

The Influence of Financial Literacy and Reference Group toward Consumptive Behavior Across Senior High School Students

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Abstract

Consumptive behavior is the tendency to buy goods or services without rational consideration. This study aims to analyze the influence of financial literacy and reference groups toward consumptive behavior across senior high school students. The study used a cross-sectional design and the research location was selected purposively based on the distance of the school from the shopping center area. Using the self-administered questionnaire, the study involved 125 students of public high school (SMAN) at Bogor City, that is SMAN 3 and SMAN 9. The data were analyzed using descriptive analysis and inferential statistics. The study showed that the level of financial literacy was in the medium category, while the reference group and the level of consumptive behavior were in a low category. Moreover, results indicated a relationship between the characteristics of adolescents, financial literacy, reference groups, and consumptive behavior. The regression test found a significant negative effect of financial behavior toward consumptive behavior. Females were more likely to be more consumptive, while reference groups positively influenced the consumptive behavior of senior high school students.

Keywords: consumptive behavior, financial literacy, reference group, senior high school students, adolescent.

Abstrak

Perilaku konsumtif adalah perilaku membeli barang atau jasa secara berlebihan dan hanya mementingkan keinginan daripada kebutuhan tanpa didasari pertimbangan yang rasional. Penelitian ini bertujuan untuk menganalisis pengaruh literasi keuangan dan kelompok acuan terhadap perilaku konsumtif siswa SMA. Penelitian ini menggunakan desain *cross sectional study* dengan pemilihan lokasi penelitian secara *purposive*. Penelitian dilakukan dengan teknik *self administered* menggunakan kuesioner. Penelitian ini melibatkan 125 siswa SMA negeri Kota Bogor yang terdiri dari 68 siswa IPA dan 57 siswa IPS. Sekolah yang dipilih pada penelitian ini adalah SMA Negeri 3 Kota Bogor dan SMA Negeri 9 Kota Bogor. Alasan sekolah dipilih karena dekat dengan pusat perbelanjaan kota. Data yang didapat kemudian dianalisis menggunakan analisis deskriptif, uji beda, uji korelasi, serta uji regresi. Hasil penelitian menunjukkan terdapat perbedaan pada jenis kelamin terhadap perilaku konsumtif siswa SMA, perempuan lebih berpeluang berperilaku konsumtif. Hasil uji korelasi menunjukkan adanya hubungan antara karakteristik remaja, literasi keuangan, kelompok acuan dan perilaku konsumtif. Hasil uji regresi menemukan bahwa adanya pengaruh negatif signifikan perilaku keuangan terhadap perilaku konsumtif siswa SMA. Hasil penelitian juga menemukan adanya pengaruh positif signifikan jenis kelamin dan kelompok acuan terhadap perilaku konsumtif siswa SMA.

Kata kunci: kelompok acuan, literasi keuangan, perilaku konsumtif, remaja SMA

Introduction

Adolescence is a period of transition and the search for identity (Indarjo, 2009). Adolescents are more likely to experience a fluctuating emotions and tend to be sensitive in the matters relating to themselves and often act less rationally including in term of their consumption behavior (Wahyudi, 2013). Wagner (2009) explains that young consumers are more likely to be consumptive, less concerned with social issues, and more concerned with appearance than achievement. This is also supported by a variety of modern living facilities, the development of shopping centers, more access to e-commerce, ease of transportation facilities, and easy-to-access mass media so that information will be conveyed more quickly (Chatijah & Purwadi, 2007).

Moreover, the advance of technology has an impact on adolescents, where the ease of transactions could risk them to be more vulnerable in term of consumptive behavior (Chita, David, & Pali, 2015). Consumptive lifestyle can be influenced by various factors, that is internal and external factor (Sumartono in Hotpascaman, 2010). One of the external factors is the reference group. According to Sumarwan (2015), a reference group is a group of people or an individual who significantly influences a person's behavior in the form of cognitive, affective, and behavioral.

Previous studies such as Lina and Rosyid (1997); Imawati, Susilaningih, and Ivada (2013); and Dikria and Mintarti (2016), showed that one of the internal factors that influence consumer behavior is knowledge related to finance, namely financial literacy. Financial literacy can benefit the progress of a nation (Kusumaningtyas & Sakti, 2017), Those with a sound finansial literacy are more likely to have savings and make informed decision related to finance. Therefore, financial literacy has become a life skill that must be possessed by every individual in living a long-term life (Financial Services Authority, 2017). In 2016, The Organization for Economic Cooperation and Development (OECD,) conducted a survei with 72 countries involved as participants. The study showed that Indonesia is still in the bottom ten of the participated countries. This condition need a consideration regarding the important role of finansial literacy.

