The impact of cause-related marketing on store switching: An analysis of the chain convenience stores in Taiwan
善因行銷對商店移轉的影響：台灣連鎖便利商店之分析

Hui Wen Cheng
Department of International Business, Ming Chuan University
Chin-Lung Chien[1]
Department of Psychology, Kaohsiung Medical University
Department of Medical Research, Kaohsiung Medical University Hospital
Paul R. Woodburne
Department of Economics, Clarion University

Abstract: Corporate Social Responsibility (CSR) has long been a concern of large corporations. Small Taiwanese convenience store chains have recently joined larger firms in regard to embracing CSR. This study examines the acceptance by customers of cause-related marketing (CRM) as a component of CSR, as practiced by convenience stores in Taiwan. Our results indicate that Taiwanese consumers believe that convenience stores engaging in CRM do so for the dual motives of altruism and self-interest. As a result, our results suggest that Taiwanese evaluate CRM less positively than past research suggests is true. We find that Taiwanese consumers tend to suspect the motives of stores when price trade-off is higher than the donation. In such price trade-off situations, CRM strategy has a limited effect on strengthening store loyalty. Conversely, when the donation is higher than the price trade-off, CRM strategy can boost store loyalty. In the latter case, CRM is an efficient way for Taiwanese retailers to increase market share. The managerial implications of this study are as follows. First, CRM may be regarded as a useful marketing/promotional strategy. Second, use of a CRM program may encourage customers to switch to stores engaging in CRM. Third, the amount of donation should not be lower than the price difference between the stores with and without CRM.

---

[1] Corresponding author: Chin-Lung Chien, Department of Psychology, Kaohsiung Medical University, 100, Shih-Chuan 1st Road, Kaohsiung, 80708, Taiwan R.O.C., E-mail: CCL@kmu.edu.tw.

Keywords: Cause-related marketing, Markov chain model, steady-state market shares, store loyalty, store switching, retailing.

1. Introduction

Cause-related marketing (CRM) is defined as a commercial activity by which businesses and charities or other organizations supporting good causes form partnerships with each other to market an image, product or service for mutual benefit (Adkins, 2003); it is a very well-known marketing tool to enhance brand or store image, particularly since the mid-1980s (Barone, Miyazaki, and Taylor, 2000; Barone, Norman, and Miyazaki, 2007; Cui *et al*. 2003; Ellen, Mohr, and Webb, 2000; Hamlin and Wilson, 2004; Robinson, Irmak, and Jayachandran, 2012; Ross III, Patterson, and Stutts, 1992; Varadarajan and Menon, 1988; Webb and Mohr, 1998). CRM fits within the broad framework of corporate social responsibility (CSR), and is seen as a key attribute that can enhance customer loyalty (Chou and Chen, 2016); it has been an effective part of CSR strategy (Chernev and Blair, 2015). CRM is associated with charity activities or philanthropy. Whatever CRM is, it is essentially a marketing-driven activity; it is definitely not purely philanthropic or altruistic (Adkins, 2003). Due to the ambivalent meanings of CRM, how people perceive the motives of retail firms engaging in CRM is worth investigating. Exploring customer perceptions on this issue would shed light on relevant research. Furthermore, in this paper we investigate whether CRM always results in positive outcomes such as increased customer loyalty and the acquisition of customers from non-CRM to CRM stores.

Previous examples have noted that CRM is an effective strategy for increasing sales. For example, the first campaign was launched by American Express in 1983; American Express donated funds to the Statue of Liberty-Ellis Island Foundation and experienced an increase in credit card usage by 28% (Varadarajan and Menon, 1988). In addition, grocery stores usually donate a certain proportion of their profits or sales to the local food banks to fund hunger or poverty projects before Thanksgiving and Christmas (Varadarajan and Menon, 1988). The CVS Corporation, owner of the drug store chain, donated 25 cents for every purchase of $35 or more to the United Nations Children's Fund (UNICEF),

and its sales subsequently increased by 11% (Barone *et al.*, 2007). The examples mentioned above attest that seemingly modest donations can increase sales, and that CRM strategies generate enhanced financial income in the United States.

Following the trend of CRM strategies employed in the United States, Taiwanese retailers are also using CRM strategies to improve their store image and CSR. For example, after the earthquake of September 21, 1999, McDonald's implemented a CRM of donating 10 NT dollars per Happy Meal Box sold, to Noordhoff Craniofacial Foundation (NCF) to sponsor the rebuilding of the Puli Christian Hospital. Small Taiwanese convenience store chains have recently joined larger firms in their embrace of CSR. For example, FamilyMart has engaged in CRM activities to improve brand image since 2010; so doing seems to have led to market growth. The market share of FamilyMart based on sales revenue was 18.49% in 2009; afterwards, it rose to 20.14% in 2012.[2] Although the CRM activities are popular in Taiwan, the perceived motive and customer loyalty related to CRM have seldom been investigated.

The present study was motivated by the following five reasons to narrow the research gap of previous studies. First of all, the focus herein is on convenience stores due to the fact that studies on convenience store are generally sparse (Cheng and Chen, 2013) compared to those on retail stores (Barone *et al.*, 2007; Chen, Chang, and Chang, 2004; Ellen *et al.*, 2000; Hartmann, Klink, and Simons, 2015). Convenience stores have become a part of daily life all over the world. Besides, Taiwan holds the record in the ratio of convenience store density to population around the world.[3] Hence, this study explores CRM in the context of convenience stores.

Second, it is well known that marketing strategies can boost customer loyalty and switching behavior (Chan, Ip, and Cho, 2010; Ma, Li, and Chen, 2008; Tsao *et al.*, 2009). Previous studies on CRM seldom focused on these issues. Thus, the second motive of this study is to examine the effects of CRM strategy on store loyalty and store switching behavior among convenience stores.

---

[2] We calculate market share based on the reported data from the studies of the Commerce Development Research Institute (2012), Department of Statistics, Ministry of Economic Affairs (http://dmz9.moea.gov.tw/gmweb/investigate/InvestigateEA.aspx) and FamilyMart (http://www.family.com.tw/enterprise/about_manage.aspx).

[3] Department of Statistics, Ministry of Economic Affairs (https://www.moea.gov.tw/Mns/dos/bulletin/Bulletin.aspx?kind=9&html=1&menu_id=18808&bull_id=2504).

Third, prior studies found that Markov chain models produce accurate forecasts on future market shares. These models have significant long-run equilibrium implications for market switching dynamics (Zufryden, 1986). As with the lacuna on convenience stores, very few studies have investigated the effects of CRM strategy on market share. Therefore, the third motive of this study is to use a Markov chain model to examine the long-term effect on the steady-state market share when a chain convenience store engages in CRM unilaterally and repeatedly.

Fourth, we have chosen non-Western retailers as the research field. Henrich, Heine, and Norenzayan (2010) have argued that past psychological research draws results from samples largely consisting of WEIRD: Western, Educated, Industrialized, Rich and Democratic participants, i.e. Western participants. As such research has limited generalizability; this suggests the need to incorporate samples from different cultures. Much of the data on CRM in the literature are limited to WEIRD societies. Specifically, much CRM literature utilizes American undergraduates as participants (Barone *et al.*, 2000; Barone *et al.*, 2007; Cui *et al.*, 2003; Henrich *et al.*, 2010; Nan and Heo, 2007).

Following the suggestions of Henrich *et al.* (2010), this paper explores Taiwanese people's perceptions, attribution and purchase intentions in relation to CRM, in addition to the effect of CRM on customer loyalty in Taiwan. People in Taiwan tend to believe in "cause and effect" or "karma", that is "good deeds yield good fruits, while evil deeds yield bad fruits" (Chu, 1993). CRM applies "cause" as its market appeal; thus, CRM strategies coincide with some cultural values in Taiwan. In this cultural context, whether CRM can enhance Taiwanese consumers' attitudes toward convenience stores and purchase intention is worth investigating. In order to fill the research gap, the fourth motive of this study is to probe into the effects of CRM in convenience stores in Taiwan.

Researchers (Nisbett *et al.*, 2001; Peng and Nisbett, 1999) suggest that the attribution style is quite different between the East and the West. Thus, Taiwanese people's attribution for CRM may differ from that of Westerners. Exploring Taiwanese's attribution for CRM can help us understand consumers' inner psychological process under different cultural contexts. This work may contribute to theory (attribution theory), and to the practical applications of CRM. Attribution Theory and practical application come together in investigating

whether Taiwanese people perceive CRM as an altruistic motive to help the disadvantaged, or if the stores implementing CRM simply want to increase their profit. Put another way, Taiwanese consumers are asked how willing they are to buy CRM products. Thus, the fourth motive is to examine whether CRM works in Taiwan as well as it seems to in Western countries.

Fifth, recent studies found that the relative size of price trade-off and donation amount play significant roles in determining the effectiveness of CRM practitioners (Barone *et al.*, 2000; Chang, 2008; Cheng and Chen, 2013; Marketing News, 1997; Pracejus and Olsen, 2004; Subrahmanyan, 2004). The donation amount is defined by Folse, Niedrich, and Grau (2010) as "the absolute amount provided by the firm to the charitable cause for each consumer transaction." We are interested in whether Taiwanese are similarly sensitive as their Western counterparts to the relative size of price trade-off and donation amount, and whether CRM results in increased market share.

The targets of our study are the top four convenience stores in Taiwan: 7-11, FamilyMart, Hi-Life and OK-Mart. These four convenience stores comprise more than 80% of all revenues earned by convenience stores in Taiwan (Commerce Development Research Institute, Industry Research Group, 2012). Among them, 7-11 has always been at the top and most popular brand in Taiwan convenience stores due to its product innovation (EOLembrain, 2009).[4]

As mentioned above, FamilyMart has engaged in CRM activities many times in Taiwan; however, prior studies seldom investigate customer loyalty and switching behavior resulting from CRM and rarely examine market share. Thus, studying consumer response to CRM strategy and forecasting the effects on long-term market shares can fill in the research gaps and prove useful for marketers. The present research relies on customer interviews in the top four convenience stores, to obtain insights into customer responses to CRM. In addition, we analyze different price trade-off and donation scenarios via Markov chain models to help firms achieve effective price and donation strategy in a CRM practitioner.

