep its customers is to establish more convenience during the service process (Reichheld and Schefter, 2000). If consumers think the corporate service is convenient, then their will to repurchase will be higher (Jones et al., 2003). Therefore, if the industry can provide various convenience to consumers, then it will increase the consumers' purchase will (Brown, 1989), and will also allow the customers to stay in the corporation; consumers will also have inertia application due to the limitation of convenience factors (Wang et al., 2006). In the application of early marketing, convenience refers to the time and energy of consumers purchasing product, but not the characteristic or attribute of the product (Brown, 1989). However, customers in the information era are mostly time poor, and convenience has already been redefined to "when" the customer can obtain the service but not "where" (Barrett et al., 1997). Therefore, Berry et al. (2002) has defined service convenience as the "awareness of time and energy expenditure for consumers to purchase or accept service". Yale and Venkatesh (1986) divided convenience into time effectiveness, easy access, easy to carry, applicability, portability and avoidance of displeasure. Brown (1990) used economic effectiveness theory as the basis and thinks that convenience shall be the concept that has multi-dimensions, including time convenience, location convenience, access convenience, application convenience and implementation convenience. Berry et al. (2002) divided service convenience into decision making convenience, access convenience, transaction convenience, benefit convenience and follow-up benefit convenience.

HYPOTHESES

The study of Sonmez and Graefe (1998) pointed out that consumers' past consumption frequency is the best way to predict future purchase behavior. In addition, Ouellette and Wood (1998) found that when people obtain higher benefit from the past frequent behavior, they will form the inertia and will tend to continue past consumption behavior. Therefore, the study assumed that consumers past consumption frequency will impact the formation of the food relationship inertia. The higher the food consumption frequency is, the stronger the relationship inertia formed is, and the increased purchase frequency will increase the customer satisfaction (Narayandas, 1996). Hughes (1994) also once pointed out that the higher the customer purchase frequency is, the higher the satisfaction will be. Therefore, the study used the above mentioned dissertations as a basis to establish H_1 and H_2:

H_1: Consumption frequency has a positive impact on customer relationship inertia.

H_2: Consumption frequency has a positive impact on customer satisfaction.

Wathne et al. (2001) found that when a competitor offers a lower price, it will increase the possibility of customer change, which will undermine the relationship inertia of consumers on the original store. Therefore, it can be seen that high and low prices will result in the consumer inertia being undermined (Fornell et al., 1985). In addition, the impact of consumption price on consumer inertia and satisfaction does exist (Dargay, 2007; Hopkins, 2007), which is the higher the consumer experienced food price is, the more it will not be conducive for the formation of customer relationship inertia and the enhancement of satisfaction. Therefore, in the food consumption behavior, price should be an important impact factor, and will impact the customer's inertia and satisfaction to the original food store. Therefore, the study used the abovementioned dissertations as a basis to establish H_3 and H_4:

H_3: Perceived price has a negative impact on the formation of customer relationship inertia.

H_4: Perceived price has a negative impact on the formation of customer satisfaction.

Customers in the information era mostly lack time, and coupled with the consumer habit change, convenience is also one of the pursuits of current consumers. According to the study of Heiens and Pleshko (1997), consumers will have the inertial repeating purchase behavior due to the factor of convenient purchase. The study of Wang et al. (2006) also indicated that consumers will have the inertia application due to the limitation of the convenience factor. In addition, Mahon et al. (2006) pointed out that for products with more convenience, the consumers will more easily gain inertia, and be more satisfied with the product. Superior customer perceptions of the services and convenience offered by a food retailer enhance their satisfaction (Martínez-Ruiz et al., 2010). Therefore, when consumers have stronger convenience feeling, the consumer relationship inertia will be gradually formed, and customer satisfaction will be enhanced. Therefore, the study used the abovementioned dissertations as a basis to establish H_5 and H_6:

H_5: Convenience has a positive impact on customer relationship inertia.

H_6: Convenience has a positive impact on customer satisfaction.

