

Consumer Socialization on Adolescent Impulsive Buying Behavior through School and Parents: A Random Effects Model

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학교와 부모를 통한 소비자사회화가 청소년 및 대학생소비자의 충동구매행동에 미치는 영향: 랜덤효과 모형

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Abstract

This study examines the effects of consumer socialization on Korean adolescent impulsive buying behavior. The current study used the third and sixth waves from the Korean Education and Employment Panel (KEEP) survey that has been administered by the Korea Research Institute for Vocational Education and Training since 2004. The subjects were high school juniors and university sophomores in 2006 and 2009, respectively. The final sample for panel regression analysis included 1,718 individuals. Two major agents of socialization (school and parents) were utilized in our model. Parent financial behavior (if the parents had savings) and the effectiveness/helpfulness of economics education in middle or high school were included in our estimation model. Two categories were included as individual factors: (1) psychological aspects and personal traits covering variables such as stress from self-image, academic stress, self-regulation, and a tendency of risky behavior and (2) financial behavior and attitudes, which include work experience, amount of money in hand, shopping habits, and if parental financial support is expected after high school graduation. The results from a random effects model revealed that the effects of consumer socialization through school was marginally significant, while through parents was not. Stress from self-image and the level of self-regulation were found to be significant. Neither risky behavior nor academic stress were a significant factor for impulsive buying behavior. The amount of money available in hand and shopping habits showed a significant influence. Implications for educators, parents and policy makers are identified.

Keywords

impulsive buying behavior, adolescent, college student, consumer socialization

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Introduction

Consumer behavior and knowledge regarding purchasing and/or financial management have gained considerable attention recently due in part to the high level of indebtedness particularly among college students [1, 3]. Financial management skills and related knowledge are necessary and important in adolescence and young adulthood because (1) this period is one of transition when students start to be financially independent [41] and because (2) college students, in particular, are known to be heavily targeted by marketers due to their growing purchasing power [17].

Among the numerous types of problematic purchasing behavior, LaRose and Eastin [18] argued that impulsive, compulsive, and addictive buying behavior represent various degrees of self-regulation deficiency; as people exhibit a greater tendency of impulsive buying behavior, compulsive buying behavior is very likely to emerge, and eventually becomes a behavioral addiction. Moreover, patterned buying behavior such as impulsive buying can affect people's financial situation [41], while its negative impacts may persist over time since buying habits are directly related to spending. Given the link to negative and potentially harmful consequences such as addictive buying, personal bankruptcy and subsequent life crises [18], impulse buying needs to be regarded as a problematic consumer behavior [41], and therefore, more attention should be given. Moreover, adolescent impulsive buying behavior is particularly important since marketing strategies target adolescents [21].

Impulsive buying has been defined in various ways [9, 28], with one of the most frequently used definitions being Rook's study [33]; impulse buying occurs when a consumer experiences a sudden, often powerful and persistent urge to buy something immediately. More recently, a broader definition by Xiao and Nicholson [44] was introduced—an unplanned and sudden buying act, in response to subjective or external stimuli, accompanied by powerful and persistent urge; after the purchase, the customer experiences emotional, cognitive and/or behavior reactions, which may become the new trigger of repeated impulsive buying, a reflection of impulsivity traits, sociocultural values and buying beliefs; both a process and an outcome. In contrast to impulse buying, a planned purchase is characterized by deliberate, thoughtful search and evaluation that normally results in rational, accurate, and better decisions [19].

While the pervasiveness of impulse buying has been well-recognized in research, most studies have focused on the adult population [21]; it was reported that a majority of people bought things on impulse occasionally, while 30% to 50% of all purchases were classified as impulse buying by respondents themselves [6]. Studies [17, 18, 34] have reported that the prevalence rate of compulsive buying

behavior was higher for college students [32, 42, 46]. Considering that adolescents are more apt to engage in risky behavior than adults and also more likely to be impulsive and reckless [35], such a result is not surprising.