---

[4] In 2010, according to a research of Commerce Development Research Institute (2012), the sales revenue of 7-11 was 114.664 million NT dollars, while the total sales revenue of Taiwan convenience stores was 230.456 million NT dollars based on the investigation of Department of Statistics, Ministry of Economic Affairs (http://dmz9.moea.gov.tw/gmweb/investigate/ InvestigateEA.aspx). The market share of 7-11 based on sales revenue was 49.76% in 2010.

2. Literature review

2.1 Cause-related marketing

Corporations recognize CRM as a permanent strategy to promote brand and store image; by so doing, it leads to increased profits (Hawkes and Stead, 1996). CRM may also increase consumer trust and positive regard for the company (Yechiam *et al.*, 2003; Lafferty, Goldsmith, and Hult, 2004), which enhances purchase intention (Berger, Cunningham, and Kozinets, 1999; Chaney and Dolli, 2001; Hajjat, 2003).

Numerous prior studies demonstrated mixed results, finding that not all CRMs are successful. Some studies show that CRM can result in favorable consumer attitudes toward the enterprise and its products (Nan and Heo, 2007; Ross III *et al.*, 1992; Webb and Mohr, 1998) as well as enhancing consumers' brand attitudes, brand awareness (Lafferty and Goldsmith, 2005), brand preference, brand loyalty and purchase intentions (Hartmann *et al.*, 2015; Smith and Alcorn, 1991). However, other studies show that CRM strategy has no effect on consumers' brand attitude (Nan and Heo, 2007), product evaluation, purchase intentions (Hamlin and Wilson, 2004) or purchase decision (Murphy, 1997).

Still other studies found that consumers may be suspicious of the motives of a company engaging in CRM; they may suspect that the business engages in CRM for cynical reasons, and is not concerned about the social responsibility, but has a more self-interested agenda related to increasing sales and profits, or enhancing goodwill. These consumers form a negative perception of CRM activities (Cui *et al.*, 2003; Smith and Stodghill, 1994; Webb and Mohr 1998). Cheng and Chen (2013) and Ellen *et al.* (2000) found that if consumers believe that firms have self-interested intention, then the effect of CRM will be limited. As more Taiwanese retailers and convenience stores implement CRM, the issues related to Taiwanese consumer perception of the motives of stores launching CRM practitioners, and whether CRM can be an effective marketing strategy in Taiwan become more and more interesting and timely.

2.2 Customer loyalty

Hartmann *et al.* (2015) revealed that customers' trust in a store's CRM

activities increases customers' loyalty to the store. According to Jacoby and Kyner (1973), the conceptual definition of brand loyalty is expressed by a set of six conditions:

"*(1) the biased (i.e. nonrandom), (2) behavioral response (i.e. purchase), (3) expressed over time, (4) by some decision-making unit, (5) with respect to one or more alternative brands out of a set of such brands, and (6) is a function of psychological (decision-making, evaluative) processes.*"

Recently, Oliver (1999) defined the customer loyalty as

"*A deeply held commitment to rebuy or repatronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brandset purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior.*"

Loyalty is considered the ultimate objective of customer satisfaction measurement (Sivadass and Baker-Prewitt, 2000). The operationalization of brand loyalty can be based on behavior (Sharp, Sharp, and Wright, 2002; Furinto, Pawitra, and Balqiah, 2009; Dawes, 2016), attitude (Ramaswami and Arunachalam, 2016; Wirtz, Mattila, and Lwin, 2007), or a combination of both (Alan, Kabadayi, and Yilmaz, 2015; Chaudhuri and Holbrook, 2001; Krishnamurthi and Raj, 1991). Behavioral loyalty is based on repeated purchases, while attitudinal loyalty includes an enduring commitment to maintaining a valued relationship with the brand or store. Commitment is seen in the willingness of customers not only to revisit the store, but also to pay a premium price (Chaudhuri and Holbrook, 2001).

Behavioral loyalty can be measured by repurchase probability (Ewing, 2000), purchase frequency (Dawes, 2016), purchase sequence (Chaudhuri, 1999; Knouse, 1986) or purchase proportion (Cunningham, 1956). In order to employ a Markov chain model to calculate repeated purchase probability and to forecast the long-term market shares, we focus on repeat-purchase loyalty based on customers' attitude towards the act of revisiting and repeated purchasing in the cases where CRM is combined with a premium price.

2.3 Customer switching

Carvalho *et al*. (2010) found that consumers are not only willing to pay a higher price, but are also less likely to switch to a competitor when they perceive a company to be engaging in corporate social responsibility (CSR). In addition, prior studies demonstrate that customers are willing to switch brands or stores over support for good causes (Cheng and Cheng 2013, Cone Communications, 2015).

Economic theory suggests that in order to maximize functional utility, consumers may engage in a range of behavior. In this view, switching among brands and stores signifies behavior that attempts to maximize functional utility (Givon, 1984; Lam *et al*., 2010). In the view of marketing researchers, consumer brand switching indicates a choice based on product attributes and marketing mix. In addition, recent developments in the choice of models suggest that brand switching also has a socio psychological purpose (Lam *et al*., 2010).

Many researchers have employed Markov chain models to analyze the effect of brand switching on market shares, by calculating switching probabilities and constructing a transition matrix (Awogbemi, Oloda, and Osama, 2012; Colombo and Morrison, 1989; Maffei, 1961). Following these studies, in order to capture the brand switching implications in various CRM scenarios, we calculate the switching probabilities based on customers' attitudes towards the act of purchase switching from one store to another.

2.4 Price trade-offs vs. donation amounts

Most past studies on the effectiveness of CRM disregard the influence of price (Hamlin and Wilson, 2004; Nan and Heo, 2007; Ross III *et al*., 1992) or are based on equal prices; however, recent studies have found that 'price' and 'performance' influence the effectiveness of CRM activities (Marketing News, 1997). Consumers are aware of, and deliberate on, the price markups resulting from the CRM activities (Habel *et al*., 2016; Koschate-Fischer, Stefan and Hoyer, 2012). In addition, consumer willingness to make price trade-offs for CRM products are related to the donation amounts (Pracejus and Olsen, 2004).

According to choice theories, such as utility theory and expected utility theory, consumers survey all relevant information and make trade-offs between

attributes to select brands or stores; among them, "moral" attributes are relatively important during choice processing. Consequently, the normal desire by consumers to pay a lower price is offset by the positive regards given to stores engaging in CRM activities for charitable causes (Barone *et al.*, 2000), in contrast to a non-CRM product. These consumers have a higher price trade off compared to consumers who do not have such positive regard. According to attribution theory, consumers may make causal inferences about the price increase. Because linking the firm's charity support to product sales can benefit the company (Koschate-Fischer, Huber, and Hoyer, 2016), consumers may be skeptical regarding the company's motives for engaging in CRM.

In a leading study, Barone *et al.* (2000) investigated whether consumers are willing to trade off company sponsorship of causes for a higher price. Their study found that when the perceived quality and prices between CRM and non-CRM products are equivalent, CRM results in a 78% higher likelihood that consumers will choose the product. However, if the price of the product with CRM is slightly higher, then only 50% of consumers will choose the CRM product. If the price trade-off is large, only 17% of the consumers are willing to buy product associated with CRM.

Subsequent to Barone *et al.* (2000), Subrahmanyan (2004) and Chang (2008) also found that a price markup for the CRM activity will moderate the purchase intentions of consumers. Subrahmanyan (2004) showed that the higher the price trade-off between CRM and non-CRM products, the lower the purchase intention of consumers will be for purchasing CRM product. More recently, Cheng and Chen (2013) used a sequential game model to analyze the optimal price trade-offs between CRM and non-CRM products. They showed that a retailer can raise the price and increase the price difference with respect to the competition by using CRM to differentiate the product.

Chang (2008) and Koschate-Fischer *et al.* (2016) used attribution theory to show that the percentage of donation relative to product price or price trade-offs may affect consumers' perception of a company's or store's motives, as well as their perception of the fairness of higher price and purchase intentions. Consumers may be skeptical of the company's motives and perceive the price increase as unfair if the donation amount or the percentage of donation relative to the price trade-offs is too low. That is, a lower donation magnitude induces

attributions of negative motives and diminishes the effectiveness of CRM due to lower fairness perceptions (Koschate-Fischer *et al.*, 2016; Pracejus and Olsen, 2004).

Pracejus and Olsen (2004) found that the value that consumers are willing to pay for a CRM option is lower than the donation amount. In addition, Folse *et al.* (2010) showed that the greater the donation amount, the greater the consumer participation supporting a CRM campaign will be. Cheng and Chen's (2013) results support the importance of price trade-offs and donation amounts in regard to the CRM effectiveness. Even if the price trade-offs are larger than the donation amounts, consumers still purchase a CRM product when the price trade-offs are small. On the other hand, when price trade-offs are large, although the donation amounts are also higher, consumers are less likely to buy a CRM product.

Following Barone *et al.* (2000) and Cheng and Chen (2013), in seeking to compare consumer behavior in the CRM and non-CRM cases, we set a price differential where the CRM product was NT 2 dollars greater than the non-CRM product. Furthermore, we included different donation amounts to investigate how the relative price trade-off and donation affect the brand switching and market shares.

2.5 Cause-related marketing in Asia

As noted above, most research on CRM is limited to the WEIRD countries. We ask whether cultural differences affect the effectiveness of CRM. Since Taiwanese believe in karma, we may expect that Taiwanese would be particularly enthusiastic regarding charity. As evidence in support of this belief, despite the fact that Taiwan's GNP is one third that of Japan's, Taiwan donated more money to Japan than any other country or region in the world after Japan's earthquake and tsunami on March 11, 2011. We seek to discover whether this national characteristic means that Taiwanese may buy more products associated with charitable causes.

