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Exploring the antecedents of compulsive buying tendency among adolescents in China and Thailand: A consumer socialization perspective

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From a consumer socialization perspective, this study explored the influences of parent, peer and mass media on compulsive buying tendency of adolescents in China and Thailand respectively. The results of this study indicated that an unexpectedly high proportion of adolescents in both countries had shown compulsive buying tendency. Compared with Chinese adolescents, Thai adolescents displayed slightly stronger tendency to buy compulsively. Whereas peer, parent and mass media influence were factors that influenced compulsive buying tendency of Chinese adolescents; peer influence was the only factor that contributed to compulsive buying tendency of Thai adolescents. Overall, the results suggested that, although common factor could be used to predict the compulsive buying tendency in both countries, different factors worked specifically to explain the compulsive buying tendency in each country, disregarding their similarities in cultural background.

Key words: Compulsive buying tendency, adolescents, consumer socialization, China, Thailand.

INTRODUCTION

Compulsive buying is a type of abnormal consumption behavior, which has long been a topic of interest of consumer behavior researchers (Schlosser et al., 1994; Roberts, 1998; Ridgway et al., 2006). The importance of compulsive buying study mainly stems from its harmful psychological and financial consequences (O'Guinn and Faber, 1989; Dittmar, 2005). Specifically, compulsive buyers tend to have low self-esteem (O'Guinn and Faber, 1989; Scherhorn et al., 1990), greater levels of depression (Sneath, et al., 2009) and anxiety (O'Guinn and Faber, 1989). Additionally, compulsive buyers usually purchase items that they do not need or cannot afford (Hoyer and MacInnis, 2001), which results in unmanageable debt (O'Guinn and Faber, 1989).

Past studies show that compulsive buying typically begins in late adolescence and tend to be pronounced among young people (Scherhorn et al., 1990; Schlosser et al., 1994; Roberts, 1998; Dittmar, 2005). Some

researchers contend that the earlier young people exhibit potentially addictive behavior, the greater the risk of addiction (Pechman et al., 2005). Given these concerns, it is important to understand the compulsive buying behavior among adolescents. Nevertheless, with a few exceptions (Shoaf et al., 1995; Roberts, 1998), prior consumer studies have largely focused on compulsive buying behavior of adults and neglect the adolescents who have not yet reached full-blown addiction (DeSarbo and Edwards, 1996). Adolescence is a life stage, in which many orientations and abilities are likely to be formed (Moschis and Moore, 1979; Mayer and Belk, 1982). Past studies suggest that adolescents may be induced to compulsive buying by motivations that differ from adults, given the different personal goals of them. For example, Liu and Laird (2008) argue that while reducing psychological tensions may be the main reason to cause compulsive buying for adults, the goal to establish a unique self-identity may be the key motivator for early adolescents.

It is expected that, to understand systematically the salient factors which lead to compulsive buying among adolescents, will be helpful in curbing such disorder at its

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earliest stage. In addition, this study provides valuable ethical and social responsibility implications to marketers, public policy makers and parents to intervene and protect young consumers. Furthermore, compulsive buying tendency (CBT) is increasingly prevailing in many developed countries to date (Neuner et al., 2005). Given the impact of globalization, and the rapid development of the information technology (IT) recently, which enables penetration of new culture and values, it is likely that such trend will soon spread in developing countries. Thus, it is believed that an increased understanding of the antecedents that lead to compulsive buying behavior among adolescents in Asia has emerged as a timely and relevant issue.

Although several researchers have studied compulsive buying behavior among young consumers in the West (d'Astous et al., 1990; Roberts, 1998), there has been little, if any, study to date that has investigated the compulsive buying behavior among adolescents in non-Western context. The present study addresses a void in marketing literature by investigating the salient factors that contribute to CBT among adolescents in China and Thailand. The choice to survey subjects from these two countries is made for two reasons. First, in addition to their closeness in geographical location, Thailand and China share similar culture and economic development level. Second, several studies have examined the compulsive buying tendency in countries that share sharp differences in their culture (such as the US and Korea) (Kwak et al., 2003). It would be interesting to examine if consumers sharing similar cultures also behave similarly in their compulsive buying behavior.

Building on extant marketing literatures, this study explores the influence of social and demographical factors on adolescents' CBT. By understanding these antecedents, the researchers will better understand and predict situations in which adolescences are likely to do compulsive purchases.

CONCEPTUAL BACKGROUND AND HYPOTHESES

Compulsive buying

O'Guinn and Faber (1989) are among the earliest to study compulsive buying behavior. They define compulsive buying as "a response to an uncontrollable drive or desire to obtain, use, or experience a feeling, substance, or activity that leads an individual to repetitively engage in a behavior that will ultimately cause harm to the individual and/or to others." Compulsive buying is distinguished from other buying behaviors in which the buyer feels unable to stop or moderate the behavior (Faber and O'Guinn, 1989), and that buyers enjoy more on the shopping process rather than the ownership of the product (O'Guinn and Faber, 1989).