Meanwhile, little attention has been paid to adolescents below college age. Bearing in mind that buying behavior is also learned and obtained through consumer socialization over time, as is true with other behaviors, researchers need to track how it has been shaped and evolved into the current behavior as early as possible in order to discover critical factors. To date, however, studies exploring the factors behind impulse buying behavior especially during adolescence have been scarce. Furthermore, the socialization process in impulsive buying behavior has rarely been investigated, as the focus has been mostly on personal traits such as self-regulation [21, 45] including emotion regulation, mood management (e.g., distressed, increased stress levels) related to lack of control, and low self-image [7, 15], to name a few.

The purpose of the study was to examine the effects of consumer socialization on impulsive buying behavior, in particular, during the critical transitional period of middle- to late-adolescence. Two major agents of socialization, parents and school, were used, as well as individual characteristics such as psychological and personal traits. Using the Korean Education and Employment Panel (KEEP) survey which has been accumulated over 9 years, this study performed a panel analysis. The present study contributes in three aspects. First, the effect of consumer education in school has seldom been evaluated, while the effectiveness of the current school education curriculum can be verified from the results. Second, this study expands the scope of existing literature by exploring the effect of parental socialization, and provides insights into the development of consumer education programs and policy for both students and parents.

1. Consumer Socialization and Impulsive Buying Behavior

The concept of consumer socialization is grounded mainly on the social cognitive theory and social learning theory. Adolescents are still in their developmental stage and learn things through major socialization agents such as

family, school, peers, and/or media, which transmit norms, attitudes, motivations, and behaviors [25, 27]. According to the social learning theory [2, 25], children acquire cognitions and behaviors from socialization agents through the process of modeling, reinforcement, and social interaction. Adapting these theoretical and conceptual notions to the specific field of consumer research, consumer socialization is defined as the process by which people develop consumer-related skills, knowledge, and attitudes [27]. Consumer buying behavior is also learned and acquired through this socialization process [24], and therefore, the influence of socialization agents needs to be considered.

Previous research on impulsive buying behavior has rarely explored the influence of consumer socialization. In terms of school-based education, college students who have taken a course in personal finance were less likely to make an impulsive purchase [19]. Little research, however, has investigated the effect of consumer socialization through school education among adolescents. More recently, as one aspect of consumer socialization, the concept of financial socialization was proposed [23, 36]. Interestingly, students from a family that uses money as a reward were more likely to exhibit impulsive buying behavior [19], while receiving pocket money from parents was associated with the tendency of impulsive buying [22]. Financial education during high school period was a predictor of better financial knowledge in college [36].

2. Individual Characteristics Affecting Impulsive Buying Behavior

One of the most frequently used personal traits in relation to impulsive buying behavior is self-regulation or self-control [15, 33]. In addition, impulse control (or impulsivity) is at the core of self-regulation [14], while it has been related to risky or antisocial behaviors in previous research [11, 23].

Meanwhile, researchers have stressed the strong association between emotional distress and regulatory failure [18, 21, 38]. It was suggested that emotional distress may shift the priorities toward the immediate present [38]. Previous studies have found that people reported feeling

better after impulsive purchases [12]. Highly stress-reactive people may be more likely to engage in impulse buying to escape from a distressed emotional state [46]. Referring to previous research, this study included academics stress, which is one of the most powerful types of stress in a student's life, and stress from self-image.

It was also reported that people made impulsive purchases as an expression of their ideal self [7], and the tendency of impulse buying differed by an independent-interdependent self-concept [19]. According to Hausman [13], consumer needs for self-actualization were satisfied by shopping experiences, which enables the consumer to establish his or her identity, and resulted in impulsive buying behavior. This study utilized variables regarding stress from self-image and shopping habits.

A number of studies have examined the correlates of impulsive buying, and discovered significant demographic factors. Women showed a much stronger likelihood of impulse buying [8, 19, 22]. Age was related to impulsive buying [19, 22, 42]; younger respondents scored higher for impulsivity [10, 18]. Household income was not related to impulsive buying [42], while compulsive buyers had more debt [30, 31].

Little research has been focused on the relationship between consumer socialization and impulsive buying behavior, while socialization through school education, in particular, has rarely been related to impulsive buying behavior. This study contributes to existing literature by investigating the missing links between consumer socialization (through school and parents) and impulsive buying behavior. Moreover, the panel analysis enables us to obtain a more consistent and thorough investigation than by using a pooled dataset.