On the other hand, in Chinese society, commerce has been restrained and merchants have traditionally been viewed in a negative light, and have faced discrimination since ancient times. Ancient Chinese society classes were divided into scholars, peasantry, artisans, and merchants by order of the emperor. It was

believed that merchants were selfish, and that they would hoard goods and exploit farmers. As a consequence, merchants had the most inferior status (Li, 2013).[5] The negative image of merchants has been sustained to the present day (Jacobs, Guopei, and Herbig, 1995).

This brief history shows that, in Taiwan, some sociocultural factors favor CRM and some do not. It seems that cultural differences affect the effectiveness of CRM even between Asian countries. Subrahmanyan (2004) examined the acceptance of CRM among Singaporean consumers at varying price trade-offs and donation amounts. When the donation is equal to the price trade-off, the higher the price trade-off is, the lower the percentage of Singaporean consumers purchasing CRM product will be. Moreover, they found that CRM in practical products is more effective than in hedonic products.

Contrary to the results of Subrahmanyan (2004), Chang (2008) showed that Taiwanese people are more likely to buy cause-linked brands for frivolous rather than for practical products. The empirical results of Chang (2008) also revealed that the donation magnitude and price trade-off affect the effectiveness of CRM. Chang and Cheng (2015) studied how consumer psychographics and gender influence Taiwanese consumers' purchase intentions towards the CRM product. They showed that both the utilitarian and individualistic mindsets are positively related to skepticism toward CRM, while the hedonic and collectivistic mindsets are negatively related. Additionally, skepticism toward CRM negatively impacts consumer purchase intentions.

2.6 Markov chain model

The Markov chain model deals with the probabilities of future occurrences by analyzing presently known probabilities, and is one of the decision-making mathematical techniques for sequential decision making under uncertainty (Chan *et al.*, 2010). It is a much used method for analyzing the effects of brand choice and brand switching on long-term market shares; one of the first to use it was Maffei (1960, 1961). Subsequent studies, (Bass *et al.*, 1984; Colombo and Morrison, 1989; Frank, 1962; Grover and Srinivasan, 1987; Tsao, Pitt, and

---

[5] Note that the economy of ancient China was agricultural, and the family was the basic production unit.

Campbell, 2010) used the zero-order Markov chain to study consumers' brand choice and brand switching behavior. The Markov chain is appropriate for modeling customer acquisition, retention and migration situations under the influences of marketing strategy. The increase in research reveals that it is increasingly seen as useful in evaluating the effects of marketing activities on customer purchasing behavior (Chan *et al.*, 2010).

As is well known, a zero-order Markov chain assumes that consumers' purchases have no memory from past purchases. It seems unlikely that consumer behavior will be unrelated to past purchases. Indeed, the notion of advertising and CRM rely on consumer memory of good and bad past product choices. With this in mind, some studies utilize higher-order Markov chain models in which prior purchases are related to current purchases (Farquhar and Rao, 1976), while others use these models to study variety-seeking behavior (Givon, 1984; Jeuland, 1978; Kahn, Kalwani, and Morrison, 1986; Lattin and McAlister, 1985; McAlister, 1982).

A third set of research applies the model to explore the effects of marketing policies (Chan *et al.*, 2010; Ma *et al.*, 2008; Tsao *et al.*, 2009), while a fourth strand of research uses these Markov models to forecast the steady-state market shares (Massy and Morrison, 1968; McCarthy *et al.*, 1992; Yang *et al.*, 2010). Of direct interest to the present study, a fifth strand of research uses higher-order Markov chain models to study brand loyalty and switching behavior (Givon, 1984; Givon and Horsky, 1978, 1979; Harry and Lipstein, 1962; Styan and Smith, 1964; Tsao *et al.*, 2009).

To fill the lacuna of research on Markov models on CRM and market shares, and recognizing that the zero-order models are based on unreasonable assumptions, this study seeks to apply a higher-order Markov Chain model to study the effects of market share on Taiwanese convenience stores employing CRM activities.

3. Basic model: MARKOV chain

Bass *et al.* (1984) showed that brand choice behavior is characterized by a stationary or homogenous Markov chain. Therefore, following Styan and Smith (1964) and Pfeifer and Carraway (2000), we used stationary transition

probabilities to describe consumer store choice behavior. First, we compared the initial purchases and the purchase intention with and without CRM activities to calculate customer loyalty probabilities and switching probabilities. We then constructed the transition matrix $\mathbf{P}$:

$$\mathbf{P} = \begin{bmatrix} p_{11} & p_{12} & p_{13} & p_{14} \\ p_{21} & p_{22} & p_{23} & p_{24} \\ p_{31} & p_{32} & p_{33} & p_{34} \\ p_{41} & p_{42} & p_{43} & p_{44} \end{bmatrix},$$

where p_{ij} denotes the probability for a typical consumer to switch from chain convenience store i to j, for all $i, j = 1, 2, 3, 4$. Here $i = 1$ represents Ok-Mart, $i = 2$ represents Hi-life, $i = 3$ represents FamilyMart, and $i = 4$ represents 7-11. Thus p_{ij} is the repeat purchase probability of store i and indicates the brand or store loyalty when $i = j$. When $i \neq j$, p_{ij} indicates the switching probability from store i to j. It is the case that $\sum_{j=1}^{4} p_{ij} = 1$. $\mathbf{P}$ is a diagonally dominant matrix indicating strong store loyalty when $p_{ii} > \sum_{j \neq i} p_{ij}$ (Styan and Smith, 1964; Yang *et al.*, 2010). However, if variety seeking prevails, $\mathbf{P}$ would not be a diagonally dominant matrix, that is $p_{ii} < \sum_{j \neq i} p_{ij}$ (Draper and Nolin, 1964).

$\mathbf{P}$ is a one-step transition matrix and presents the probabilities of moving from one state to another in a single period. The t-step transition matrix is the matrix product of t one-step transition matrices for a stationary Markov chain. It is defined as the matrix of probabilities of moving from one state to another in t period (Pfeifer and Carraway, 2000). That is, in a stationary Markov chain, $\mathbf{P_t} = \mathbf{P_1} = \mathbf{P_2} = ... = \mathbf{P_n}$, $t = 1, 2, \cdots, n$; therefore, the t-step transition matrix is $\mathbf{P^t} = \mathbf{P_1} \times \mathbf{P_2} \times \cdots \times \mathbf{P_t}$. Thus the customer distribution matrix after t periods for the top four convenience stores is expressed as:

$$\mathbf{V_t} = \mathbf{A} \times \mathbf{P_1} \times \mathbf{P_2} \times \cdots \times \mathbf{P_t} = \mathbf{A} \times \mathbf{P^t},$$

where $\mathbf{A}$ denotes the diagonal matrix of the number of customers initially shopping at store i:

$$\mathbf{A} = \begin{bmatrix} V_1 & 0 & 0 & 0 \\ 0 & V_2 & 0 & 0 \\ 0 & 0 & V_3 & 0 \\ 0 & 0 & 0 & V_4 \end{bmatrix},$$

where V_i presents the number of customers initially shopping at store i. The steady-state equilibrium occurs when the market shares become stationary, that is, $V_i^{t+1} - V_i^t \cong 0$, where V_i^t denotes the number of customers shopping at store i in period t. We can forecast the steady-state market shares by steady-state equilibrium. The terms used in the model are defined in Table 1.

4. Empirical study

4.1 Sampling and questionnaire design

4.1.1 Sampling and sample profile

Due to the difficulty in conducting simple random sampling, most past studies used convenience sampling (e.g., Cheng and Chen, 2013; Yang and Li, 2007). In order to achieve a higher degree of representativeness, our survey used a two-stage cluster sampling scheme. The convenience sampling is marked by the advantages of convenience and fast speed, but a sample from convenience sampling is not a random sample, which means that a convenient sample would be biased and non-representative. In contrast, a sample from a two-stage clustering sample has greater randomness and higher representativeness than convenience sampling. In Taipei, we found 23 districts where the top four convenience stores: OK-Mart, Hi-Life, 7-11 and FamilyMart, were clustered within 500 meters of each other. In the first stage, we randomly selected six districts from these clustered districts to ensure that we could target the customers of all the top four convenience stores. In the second stage, we interviewed 35 passing pedestrians in each selected districts from July to September in 2012. Therefore, a total of 210 questionnaires were collected and the effective samples numbered 209. We show the sample's basic data in Appendix A.

Table 1
The terms used in the model

Terms	Definition	Measure	Operational definition	Indicator	Formula
Store loyalty	A deeply held commitment to rebuy or repatronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brandset purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior (Oliver, 1999).	Repeat purchase	We focus on repeat-purchase loyalty based on customers' attitude towards the act of revisit and purchasing the product sold in the same store in the cases that CRM was combined with a premium price.	Repeat purchase probability	The repeat purchase probability is equal to the number of customers purchasing the product in the same store after reading a specific scenario provided by the study, which is divided by the number of customers of the initial store.
Store switching	Economic view: the switching among brands and stores is taken as the behavior of functional utility maximization (Givon, 1984; Lam *et al.*, 2010). Marketing view: the consumer brand switching is taken as the choice based on product attributes and marketing mix (Lam *et al.*, 2010). Choice model view, the brand switching is taken as a socio psychological purpose (Lam *et al.*, 2010).	Switching purchase	We calculate the switching probabilities based on customer attitudes towards the act of purchase switching from one to another store to capture the brand switching in the CRM scenarios.	Switching probability	The switching probability is equal to the number of customers switching their purchase to a specific store differing from the initial store, after reading a specific scenario provided by the study, which is divided by the number of customers of the initial store.