Compulsive buying may produce some positive rewards temporarily, but it leads to severe negative

consequences in long term (Faber and O'Guinn, 1988). Prior researchers suggest that compulsive buying is positively associated with several instant gratifications, which derived from interpersonal interactions, enhanced self perceptions, and relieving from the psychological tension (O'Guinn and Faber, 1988; Kyrios et al., 2004; Dittmar, 2005). Compulsive buyers feel more powerful, important, and psychologically stronger during shopping (Faber and Christenson, 1996; Faber, 2000). These positive rewards strengthen the behavior, thus in turn, reinforce the repetitive and compulsive processes (O'Guinn and Faber, 1989). However, these immediate gratifications are soon transformed into negative feelings, such as guilt and shame, depression, and indifference (Faber and Christenson, 1996; Eccles, 2005), as the buyers feel anxious and guilty about the amount of money spent, confusion and shame for losing control over themselves, and disappointed that the new product did not change their negative state of mind (Christenson et al., 1994; Dittmar et al., 2007). Overall, compulsive buyers are likely to continuously involve in a negative-positive-negative emotional circle, which eventually generates harmful psychological and societal consequences in long-term.

As no single factor is responsible for the etiology of compulsive buying (Guinn and Faber, 1989), previous studies have examined the various factors that contribute to compulsive buying behavior from physiological, genetic, demographical, sociological psychological and cultural perspectives and so on (Donegan et al., 1983; Rook, 1987; Faber and O'Guinn, 1988; Dittmar, 2005; Joireman et al., 2010). In this study, we focus on three consumer socialization agents that lead to CBT among adolescences in China and Thailand. The following subsections discuss how each factor may influence CBT.

Parent influence

Previous researchers suggest that compulsive buying is a learned adaptive behavior (Elliott, 1994), often rooted in early life experiences (Rindfleisch et al., 1997). In one's early life, a parent, as one of the most important agents in consumer socialization, plays a most important role in influencing his/her consumer values and behavior (Moschis, 1985). One of the ways that a parent influences their child's compulsive buying tendency is via direct discussion (Moschis, 1985). Faber and O'Guinn (1988) propose that a child may view compulsive buying as a way of gaining attention from their parents. Therefore, it is possible that when a parent frequently discuss with their child about the products or brands that they intend to buy, the child may perceive enough attention from the parent and learn more consumer skills, thus will display weaker CBT. Therefore, it is hypothesized that:

H₁: Adolescents' compulsive buying tendency is

negatively related to their communication frequency with their parent in both China and Thailand.

Additionally, a parent may also influence their child's consumer values and shopping behavior through their own buying decision making style. It is possible that children learn consumer values and skills by imitating their parents' decision making style. Parents tend to avoid making their child imitate any negative behavior from them. Therefore, the stronger the adolescents influenced by their parents' decision making style, the less likely they will buy compulsively. Thus:

H₂: Adolescents' compulsive buying tendency is negatively related to the influence of their parent's decision making style in both China and Thailand.

Peer influence

Peer influence is defined as the extent to which peers exert influence on the attitudes, thoughts, and actions of an individual (Bristol and Mangleburg, 2005). Past research shows that people are particularly sensitive to ideas and trends popular among their peers during their adolescence (Bachmann et al., 1993). Recent work by Liu and Laird (2008) suggests that peer influence is one of the most important sources that contribute to adolescents' CBT, as peers can influence adolescents' identity establishment via impacted adolescents' consumption (Mangleburg et al., 2004; Dittmar, 2005). Typical evidence may be that adolescents tend to buy the same products that their peers want or have. Peer approval appears to be an important goal for them when making purchase decision.

In this study, we adapted Bearden et al.'s (1989) interpersonal influence scale to measure peer influence. The scale has two dimensions. According to Bearden et al. (1989), the normative dimension can be described as a desire to comply with the expectations of others. The informational dimension can be described as the tendency to learn about products by observing or seeking information from others.

Adolescents are in a special period, in which they are highly concerned how others view them. Besides their parent, adolescents usually spend most of time with their peers in their daily life. Therefore, how their friends perceive them plays a significant role in forming their personality characteristics. Researchers have found peer rejection strongly associated with low self-esteem (Damon et al., 2006). In contrast, supportive peers increase adolescents' sense of security and competence (Weiss and Ebbeck, 1996). Taken together, in order to gain acceptance and support from their peers, both of complying with the expectations of others and buying products that are recognized and approved by others are key success factors to adolescents. In order to reduce the risk of being rejected by their peers, it is likely that

adolescents may try to impress their peers through continuous buying products that meet their peers' tastes and desires. A compulsive tendency is likely to occur during the repetitive buying process. Thus, we predict that:

H₃: Adolescents' compulsive buying tendency is positively related to the normative influence from their peers in both China and Thailand.

H₄: Adolescents' compulsive buying tendency is positively related to the informational influence from their peers in both China and Thailand.