Method

1. Data

The current study used the KEEP survey, which began in 2004. It is a longitudinal survey conducted by Korea

Research Institute for Vocational Education and Training (KRIVET), which is affiliated with the National Research Council under the Prime Minister’s Office. This survey extracts representative samples and has traced them for more than a 9-year period. A total of 6,000 samples were selected, comprising 2,000 middle school seniors (equivalent to ninth graders in the U.S.), 2,000 high school seniors, and 2,000 vocational and technical high school seniors.

The third and sixth wave data (year 2006 and 2009), which included the supplement questionnaire ‘economic awareness,’ were used for the present study. We used the middle school student cohort, and accordingly, respondents were high school juniors in 2006 and sophomores in college in 2009. The final sample included 1,718 individuals (male, 487; female, 1,231) after two datasets were merged and out-of-range values were screened. Unlike the earlier wave in 2006, gender was disproportionate in 2009 as boys reached 21 years old, the age at which they undertake military service.

2. Measures

1) Impulsive buying behavior: Dependent variable

Based on previous research [16, 17], a single KEEP item

was chosen to measure impulsive buying behavior: “When I find a desired product in a store, I enjoy impulse buying.” The response categories ranged from 1 (completely disagree) to 5 (completely agree).

2) Consumer socialization: School and parents

As presented in Table 1, the scale for consumer education in school was composed of two items and was regarding the effectiveness/helpfulness of the overall economics-related education as is included in the Common Social Studies curriculum in middle or high school, focusing specifically on daily life as a rational consumer and shaping a concept/sense of economy. In Korea, economics is the only course that encompasses consumer economics and financial issues, save for other elective courses. Responses ranged from 1 (not helpful at all) to 5 (very helpful). The alpha coefficient was .74 in 2006 and .79 in 2009, respectively.

For socialization through parents, whether or not parents have saved money (yes, 1) was included as parental financial behavior (socialization through observation rather than direct teaching) referring to the study by Shim et al. [36].

3) Individual characteristics

Regarding psychological aspects and personal traits,

Table 1. Measurements for Independent Variables

Independent variable	School socialization	Satisfaction for self-image	Academic stress	Self-regulation	Shopping habit
Statement	Regarding the effectiveness/helpfulness of the overall economic-related education as Common Social Studies curriculum: (1) "Do you think your economic education in middle or high school helps with your daily life as a rational consumer?" (2) "Do you think your economic education in middle or high school helps you establish your own sense/concept of economy/finance?"	The extent to which the item influences the stress level of the respondent: (1) problems related to my personal character flaws (2) problems related to my appearance and body image	The extent to which the item influences stress level of the respondent: (1) academic achievement (studying and academic records) (2) advancing to a higher academic level and career opportunities (future career)	Regarding the attitude in class at school: (1) I attend all classes faithfully (2) I focus on my classes (3) I do my homework faithfully (4) I review my lectures (5) I prepare for upcoming lectures	Whether shopping was the respondent's primary leisure time activity during weekdays and/or weekends
Response	5-Point Likert type scale ranging from 1 (completely disagree, not helpful at all) to 5 (completely agree, very helpful)	1, no stress; 2, not too serious; 3, serious; 4, very serious	1, no stress; 2, not too serious; 3, serious; 4, very serious	5-Point Likert type scale ranging from 1 (never) to 5 (always)	Binary outcomes coded to 0 (no) and 1 (yes)
Alpha coefficient	.74 (Year 2006) .79 (Year 2009)	.69 (Year 2006) .73 (Year 2009)	.83 (Year 2006) .74 (Year 2009)	.74 (Year 2006) .76 (Year 2009)	-

first, the KEEP items for the level of stress from physical appearance/body, as well as from personality, were used as the measure for the overall stress level of self-image. The Cronbach alpha coefficient was .66 in 2006 and .71 in 2009. As for academic stress, which is one of the most important aspects in a student's life particularly in Asian countries including South Korea [5], two items regarding the respondent's stress level in academic achievement and future career were utilized. The alpha coefficient was .82 in 2006 and .74 in 2009, respectively. Responses for the aforementioned stress level ranged from 1 (none) to 4 (very serious). In addition, to control the impulsivity, two variables were included in the model. The scale for self-regulation was regarding the level of self-regulation in school, and made up of five items with the alpha coefficient being .74 in wave 3 and .76 in wave 6, respectively. In regard to the tendency of risky behavior, an item regarding the frequency of alcohol drinking was utilized: "how often do you drink alcohol? (1=never, 2=1-2 times per year, 3=1-2 times per month, 4=1-2 times per week, 5=3-4 times per week, and

6=almost every day)."