Table 1
The terms used in the model (continued)

Terms	Definition	Measure	Operational Definition
Price trade-offs	Consumers pay a higher price for products associated with charitable causes than for non-CRM products. According to choice theories, consumers survey all relevant information and make trade-offs between attributes to select brands or stores. Consequently, a higher price may be offset by the brand or store employing charitable causes, thus affecting consumers' preference for brand or store (Barone *et al.*, 2000).	Price trade-offs	We consider price trade-off between CRM and non- CRM product by setting a higher price (2 NT dollars higher), for a product associated with charitable causes, and include different amounts of donation to investigate how the relative amounts of price trade-off and donation affect the brand switching and firm's market shares.
Donation amount	The absolute dollar amount provided by the firm to the charitable cause for each consumer transaction (Folse *et al.*, 2010)	Donation amount	We consider four different amounts of donation for each consumer transaction: 05. NT dollars, 2 NT dollars and 4 NT dollars combined with price trade-off of 2 NT dollars or no price trade-off.

4.1.2 Questionnaire design

Because FamilyMart has engaged in CRM activity since 2010, we took FamilyMart as the reference case to explore the effect of CRM in Taiwan. The specific questions of interest are: (1) At which store did a consumer make his or her purchase last time? (2) At which store does the consumer plan to purchase next time without and with CRM strategy[6]? (3) What are the customers' perceived motives of FamilyMart in engaging in CRM? These questions were designed to help us determine the percentage of consumers who will or will not switch to other convenience stores.

As noted above, prior studies found that the purchase intentions of

---

[6] Before respondents answered the questions concerning CRM, they were shown a CRM ad of FamilyMart.

consumers are related to the relative size of the donation amount and price trade-off between CRM and non-CRM products (Barone *et al*., 2000; Cheng and Chen, 2013; Pracejus and Olsen, 2004; Subrahmanyan, 2004). CRM is effective when the price of the products is equivalent (Barone *et al*., 2000; Murphy, 1997). However, consumers make purchase decisions by comparing donation amounts with price trade-offs between CRM and non-CRM products when the price markups resulted from the CRM activities (Chang, 2008; Cheng and Chen, 2013; Koschate-Fischer *et al*., 2016; Pracejus and Olsen, 2004). Therefore, we considered five scenarios to examine the effects of the relative size of the donation amount and the price trade-off on market shares: (1) no CRM activity for all convenience stores; (2) FamilyMart engages in CRM and its price is higher than non-CRM stores, while the price trade-off between FamilyMart and its competitors is greater than amount of donation; (3) FamilyMart engages in CRM and its price is higher than non-CRM stores, while the price trade-off is equal to amount of donation; (4) FamilyMart engages in CRM and its price is higher than non-CRM stores, while the price trade-off is lower than amount of donation; (5) FamilyMart engages in CRM and its price is equal to non-CRM stores. The scenario descriptions are presented in Table 2 and in the note at the end of Table 4.

4.2 Manipulation check

As the literature makes clear, 'performance' influences the effectiveness of CRM activities (Barone *et al*., 2000). In order to test the perceived quality of these four convenience stores, we conducted a manipulation check. As Table 3 (row 2) shows, the average score is 5.1062 (higher than 4), on a Lickert 7 point scale, which indicates that the respondents regard the product quality of the four convenience stores as similar.

We inquired about the perception of the motives of FamilyMart in engaging in CRM. As can be seen in Table 3, consumers agree that FamilyMart implements CRM to assist the disadvantaged, but at the same time they believe that FamilyMart may also use CRM to increase its sales and profit. Prior studies concerned about firms' helping behavior assumed that altruism and self-interest are incompatible motives (Aronson, Wilson, and Akert, 2010). However, our participants, all Taiwanese, agree that the chain stores implementing CRM are

Table 2
Scenario descriptions

Scenario		Study Context
		We first asked subjects to answer which store they made their purchase among the top four convenience stores last time. Afterwards, we ask them to answer questions under five scenarios (i.e. Cases 1-5) respectively.
No CRM	Case 1	We ask subjects to single out the store from among the top 4 chain convenient stores at which they will shop next time.
FamilyMart Engages in CRM	Scenario Background	The following paragraph was presented to subjects at every beginning of Cases 2 to 5:
		The well-known chain convenient stores FamilyMart announced a charity promotion on their website: during the period of July and August, 2000; a certain amount of money would be donated to children in distant villages every time a customer bought any of a number of chosen products in their stores. According to some news media, other chain convenient stores, such as OK, Hi-life, and 7-11, decided not to follow this charity promotion of FamilyMart.
	Case 2	A product is priced 48 NT dollars at OK, Hi-life, and 7-11. However, at FamilyMart. the same product is priced at 50 NT dollars with a donation amount of 0.5 NT dollars to support children in distant villages each time it is bought.
		We asked subjects to single out one of the above 4 chain convenient stores where they will shop.
	Case 3	A product is priced 48 NT dollars at OK, Hi-life, and 7-11. However, in FamilyMart the same product is priced at 50 NT dollars, with a donation amount of 2 NT dollars to support children in distant villages each time it is bought.
		We ask subjects to single out one of the above 4 chain convenient stores where they will shop.
	Case 4	A product is priced 48 NT dollars at OK, Hi-life, and 7-11. However, at FamilyMart, the same product is priced at 50 NT dollars, with a donation amount of 4 NT dollars to support children in distant villages each time it is bought.
		We ask subjects to single out one of the above 4 chain convenient stores where they will shop.
	Case 5	A product is priced at 48 NT dollars at OK, Hi-life, and 7-11. However, in FamilyMart, the same product is priced at 48 NT dollars, with a donation amount of 0.5 NT dollars to support children in distant villages each time it is bought.
		We asked subjects to single out one of the above 4 chain convenient stores where they will shop.

Table 3
Manipulation check and the motives of the CRM in consumer aspects

Item	Average Scores[a]
From my point of view, products sold in the top four chain convenience stores are all the same	5.1062
The purpose of FamilyMart's cause-related donation is for assisting the disadvantaged	4.7081
The purpose of FamilyMart's cause-related donation is for raising sales	4.9282
The purpose of FamilyMart's cause-related donation is for increasing profits	4.5742
I will buy products in FamilyMart to support this charity activity	3.9712

[a]the study uses 7-point Likert scales.

both altruistic and egoistic, which may reflect Chinese "dialectical thinking" rooted in the cultural traditions including Confucianism and Buddhism (Peng and Nisbett, 1999).

Dialectical thinking is based on three principles (Peng and Nisbett, 1999): (1) maodun/contradiction (two opposing propositions may both be true), (2) bianyi/change (the universe is in flux and is constantly changing), and (3) zhenghe/holism (all things in the universe are interrelated). Thus, in comparison with Westerners, people in a Chinese cultural context are inclined to acknowledge and accept a psychological contradiction (Spencer-Rodgers, Peng, and Wang, 2010; Spencer-Rodgers *et al*., 2004), such as holding opposite attitudes toward chain stores implementing CRM.

The average scores on the item inquiring whether "the purpose of FamilyMart's cause-related donation is for raising sales and increasing profits" are 4.9282 and 4.5742, respectively. Our study results are consistent with Chang and Cheng (2015). Their research found that the percentages of skepticism towards CRM for Taiwanese are in the range of 4.4 to 5.3, depending on the mindset of the participants.

In this study, the average score on the item inquiring whether "the purpose of FamilyMart's cause-related donation is for assisting the disadvantaged" is 4.7081 (on the seven-point scale). Ross III *et al*. (1992) conducted a similar

study focusing on American consumers. On a similar question, they found an average score of 5.52 (on the seven-point scale). The results indicate that Westerners may believe that firms use CRM in a more altruistic manner than Taiwanese do. Chang and Cheng (2015) suggest that Taiwanese consumers' skepticism towards CRM is negatively related to consumer purchase intentions. Our result, that Taiwanese seem to perceive the motives of stores launching CRM less positively than Westerners do, agrees with data showing differences in the average purchase intentions of customers in a Chinese social context versus customers in the WEIRD countries.[7]

People who believe in karma may do something for charity in exchange for good results (e.g., to bring good fortune for their family or children). However, in Chinese society, merchants have been viewed in a negative light since ancient times. For example, the idiom "wú jiān bù shāng (no businessman trades without fraud)" can be heard on many occasions. To some extent, the contempt and distrust regarding merchants have become deep-rooted in Taiwanese collective unconsciousness and may impact daily behaviors (Li, 2013). Moreover, several food safety scandals in Taiwan in recent years have contributed to increased negative images of Taiwanese enterprises.[8] It seems that the distrust and negative image regarding corporations induce Taiwanese consumers to suspect the motives of stores engaging CRM. Since Taiwanese consumers perceive the motives of CRM to be raising sales and increasing profits, CRM paradoxically violates the spirit of karma. Therefore, the purchase intent of customers in Taiwan for stores with CRM is lower than that of consumers in the WEIRD countries. Cultural differences seem to explain why Taiwanese respondents hesitate to purchase FamilyMart's CRM linked products. These results are shown in Table 3, where the average score for this question is slightly smaller than 4.

---

[7] WEIRD people have high purchase intent toward stores that engage in CRM (Cui *et al.*, 2003; Nan and Heo, 2007). For example, the average scores of evaluation and purchase intent towards the store that engages in CRM are 5.99 and 5.52 (on seven-point scale), respectively, in Cui *et al.* (2003).

[8] Taiwan dealt with the tainted starch scandal in 2013, and the gutter-oil and animal feed oil scandals in 2014.

5. Results

5.1 Estimation results of transition matrix

The estimation of transition matrix is illustrated in section 3. We used Excel 2013 to construct the transition matrix. We report on loyalty probabilities and switching probabilities in Table 4 by cases. The results of Table 4 reveal that, in Case 1, the repeat purchase probability of 7-11 is high (84.76%) while loyalty to OK-Mart (8.69%) and Hi-Life (29.27%) are quite low. Without any CRM strategy, 7-11 enjoys the highest store loyalty. As Table 4 shows, if a FamilyMart engages in a CRM activity, a 7-11 customer will have 84.76% probability of repurchasing, while the repeat purchase probability of OK-Mart and Hi-Life customers are only 8.69% and 29.27%, respectively.