Mass media influence

In this study, we examine the influence of three categories of mass media, namely television (TV), internet, and magazine and newspaper on adolescents' CBT. A positive link between TV viewing and CBT is already well documented in the literature (Faber and O'Guinn, 1988; d'Astous et al., 1990; Roberts, 1998; Kwak et al., 2002). TV viewing may influence compulsive buying behavior through the materialistic value it promotes. One of the most consistent findings in the past research is the positive correlation between TV viewing and materialistic values. Numerous researchers have found that TV viewing promotes the materialistic values in children (Churchill and Moschis, 1979; Buijzen and Valkenburg, 2003).

Richins (1993) contends that television commercials promote materialistic values via the idealized, high social class images and lifestyles they presented. These images can lift the life expectation level of heavy viewers since they often compare the reality with what they saw on the TV and try to narrow down the discrepancy through consumption (Richins, 1993). In other words, people buy goods in order to move closer to an ideal identity. It is expected that the longer the time spent on TV viewing, the stronger the CBT of adolescents will display. Therefore:

H₅: Adolescents' compulsive buying tendency is positively related to their time spend on TV watching in both China and Thailand.

Following the same logic, it is expected that the commercials on the internet and magazine and newspaper will find the same pattern as TV viewing does to promote materialistic values and eventually lead to CBT for adolescents. Therefore we proposed that:

H₆: Adolescents' compulsive buying tendency is positively related to their time spend on Internet surfing in both China and Thailand.

H₇: Adolescents' compulsive buying tendency is positively related to their time spend on magazine and newspaper

reading in both China and Thailand.

Attitude toward advertising

Attitude toward advertising is defined as “a general predisposition in the processing of advertising messages” (Boush et al., 1994). Consumers like to gather information through advertisements, given its relatively low search costs (Ford et al., 1990). However, in order to drag consumers’ attention, advertisers might exaggerate in advertisements and overuse them, therefore, several researchers propose that majority of adult consumers distrust the advertising (Mittal, 1994; Shavitt et al., 1998). Prior research suggests that, adolescents are still in the process of developing knowledge about advertiser tactics (Boush et al., 1994). Given that a complete cognitive system may not have been well established, together with their relatively limited access to the advertisements, it is reasonable to assume that adolescents may be relatively weak in evaluating the advertisements and thus are more likely to trust them than adults do.

Boush et al. (1994) suggest that trust in advertising is positively related to consumer conformity. Therefore, the more adolescents trust advertising, the more likely they will accept the materialistic values embedded on them. Eventually, they will display stronger tendency of compulsive buying. Thus:

H₈: Adolescents’ compulsive buying tendency is positively related to their favorable attitude toward advertisements in both China and Thailand.

Gender

There is general agreement that, women are more likely to be compulsive buyers than men (Dittmar, 2005). However, this may be less likely to happen to adolescents, likely because they are still in their identity establishment stage, a formal buying pattern that reflects their self-image may not have been formed. A recent work by Roberts and Tanner (2000) support our prediction by suggesting no gender differences in compulsive buying among adolescents. We expect similar findings will be found in this study, therefore:

H₉: There is no gender difference on compulsive buying tendency among adolescents in both China and Thailand.

Age

Past studies indicate a negative relationship between age and compulsive buying (d’Astous, 1990; O’Guinn and Faber, 1989). Accordingly, we expect that respondents in the early adolescence will display stronger CBT than respondents in the late adolescence. Therefore, it is

proposed that:

H₁₀: Age is negatively related to compulsive buying tendency among adolescents in both China and Thailand.

Pocket money

Arguably, compulsive buying mainly occurs after the consumption for necessities is satisfied. Therefore, the more disposable money left after the consumption for necessities, the higher the chance one will buy compulsively. Thus we hypothesized that:

H₁₁: The amount of pocket money that adolescents have is positively related to their compulsive buying tendency in both China and Thailand.

METHODOLOGY

Data collection

A survey questionnaire was developed based upon a comprehensive review of related literature. The questionnaire was written in English and translated into Chinese and Thai and then back-translated into English by three independent, professional, bilingual translators to ensure consistency and translation equivalence (Hui and Triandis 1985). Original and back-translated versions were compared for equivalence and measures were refined where necessary (Frey, 1970). The questionnaire was then pre-tested using a convenience sample of 30 junior high students in Xiamen. After completion, suggestions and comments were collected from respondents to identify potential errors in terms of the wording, phrasing and sequencing of questions, which were then corrected.

After the pilot test, a self-administered survey was conducted in junior high schools in China and Thailand. Respondents aged 12 to 18 years were recruited. In order to avoid bias, the respondents were told to be surveyed for their general attitude toward consumption rather than their compulsive buying tendency. In China, the data were gathered from four representative cities, namely Shanghai, Tianjin, Chongqing and Xiamen during June to July in 2008. The reason to choose these cities is due to their relatively high economic development level, where people have relatively higher disposable income after their spending on necessities. A middle school was randomly selected from each of the four cities, and then, 1,100 questionnaires were distributed by teachers in the class to the students. Only one class of the students from each grade of 7 to 12 was recruited. An investigator was available in the classroom to assist the students to complete the survey.

Finally, 1,000 questionnaires were returned, with a response rate at 90.9%. The data were collected with the same technique and procedure in Thailand, except that only respondents in Bangkok were recruited. During July to September in 2008, 600 sets of questionnaires were returned. After cleaning and editing the data, the final sample with no missing values for all variables under analysis was 736 in China, and 537 in Thailand.