As for individual financial behavior and attitudes, first, whether the respondents have had job/work experience during the past year, which was coded as 1 for "yes," and 0 for "no," was included. The average amount of money in hand (money that is available even after paying rent and bills, and buying products for basic necessities) was included after the log-transformation. In order to control for buying/purchasing habits, a question regarding whether shopping was the respondent's primary leisure time activity during weekdays/weekend (1=yes) was included. The respondent's dependency upon parental financial support was measured with one item, "until when do you think parents have to have economic responsibility for their children?" Responses were recoded to a binary type with 0 indicating "until high school graduation" and 1 being "even after high school graduation."

For other control variables, gender (boys=1), year dummy (reference=year 2006), and monthly household income (log-transformed) were included.

Table 2. Descriptive Statistics

Variable	Overall mean	Overall SD	Min-max
Impulsive buying behavior	2.92	.95	1-5
Socialization factor			
Helpfulness of economic education in high/middle school	5.65	1.53	2-10
Parent's financial behavior: existence of savings (yes=1)	.82	.39	0-1
Psychological aspects and personal trait			
Stress from self-image	3.61	1.26	2-8
Academic stress	5.03	1.47	2-8
Self-regulation	14.79	3.99	5-25
Risky behavior (drinking alcohol)	2.40	1.20	1-6
Financial behavior and attitude			
Work experience (yes=1)	.29	.45	0-1
Money available in hand (KRW)	155,397.30 (app. 180 US dollars)	146,299.0	2,000-1,000,000
Shopping as a primary leisure activity (yes=1)	.10	3.99	0-1
Expecting parent's financial support (1=even after high school graduation)	.29	.45	0-1
Monthly household income (KRW)	3,433,100 (app. 3,000 US dollars)	4,497,400	0-60,000,000
<i>N</i>	1,718 (boy, 487; girl, 1,231)		

Min, minimum; Max, maximum; KRW, Korean Won.
Time period=2 (year 2006 and year 2009).

3. Analysis

A panel regression analysis was performed using STATA ver. 12.0 statistical program software (Stata Corp., College Station, TX, USA). Missing data were handled with a list-wise deletion method.

When we pooled the datasets in order to utilize them as a cross-sectional dataset, the analysis provides, in general, inconsistent estimators because it ignores the heterogeneity across panels (individuals) [43]. Using the Breusch and Pagan test, it was found that there was evidence of significant difference across individuals, and thus, a random effects model was preferable to a pooled ordinary least squares (OLS) model. Meanwhile, a potential problem in

heteroscedasticity was detected, and a robust model that can control both for heteroscedasticity and serial correlation was used for the estimation (see [26] for more details).

In terms of choosing between a random and fixed effects model in regressions, fixed effects estimators are known to suffer from the incidental parameters problem when the number of time periods is small; this can lead to an inconsistent and biased estimation of all the model's parameters (see [29] for more information). KEEP has not conducted the survey with the supplemental questionnaire regarding economic awareness since 2009, and thus only two waves were available. In addition, the Sargan-Hansen test, which is used for the robust panel model [26], indicated that