General consumers will have fixed food preferences, such as being used to a certain restaurant atmosphere, the service of a certain server, the cooking method of a certain chef, and a certain restaurant location. Therefore, consumers will often make consumptions in restaurants
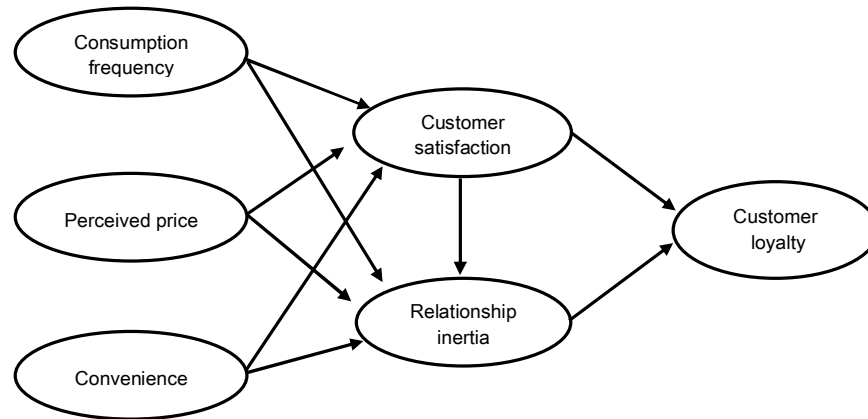
Figure 1. Research framework.

according to habit. Seybold (1998) thinks that the longer the relationship between the corporation and customer lasts, the more profit it will obtain from the customer, because this will keep the customer's loyalty to enhance the corporate profit. Therefore, when the relationship inertia is formed, the customer re-purchase habit and purchase behavior will continue, and show the customer loyalty situation. In addition, the study of Campbell and Cochrane (1999) pointed out that relationship inertia will enhance customer's sustainability of original behavior, and have a positive impact on customer loyalty (Lin and Wang, 2006). Therefore, the study used the abovementioned dissertations as a basis to establish H_7:

H_7: Customer relationship inertia has a positive impact on customer loyalty.

In the service industry, customer satisfaction has always been regarded as an important determinant factor for customer loyalty (Anderson and Sullivan, 1993; Fornell et al., 1996), customer satisfaction has a positive impact on customer loyalty, and many scholars have proposed the verification (Gwinner et al., 1998; Hennig-Thurau et al., 2002; Bostan et al., 2007), especially for the fast food industry (Terblanche, 2006). However, there are also scholars who proposed that the false loyalty of customer loyalty is an inertia purchase (Dick and Basu, 1994). It can be assumed that the higher the customer satisfaction is, the stronger the consumer loyalty and inertia purchase level will be. Therefore, the study established H_8 and H_9:

H_8: Customer satisfaction has a positive impact on customer loyalty.
H_9: Customer satisfaction has a positive impact on customer relationship inertia.

METHODOLOGY

Research framework

The major purpose of the study is to integrate consumption

frequency, perceived price and convenience, to propose an integration model of fast food industry customer satisfaction and loyalty, and apply relationship inertia as the mediator to find the major factors that impact fast food industry customer satisfaction and loyalty. According to H_1 to H_9, the framework for this study can be seen in Figure 1.

Measures

The major questionnaire content of the study includes consumption frequency, perceived price, convenience, customer relationship inertia, customer satisfaction and customer loyalty. The study refers to related scholars and then combines them with the fast food industry characteristics to develop the following measurement variables, which are shown in Table 1.
The questionnaire scale of the study developed an initial questionnaire according to the abovementioned operational definition, then adjusted partial questionnaire contents based on the interview comments of 6 experts (three food retailer managers and three professors of the department of hospitality and tourism management), and formally ensured the questionnaire content of the study. The study applied a Likert 5-point scale (i.e. 1=strongly disagree to 5=strongly agree) to process questionnaire measurement. Before the study formally issued the questionnaire, 50 questionnaires were pretested to review the reliability of various dimensions in the questionnaire. It can be seen from the reliability analysis result of the pretest questionnaire that in addition to the reliability of consumption frequency not being able to be measured (only one item), the rest of the measurement dimensions' Cronbach's α are all higher than 0.7. Therefore, it initially determined that the questionnaire items of the study are relatively consistent.