The characteristics of respondents in each country are shown in Table 1. There were slightly more female than male respondents in both countries. Majority of the respondents were aged 12 to 17 years. The largest proportion (38%) of Chinese respondents had pocket money less than 100 Yuan per month, whereas, only 17% of Thais reported the same. The largest proportion (41%) of Thai respondents had pocket money between 1,000 to 2,000 Baht per

Table 1. Respondents characteristics.

Characteristics		China (n = 736)		Thailand (n = 537)	
		Frequency	%	Frequency	%
Gender	Male	336	45.7	237	44.1
	Female	400	54.3	300	55.9
Age	12-13 yrs old	112	15.2	112	20.9
	14-15 yrs old	251	34.1	261	48.6
	16-17 years old	274	37.2	124	23.1
	18 yrs old and above	99	13.5	40	7.4
Pocket money per month	Below 100 Yuan/1000 Baht	276	37.5	89	16.5
	100-200 Yuan/1000-2000 Baht	184	25.0	222	41.3
	200-400 Yuan/3000-4000 Baht	166	22.6	121	22.5
	Above 400 Yuan/4000 Baht	110	14.9	106	19.7

Table 2. Time spent on mass media per week by respondents.

Time spent per week on (h)		China (n = 736)		Thailand (n = 537)	
		Frequency	%	Frequency	%
Internet surfing	< 2	226	30.7	45	8.4
	2-5	271	36.8	166	30.9
	5-10	134	18.2	165	30.7
	> 10	105	14.3	161	30.0
Magazines and newspapers reading	< 2	259	35.2	185	34.5
	2-5	287	39	220	41.0
	5-10	122	16.6	96	17.9
	> 10	68	9.2	36	6.7
TV viewing	< 4	305	41.4	81	15.1
	4-8	238	32.3	163	30.4
	9-15	124	16.8	145	27.0
	> 15	69	9.4	148	27.6

month, while only 25% of Chinese fell into this range.

As can be seen from Table 2, overall, Chinese respondents spent less time per day to surf the internet and watch TV than their Thai counterparts. While around 60% of Thais spent more than 5 h per day to surf the internet, only about 30% of Chinese reported the same. Similarly, around 40% of Chinese spent less than 4 h per day on watching TV; only 15% of Thais reported the same. More than half of Thais spent 4 to 15 h per day to watch TV. Despite these differences, however, respondents in both countries spent similar amount of time on reading magazines and newspapers.

Measurements

Compulsive buying tendency (CBT)

Consistent with previous studies (Roberts, 1998), CBT was measured by a one-dimensional, seven-item, clinical screener developed by Faber and O'Guinn (1992) in the present study. A scoring equation was used to calculate the CBT. The same cut-off value

(-1.34) was used in the present study. Respondents who scored less than -1.34 were considered as compulsive buyers.

Nunnally and Bernstein (1994) suggest that reliability coefficients of 0.70 or higher were acceptable. The reliability coefficients for all scales utilized in the present study are reported in Table 3. Alpha for this scale was 0.68 and 0.73 for Chinese and Thai sample, respectively.

Parent influence

Due to space constraints on our questionnaire, we adapted two single-item scale from Elizabeth et al. (2002) to measure discussion frequency between respondents and their parent, and the influence of parent's buying decision making style on respondents.

Peer influence

The eight-item scale measuring normative peer influence and the

Table 3. Summary of scale reliability.

Variable	Source	Item	Cronbach α	
			China	Thailand
Compulsive buying tendency	Faber and O'Guinn (1992)	7	0.68	0.73
Attitude toward ads	Boush et al. (1994)	7	0.83	0.75
Normative influence	Bearden et al. (1989)	8	0.68	0.62
Informational influence	Bearden et al. (1989)	4	0.64	0.7
Parent Influence	Elizabeth et al. (2002)	2	-	-

Table 4. Summary of compulsive buying tendency across nations.

Variable	China		Thailand	
	Frequency	Percent	Frequency	Percent
CBT (No)	598	81.2	402	74.9
CBT (Yes)	138	18.8	135	25.1
Total	736	100	537	100

four-item scale measuring informational peer influence were adopted from Bearden et al. (1989). The reliability coefficients of each scale in both countries are displayed in Table 3.

Mass media influence

The mass media influence was measured by adolescents' attitude toward advertising and their time spent on three types of media, namely TV, internet, magazine and newspaper. Attitude toward advertising was measured using Boush et al.'s (1994) seven-item scale. The reliability coefficient is 0.83 in Chinese sample and 0.75 in Thai sample.

The final questionnaire includes five sections: CBT, peer influence, attitude toward advertising, parent influence, and demographic background. All constructs were measured by 5-point Likert-type scale (1= strongly disagree, 5= strongly agree). Since all scales yielded reliability coefficients above 0.6, they were deemed reliable.