According to Turcinkova and Moisidis (2011), peer groups have a role in influencing attitudes and behaviours of the member, including purchasing behaviour. Students tend to form groups who have similarities, in life or social needs, hobbies or interests, attitudes or behaviors (Afiati, 2016). Ramadhan and Simanjuntak (2018) show that reference group could lead to consumptive buying behavior. Lusardi, Mitchell, and Curto (2009) revealed that financial literacy among high school students is low, with less than a third of adolescents who understand the basic concept of financial literacy. Apparently, eventhough they have gained financial socialisation by parents, schools and the environment, students still continue to exhibit high level of consumptive behavior (Mawo, Thomas, & Sunarto, 2017).

According to Kusumowidagdo (2010), one of the determinant factors that cause consumptive behaviour is gender; men are more likely to be utilitarian shoppers whereas women are tend to be hedonic shoppers. Students' background study can also influence the behavior through ways of thinking, perspectives, finding and managing information. Similarly, geographical location (such as residential location), are predicted to affect consumption patterns; the closer with the shops (easy access) could contribute to the consumptive behavior, so a person can get the desired goods and services easier (Sumarwan, 2015).

Consumptive behavior need to be minimized because it can risk people to the financial issues such as being drawn in debt or the unwisely use of credit cards (Nurachma & Arief, 2017). This phenomenon might worsen by the development of technology today, such as the paylater facility, where it is much easier for someone to take a loan through online platform, including the paylater facility (purchase with credit scheme). The Financial Services Authority (2019) recorded that the accumulated number of online loans in Java reached Rp35.2 trillion.

Research that focus on the effects of financial literacy and reference groups on consumptive behavior as a holiscic area is still limited, especially in high school students. Previous studies examined these variables separately, for example, Sofia and Irianto (2016) on the influence of the reference group on financial literacy; Permatahati (2013) which analyzed the influence of reference groups on purchasing behavior; and Gumanti, Sari, and Putri (2017) on the effects of financial literacy on consumption behavior. The importance of conducting study on high school students is partly because, after completing a high school education level, students will soon face a more independent life, such as university and some will immediately enter the workforce. Therefore, having a sound financial capability is important (Rapih, 2016). This is a plausible reason to conduct a study that examines the effect of financial literacy and reference groups toward consumer behavior among high school students, especially in Bogor City.

The aim of this research was 1) identifying student characteristics, family characteristics, financial literacy, reference groups, and consumptive behavior of high school students; 2) analyzing the differences in gender, school origin, major of study, and region of residence towards the consumptive behavior of high school students; 3) analyzing the relationship between student characteristics, family characteristics, financial literacy, reference groups, and the consumptive behavior of high school students; 4) analyzing the influence of student characteristics, family characteristics, financial literacy, and reference groups on the consumptive behavior of high school students.

Method

Research Design

This research used a quantitative descriptive approach that aims to find out how financial literacy and reference groups affect consumer behavior. The research design was a cross-sectional study where the research was carried out within a certain time. This research was conducted from January to May 2019 in Bogor City in two public high schools namely SMA Negeri 3 and SMA Negeri 9.

Participants

The population of this research was high school students in Bogor City. The samples in this study were 125 students from both schools. All samples were grade 11 students from natural science and social science group. School was chosen using a purposive sampling technique, where the location was chosen with consideration of the more diverse characteristics of students and the location of schools in urban areas that are located near the shopping centers. SMAN 3 was selected as the representative of the school that is located in the city center, and surrounded by main shopping centre, including the biggest mall/shopping center in Bogor. While SMAN 9, is still located in

the city but close to the border between municipality and district of Bogor. SMAN 9 is also surrounded by shopping centers, however those shopping places are smaller and more “local” shop rather than established/high street brand. The authors assume these factors will affect the consumptive behavior of students. In this study, participant was selected using a cluster random sampling technique, and the primary data were obtained using a self-administered questionnaire with the supervision from the researcher.