We find that under the cases when FamilyMart engages in CRM and its price is higher than non-CRM stores (Case 2, 3 and 4), the store loyalty and store switching behaviors of consumers depend on the relative size between price trade-off and amount of donation. It is worth noting that we can use the repeat purchase probability and switching probabilities to examine the effects of CRM on store loyalty and store switching for a single CRM activity, respectively.

If the donation is lower than the price trade-off (Case 2), compared with no CRM (Case 1), the CRM strategy will very likely lower store loyalty. Once FamilyMart engages in a single CRM activity, for example, when the donation is equal to 25% of price trade-off (Case 2), the store loyalty of FamilyMart actually fell from 57.5% (Case 1) to 45% (Case 2). That is, 55% of customers switched from FamilyMart to competitors in Case 2, while only 42.5% did so in Case 1. This indicates that, as FamilyMart engages in CRM and the donation is lower than the price trade-off, the proportion of customers switching from FamilyMart to competitors is higher than if FamilyMart did not engage in a CRM strategy. As mentioned above, Taiwanese consumers believe that the motives of convenience store engaging in CRM are based on both altruism and self-interest. However, when the donation is lower than the price trade-off, Taiwanese may perceive that the store's motive is egoistic rather than altruistic. In this case, consumers will have a more negative attitude toward the products with CRM (Ajzen and Fishbein, 2005).

Table 4
Loyalty and switching probabilities

	Case 1[a]	Case 2[b]	Case 3[c]	Case 4[d]	Case 5[e]
p_{11}	0.0869	0.0870	0.0870	0	0.0435
p_{12}	0.2609	0.1739	0.1739	0.0435	0
p_{13}	0.2174	0.1304	0.3913	0.7391	0.7391
p_{14}	0.4348	0.6087	0.3478	0.2174	0.2174
p_{21}	0	0	0.0244	0.0244	0.0244
p_{22}	0.2927	0.1220	0.0732	0	0.0244
p_{23}	0.2439	0.2439	0.4634	0.7317	0.7561
p_{24}	0.4634	0.6341	0.4390	0.2439	0.1951
p_{31}	0	0	0	0	0
p_{32}	0	0.0250	0	0.0250	0.0250
p_{33}	0.5750	0.4500	0.6500	0.7500	0.7250
p_{34}	0.4250	0.5250	0.3500	0.2250	0.2500
p_{41}	0.0095	0.0191	0.0095	0.0095	0.0095
p_{42}	0.0286	0.0095	0.0095	0.0191	0.0095
p_{43}	0.1143	0.1619	0.3905	0.5714	0.5524
p_{44}	0.8476	0.8095	0.5905	0.4000	0.4286

[a] Case 1: No CRM activity for all convenience stores.
[b] Case 2: FamilyMart donates NT\$ 0.5 and prices it at NT\$ 50, while non-CRM stores price it at NT\$ 48.
[c] Case 3: FamilyMart donates NT\$ 2 and prices it at NT\$ 50, while non-CRM stores price it at NT\$ 48.
[d] Case 4: FamilyMart donates NT\$ 4 and prices it at NT\$ 50, while non-CRM stores price it at NT\$ 48.
[e] Case 5: FamilyMart donates NT\$ 0.5 and prices it at NT\$ 48, while non-CRM stores price it at NT\$ 48.

In Cases 3 and 4, where the price trade-off is not higher than amount of donation, the CRM strategy enhances store loyalty of FamilyMart from 57.5% to 65% in Case 3, and from 57.5% to 75% in Case 4. This indicates that the proportion of customers switching from competitors to FamilyMart increases as a result of the CRM. Furthermore, compared with no CRM strategy, more

competitors' customers switch to FamilyMart. If FamilyMart donates 2 NT dollars, and if the donation is equal to 100% of price trade-off (Case 3), then approximately two fifths of competitors' customers switch to FamilyMart. Table 4 shows that 39.05% of customers switched from 7-11 to FamilyMart in Case 3, while 11.43% did so in Case 1. If the donation is greater than the price trade-off, more than half of the competitors' customers switch to FamilyMart if FamilyMart donates 4 NT dollars and the price trade-off equals 2 NT dollars (Case 4). In this situation, where the donation is equal to 200% of the price trade-off, 57.14% of customers switch from 7-11 to FamilyMart. The results show that the higher the donation, the greater the proportion switching from competitors to FamilyMart. When the donation is not lower than the price trade-off, the perceived store motive of Taiwanese is more altruistic. In this case, consumers will have a more positive attitude toward the products with CRM.

Compared to the research of Subrahmanyan (2004), 45.5%[9] of Taiwanese are willing to buy the CRM ice cream with a price premium of 4.2% (Case 3), while 47.2% of Singaporeans are willing to buy the CRM ice cream with a 5% price premium when the donation is equal to the price trade-off. In addition, in the case of no price trade-off, 64.6% of Taiwanese are willing to buy the CRM ice cream with a donation equal to 1% of price (Case 5); in the same circumstance, the percentage of Singaporeans is 70.9%. We conclude that the acceptance of CRM in Taiwan is slightly lower than in Singapore.

If Case 5 prevails, where price is equal to that of the competitors, FamilyMart's CRM strategy will improve the store loyalty from 57.5% to 72.5%. More than half of the customers of competitors switched to FamilyMart. Specifically, 55.24 % of customers switched from 7-11 to FamilyMart in this Case. Our results are consistent with Barone *et al*. (2000), Cui *et al.* (2003), Ellen *et al*. (2000), Smith and Stodghill (1994) and Webb and Mohr (1998).

5.2 Estimation results of steady-state market shares

The Markov chain model can give managers of the stores a quick and easy way of tracking the effects of long-term CRM activities (Colombo and Morrison,

---

[9] We can use the estimated initial market shares and the one-step transition matrix $\mathbf{P}$, as can be seen in subsection 5.2 to calculate the percentages of consumers willing to buy the CRM product in all cases.

1989). In order to calculate the steady-state market shares, we need the estimated initial market shares, initial customer numbers, and a transition matrix. Maple 2015 was used to produce steady-state market shares.

By calculating the collected data concerning respondents' purchase the last time, we estimated initial market shares to be 11% for OK-Mart, 19.62% for Hi-Life, 19.14% for FamilyMart and 50.25% for 7-11. Wan (2012) estimates that 7-11 has some 6,000,000 customers per day. Using estimated initial market shares, we estimate that OK-Mart has 1,313,694 customers per day, Hi-Life has 2,343,153 customers per day, and that FamilyMart has some 2,285,828 customers per day.

Using these data, we construct the diagonal matrix of initial customer number $\mathbf{A}$. Using loyalty probabilities and switching probabilities in Table 4, we construct the one-step transition matrix $\mathbf{P}$ by cases. $\mathbf{P}$ presents the probabilities of moving from one state to another in a single period. Using the one-step transition matrix, we can forecast the number of customers for each store after FamilyMart launches a single CRM activity.

The t-step transition matrix is the matrix product of t one-step transition matrices for a stationary Markov chain. It is defined as the matrix of probabilities of moving from one state to another in period t (Pfeifer and Carraway, 2000). Therefore, using the diagonal matrix of initial customer numbers $\mathbf{A}$ and the t-step transition matrix, given that FamilyMart engages in CRM activities unilaterally and repeatedly in Cases 2 to 5, we can forecast the number of customers for each store for each period $\mathbf{V_t}$ until the steady-state equilibrium occurs, that is $V_i^{t+1} - V_i^t \cong 0$, in each case.

We then use the number of customers for each store in steady-state equilibrium to forecast the steady-state market shares. We show the results of steady-state market shares in terms of customer numbers in each of the five Cases in Tables 5 - 9. Table 5 indicates that the steady-state equilibrium for Case 1 occurs in period 18, that is $V_i^{19} - V_i^{18} \cong 0$ for all $i = 1, 2, 3, 4$ or $\mathbf{V_{19}} \cong \mathbf{V_{18}}$. This indicates that the market shares for all convenience stores remain stable after period 18 if FamilyMart engages repeatedly in CRM in every period. Without any CRM activity, the steady-state market share in terms of customer numbers for FamilyMart is only 22.13%.

In Case 2, as noted above, the CRM strategy appeared to have lowered store

loyalty for FamilyMart. However, Table 5 shows that the steady-state market share for FamilyMart is slightly greater than that without CRM due to more customers switching from 7-11. That is, 16.19% of customers switched from 7-11 to FamilyMart in Case 2, while only 11.43% switched in Case 1. If Case 3 or 4 exists, the CRM strategy is expected to increase market share. In the steady-state analysis shown in Table 5, the market shares for FamilyMart are 52.79% in Case 3, and 70.07% in Case 4. That is, FamilyMart will have the majority of customers in the steady-state. If Case 5 exists, the CRM strategy will improve the store loyalty and increase the switching propositions from competitors to FamilyMart. Confirming this trend, the steady-state market share in terms of customer numbers for FamilyMart becomes 67.34%.