RESULTS

In this study, correlational analyses were used to test the hypotheses. As previous studies indicate that CBT may be influenced by numerous factors, a hierarchical multiple regression analysis was then employed to investigate the impact of several hypothesized predictors on CBT in each country. Based on the results of the regression analyses, the relative importance of each predictor's influence on the sample's CBT was estimated.

Compulsive buying tendency

We first examined the CBT among respondents. As can be seen from the Table 4, 19% of Chinese respondents were classified as compulsive buyers, whereas 25% of Thai respondents fell into this category. The mean score

of CBT was -0.16 in Chinese sample and -0.41 in Thai sample, indicating overall, Thai respondents had slightly stronger tendency than their counterparts in China.

Hypotheses testing

Correlational analyses were used to test the hypotheses in the present study. The results of the analyses were summarized in Table 5. As can be seen from the table, in both samples, a negative and significant correlation was not found between the discussion frequency between parent and children and CBT. Therefore, H_1 was not supported. However, a significant and negative correlation between the influence of parents' buying decision making style and CBT was found in Chinese sample, although, the correlation was relatively weak ($r = -0.08$, $p = 0.043$). Unexpectedly, the same finding did not occur in the Thai sample, rejecting H_2 .

In both countries, a significant and positive correlation is found between peers' normative influence and CBT, supporting H_3 . However, although the peers' informational influence was positively correlated with CBT in Thai sample ($r = 0.38$, $p = 0.000$), a significant relationship was absent in the Chinese sample. Therefore, H_4 was rejected.

As presented in the Table 5, except the time spent on magazine and newspaper reading, both the time spent on TV viewing and internet surfing were positively correlated with CBT in Chinese sample. However, the time spent on all three types of media did not correlate with CBT in Thai sample. Therefore, H_5 , H_6 , and H_7 were not supported. A positive and significant correlation was found between attitude toward ads and CBT in both countries, supporting H_8 .

Table 5. Matrix of correlation.

Chinese sample (n = 736)	1	2	3	4	5	6	7	8	9	10	11	12
1	1.00	-0.04	-0.075*	0.282**	0.04	0.155**	0.091*	0.149**	-0.03	0.04	0.03	0.198**
2	-0.04	1.00	0.235**	0.00	0.137**	0.04	0.00	0.01	-0.01	0.094*	-0.04	-0.01
3	-0.075*	0.235**	1.00	0.114**	0.138**	0.03	0.04	-0.084*	-0.05	0.078*	-0.02	-0.04
4	0.282**	0.00	0.114**	1.00	0.330**	0.182**	0.06	0.076*	0.04	-0.04	0.089*	0.06
5	0.04	0.137**	0.138**	0.330**	1.00	0.087*	0.06	0.02	0.074*	0.01	0.110**	-0.04
6	0.155**	0.04	0.03	0.182**	0.087*	1.00	0.03	0.03	-0.01	0.01	0.04	0.03
7	0.091*	0.00	0.04	0.06	0.06	0.03	1.00	0.195**	0.192**	0.00	0.090*	0.01
8	0.149**	0.01	-0.084*	0.076*	0.02	0.03	0.195**	1.00	0.172**	-0.07	0.117**	0.137**
9	-0.03	-0.01	-0.05	0.04	0.074*	-0.01	0.192**	0.172**	1.00	0.06	-0.03	0.04
10	0.04	0.094*	0.078*	-0.04	0.01	0.01	0.00	-0.07	0.06	1.00	0.02	0.111**
11	0.03	-0.04	-0.02	0.089*	0.110**	0.04	0.090*	0.117**	-0.03	0.02	1.00	0.078*
12	0.198**	-0.01	-0.04	0.06	-0.04	0.03	0.01	0.137**	0.04	0.111**	0.078*	1.00
Mean	-0.16	2.90	2.58	2.75	3.19	3.19	1.94	2.16	2.00	1.54	2.49	2.15
SD	1.40	1.13	0.99	0.63	0.79	0.75	0.98	1.02	0.94	0.50	0.91	1.09

Thai sample (n = 537)	1	2	3	4	5	6	7	8	9	10	11	12
1	1.00	-0.01	-0.05	0.325**	0.383**	0.106*	0.05	0.06	-0.05	-0.120**	0.06	0.119**
2	-0.01	1.00	0.264**	0.03	-0.05	-0.03	0.110*	-0.04	0.093*	-0.02	-0.118**	0.02
3	-0.05	.264**	1.00	0.05	0.01	0.02	0.00	-0.095*	0.01	0.06	-0.08	-0.04
4	0.325**	0.03	0.05	1.00	.511**	0.249**	-0.07	0.07	0.01	-.254**	-0.02	0.02
5	0.383**	-0.05	0.01	0.511**	1.00	0.287**	-0.02	0.089*	-0.07	-0.288**	-0.01	0.02
6	0.106*	-0.03	0.02	0.249**	0.287**	1.00	0.06	0.07	-0.135**	-0.096*	0.06	0.109*
7	0.05	0.110*	0.00	-0.07	-0.02	0.06	1.00	0.186**	0.144**	0.173**	-0.02	0.091*
8	0.06	-0.04	-0.095*	0.07	0.089*	0.07	0.186**	1.00	0.202**	0.08	-0.04	0.085*
9	-0.05	.093*	0.01	0.01	-0.07	-0.135**	0.144**	0.202**	1.00	0.00	0.08	0.06
10	-0.120**	-0.02	0.06	-0.254**	-0.288**	-.096*	0.173**	0.08	0.00	1.00	-0.04	.247**
11	0.06	-0.118**	-0.08	-0.02	-0.01	0.06	-0.02	-0.04	0.08	-0.04	1.00	0.372**
12	0.119**	0.02	-0.04	0.02	0.02	0.109*	0.091*	0.085*	0.06	0.247**	0.372**	1.00
Mean	-0.41	3.43	2.79	3.29	2.71	3.05	2.67	2.82	1.97	1.56	2.17	2.45
SD	1.64	0.90	0.86	0.50	0.69	0.55	1.04	0.96	0.89	0.50	0.84	0.99