Measures

In this study, the primary data are referred to the characteristics of students (age, gender, major of study, and pocket money), family characteristics (parents' age, parents' education, family income, and parents' occupations), financial literacy, reference groups, and consumptive behavior. This research incorporated independent variables (demographic characteristics, financial literacy, and reference groups), and a dependent variable (consumptive behavior). Financial literacy in this research is defined as the ability of respondents regarding skills and understanding of finance that affect attitudes and behaviors towards financial decisions. Financial literacy instrument was adopted and modified according to conditions in the field. This instrument was divided into three parts, namely financial knowledge, financial attitudes, and financial behavior. The first part consists of five questions to measure the respondent's knowledge about finance. The financial knowledge instrument was the adoption of the research questionnaire by Atkinson and Messy (2012). The second part consists of 23 questions about the financial attitudes of respondents. The instrument regarding financial attitudes was adopted and modified from the instrument of Amagir et al. (2017) which was measured using a 4-point Likert scale (1=strongly disagree, 2=disagree, 3=agree, 4=strongly agree) with a Cronbach alpha value of 0.756. The last part consists of seven statements about the respondent's financial behavior. Financial behavior was measured using a modified research questionnaire of Opoku (2015). This instrument was measured using a 5-point Likert scale (1=never, 2=rarely, 3=sometimes, 4=often, 5=always) with a Cronbach alpha value of 0.741.

The term of reference group is referred to as a group or someone who can influence respondents in the buying process. Measurement of the reference group was carried out using the instrument adopted and modified from the research questionnaire Kaul (2007) and Permatahati (2013) with the value of Cronbach alpha of 0.622. The instrument for the reference group was divided into two parts. The first part consists of seven questions measured using a 5-point Likert scale (1=never, 2=rarely, 3=sometimes, 4=often, 5=always). The second part consists of six questions that were created for descriptive tests and were measured using a 5-point Likert scale (1=very low, 2=low, 3=moderate, 4=high, 5=very high).

Consumptive behavior is the respondent's actions when consuming goods or services without limits based only on desires rather than needs. Consumer behavior was measured using the research questionnaire of Maulana (2018) which refers to aspects of consumptive behavior of Lina and Rosyid (1997). The instrument consists of 15 questions measured using a 5-point Likert scale (1=strongly disagree, 2=disagree, 3=agree, 4=strongly agree) with the value of Cronbach alpha of 0.822.

Data Collection Technique

Primary data were obtained through filling out a questionnaire. The questionnaire must be completely filled in order for the data to be considered valid. After the data has been collected, cleaning data was performed to see the feasibility of the data so that it could be further processed with data processing applications.

Analysis

The data obtained were then inputted and processed through the stage of editing, coding, scoring, entry, data cleaning, and data analysis using Microsoft Office Excel and IBM Statistical Package for Social Science (SPSS) Statistics 25. Statements of each dimension of financial literacy, reference groups, and consumptive behavior were summed and converted in the form of an index.

Index values of financial literacy, reference groups, and consumptive behavior were calculated by the following formula:

$$\text{Index score} = \frac{\text{obtained score} - \text{minimum score}}{\text{maximum score} - \text{minimum score}} \times 100$$

where:

Index score = the value of 0-100

Obtained score = the value obtained by the respondent

Minimum score = the lowest value the respondent should have

Maximum score = the highest value the respondent should have

Index scores for reference groups, financial literacy, and consumptive behavior were further grouped into several categories, namely low (<60), moderate (60-80), and high (>80) (Chen & Volpe, 1998). Data analysis was performed using descriptive statistical analysis and inferential analysis. Descriptive analysis included the average value, minimum value, maximum value, standard deviation, and index values to describe and interpret the data. Inferential analyses used were composed of correlation analysis, T-test, and multiple linear regression analysis to analyze the effect of financial literacy and reference groups on the consumer behavior of high school students.

The regression equation used is as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \varepsilon$$

where:

Y : consumptive behavior (index)

A : constant

B : regression coefficient

X₁: school origin (0= SMA 9, 1= SMA 3)

X₂: gender (0=male, 1=female)

X₃: pocket money (Rp/day)

X₄: family size (person)

X₅: mother's education (year)

X₆ : mother's occupation (0= having a paid job, 1=no paid job)

X₇ : region of residence (0=city, 1=regency)

X₈ : major of study (0=natural sciences, 1=social sciences)
 X₉ : family income (Rp/month)
 X₁₀: reference group (index)
 X₁₁: financial literacy (index)

Findings

Respondent Characteristics

The results showed that as many as 63 respondents came from SMAN 9 Bogor and as many as 62 respondents came from SMAN 3 Bogor. Respondents in this study were dominated by female students (63.2%) whereas the rest were males students (36.8%). In term of age category, about 52% aged 16 years, and nearly half of respondents were majoring in natural sciences. In terms of residential areas, more students lived in the city area of Bogor (68.8%). As for pocket money, on average, students spend as much as Rp26,632 per day, with a minimum allowance of Rp5,000 and a maximum of Rp70,000 per day.