Table 5
Steady-state market shares in terms of customer numbers: Case 1

periods / stores	OK	Hi-Life	FamilyMart	7-11
1	171,160	1200,184	2,857,243	7,714,088
2	88,158	616,572	2,854,570	8,383,375
3	87,303	443,236	2,769,145	8,642,991
4	89,695	399,702	2,707,237	8,746,041
5	90,882	390,531	2,673,321	8,787,941
6	91,383	389,355	2,656,629	8,805,308
7	91,592	389,638	2,648,839	8,812,607
8	91,679	389,984	2,645,308	8,815,704
9	91,716	390,196	2,643,735	8,817,027
10	91,732	390,306	2,643,042	8,817,595
11	91,739	390,359	2,642,738	8,817,839
12	91,742	390,383	2,642,606	8,817,945
13	91,743	390,394	2,642,549	8,817,990
14	91,743	390,398	2,642,524	8,818,010
15	91,744	390,401	2,642,513	8,818,018
16	91,744	390,401	2,642,508	8,818,022
17	91,744	390,402	2,642,506	8,818,023
18	91,744	390,402	2,642,505	8,818,024
19	91,744	390,402	2,642,505	8,818,024
Steady state market share	0.77%	3.27%	22.13%	73.83%

Table 6
Steady-state market shares in terms of customer numbers: Case 2

stores periods	OK	Hi-Life	FamilyMart	7-11
1	228,891	628,462	2,742,823	8,342,499
2	179,255	264,301	2,768,050	8,731,069
3	182,359	215,564	2,747,020	8,797,732
4	183,902	210,265	2,736,868	8,811,641
5	184,302	209,765	2,733,459	8,815,149
6	184,404	209,722	2,732,424	8,816,126
7	184,431	209,718	2,732,119	8,816,407
8	184,439	209,717	2,732,030	8,816,489
9	184,441	209,717	2,732,004	8,816,513
10	184,442	209,717	2,731,996	8,816,520
11	184,442	209,717	2,731,994	8,816,522
12	184,442	209,717	2,731,993	8,816,523
13	184,442	209,717	2,731,993	8,816,523
Steady state market share	1.54%	1.76%	22.88%	73.82%

Table 7
Steady-state market shares in terms of customer numbers: Case 3

stores periods	OK	Hi-Life	FamilyMart	7-11
1	228,464	456,970	5,428,654	5,828,587
2	86,398	128,552	6,105,846	5,621,879
3	64,061	77,842	6,257,522	5,543,249
4	60,134	69,499	6,293,168	5,519,875
5	59,366	67,983	6,301,806	5,513,519
6	59,202	67,679	6,303,937	5,511,858
7	59,165	67,612	6,304,467	5,511,431
8	59,156	67,597	6,304,600	5,511,323
9	59,153	67,593	6,304,633	5,511,295
10	59,153	67,592	6,304,642	5,511,288
11	59,153	67,592	6,304,644	5,511,287
12	59,153	67,592	6,304,645	5,511,286
13	59,153	67,592	6,304,645	5,511,286
Steady state market share	0.49%	0.57%	52.79%	46.15%

Table 8
Steady-state market shares in terms of customer numbers: Case 4

stores periods	OK	Hi-Life	FamilyMart	7-11
1	114,173	228,891	7,828,207	3,771,403
2	41,413	272,706	8,278,000	3,350,556
3	38,484	272,747	8,353,155	3,278,289
4	37,799	273,118	8,366,093	3,265,665
5	37,688	273,171	8,368,348	3,263,468
6	37,668	273,180	8,368,741	3,263,085
7	37,665	273,182	8,368,809	3,263,019
8	37,664	273,182	8,368,821	3,263,007
9	37,664	273,182	8,368,824	3,263,005
10	37,664	273,182	8,368,824	3,263,005
Steady state market share	0.32%	2.29%	70.07%	27.32%

Table 9
Steady-state market shares in terms of customer numbers: Case 5

stores periods	OK	Hi-Life	FamilyMart	7-11
1	171,319	171,319	7,714,235	3,885,803
2	48,548	233,951	7,995,493	3,664,683
3	42,635	240,410	8,033,876	3,625,755
4	42,165	241,158	8,040,712	3,618,640
5	42,096	241,279	8,041,957	3,617,344
6	42,083	241,301	8,042,183	3,617,108
7	42,081	241,305	8,042,224	3,617,065
8	42,080	241,306	8,042,232	3,617,057
9	42,080	241,306	8,042,233	3,617,056
10	42,080	241,306	8,042,234	3,617,055
11	42,080	241,306	8,042,234	3,617,055
Steady state market share	0.35%	2.02%	67.34%	30.29%

6. Conclusion and implications

This paper addresses, under the context of Taiwanese convenience stores, the effect of CRM on consumer loyalty and switching as well as Taiwanese consumer's attribution and purchase intention for CRM adopted by convenience stores. As a whole, this study finds that CRM can have a positive effect on customer loyalty (repeated purchase) and switching (attracting customers from other stores) among Taiwan's convenience store. However, it is noteworthy that Taiwanese people's inner thinking process (attribution) seems to be relatively complex, and that the seemingly contradictory attribution can coexist and may discount the purchase intention. This finding is coincident with research on cross-cultural differences. In addition, our results suggest enlightening practical applications.

6.1 General discussion

First, in Taiwan, consumers generally assume the motives of convenience store engaging in CRM emanate from both altruism and self-interest. Thus consumers reserve their willingness to purchase products with CRM due to their ambivalent attitudes towards the stores. As mentioned above, merchants were denigrated in ancient China; the distrust and negative image of merchants are deeply rooted. We find that Taiwanese evaluate CRM less positively than the literature suggests is the case with Western consumers. As noted above, Ross III *et al.* (1992) found that Americans score an average of 5.52 on the question of whether CRM makes stores more socially responsible. This study finds an average score of 4.7081 on the question regarding FamilyMart's motive for engaging in CRM.

Second, the store loyalty and store switching effects of CRM depend on the relative size between price trade-off and amount of donation. In Taiwan, consumers may suspect the motive of stores when the price trade-off is higher than the amount of donation. In this situation, CRM strategy has a rather limited effect on store loyalty. Although Taiwanese may do good works as a result of belief in karma, it does not mean that they have more positive perceptions of CRM than do people in other countries/cultures. That is, the effects of CRM

depend on different conditions. If stores are perceived as implementing CRM due to the motive of self-interest, they will not be viewed as doing charity work. In this condition, CRM will not only be unable to bring benefits, but may also result in a decrease in sales. Conversely, when the amount of donation is equal to, or greater than, price trade-off, CRM strategy can boost store loyalty. In these cases, consumers assume that the store implements CRM to help the disadvantaged subjects of the CRM; consequently, they buy the product.

Third, a CRM strategy can attract the competitors' customers, especially when the price trade-off is equal to, or lower than, the amount of donation. More than half of the customers of competitors seem to switch to FamilyMart if the amount of donation is greater than the price trade-off. Note that the higher the amount of donation, the greater the switching proportion from competitors to FamilyMart. In this condition, consumers may perceive that the stores are actually altruistic. Due to belief in karma, consumers may do charity work via purchasing the CRM products. In sum, CRM is indeed an efficient way to increase market share under some conditions. However, the effectiveness of CRM may be discounted due to Taiwanese people's ambivalent perception towards CRM and lower purchase intention.

6.2 Managerial implications

This study has several managerial implications. First, convenience stores could use CRM strategies to differentiate their products and to increase long-term market share. Therefore, CRM is a useful tool for marketing or promotion. Second, convenience stores could win over switchers via instituting an effective CRM program. Compared with the short-term promotions, such as price discounts or coupons, the stores must also consider the long-term benefits to the store which may accrue from employing the CRM strategy. Consumers who buy a product for the first time during a CRM activity may become loyal customers, thus creating a long-term income stream and profit. While a promotion with discount program may get one-time customers, the positive associations with the charity may allow the store to accrue more long-term customer relationships. For example, although most of the goods sold in convenience chain stores are fast moving consumer goods, FamilyMart has engaged in long-term charitable care of young people. This has enhanced the stores' image, and apparently led to an

increase in its market share, and created a long-term income and profit stream. Third, to prevent negative customer perception and loss of loyalty, the amount of donation should not be lower than the price difference between the stores with and without CRM. Consistent with literature, our study shows that consumers may not support a CRM campaign when the price makeup for CRM is higher than the donation amount (Chang, 2008; Pracejus and Olsen, 2004; Subrahmanyan, 2004). Price is a key determinant in consumers reacting to a CRM activity. Fourth, we suggest that the convenience store using CRM should establish its long-term and consistent brand image. As a new product that fits with its brand image has a positive effect on consumers' evaluation (Chow, Yang and Lai, 2005), consumers may have altruistic attribution and non-contradictory perceptions if CRM fits the convenience store's long-term image.

Finally, stores adopting CRM strategy should consider the cultural differences. For example, in Taiwan, since consumers generally believe that karma will bring good fortune if they do good works, stores should advertise their CRM support and carefully choose their charitable programs, including the charitable cause, price, and donation amount to prevent consumers ascribing self-interest to the CRM strategy. FamilyMart launched a CRM in 2015 in which it donated 10 NT dollars per sale of the Loving Soft Serve Ice Cream to sponsor the Secret Learning Bases in rural areas. Although the price of Loving Soft Serve Ice Cream is 40 NT dollars and is 5 NT dollars higher than the ordinary price of soft serve ice cream, many customers sought to support this charity by buying the Loving Soft Serve Ice Cream. It was obvious to consumers that the amount of donation was greater than the price trade-off between the charity ice cream and the ordinary ice cream. Therefore, the Loving Soft Serve Ice Cream donations proved to be a successful CRM strategy. Eventually, 467,559 charitable cones were sold, for a total donation amount of 4,675,590 NT dollars between June 10th and December 31, 2015. In the Loving Soft Serve Ice Cream example, the Company made clear that FamilyMart would match the 5 NT dollar donations made by consumers. Doing so emphasized that the amount of donation was greater than the price trade-off, and that the motive of FamilyMart was not self-interest.

6.3 Limitations

This study has shortcomings in research design, which may limit the generalization of the findings. First, the study is based on specific CRM activities and store types. To present more general conclusions on the role of price trade-off in CRM, further studies may cover other store types, such as drug stores and fast food restaurants. Second, in targeting customers, we used a two-stage cluster sampling scheme and randomly chose the districts where these convenience stores clustered within 500 meters. Therefore, our sample may have a slight selection or location bias. This selection affects the generalization of the results for the population of Taipei. Further studies may improve the sampling method to target citizens of the whole City. Location bias is important also because beliefs regarding motives of firms launching CRM activities may be different between consumers in urban and rural areas. Therefore, urban-rural comparison is one of the possible future research directions. Furthermore, it would be interesting to use multinational or multicultural sample to show the cross-cultural or cross-country analysis. Third, we examine the effects of CRM strategy in the case in which convenience stores engage in CRM activities unilaterally. Further research could extend the framework to examine the long-term market shares when all stores launch CRM campaigns. Fourth, while this study focused on price and donation issues, we recognize that many factors determine the success of CRM activities. Further research could extend the scenarios to examine the interaction effects of price and store/cause fit on long-term market shares of firms launching CRM programs.