Data collection

The fast food industry is the representative of food retail in various countries. It can create over 10 billion NT revenue a year in Taiwan, and it is one of the important food retail types in Taiwan. The study applied the fast food industry customers of Taiwan's biggest international city-Taipei City as the study object, and chose to process the questionnaire survey three months after a certain fast food industry's food safety incident (May 1 to May 31, 2010, a total of one month). The study applied the purposive sampling method and focused on 10 branches of four famous fast food chain stores in Taipei City for questionnaire survey. There were a total of 600

Table 1. Operational definition of various variables.

Construct	Operation definition	Observed variable	Source
Consumption frequency	Consumption frequency of visiting the restaurant in the last three months	Consumption frequency (X_1)	--
Perceived price	Money paid to accept the food service.	1. Food price (X_2) 2. Drink price (X_3)	Varki and Colgate(2001)
Convenience	The convenience level felt by customer when accepting food service.	1. Time convenience (X_4) 2. Access convenience (X_5) 3. Location convenience (X_6) 4. Application convenience (X_7) 5. Implementation convenience (X_8)	Brown (1990)
Customer satisfaction	A pleasant or disappointing perceived level created after consumers compare the service or product perceived performance and self expectation.	1. Customer overall satisfaction (X_9) 2. The difference between customer expectation and actual feeling (X_{10}) 3. The comparison of similar ideal product or service (X_{11})	Fornell (1996)
Relationship inertia	A specific relationship formed by customers with a specific product or industry due to habit.	1. Used to visit the store (X_{12}) 2. Familiar with the store (X_{13}) 3. Think of the store first (X_{14}) 4. Will still choose the store (X_{15}) 5. Prefer to visit the store (X_{16})	Gremler (1995); Gefen (2003); Carrasco et al.(2005)
Customer loyalty	After consumption, customers have future continuous transaction intension.	1. Prior purchase (X_{17}) 2. Recommendation (X_{18}) 3. Price tolerance (X_{19}) 4. Will to repurchase (X_{20})	Fornell (1996)

questionnaires issued, the effective recycled questionnaires are 594, and the effective recycled rate is 98%.

Statistical methods

The study first applied SPSS version 12.0 to process the descriptive statistic analysis, reliability analysis and related analysis on the effective questionnaires, and understand the sample structure and the internal consistency and relation between various variables. Second, this study assessed the properties of measurement scales for convergent validity and discriminant validity, and constructed composite reliability by confirmatory factor analysis (CFA) using maximum likelihood to estimate parameters. Finally, it applied structural equation modeling (SEM) to verify the path relationship of food retailer customer satisfaction, relationship inertia and customer loyalty, and the impact effect of other factors, and applied LISREL 8.70 software as the SEM analysis tool.

RESULTS

Descriptive statistics

The study mainly applied the consumers of the fast good

stores in Taipei City, Taiwan as the study object, and successfully collected 594 effective questionnaires. Subsequently, the study applied the frequency distribution table to preset the sample characteristics; the sample structure attribute distribution is shown as Table 2.

As can be deduced from Table 2; in gender, the ratio of female consumers (56.6%) accounts for the most; in age, the ratio of age between 21 and 30 (45.5%) accounts for the most; in education, the ratio of senior high school or vocational schools (18.7%) accounts for the most; in monthly income, the ration of NT$ 10,001 - 30,000 (35.9%) and less than NT$ 10,000 (35.2%) account for the most; in occupation, the ratio of students (42.9%) accounts for the most; in marital status, the ratio of being single (72.9%) accounts for the most; in consumption amount, the ratio of NT$ 101-200 (62.8%) accounts for the most. The abovementioned sample structure indicated that in the sample of fast food industry consumers, the ratio of young students is relatively higher; this result meets the population characteristic of Taiwan's fast food industry.

Table 2. Profile of the respondents.