Family Characteristics

Family characteristics in this study included the occupation of parents, family size, family income, and parents' education. The father's occupational category in this study was divided into six categories, namely having no paid job, laborers, self-employed, TNI/Police/Civil Servants, private employees, and other categories. The highest percentage of father's occupation was in the category of private employees (32.8%), the smallest percentage was in the category of not working (2.4%). Other types of occupations were identified as oil palm farmer, taxi driver, trader/businessman, veterinarian, and honorary worker. The occupational categories of mothers were divided into two categories namely having a paid job and having no paid job (housewife). In this category, more than half of the mothers were having no paid job (58.4%).

The average family size in this study was 4 family members with a minimum of 2 family members and a maximum of 10 members. The length of education of parents was grouped into four categories, namely elementary school, junior high school, high school, and college/university. The largest percentage of the length of education was college/university for both fathers (62.4%) and mothers (56%). Whereas in the family income category, the largest percentage was in the range of Rp5,000,000 - Rp7,500,000 (27.2%).

Financial Literacy

The Financial Services Authority defines financial literacy as knowledge, skills, and beliefs, which influence attitudes and behaviors to improve the quality of decision making and financial management. Atkinson and Messy (2012) defines financial literacy as a three dimensions that is financial knowledge, financial attitudes, and financial behavior. The financial literacy index is calculated by adding up the three-dimensional indexes and then dividing them into three. The results showed that more than 50% of students had a moderate financial literacy ($M_{\text{index}}=65.01$) (Table 1). It can be assumed that the students' understanding of financial literacy was sufficient. However, it would be even better if students were given education about finance, so they could be wiser and more careful in making purchases and managing their finances.

Financial knowledge refers to the understanding of basic financial concepts and the ability to apply numeracy skills in finance, such as interest, risk, and inflation (Atkinson & Messy, 2012). This study showed that financial knowledge had an index score of 69.44. More than half of the students had a high level of financial knowledge. In the dimensions of financial knowledge, students were asked about time value of money, discount, the definition of inflation, calculation of interest plus principal, and compound interest. The highest percentage was found in the question about discounts, where eight out of ten students were able to answer the question correctly. The lowest percentage was recorded in the question about time value of money; almost half of students answered this question incorrectly.

Attitudes and preferences are considered as important elements of financial literacy. Attitude is a person's opinion towards saving for the future, such as emergency savings or making a long-term financial plan (Atkinson & Messy, 2012). In financial attitude dimension, seven out of ten students were in the medium category ($M_{\text{index}}=63.21$). Questions on this dimension include four indicators namely power/prestige, financial planning, think before acting and quality for money. The majority of students (99.2%) were in the low category of power/prestige, indicating that students' consideration of the power and prestige of money was still very low. Students tended to be high in the subdimension of think before acting (64%).

Behavior is an important dimension of financial literacy. Positive financial literacy are driven by behaviors such as expenditure planning and making a financial security plan to improve financial well-being (Atkinson & Messy, 2012). In this study, financial behavior had an index score of 62.37. More than four in ten students were in the low category (44.8%). Questions on the dimensions of financial behavior included the allocation of money usage, the frequency of saving, making and recording income and expenditure, and comparing prices before making the purchase. Students tended to score low on calculation of income and expenditure; almost three-quarters of students did not routinely make budgeting and students also did not always record expenses and income.

Table 1. Distribution of students by financial literacy index, minimum, maximum, average, and standard deviation values

Category	Financial knowledge		Financial attitude		Financial behavior		Total	
	n	%	n	%	n	%	n	%
Low (<60)	25	20.0	35	28.0	56	44.8	42	33.6
Moderate (60-80)	36	28.8	87	69.6	50	40.0	70	56.0
High (>80)	64	51.2	3	2.4	19	15.2	13	10.4
Min-max (index)	20-100		12.12-81.81		17.85-100		36.45-87.98	
Mean±Standard deviation	69.44±22.94		63.21±8.46		62.37±16.16		65.01±11.60	

Reference Group

Groups can be defined as two or more people who interact to achieve goals or reciprocity (Schiffman & Kanuk, 2004). The term of reference group was introduced by Hyman in Engel, Blackwell, and Miniard (1994) which is referred to as a person or group of people who significantly affect an individual's behavior. Table 2 shows that the reference group was in a low category (85.6%). The average student had an index score of 45.62. Most students had low engagement with the reference group regarding consumptive behavior.