Appendix A[a]

Variables	Level	Number	(%)
Sex	Male	89	43.20
	Female	117	56.80
	Total	206	100.00
Age	Below 19	44	21.15
	20~29	78	37.50
	30~39	50	24.04
	40~49	26	12.50
	Over 50	10	4.81
	Total	208	100.00
Occupation	Non	7	3.35
	Students	96	45.93
	Representative of the people, the chief executives and managers	8	3.83
	Professionals	30	14.35
	Staff	3	1.44
	administrative matters	10	4.78
	Service staff and sales clerks	23	11.00
	Technical workers and related workers	6	2.87
	Others	26	12.44
	Total	209	100.00
Education	Senior high school	1	0.48
	Senior high school	24	11.54
	College and university	147	70.67
	Master	36	17.31
	Total	208	100.00
Income/ Per Month	Below 15,000	97	46.41
	15,001~25,000	14	6.92
	25,001~35,000	31	14.83
	35,001~45,000	21	10.05
	45,001~55,000	11	5.26
	55,001~65,000	18	8.61
	Above 65,001	17	8.13
	Total	209	100.00
Frequency	Every day	77	37.56
	2-3 days	88	42.93
	4-7 days	29	14.15
	Every two weeks	10	4.88
	Monthly	1	0.49
	Never	0	0
	Total	205	100.00

[a] Some items have missing values.

References

Adkins, S. (2003). Cause-related marketing: Who cares wins. In M. J. Baker (Ed.), *The Marketing Book* (pp.669-693). Oxford, UK: Butterworth Heinemann.

Ajzen, I. and Fishbein, M. (2005). The influence of attitudes on behavior. In D. Albarracin, B. T. Johnson, and M. P. Zanna (Eds.), *The Handbook of Attitudes* (pp.173-221). Mahwah, NJ: Erlbaum.

Alan, A. K., Kabadayi, E. T., and Yilmaz, C. (2015). Cognitive and affective constituents of the consumption experience in retail service settings: Effects on store loyalty. *Service Business*, *10*(4), 715-735.

Aronson, E., Wilson, T. D., Akert, R. M., and Sommers S. R. (2010). Prosocial behavior: Why do people help? *Social Psychology* (pp. 457-496). Upper Saddle River, NJ: Prentice Hall.

Awogbemi, C. A., Oloda, F. S., and Osama, C. K. (2012). Modeling brand switching in consumers' products. *Journal of Economics and Sustainable Development*, *3*(12), 82-86.

Barone, J. M., Miyazaki, D. A., and Taylor, K. A. (2000). The influence of cause-related marketing on consumer choice: Does one good turn deserve another? *Academy of Marketing Science*, *28*(2), 248-262.

Barone, J. M., Norman T. A., and Miyazaki, D. A. (2007). Consumer response to retailer use of cause-related marketing: Is more fit better? *Journal of Retailing*, *83*(4), 437-445.

Bass, F. M., Givon, M. M., Kalwani, M. U., Reibstein, D. J., and Wright, G. P. (1984). An investigation into the order of the brand choice process. *Marketing Science*, *3*(4), 267-287.

Berger, E. I., Cunningham, H. P., and Kozinets, V. R. (1999). Consumer persuasion through cause-related advertising. *Advances in Consumer Research*, *26*(1), 491-497.

Carvalho, S. W., Sen, S., de Oliveira Mota, M., and de Lima, R. C. (2010). Consumer reactions to CSR: A brazilian perspective. *Journal of Business Ethics*, *91*(2), 291-310.

Chan, S., Ip, W., and Cho, V. (2010). A model for predicting customer value from

perspectives of product attractiveness and marketing strategy. *Expert Systems with Applications*, *37* (2), 1207-1215.

Chaney, I. and Dolli, N. (2001). Cause related marketing in New Zealand. *International Journal of Nonprofit and Voluntary Sector Marketing*, *6*(2), 156-163.

Chang, C. T. (2008). To donate or not to donate? Product characteristics and framing effects of cause related marketing on consumer purchase behavior. *Psychology and Marketing*, *25*(12), 1089-1110.

Chang, C. T. and Cheng, Z. H. (2015). Tugging on heartstrings: Shopping orientation, mindset, and consumer responses to cause-related marketing. *Journal of Business Ethics*, *127*(2), 337-350.

Chaudhuri, A. (1999). Does brand loyalty mediate brand equity outcomes? *Journal of Marketing Theory and Practice*, *7*(2), 136-146.

Chaudhuri, A. and Holbrook, M. B. (2001). The chain of effects from brand trust and brand affect to brand performance: The role of brand loyalty. *Journal of Marketing*, *65*(2), 81-93.

Chen, T. Y., Chang, P. L., and Chang, H. S. (2004). Causal relationship among casue related marketing, external cues, service quality, perceived risk and customer value in Taiwan banking industry. *Chiao Da Management Review*, *24*(2), 87-118.

Cheng, H. W. and Chen, H. L. (2013). Analysis of cause-related marketing effects: The case of duopoly retailing store. *Chiao Da Management Review*, *33*(2), 105-138.

Chernev, A. and Blair, S. (2015). Doing well by doing good: The benevolent halo of corporate social responsibility. *Journal of Consumer Research*, *41*(6), 1412-1425.

Chou, C. K. and Chen, M. L. (2016). A qualitative study on perceived value and loyalty: A moderated-mediation framework. *Corporate Management Review*, *36*(2), 105-122.

Chow, W. S., Yang, M. B., and Lai, S. H. (2005). A study of the relationship between brand extension and consumer purchasing intention. *Chiao Da Management Review*, *25*(1), 97-122.

Chu, R.-L. (1993). Charity and altruistic behavior in Chinese society. *Bulletin of the Institute of Ethnology (Academia Sinica)*, *75*, 105-132.

Colombo, R. A. and Morrison, D. G. (1989). A brand switching model with implications for marketing strategies. *Marketing Science*, *8*(1), 89-99.

Commerce Development Research Institute, Industry Research Group (2012). *The current status and future trends of chain convenience store industry.* Retrieved from http://ciis.cdri.org.tw/files/attachment/0C010674458065462325/%E5%8F%B0%E7%81%A32011%E5%B9%B4%E4%BE%BF%E5%88%A9%E5%95%86%E5%BA%97%E5%B8%82%E5%A0%B4%E7%8F%BE%E6%B3%81%E8%88%87%E8%B6%A8%E5%8B%A2%E8%A7%A3%E6%9E%90(20120110).pdf.

Cone Communications (2015). *New cone communications research confirms millennials as America's most ardent CSR supporters, but marked differences revealed among this diverse generation.* Retrieved from http://www.conecomm.com/2015-cone-communications-millennial-csr-study-pdf

Cunningham, R. M. (1956). Brand loyalty-what, where, how much. *Harvard Business Review*, *34*(1), 116-128.

Cui, Y., Trent, E. S., Sullivan, P. M., and Matiru G. N. (2003). Cause-related marketing: How generation Y responds. *International Journal of Retail and Distribution Management*, *31*(6), 310-320.

Dawes, J. G. (2016). Brand growth in packaged goods markets: Ten cases with common patterns. *Journal of Consumer Behaviour*, *15*(5), 475-489.

Draper, J. E. and Nolin, L. H. (1964). A Markov chain analysis of brand preferences. *Journal of Advertising Research*, *4*(3), 33-38.

Ellen P. S., Mohr A. L., and Webb, J. D. (2000). Charitable programs and the retailer: Do thy mix? *Journal of Retailing, 76*(3), 393-406.

EOLembrain (2009). Brand image rating: 7-11 most popular. Retrieved from http://www.eolembrain.com/Latest_View. aspx?SelectID=151

Ewing, M. T. (2000). Brand and retailer loyalty: Past behavior and future intentions. *Journal of Product and Brand Management*, *9*(2), 120-127.

Farquhar, P. H. and Rao, V. R. (1976). A balance model for evaluating subsets of multiattributed items. *Management Science*, *22*(5), 528-539.

Folse, J. A. G., Niedrich, R. W., and Grau, S. L. (2010). Cause-relating marketing: The effects of purchase quantity and firm donation amount on

consumer inferences and participation intentions. *Journal of Retailing*, *86*(4), 295-309.

Frank, R. E. (1962). Brand choice as a probability process. *Journal of Business*, *35*(1), 43-56.

Furinto, A., Pawitra, T., and Balqiah, T. E. (2009). Designing competitive loyalty programs: How types of program affect customer equity. *Journal of Targeting, Measurement and Analysis for Marketing*, 17(4), 307-319.

Givon, M. (1984). Variety-seeking through brand switching. *Management Science*, *3*(1), 1-22.

Givon, M. and Horsky, D. (1978). Market share models as approximators of aggregated heterogeneous brand choice behavior. *Management Science*, *24*(13), 1404-1416.

Givon, M. and Horsky, D. (1979). Application of a composite stochastic model of brand choice. *Journal of* Marketing *Research, 16*(2), 258-267.

Grover, R. and Srinivasan, V. (1987). A simultaneous approach to market segmentation and market structuring. *Journal of Marketing Research*, 24(2), 139-153.

Habel, J., Schons, L. M., Alavi, S., and Wieseke, J. (2016). Warm glow or extra charge? The ambivalent effect of corporate social responsibility activities on customers' perceived price fairness. *Journal of Marketing*, *80*(1), 84-105.