Characteristic		Frequency	Percent	Characteristic		Frequency	Percent
Gender	Male	258	43.4	**Consumption frequency**	2 (include) or less	198	33.3
	Female	336	56.6		3-5	231	38.9
					6-9	78	13.1
	Under 20	116	19.5		More than 10	83	14.0
	21-30	270	45.5				
	31-40	128	21.5		Manufacturing industry	41	6.9
Age	41-50	62	10.4		Industrial and commercial service industry	112	18.9
	51-60	16	2.7		Public sector	39	6.6
	More than 61	2	0.3	**Occupation**	Student	252	42.4
					Information technology industry	50	8.4
Education	Junior high or lower	32	5.4		Others	100	16.8
	Senior high or vocational school	111	18.7				
	University, college	392	66	**Marital status**	Single	433	72.9
	Graduate school or above	58	9.8		Married	161	27.1
Monthly income (NT$)	Under 10000	209	35.2	**Consumption amount (NT$)**	Under 100	99	16.7
	10001 - 30000	213	35.9		101 - 200	373	62.8
	30001 - 50000	124	20.9		201 - 300	73	12.3
	50001 - 70000	35	5.9		301 - 400	23	3.9
	More than 70000	13	2.2		401 -500	6	1.0
					More than 501	11	1.9

Reliability and validity analysis

In accordance with accepted practice (Fornell and Larcker, 1981), this study assessed the properties of measurement scales for convergent validity and discriminant validity, and construct composite reliability (CR) (i.e. Construct reliability). Table 3 lists the measurement items of the construct scales, standardized coefficient loadings of the confirmatory factor analysis results, construct CR and AVE for each multi-item construct in our research model. The measurement model of this study provided a good overall fit with the data (GFI and AGFI>0.90, CFI, NFI and IFI>0.95, X^2/ d.f <3, RMR and RMSEA<0.07). Composite reliability for all constructs in our research model was more than 0.7, respectively. In general, the measurement scales used in this study were found to be reliable. The average variance extracted (AVE) value for all constructs was more than 0.5, respectively; all exceeding the benchmark of 0.50 for convergent validity (Fornell and Larcker, 1981). Discriminant validity is established if the AVE value is larger than the squared multiple correlation (SMC) coefficients between constructs (Fornell and Larcker, 1981). Our results demonstrate that the AVE value for all constructs were more than SMC coefficients in Table 4. This result indicates sufficient discrimi-nant validity for all constructs in this study.

Path analysis of research model and hypothesis testing

It can be seen from the abovementioned reliability and validity analysis that the study model of the study has convergent validity, discriminant validity and internal consistency. Therefore, the study will process the verification of the various paths in the study model by structural equation modeling (SEM). First, it can be seen from the model fit

Table 3. Goodness of fit of the proposed model through CFA.

Construct	Observed variable	Mean (S.D)	Loading	CR	AVE
Consumption frequency	X_1	4.34 (1.02)	1.00	1.00	1.00
Perceived price	X_2	2.91 (0.92)	0.86	0.79	0.65
	X_3	2.89 (1.01)	0.75		
	X_4	4.09 (0.74)	0.76		
	X_5	3.91 (0.79)	0.79		
Convenience	X_6	3.93 (0.74)	0.78	0.85	0.66
	X_7	3.82 (0.78)	0.67		
	X_8	3.37 (1.02)	0.63		
	X_9	3.58 (0.70)	0.78		
Customer satisfaction	X_{10}	3.45 (0.76)	0.82	0.83	0.62
	X_{11}	3.37 (0.79)	0.77		
	X_{12}	3.14 (0.99)	0.69		
	X_{13}	3.53 (0.86)	0.65		
Relationship inertia	X_{14}	3.41 (0.98)	0.74	0.86	0.55
	X_{15}	3.27 (0.94)	0.77		
	X_{16}	3.34 (0.89)	0.85		
	X_{17}	3.36 (0.89)	0.82		
Customer loyalty	X_{18}	3.04 (0.91)	0.56	0.81	0.58
	X_{19}	3.49 (0.80)	0.77		
	X_{20}	3.94 (0.94)	0.85		

RMR=0.05, RMSEA=0.067, and X^2 / d.f =2.94). In the study model, the explanatory power (R^2) of customer satisfaction, relationship inertia and customer loyalty are respectively 54 and 84%, which indicated that the study model of the study has considerable explanatory power.