Table 2. Distribution of students by the reference group

Category	n	%
Low (<60)	107	85.6
Moderate (60-80)	17	13.6
High (>80)	1	0.8
Min-max (index)	10.71-89.28	
Mean±Standard deviation	45.62±14.58	

Figure 1 shows the results of the study based on the distribution of respondents' answers on the influence of reference group (family, friends, celebrities, relatives, neighbors, teachers) toward the buying process. The results showed that three quarter of respondents stated that family had a high influence on the buying process. The smallest percentage was neighbors; only 4% stated the role of neighbors as the influencer in the purchasing decision.

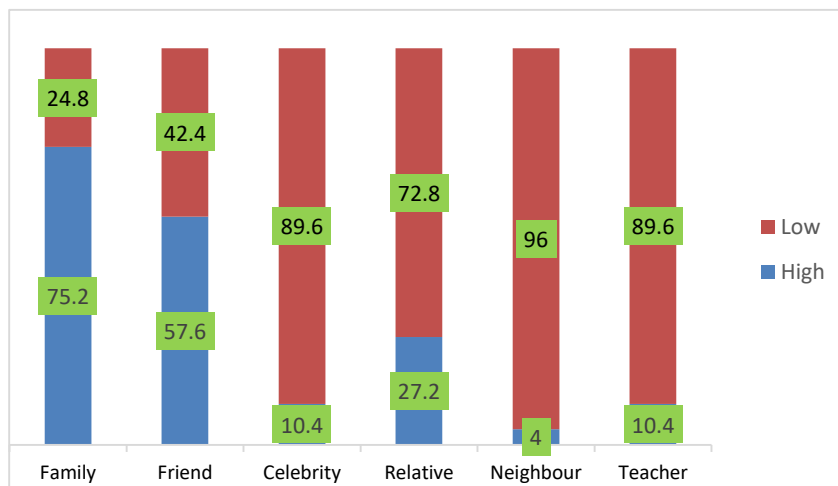


Figure 1. Distribution of answers on reference group

Consumptive Behavior

Pramudi (2015) defines consumptive behavior as the buying behavior that is based on desire rather than rational considerations. The results of this study indicate that none of the students has high consumptive behavior (Table 3). Students are more likely to have low index category (98.4%). The average consumer behavior index was 32.08. This study recorded that more than half of students revealed that they bought a product not to get the attention of others, and six out of ten students stated that they can wait to buy the product they liked, did not have to buy right away. In addition, 52% of students also did not agree to buy things just because they like the model.

Table 4 shows that there are significant differences between male and female in terms of consumptive behavior. Female adolescents had higher score than male. Moreover, this study indicated that there were no significant differences in term of consumptive behavior based on the origin of school, major of study, and residential region.

Table 3. Distribution of students by consumptive behavior index, minimum, maximum, average, and standard deviation values

Category	n	%
Low (<60)	123	98.4
Moderate (60-80)	2	1.6
High (>80)	0	0.0
Min-max (index)	5.00-65.00	
Mean±Standard deviation	32.08±12.21	

Table 4. Results of consumptive behavior differences test by gender, school origin, major of study, and region of residence

Variable	Min-Max	Mean ± SD	<i>p-value</i>
Gender			
Male (n=46)	5.00-65.0	25.39±11.478	0.000**
Female (n=79)	6.67-63.3	35.97±10.924	
School origin			
SMAN 9 (n=63)	6.67-63.3	31.42±12.040	0.550
SMAN 3 (n=62)	5.00-65.0	32.74±12.443	
Major of study			
Natural sciences (n=68)	5.00-65.0	32.62±12.419	0.589
Social sciences (n=57)	8.33-60.0	31.43±12.032	
Residential region			
City (n=86)	5.00-65.0	32.30±13.153	0.760
Regency (n=39)	6.67-48.3	31.58± 9.955	

Note. (**) significant at $p < 0.01$

Relationship between Student Characteristics, Family Characteristics, Financial Literacy, Reference Groups, and Consumptive Behavior