Hamlin, R. and Wilson, T. (2004). The impact of cause branding on consumer reactions to products: Does product/cause fit really matter? *Journal of Marketing Management*, *20*(7/8), 663-681.

Harry, F. and Lipstein, B. (1962). The dynamics of brand loyalty: A Markov approach. *Operations Research*, *10*(1), 19-40.

Hartmann, M., Klink, J., and Simons, J. (2015). Cause related marketing in the German retail sector: Exploring the role of consumers' trust. *Food Policy*, *52*, 108-114.

Hawkes, G. and Stead, J. (1996). *Who Chooses? The Family and Their Buying Decision. The Influence of Partnerships between Companies and Charities on Family Purchasing Decisions*. London, England: NCH Action for Children.

Hajjat, M. M. (2003). Effects of cause-related marketing on attitudes and purchase intentions: The moderating role of cause involvement and donation

size. *Journal of Nonprofit and Public Sector Marketing, 11*(1), 93-109.

Henrich, J., Heine, S. J., and Norenzayan, A. (2010). Most people are not WEIRD. *Nature*, *466*(1), 29.

Jacoby, J. and Kyner, D. B. (1973). Brand loyalty vs. repeat purchasing behavior. *Journal of Marketing Research*, *10*(1), 1-9.

Jacobs, L., Guopei, G., and Herbig, P. (1995). Confucian roots in China: A force for today's business. *Management Decision*, *33*(10), 29-34.

Jeuland, A. P. (1978). Brand preference over time: A partially deterministic operationalization of the notion of variety-seeking. *Proceedings of the Educators' Conference*, *43*, 33-37.

Kahn, B. E., Kalwani, M. U., and Morrison, D. G. (1986). Measuring variety-seeking and reinforcement behaviors using panel data. *Journal of Marketing Research*, *23*(2), 89-100.

Knouse, S. B. (1986). Brand loyalty and sequential learning theory. *Psychology and Marketing*, *3*(2), 87-98.

Koschate-Fischer, N., Stefan, I. V., and Hoyer, W. D. (2012). Willingness to pay for cause-related marketing: The impact of donation amount and moderating effects. *Journal of Marketing Research*, *49*(6), 910-927.

Koschate-Fischer, N., Huber, I. V., and Hoyer, W. D. (2016). When will price increases associated with company donations to charity be perceived as fair? *Journal of the Academy of Marketing Science*, *44*(5), 608-626.

Krishnamurthi, L. and Raj, S. P. (1991). An empirical analysis of the relationship between brand loyalty and consumer price elasticity. *Marketing Science*, *10*(2), 172-183.

Lafferty, B. A. and Goldsmith, E. R. (2005). Cause-brand alliances: Does the cause help the brand or does the brand help the cause? *Journal of Business Research*, *58*(4), 423-429.

Lafferty, B. A., Goldsmith, E. R., and Hult, G. T. M. (2004). The impact of the alliance on the partners: A look at cause-brand alliances. *Psychology and Marketing*, *21*(7), 509-531.

Lam, S. K., Ahearne, M., Hu, Y., and Schillewaert, N. (2010). Resistance to brand switching when a radically new brand is introduced: A social identity theory perspective. *Journal of Marketing*, *74*(6), 128-146.

Lattin, J. M. and McAlister, L. (1985). Using a variety-seeking model to identify

substitute and complementarily relationships among competing products. *Journal of Marketing Research*, *22*(3), 330-339.

Li, T. C. (2013). From restraint to encouragement of commerce: An investigation into ideas and policies. *Bulletin of the Institute of Modern History (Academia Sinica)*, *82*, 1-53. (in Chinese)

Ma, M., Li, Z., and Chen, J. (2008). Phase-type distribution of customer relationship with markovian response and marketing expenditure decision on the customer lifetime value. *European Journal of Operational Research*, *187*(1), 313-326.

Maffei, R. B. (1960). Brand preference and a simple Markov orocess. *Operations Research*, *8*(2), 210-218.

Maffei, R. B. (1961). Advertising effectiveness, brand switching and market dynamics. *The Journal of Industrial Economics*, *9*(2), 119-131.

Marketing News (1997, February). Report: Consumers swayed by good causes. *Marketing News*, *31*(4), 16.

Massy, W. F. and Morrison D. G. (1968). Comments on ehrenberg's appraisal of brand-switching models. *Journal of Marketing Research*, *5*(2), 225-228.

McAlister, L. (1982). A dynamic attribute satiation model of variety-seeking behavior. *Journal of Consumer Research*, *9*(2), 141-150.

McCarthy, P. S., Kannan, P. K., Chandrasekharan, R., and Wright, G. P. (1992). Estimating loyalty and switching with an application to the automobile market. *Management Science*, *38*(10), 1371–1393.

Murphy, P. I. (1997, February). Pillsbury proves charity, marketing begin at home. *Marketing News*, *31*(4), 16.

Nan, X. and Heo, K. (2007). Consumer responses to corporate social responsibility (CSR) initiatives. *Journal of Advertising*, *36*(2), 63-74.

Nisbett, R. E., Peng, K., Choi, I., and Norenzayan, A. (2001). Culture and systems of thought: Holistic versus analytic cognition. *Psychological Review*, *108*(2), 291-310.

Oliver, R. L. (1999). Whence consumer loyalty? *Journal of Marketing*, 63, 33-44.

Peng, K. and Nisbett, R. E. (1999). Culture, dialectics, and reasoning about contradiction. *American Psychologist*, *54*(9), 741-754.

Pfeifer, P. E. and Carraway, R. L. (2000). Modeling customer relationships as Markov chains. *Journal of Interactive Marketing*, *14*(2), 43-55.

Pracejus, J. W. and Olsen, G. D. (2004). The role of brand/cause fit in the effectiveness of cause-related marketing campaigns. *Journal of Business Research*, *57*(6), 635-640.

Ramaswami, S. N. and Arunachalam, S. (2016). Divided attitudinal loyalty and customer value: Role of dealers in an indirect channel. *Journal of the Academy of Marketing Science*, *44*(6), 770-790.

Ross III, J. K., Patterson, L. T., and Stutts, M. A. (1992). Consumer perceptions of organizations that use cause-related marketing. *Journal of the Academy of Marketing Science*, *20*(1), 93-97.

Robinson, S. R., Irmak, C., and Jayachandran, S. (2012). Choice of cause in cause-related marketing. *Journal of Marketing*, *76*(4), 126-139.

Sharp, A., Sharp, B., and Wright, M. (2002). Questioning the value of the "true" brand loyalty distinction. *International Journal of Research in Marketing*, *19*(1), 81-90.

Sivadas, E. and Baker-Prewitt, J. L. (2000). An examination of the relationship between service quality, customer satisfaction, and store loyalty. *International Journal of Retail and Distribution Management*, *28*(2), 73-82.

Smith, G. and Stodghill, R. (1994, March). Are good causes good marketing? *Business Week*, 64-66.

Smith, M. S. and Alcorn, S. D. (1991). Cause marketing: A new direction in the marketing of social responsibility. *Journal of Consumer Marketing*, *8*(3), 19-35.

Spencer-Rodgers, J., Peng, K., Wang, L., and Hou, Y. (2004). Dialectical self-esteem and east-west differences in psychological well-being. *Personality and Social Psychology Bulletin*, *30*(11), 1416-1432.

Spencer-Rodgers, J., Peng, K., and Wang, L. (2010). Co-occurrence of positive and negative emotions across cultures. *Journal of Cross-Cultural Psychology*, *41*(1), 109-115.

Styan, G. P. H. and Smith Jr., H. (1964). Markov chains applied to marketing. *Journal of Marketing Research*, *1*(1), 50-55.

Subrahmanyan, S. (2004). Effects of price premium and product type on the cause-related brands: A Singapore perspective. *Journal of Product and Brand Management*, *13*(2/3), 116-124.

Tsao, H.-Y., Lin, P.-C., Pitt, L., and Campbell, C. (2009). The impact of loyalty

and promotion effects on retention rate. *Journal of the Operational Research Society*, *60*(5), 646-651.

Tsao, H.-Y., Pitt, L., and Campbell, C. (2010). Analyzing consumer segments to budget for loyalty and promotion programs and maximize market share. *Journal of the Operational Research Society*, *61*(10), 1523-1529.

Varadarajan, P. R. and Menon, A. (1988). Cause-related marketing: A coalignment of marketing strategy and corporate philanthropy. *Journal of Marketing. 52*(3), 58-74.

Wan, N. S. (2012, July). The increase in price for convenience store is ascribed to the coolness clothing. *Business Weekly, 1285*. (in Chinese) Retrieved from http://archive.businessweekly.com.tw/Article/Index?StrId=47268

Webb, D. J. and Mohr, L. A. (1998). A typology of consumer responses to cause-related marketing: From skeptics to socially concerned. *Journal of Public Policy and Marketing*, *17*(2), 226-238.

Wirtz, J., Mattila, A. S., and Lwin, M. O. (2007). How effective are loyalty reward programs in driving share of wallet? *Journal of Service Research*, *9*(4), 327-334.

Yang, C. W., Kim, P. Y., Ponsford, B. J., and Garland, B. C. (2010). Impact of wal-mart on market share in a rural grocery market: An application of the Markov chain model. *Journal of Food Products Marketing*, *16*(2), 232-245.

Yang, D. J. and Li, H. J. (2007). A study of consumers' attitudes toward the methods employed by an enterprise for charitable acts: Cause-related marketing vs. sponsorship. *Asian Journal of Management and Humanity Sciences*, *2*, 14-35.

Yechiam, E., Barron, G., Erev, I., and Erez, M. (2003). On the robustness and the direction of the effect of cause-related marketing. *Journal of Consumer Behavior*, *2*(4), 320-332.

Zufryden, F. S. (1986). Multibrand transition probabilities as a function of explanatory variable: Estimation by a least-square-based approach. *Journal of Marketing Research*, *23*(2), 177-183.