In the casual relationship (Figure 2) of the study model's various potential variables, r is the standardized path coefficient of the study model path analysis, it represents the direct impact effect between various potential variables, the greater the value is, the higher the relation level is; if it is to the contrary, it will be lower. It can be seen from the path analysis result that relationship inertia (r=0.82, P<0.001) and customer satisfaction (r=0.16, P<0.01) have a significant positive relationship on customer loyalty. In addition, customer satisfaction (r=0.40, P<0.001) and consumption frequency (r=0.14, P<0.01) have a significant positive relationship on customer relationship inertia, and perceived price (r=-0.30, P<0.001) has a significant negative relationship on customer relationship inertia. Convenience (r=0.07, P>0.05) has no significant relationship on customer relationship inertia. Finally, convenience (r=0.20, P<0.001) has a significant positive relationship on customer satisfaction, and perceived price (r=-0.34, P<0.001) has a significant negative relationship on customer satisfaction. Consumption frequency (r=0.08, P>0.05) has no significant relationship on customer satisfaction. It can be seen from the abovementioned study result that in addition to H_2, and H_5, which do not support the impact, the rest, H_1, H_3, H_4, H_6, H_7, H_8, and H_9, all support the impact.

DISCUSSION

People generally think that the fast food industry is characterized by rapid, convenient, and low prices in Taiwan. The impact of negative news is often short and weak for the customers of the fast food industry. Therefore, the study suspects whether there are other important variables in the customer purchase behavior model of the fast food industry that will support this result, which is that customer loyalty, in addition to being impacted by customer satisfaction, are there other impact factors, and this is the issue that past studies seldom explore. Therefore, the major purpose of the study is to integrate the related characteristic variables of the fast food industry, such as consumption frequency, perceived price and convenience, propose a relation model between customer satisfaction and loyalty, and apply relationship inertia as the mediator to re-explain the relation between fast food industry customer satisfaction and loyalty. The study applied 594 fast food industry customers as the empirical subjects. The study found that the study model it constructed has good predictive validity; its explanatory power (R^2) is not lower than the customer satisfaction index (CSI) model.

IMPLICATIONS

It can be seen through the past analysis of the study model that the study confirmed that fast food industry

Table 4. Discriminant validity of construct.

Construct	Consumption frequency	Perceived price	Convenience	Customer satisfaction	Relationship inertia	Customer loyalty
Consumption frequency	1.00[a]					
Perceived price	0.08	0.60[b]				
Convenience	0.02	0.07	0.66[c]			
Customer satisfaction	0.04	0.12	0.11	0.62[d]		
Relationship inertia	0.11	0.20	0.14	0.24	0.55[e]	
Customer loyalty	0.06	0.17	0.09	0.29	0.52	0.58[f]

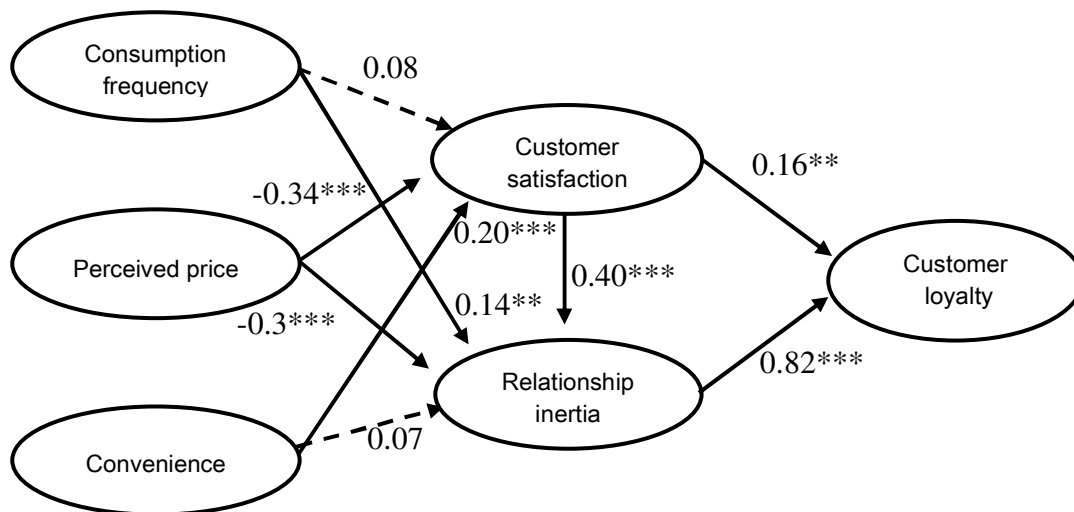[a, b, c, d, e, f] represent AVE value of each construct. Other values represent SMC coefficients between constructs.