Based on the correlation analysis (Table 5), the origin of school had a significant positive relationship with financial knowledge ($r=0.000$, $p<0.01$), financial attitudes ($r=0.000$, $p<0.01$), and the reference group ($r=0.000$, $p<0.01$). These results indicated that SMAN 3 had a higher financial knowledge, financial attitudes, and was more intense with the reference group. The major of study had a significant negative relationship with the reference group ($r = -0.47$, $p<0.05$) in which those from natural sciences showed a more engage with the reference group. Mother's education and family income had a significant positive relationship with financial knowledge ($r=0.007$, $p<0.05$; $r = 0.013$, $p<0.05$) and financial attitudes ($r=0.017$, $p<0.05$; $r=0.001$, $p<0.01$).

Financial knowledge had a positive relationship with financial attitudes ($r=0.000$, $p<0.01$), financial behavior ($r=0.012$, $p<0.05$) and the reference group ($r=0.000$, $p<0.01$). These results indicate that the higher financial knowledge will lead to the more positive of financial attitudes and behavior, and the more intense of relationship with the reference group. Family income had a significant positive relationship with the reference group ($r=0.045$, $p<0.05$) which means that those from higher family income were more likely to build a more intense relationship with the reference group.

The results showed that gender had a significant positive relationship with consumptive behavior ($r=0.000$, $p<0.01$), thus it can be concluded that female students were more likely to engage in consumptive behavior than male. Financial attitude had a significant positive relationship with financial behavior ($r=0.000$, $p<0.01$) and the reference group ($r=0.011$, $p<0.05$). The more positive of financial attitudes will lead to the better of financial behavior and the more intense relationship with the reference group. Financial behavior had a significant negative relationship with consumptive behavior ($r=-$

0.001, $p < 0.01$). Those with better of financial behavior were less likely to engage in consumptive behavior. In addition, the reference group was significantly positively related to consumptive behavior ($r = 0.007$, $p < 0.01$), which means that the stronger bonding with the reference group, the more likely to engage in consumptive behavior.

Table 5. Correlation coefficients between student characteristics, family characteristics, financial literacy, reference groups, and consumptive behavior

Variable	Financial knowledge	Financial attitude	Financial behavior	Reference group	Consumptive behavior
School origin (0=SMA 9; 1=SMA 3)	0.000**	0.000**	0.182	0.000**	0.508
Gender (0= male; 1= female)	-0.768	-0.058	-0.053	0.102	0.000**
Major of study (0=natural sciences, 1=social sciences)	-0.205	-0.461	-0.904	-0.047*	-0.502
Pocket money (thousand rupiah/day)	0.462	0.138	0.433	0.009**	0.099
Mother's education (year)	0.007**	0.017*	0.311	0.159	0.690
Mother's occupation (0=no paid job, 1=having paid job)	0.297	0.586	0.495	0.599	-0.738
Family income (million rupiah/month)	0.013*	0.001**	-0.769	0.045*	0.356
Family size (person)	-0.297	-0.267	0.053	-0.083	0.440
Region of residence (0=city, 1=regency)	-0.716	0.844	0.669	-0.873	-0.857
Financial literacy					
- Financial knowledge (index)	1	0.000**	0.012*	0.000**	0.272
- Financial attitude (index)		1	0.000**	0.011*	0.924
- Financial behavior (index)			1	0.354	-0.001**
Reference group (index)				1	0.007**

Note. (*) significant at $p < 0.05$, (**) significant at $p < 0.01$

Influence of Student Characteristics, Family Characteristics, Financial Literacy, and Reference Groups on Consumptive Behavior

This study showed that the factors that had a significant influence on consumptive behavior were gender, financial behavior, and reference groups (Table 6). The results showed that gender had a very significant effect on students' consumptive behavior ($B = 8.806$, $p < 0.01$). In this case, female students were 8.806 times more likely to behave consumptively. This was in line with the results of Avello et al. (2010) and Hartatin and Simanjuntak (2016).

The dimensions of financial behavior had a significant negative effect on the consumptive behavior of students ($B = -0.219$, $p < 0.01$). This value explains that the lower the financial behavior of students will increase consumer behavior by 0.219 points. The reference group positively affected the consumptive behavior of students ($B = 0.175$, $p < 0.05$). Every increase of one unit in the reference group engagement will increase consumer behavior by 0.175 points. This is in line with research by Chan (2003), Permatahati (2013), and Hamzah et al. (2013).