1: CBT, 2: parent_frequency, 3: parent_decision making style, 4: peer_normative, 5: peer_informational, 6: attitude toward ads, 7: TV viewing, 8: Internet, 9: magazines & newspapers, 10: gender, 11: age, 12: pocket money; * Correlation is significant at the 0.05 level (2-tailed); ** Correlation is significant at the 0.01 level (2-tailed).

Gender of the Thai respondents was found to be significantly correlated with CBT. A further one-

way ANOVA analysis indicated that male adolescents exhibited stronger CBT than female (t

value = 7.76, p = 0.006). A significant correlation was not found in Chinese sample. Additionally,

Table 6. Summarized results of hypotheses testing.

Hypothesis	Key relationship	China	Thailand
H ₁	Discussion frequency with parents ⇔ CBT (-)	Rejected	Rejected
H ₂	Parents' buying decision making style ⇔ CBT (-)	Supported	Rejected
H ₃	Peer influences (normative) ⇔ CBT (+)	Supported	Supported
H ₄	Peer influences (informational) ⇔ CBT(+)	Rejected	Supported
H ₅	Attitude toward ads ⇔ CBT (+)	Supported	Supported
H ₆	TV viewing ⇔ CBT (+)	Supported	Rejected
H ₇	Internet surfing ⇔ CBT(+)	Supported	Rejected
H ₈	Magazine and newspaper reading ⇔ CBT (+)	Rejected	Rejected
H ₉	Gender ⇔ CBT (ns)	Rejected	Supported
H ₁₀	Age ⇔ CBT (-)	Rejected	Rejected
H ₁₁	Pocket money ⇔ CBT (+)	Supported	Supported

Table 7. Multiple regression results of Chinese sample (n=736).

Model	Independent variable	B	Beta	t	Collinearity statistics	
					Tolerance	VIF
1	Parent_decision making style	0.11	0.08	2.03	1.00	1.00
2	Parent_decision making style	-0.134	-0.10*	2.75	0.97	1.03
	Peer influence_Normative	0.56	0.25**	-7.22	0.95	1.06
	TV watching	0.09	0.06	-1.72	0.96	1.05
	Internet surfing	0.12	0.09*	-2.39	0.93	1.07
	Attitude toward ads	0.19	0.10*	-2.91	0.97	1.04
	Pocket money	0.21	0.16**	-4.71	0.98	1.02

Dependent variable: Compulsive buying tendency; Method: Enter; B: unstandardized regression coefficient; Beta: standardized regression coefficient; Regression model 1: $R^2 = 0.01$, $F = 4.124$ ($p = 0.043$); Regression model 2: $R^2 = 0.15$, $F = 20.60$ ($p = 0.000$); ** $p < 0.001$, * $p < 0.05$.

age was found not correlated to CBT in both samples. However, the amount of pocket money was positively correlated with CBT in both countries. Therefore, H₉ and H₁₀ were rejected, while H₁₁ was supported. The results of the hypotheses testing are summarized in Table 6.

Regression analyses

After the correlational analyses, regression analyses were performed to identify the underlying factors that contribute to CBT. The results of the analyses of both countries are summarized in Tables 7 and 8. Note that only variables that displayed a statistically significant relationship with compulsive buying in the correlational analyses were used in the regression equation. As displayed in Table 7, in Chinese sample, the full model explained 15% of the variation in compulsive buying tendency.

The VIF value was smaller than cutoff value of 10, and tolerance values were all above cutoff value of 0.20, indicating no multicollinearity between the variables (Field, 2005). Thus, the model was deemed reliable. Only one

variable "TV viewing", which was significantly correlated with CBT in the correlational analyses, was no longer related with CBT in the regression analyses. The beta coefficients suggested that peers' normative influence was the most important contributor in explaining CBT, followed by amount of pocket money, attitude toward advertising, and time spent on the Internet surfing. The negative effect of the influence of parents' buying decision making style on CBT suggested that adolescents who were strongly influenced by their parents' buying decision making style would be less likely to display CBT.

In Thai sample, the full model explained 18% of the variation in CBT (Table 8). Both VIF and tolerance values were acceptable, indicating the model was reliable. Two variables "Attitude toward ads" and "Gender" that were significantly correlated with CBT in the correlational analyses were no longer related with CBT in the regression analyses. The Beta coefficients suggested that peers' normative influences was the most important contributor in explaining CBT, followed by peers' informational influence and amount of pocket money.