Figure 2. Path analysis of research model. **p<0.01; ***p<0.001.

customer satisfaction, will also be impacted by customer relationship inertia. The result verified that fast food industry customer satisfaction will positively impact customer loyalty (Terblanche, 2006). At the same time, it also verified that consumers have inertial behavior in food consumption (Carrasco et al., 2005), and even further verified the perspective of Bruhn and Grund (2000) that in addition to customer satisfaction, there are other important factors that will impact customer loyalty. Therefore, the study suggests that the customer inertial purchase behavior of the fast food industry has resulted in the customer loyalty and sales performance of the fast food industry not being easily impacted by negative news event. In addition, customer satisfaction will go through customer relationship inertia, and further impact customer loyalty. Customer relationship inertia is a very important mediator in the relationship between customer satisfaction and customer loyalty. It indicated that the higher the fast food industry customer satisfaction is, the easier it will be to allow customers to continue the original habit and behavior, and allow the customer loyalty to be enhanced. Therefore, the more satisfaction the customers

received, the stronger the customers' inertial consumption behavior of the fast food industry will become, which will assist in maintaining the relationship between the industry and the customer, and strengthen customer loyalty.

It can be seen from the abovementioned conclusion that in order to enhance the customer loyalty of the fast food industry, it is necessary to strengthen the customer satisfaction and relationship inertia. Therefore, it is very important to look for the variables that will impact customer satisfaction and relationship inertia. The study found that consumers' perceived price has a negative impact on customer satisfaction, which is that the higher the fast food industry product price is, the more it will reduce customer satisfaction. This result is consistent with the study result of Dargay (2007), and Hopkins (2007). The study suggests that fast food retailer appropriately educate the consumers and allow them to fully understand the reason for price enhancement or proposed related supporting measures when increasing the product price. In addition, consumers' perceived price also has a negative impact on customers' relationship

inertia. It indicated that the higher the fast food industry product price is, the slower the customers' inertia purchase behavior will get, or even have the possibility of increasing the customers to switching service providers (stores) (Wathne et al., 2001).

The study found that convenience has a positive impact on fast food industry customer satisfaction. It indicated that the more convenient the fast food store consumers feel during the consumption process, the more customer satisfaction will increase. This study result has corresponded with the study conclusion of Mahon et al. (2006) and Martínez-Ruiz et al. (2010). On the other hand, the study also found that although convenience will not have direct impact on customer relationship inertia, it will go through customer satisfaction to enhance customer relationship inertia; therefore, convenience has indirect impact effect on relationship inertia. This result is different from the study conclusion of Ping et al. (2006). Therefore, the study suggests that fast food retailers should continue to strengthen convenient service to satisfy customer demand and enhance inertia purchase behavior.

In addition, the study found that the higher the customers' consumption frequency of the fast food industry is, the more it will enhance the customers' relationship inertia. This result verified that when people obtained high benefits from the past frequent behavior, they will form the inertia, and tend to continue the past consumption behavior (Ouellette and Wood, 1998). However, the customers' consumption frequency of the fast food industry cannot help in enhancing customer satisfaction; this study result is different from the perspective of Hughes (1994). The study suggests that maybe it's because the fast food industry is a commonly seen provider of affordable meals in developed countries, people are already used to the position and pursuit of the fast food industry. Therefore, the purchase frequency may not enhance customer satisfaction. Finally, the study suggests that fast food retailers can promote the marketing strategy (such as point card, time to time promotions, gifts or popular toys) which can enhance the consumption frequency to enhance customers' relationship inertia, and further assist in the enhancement of customer loyalty.

Finally, due to taking the subjective and objective factor and the cost into account, the study only applied the fast food industry customers in Taipei City, Taiwan as the study object, however the study result cannot respond to the fast food industry customers' characteristics of other countries or regions, which is the major limitation of the study. It suggests that future research can expand or increase the samples of other countries or regions with different economic levels to enhance the promotion validity of the food retailer customer satisfaction model. In addition, there are numerous factors that impact fast food industry customer satisfaction and loyalty, therefore, it also suggests future research to integrate other factors that may impact fast food industry customer satisfaction

to enhance the explanatory power and study value of the study model.

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