Table 3. Estimates from a Random Effects Model

Variable	Coefficient	Standard error	p-value
Socialization factor			
Helpfulness of economic education in high/middle school	-.031	.018 ⁺	.075
Parent's financial behavior: existence of savings (yes=1)	.063	.068	.345
Psychological aspects and personal trait			
Stress from self-image	.054	.023 [*]	.019
Academic stress	.007	.020	.717
Self-regulation	-.021	.011 [*]	.043
Alcohol drinking	.016	.029	.591
Financial behavior and attitude			
Work experience (yes=1)	.097	.070	.165
Money available in hand (log)	.188	.042 ^{***}	<.001
Shopping as a primary leisure activity (yes=1)	.198	.094 [*]	.035
Expecting parent's financial support (even after high school graduation=1)	-.029	.059	.627
Control variable			
Gender (boys=1)	-.173	.065 ^{**}	.008
Year dummy (reference year 2006)	-.017	.114	.844
Monthly household income (log)	.030	.045	.500
Constant	.688	.535	.198
Chi square		105.88 ^{***}	
R^2			
Within		.06	
Between		.11	
Overall		.09	
N		1,718 (750 groups)	
Rho		.24	
Sargan-Hansen test (fixed effects vs. random effects)		6.86 (p=.86)	

⁺p<.10, ^{*}p<.05, ^{**}p<.01, ^{***}p<.001.

a random effects model was preferable. Therefore, results from a random effects model were presented.

Results

1. Description of the Dataset

The overall mean score of impulsive buying behavior was 2.92 on a scale of 1 (lower tendency) to 5 (higher tendency), while over 60% of the respondents (61.18%) showed a tendency of impulsive buying. Girls showed a higher tendency of impulsive buying (overall mean, 2.92) than boys (2.61; $t=6.14$, $p<.001$). For more information on descriptive statistics, refer to Table 2.

Among socialization factors, the overall mean score of the helpfulness of school education was 5.65 on a scale of 2 to 10. Approximately 80% of households had savings, with the average amount totaling 684,790 Korean Won.

With regard to individual factors, the overall level of stress from self-image was 3.61 and academic stress was 5.03 on a scale of 2 to 8. The overall mean score of self-regulation was 14.79 on a scale of 5 to 25, while the proclivity of risky behavior (alcohol drinking) was 2.40 on a scale of 1 to 6. Approximately 10% of respondents enjoyed shopping, while almost 30% of respondents had experience working. The average amount of money in hand, which remained after paying rent and bills, was 155,397 Korean Won. About one-third of respondents (29%) answered that they were expecting financial support from their parents even after high school graduation.

2. Results from the Panel Analysis

Table 3 illustrates the estimates from the panel regression analysis. According to the Sargan-Hansen test, a random effects model was found to be preferable to a fixed effects model, and thus, the focus of the present study is on the former (see [43] for more information).

The estimates from a random effects model showed that socialization through school education was marginally significant, while through parents was not.

Among the psychological aspects and personal traits, stress from self-image and the level of self-regulation were found to be significant. Among variables regarding financial behavior and attitudes, pocket money (available money in hand) and shopping habits were found to be significant. Boys, compared to girls, exhibited a lower tendency of impulse buying, and household income was not significantly related to impulse buying as in previous research [42]. Year dummy (age) also has no significant influence on the impulse buying tendency.

Discussion

The present study investigated the effects of consumer socialization on impulsive buying behavior of adolescents. Results have confirmed the prevalence of impulse buying; more than half of the respondents exhibited the tendency of impulsive buying. The effects of consumer socialization were partially supported by the results; consumer socialization from school was negatively related to the tendency of impulse buying although it was marginally significant. Students who answered they had received formal education at school regarding economics, which includes contents such as consumer economics and financial management, and felt this education was helpful/effective on their rational purchasing behavior showed a lower tendency of impulse buying, which is very likely to lead to problematic spending/purchasing habits. This result was in line with previous research [37].

In contrast, consumer socialization through parents showed no significant result; parents' savings behavior was not significantly related to their children's tendency of impulse buying. Previous research has reported a positive influence of college students adopting parental financial behavior role modeling [36], while the current result may be due to the lack of exposure to learn/acquire parent's financial behavior. Parents and children may not have enough time to talk about financial behavior or financial management. In Korea, young people spend a large amount of time in school and after-school academies in order to prepare for the highly

competitive college entrance exam, while even elementary school students are expected to spend a considerable amount of time studying [20]. As children come home late in the evening after private academies, it is likely that parents and children do not have much time to communicate, and thus it seems difficult for parents to be a significant influencer to children other than by indirect ways of socialization.