A comparison between Chinese and Thai models

Table 8. Multiple regression results of Thai sample (n=537).

Model	Independent variable	B	Beta	t	Collinearity statistics	
					Tolerance	VIF
1	Gender	-0.40	-0.12		1.00	1.00
2	Gender	-0.08	-0.23	0.54	0.84	1.20
	Peer influence_Normative	0.58	0.18**	-30.76	0.71	1.40
	Peer influence_Informational	0.71	0.30**	-0.63	0.69	1.46
	Attitude toward ads	-0.11	-0.04	0.92	0.89	1.12
	Pocket money	0.20	0.12*	-2.94	0.92	1.09

Dependent variable: Compulsive buying tendency; B: unstandardized regression coefficient; Beta: standardized regression coefficient; Method: Enter; Regression model 1: $R^2=0.01$, $F=7.759$ ($p=0.006$); Regression model 2: $R^2=0.18$, $F=23.789$ ($p=0.000$); ** $p<0.001$, * $p<0.05$.

suggested that although adolescents in both countries shared some similarities in their compulsive buying behavior, differences were also found. The findings of the analyses revealed that peers' normative influence and amount of pocket money were two important factors that shared by both samples, which contributed significantly to CBT. Whereas normative influence from peers was the most important predictor of CBT in Chinese sample, informational influence from peers was the most important predictor of CBT in Thai sample. Additional factors that influence CBT of Chinese respondents were attitude toward ads, the time spent on the Internet surfing and the influence of parent's buying decision making style. Further discussion on these findings and practical implications are further provided.

DISCUSSION

It is socially undesirable for consumers to buy compulsively, given that compulsive buying is a type of abnormal consumption behavior, which is chronic and repetitive in nature (O'Guinn and Faber, 1989) that leads to long-term negative impact on individual and social welfare. However, CBT is increasingly prevailing in many developed countries to date (Neuner et al., 2005). Approximately 1 to 10% of adults in the developed countries are classified as compulsive buyers (Dittmar, 2005). Unexpectedly, the percentage of respondents who show CBT was surprisingly high in this study, which accounted for 19% in Chinese sample and 25% in Thailand sample. The relatively strong CBT in both countries suggests that the curbing of such behavior is necessary and urgently required.

In an attempt to help researchers and policy makers to understand how to prevent or reduce such tendency, our primary objective in the present study is to explore the underlying factors that contribute to CBT, with a focus on consumer socialization perspective. Our second objective seeks to examine whether similar predictors exist in explaining CBT across China and Thailand, given their

similarities in cultural background.

Some prior studies (Roberts, 1998) find no peer effect on young consumers' CBT. However, peer influence appeared to be the most important factor in predicting adolescents' CBT across countries in the present study. A plausible reason may be the infrequent contact between adolescents and their parents (Moschis and Cox, 1989). Adolescents tend to have limited social relation. Parent and friends thus are two main sources of social relation for them. As displayed in Table 5, the mean scores of parent's influence in terms of discussion frequency and their buying decision making style in both countries were relatively low (range from 2.58 to 3.43). The less frequent contact with their parent may result in a frequent contact shift to their friends. Additionally, the low interaction level between the parent and child may also help to explain the absence of the parent influence in the Thai sample, and a negative yet weak influence in Chinese sample. Interestingly, Chinese adolescents received only normative aspect of influence from their peers, whereas Thai adolescents received both normative and informational aspects of influences from their friends. The findings may suggest that, obtaining peer approval is the most important factor that drives Chinese adolescents' CBT. Previous researchers propose that peer approval increases adolescents' sense of security and competence (Weiss and Ebbeck, 1996). The absence of informational influence from peers may imply that Chinese adolescents are unlikely to learn products by observing or seeking information merely from their friends. It is likely that Chinese adolescents may view information gathered from their friends with relatively low credibility, thus seek for various sources to reduce the risk. This may be further supported by the significant relationship between time spent on the Internet surfing and their CBT.

In contrast, the informational influence from peers appeared to be the most important factor to determine Thai adolescents' CBT. Peers may be the most important source of product information for them, given the absence of relationship between time spent on all three types of mass media (TV viewing, Internet and magazines

and newspapers) and family influences and CBT. The fully relying on their peers to gather product information may, on the other hand, suggest that Thai adolescents have even limited contact with their parents. Like Chinese adolescents, Thai adolescents also encouraged to buy compulsively in order to impress their peers. In short, the findings across countries suggested that while adolescents in both countries all intended to reinforce a self-image that was favored by their friends through repetitive buying, Chinese adolescents were more likely to gather the product information from various sources, whereas Thai adolescents were more likely to gather the product information solely from their peers.

Next to peer influence, the amount of pocket money appeared to be another common factor that predicted the most on CBT across nations. An apparent reason is that without money, any purchase cannot be transacted. Compulsive buying may generate after the completion of consumption on necessities. Although, the availability of the disposable money may not be the main reason for consumers to buy compulsively, but it does serve as the important premise of compulsive buying.