The results of the multiple regression analysis presented in Table 6 show that the adjusted R-square value was 0.245. This means that 24.5% of consumptive behavior was influenced by the studied variables in the model, while the remaining 75.5% was influenced by other variables that were not studied. The regression test in this study had met the classic assumptions with the results of data spread normally and no multicollinearity with a tolerance value of more than 0.1 and a VIF value of less than 10.

Table 6. Results of regression analysis of student characteristics, family characteristics, financial literacy, reference groups, and consumptive behavior

Variable	Coefficient		<i>p-value</i>
	Unstandardized coefficient (B)	Standardized coefficient (β)	
Constant	14.870		0.173
School origin (0=SMA 9; 1=SMA 3)	-0.120	-0.005	0.964
Gender (0= male; 1= female)	8.806	0.349	0.000**
Major of study (0=natural sciences, 1=social sciences)	0.299	0.012	0.887
Pocket money (thousand rupiah/day)	0.009	0.016	0.856
Mother's education (year)	-0.202	0.009	0.931
Mother's occupation (0=no paid job, 1=having paid job)	-0.124	-0.009	0.933
Family income (million rupiah/month)	-1.472	-0.060	0.474
Family size (person)	0.462	0.050	0.653
Region of residence (0=city, 1=regency)	1.212	0.096	0.241
Financial literacy			
- Financial knowledge (index)	0.023	0.043	0.673
- Financial attitude (index)	0.169	0.115	0.206
- Financial behavior (index)	-0.219	-0.290	0.001**
Reference group (index)	0.175	0.209	0.019*
R^2		0.324	
Adjusted R^2		0.245	
F		4.087	
<i>p-value</i>		0.000**	

Note. (*) significant at $p < 0.05$, (**) significant at $p < 0.01$

Discussion

This study examined the factors that may influence consumer behavior in high school students. Fattah, Indriayu, and Sunarto (2018) explain that adolescence is a phase where an individual oftentimes cannot distinguish between needs and desires.

The results of this study identified that the determinant factors of the consumptive behavior of high school students were gender, financial behavior, and reference groups. This study explains that female students tended to behave more consumptively in shopping. This is in line with previous research conducted by Hartatin and Simanjuntak (2016), where there are significant differences between men and women and women tended to make purchases to relieve stress. This finding also supports the study of Avello et al. (2010) which states that women had higher engage in consumptive behavior. In addition, Lusardi et al. (2009) state that gender could influence financial literacy where men are considered to have better financial literacy, as well as their cognitive abilities.

In this study, no significant effect was found between the dimensions of financial knowledge and consumptive behavior. This is not in line with previous research that has been conducted such as Maulana (2018), Imawati et al. (2013) and Fattah et al. (2018) which show a significant negative effect between knowledge and consumptive behavior. Setiawati and Nurkhin (2017) explain that a person's behavior was not always influenced by the level of knowledge but also by other factors such as lifestyle and social environment.

In addition, this study also did not find any significant influence of financial attitudes toward consumptive behavior. Ajzen (2002) states that attitudes are related to subjective assessment of individuals with the surrounding environment, individual understanding of themselves and their environment. In addition, attitude is also related to subjective norms. Ham, Jeger, and Ivković, (2011:740) explained that subjective norms are the belief that an important person or group of people will approve and support a particular behaviour. Subjective norms are also a function of individual beliefs obtained over other people's views of the object of attitudes related to individuals. When students believe a certain view, they do not necessarily do that, but they might approve it if it is in line with social norms and the environment. It is suspected that the respondent's bias in expressing a certain attitude is because they want to be accepted by their environment, so it does not always reflect the actual condition of the individual.

The dimensions of financial behavior have a significant negative influence on the students' consumptive behavior. It means that the better of financial behavior will reduce consumptive behavior, and vice versa. A sound financial behavior will help someone to control their expenses, so it become a more wise spending. The results of this study are in line with Pham, Yap, and Dowling (2012) which state that a positive financial behavior is highly recommended by financial experts as a way to stop excessive spending that is likely to drive a consumptive behavior. Those who tends to engage in good financial behavior will have a positive outlook on savings, meaning they will be less likely to buy things excessively.