In terms of individual factors, respondents' shopping habits were positively related to impulse buying; students who go shopping frequently have a higher tendency of impulse buying. Students who were more heavily stressed from self-image exhibited a higher tendency of impulse buying, which is in line with previous research which reported that there is a strong relationship between emotional distress and impulse buying tendency [38, 39]. Students with a higher level of self-regulation showed a lower tendency of impulse buying, which is in accordance with past studies [40, 45]. Meanwhile, the average amount of money available in hand had a positive influence on the tendency of impulse buying. When respondents have money in hand, the temptation of impulse buying is more likely to be given in to by the sudden desire to buy/purchase things. Whereas work has been documented to be positively related to financial knowledge [36], it was not significantly related to impulse buying in the current study. It seems that the amount of available money in hand is a more critical factor when the temptation of impulse buying comes.

1. Implications

Consumer socialization thorough school-based education is inevitable since parental socialization showed no significant effect. School teachers need to pay attention to students and children in order to prevent adolescents from reaching the chronic/addictive phase in buying/spending habits.

Even though school education showed a marginally significant influence on impulse buying behavior, the Common Social Studies curriculum needs to be revised. Currently, only basic concepts are included in the Common Social Studies curriculum since students choose specific courses (e.g., economics, society and culture, etc.) in social

studies at a later time. Moreover, Common Social Studies needs to encompass contents which help students' consumer/financial socialization. It is thus necessary to review and revise the curriculum and its contents. Content analysis of the current curriculum and comparison studies with other countries are necessary. In addition, the helpfulness/effectiveness of school education can be related to the quality of teaching; an effective teacher evaluation system needs to be adopted.

Consumer socialization through observing parental financial behavior and management seems not sufficient for developing desirable buying habits; parent's direct teaching may have much stronger impact on building their children's ability to resist the tempt of impulse buying. Accordingly, education materials for home need to be developed and introduced to parents.

Students with more available money in hand had a higher tendency of buying on impulse. Hence, building student habits of banking and saving money in order not to spend money impulsively from early childhood is necessary. Accordingly, teaching tools and materials for education in school and at home need to be developed and made available.

Moreover, no difference was found between students with and without work experience, and in most cases, financial education in the workplace has not been actively facilitated. Hence, students with working experience do not possess better knowledge or management skills in finance or spending. Even informal education in the workplace can elevate people's financial knowledge and help them acquire confidence in their ability to make rational decisions in spending/purchasing [36]. Therefore, education programs and policy in the workplace for middle to late adolescents, as well as young adults, need to be introduced.

2. Limitations and Suggestions for Future Research

While the current study provided a clearer picture and some insights on adolescent impulsive buying behavior, limitations and suggestions for future research need to be addressed. First, in terms of the scale of impulse buying, future research may further investigate the effect of

consumer socialization with other measures rather than using a single item as in the current study and other previous ones [16, 17]. Some studies used multiple items to construct the measure for impulse buying [34, 39], and others made use of open-ended questions [33]. Researchers argued that in general, measures for impulsivity are highly subjective and that there exist multiple types of impulsivity, and thus treating impulsivity as a global and undifferentiated concept may not be the right approach [4]. Considering impulse buying shares some aspects with impulsivity, developing multifaceted countermeasures, for instance, those with cognitive, affective, and/or other aspects of the impulse buying tendency would be necessary.

Second, parental financial behavior may not fully reflect the effect of parental socialization on impulse buying behavior; variables directly relevant to impulse buying or impulsivity of parents need to be explored, not to mention parent's direct teaching of financial behavior and attitudes. Third, as the gender proportion was not even, the small number of boys might affect the estimates, in particular. Fourth, the survey was conducted in 2009 and 2006, and thus, the content/courses respondents took were not the most recent (from 2012, revised curricular were adopted), while no critical difference exists between the old curriculum and the new one (see more details on the website of National Curriculum Information Center ([NCIC], <http://www.ncic.go.kr/>).

Lastly, a dataset which has more than three waves and enables the obtaining of estimates of within-individual changes is necessary for a more thorough investigation. In addition, the KEEP data has surveyed the supplemental questionnaire regarding economic awareness only two times, and thus, it needs to continue including those questions in future waves.

Declaration of Conflicting Interests

The authors declared that they had no conflicts of interest with respect to their authorship or the publication of this article.

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