Mass media influence adolescents' CBT through the time spent on Internet surfing and favorable attitude toward ads. Unexpectedly, the findings were only available in Chinese sample. Mass media had no effect on CBT in Thai sample. As mentioned earlier, Chinese adolescents may view Internet as a reliable source to gather product information. Internet provides richer information than TV, magazine and newspaper do, and it is available for 24 h a day, seven days a week, thus, makes it a perfect source to collect information. As can be seen from the Table 5, the mean score of attitude toward ads was slightly higher in Chinese sample than in Thai sample ($M_{\text{china}} = 3.19$, $M_{\text{thailand}} = 3.05$), indicating Chinese adolescents may have a relatively higher level of trust on ads. Some researchers suggest that trust in advertising is positively related to consumer conformity (Boush et al., 1994). Other researchers argue that advertisements promote materialistic values via the idealized, high social class images and lifestyles they presented, heavy viewers may want to narrow down the discrepancy between the real life and the life that depicts on TV through consumption (Richins, 1993). Therefore, the more the adolescents trust the ads, the stronger the CBT they will display. Last, inconsistent with previous study (d'Astous et al., 1990), both gender and age effect were not found across nations in this study.

In sum, from a consumer socialization perspective, this study investigates the influence of family, peer and mass media on adolescents' CBT. The findings suggested that in Chinese sample, all of the three factors had significant impact on CBT. While peers influence motivated the CBT most, the influences of mass media and parents were relatively weak. In Thai sample, the only salient factor to predict CBT was peer influence. The amount of pocket money was the only demographical factor that influences

CBT in both samples. Put together, it is concluded that whereas common factors do exist to predict CBT across countries, different factors also work specifically to explain the CBT in different country, disregard the similarities in their cultural background.

Implications

Theoretically, this study contributes to the extant literature in two ways. First, this study expands our knowledge on compulsive buying behavior of adolescents, in addition to adults and college students. Second, this study deepens our understanding about the impact of consumer socialization agents on adolescents' CBT. Third, the present study helps researchers to understand adolescents' compulsive buying behavior in countries that share similar cultural background.

Practically, the present study underscores several potentially important implications. First of all, the findings of this study suggest that the more money the adolescents have on hand, the more likely they will buy compulsively. Therefore, perhaps the most effective and the least costly way to prevent and reduce the CBT is to control the amount of pocket money available for adolescents.

It is suggested that the schools may work out a minimum amount to be used as a reference point to guide the parents in controlling pocket money to their children. Additionally, parents could give pocket money to their children daily rather than weekly or monthly to avoid larger amount which may induce CBT.

Next, the findings of this study indicate a stronger influence from peers than parent in influencing adolescents' CBT. The weak influence from parent may imply the infrequent contact between adolescents and their parent. Nevertheless, the findings also show that parent's influence can, to some extent, reduce the CBT. Thus, it is suggested that parents should increase their frequency to communicate with their children. The purpose of the communication should focus on the development of consumer values and skills for their children.

Furthermore, the importance of peer influence may be of interest to programs aimed at curbing compulsive buying for young consumers. For example, these programs may stress on how the negative consequences derived from compulsive buying may keep the adolescents away from their friends. Adolescents may be used in these programs as presenters to enhance the persuasion of why and how to avoid uncontrolled spending. Other programs may aim to guide adolescents to build their self-image properly and suggesting how to handle with negative psychological tension.

Last but not least, marketers should be aware that it is part of their social responsibilities to help curb CBT among adolescents. Any marketing strategies or selling tactics that stresses on immediate gratification and

materialistic values should avoid targeting on adolescents. Marketers should notice that a market, which is driven by abnormal consumption, could hardly be developed sustainably.

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

As with any other research, this study has several limitations. First, the findings of this study may remain tentative. We only replicated the study in two countries that share similar cultural background. Although, similar factors were found to predict CBT across the countries, it is unclear whether these factors will be found when the study is replicated in more countries within similar cultures. Additionally, it is unclear whether the similar predictors of CBT across two countries result from the influence of culture. Therefore, the further replication of this study in more countries that share both similar and different cultural background may help us to better understand the cultural impact on CBT.

Second, due to the space constraint in the questionnaire, the use of two single-items to measure the parents influence on CBT may bias the results of this study due to the error in the measurement. In this study, we only measure the discussion frequency between parents and children and the influence of parents' buying decision making style. Faber and O'Guinn (1988) argue that the discussions between parents and children may not directly lead to compulsive buying, as it depends on the patterns of these discussions. Additionally, previous studies (d'Astous et al., 1990) suggest how adolescents perceive their parents' CBTs to also influence their own CBT. Therefore, future studies should try to adopt more comprehensive measurement scales to investigate the impact of parent influence on CBT.

Lastly, the relatively low R^2 values in Chinese (0.15) and Thai sample (0.18) indicate weak predictive power of the models in explaining CBT in both countries. A more comprehensive framework should be developed by exploring additional factors that may potentially contribute to CBT in the future studies.

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