This research found that students' financial behavior was in a low category. The results of the distribution of answers regarding the dimensions of financial behavior found that students had not routinely made expenditure plans or budgets. Students did not always record their expenses and income. Even though financial behavior was low, students were evidently able to avoid consumptive behavior. Based on the results of interviews with several students, they claimed that they more often spent money on necessities rather than following trends. The relationship between behavior and positive attitude for the long term is likely to show better financial behavior compared to those with positive financial attitude for the short term (Atkinson & Messy, 2012).

This study recorded that reference group had a significant positive influence on consumptive behavior of high school students. When the reference group exerts a high influence, it will increase the consumptive behavior of students. This is in line with Ramadhan and Simanjuntak (2018) which shows that the higher level of the reference group, the higher effect to consumptive behavior. In addition, Chan (2003) in his research found that the pressure of the reference group contribute to generate materialistic values and compulsive buying behavior in a person. According to Setiadi (2008), a person can be influenced by the reference group in three ways. First, the reference group introduce a new behavior and lifestyle. Second, the reference group influences attitude and identity. Third, the reference group creates pressure on a person to adjust to being able to influence the choosing of brand and product.

This results found that the reference group is in the low category. In general, students disagreed with the statement of buying goods used by people they admired, and buying goods because it was influenced by others expectations. Students expressed that they use reference group to ask for advice before buying an item and observed the goods or products used by others before they made a purchase. The results show that family is the most popular reference for the students. Family has a high influence and trusted as a source of information in their purchasing decision. This is in line with research conducted by Permatahati (2013) that the reference group influences the purchase, and the reference group that is considered to have a greater and more trusted influence is the family. This is related to Bronfenbrenner's theory which explains that a child (student) is directly affected by the physical and social environment, namely parents, siblings, school, and then other outside environments (Hastuti, 2015). The results of this study indicate that the microenvironment has a greater influence on students. A microenvironment is the closest environment in which students develop, forming patterns and habits of daily life.

Students' consumptive behavior in this study is in a low category. Most students considered the prices first when making a purchase and not in a hurry in buying a product. Students also claimed that they could refrain from buying goods from persuasive sellers. According to the students, savings should become a priority rather than buying the goods that only fulfill their desire. This shows that students in this study can overcome shopping behavior that tends to be consumptive and can distinguish between needs and wants.

Conclusion and Recommendation

Conclusion

The respondents in this study were 11th-grade students in natural sciences and social sciences from two state high schools in Bogor. The average age of students was 16.43 and majority of them were female. The average student was given an allowance of Rp26,632 per day. In general, the parents' education was the college/university level. The family income of the majority of students ranged from Rp5,000,000 to Rp7,500,000. A higher proportion of fathers worked as a private employees whereas the majority of mothers are a housewife. The average size of a student's family was 4.64 family members or four to five family members. The majority of students lived in the city area of Bogor, in accordance with government policies that apply the zoning system to school location.

The results showed that financial knowledge was in the high category, while financial attitude was in the medium category, and financial behavior was in a low category. In general, financial literacy index was categorized as moderate. The reference group was in a low category. Similarly, the consumptive behavior was categorized as low. This study found that the driver of consumptive behavior of high school students are gender, financial behavior, and reference groups. The results showed that female students were significantly associated with consumptive behavior. In the three dimensions of financial literacy, only financial behavior that showed a significant negative influence on students' consumptive behavior. It means, the more positive of financial behavior, the less likely students behave consumptively. In addition, the reference group had a significant positive effect on consumptive behavior.

Recommendation

Based on the results of this study, it is expected that the government can develop programs and/or policies related to financial education in various levels to promote positive financial literacy (knowledge, attitudes and behaviour) and become smart consumer so they can choose wisely and make informed decision. School is expected to deliver more suitable financial education, by providing material and hands-on practice while students undergo activities at school. Parents as role models in the family are expected to show positive behaviors, instill an understanding of finance from an early age, and support their children to be make a wise spending. A positive environment will lead to positive behavior. Furthermore, respondents are expected to be more aware of the importance of managing finances and more rational in making a purchase.

In addition, this study uses data collection techniques through self-administered. Future research is expected to elaborate an in-depth interview techniques to obtain a deeper understanding into the studied variables. In this study, the instrument of consumptive behavior measures the level of respondents' agreement to several statement of behavior. This can potentially produce answers that are more opinion-oriented. For further research, it is recommended to modify the scale so that it is more suitable for measuring aspects of actual behavior. In addition, further research may want to investigate the lower levels of education such as junior high schools and elementary schools as related research that carried out at these level is still limited especially in Indonesia.

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