

## Comparative Study of Self-Concept, Reference Group, Marketing Strategy, and Online Buying Behavior Accross Generations

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### ABSTRACT

Online purchasing behavior is a behavior carried out by consumers in buying an item via the Internet. This study aims to compare and analyze the influence of self-concept, reference group, and marketing strategy on online purchasing behavior in the Baby Boomer Generation, Generation X, and Generation Y. Direct interviews in Dramaga Cantik Housing and Pagelaran Ciomas Village, Bogor Regency conducted the research. Respondents in this study were 90 housewives with 30 respondents each generation. The technique of determining respondents using quota sampling with the condition that they have made online purchases at least once in the last 6 months. The research data used descriptive analysis, Anova, and Structural Equation Modelling (SEM). Research shows that the variables of self-concept, marketing strategy, and online purchasing behavior are moderate, while the reference group has a low category. Significant differences exist in the dimensions of actual self-concept, promotion, and marketing strategy between the three generations. Self-concept has a significant effect on online purchasing behavior in all generations. Reference groups significantly affect the Baby Boomer Generation and marketing strategies significantly affect the Baby Boomer Generation and all generations. Businesses should pay attention to marketing strategies with a focus on different self-concepts between generations to increase online purchases

## 1. INTRODUCTION

The development of internet technology successfully addresses the challenges in the global era (Hadi & Vivi, 2013). It causes a shift in values and changes in consumers' mindset toward using the Internet as a shopping choice (Lestari, 2014). The Internet is a communication medium to buy goods, order transportation, find information on education, entertainment, and lifestyle to do business and work. The behavior of consumer life continues to experience changes in various aspects of life as times develop more rapidly. Based on the Indonesian Internet Service Providers Association (APJII), in 2020, internet technology's growth increased from year to year. Internet user penetration in Indonesia increased to 143.26 million people, equivalent to 54.7% of the total population in Indonesia.

APJII (2020) divides the scope of the study of internet users based on gender and the generation of consumers. The composition of internet users by sex shows that males (51.43%) are greater than females (48.57%). Meanwhile, the composition of internet users by consumer generation is Baby Boomer (born 1946-1964) aged over 54 years (4.24%), generation X (born 1965-1977) aged 41-53 years (29.55%), and Generation Y (born 1977-1994) age 24-41 years (49.52%). According to Murphy (2007), the millennial generation is a lively group multitasking and has more technical intelligence than other generations because it is exposed to more extended periods of internet use. The internet influences the level of life needs and brings many style changes to consumer life, one of which is an alternative method of shopping. Changes to shopping methods that initially had to come directly to the store and take a long time are now shifting to online because of the convenience of shopping facilities (Cho et al., 2002).

Every generation of consumers who make online purchases has different uniqueness and characteristics. A generation is a group of individuals based simultaneously on similarities in birth and life (William & Page, 2011). The age difference of each generation encourages each individual to carry out consumption behavior for his life needs. According to generation research in America from various sources, there are six groups of generations, namely generation pre-depression, generation depression, Baby Boomer Generation, Generation X, Generation Y, and Generation Z (Dietz, 2003; Hawkins et al., 2010). This research analyzed and compared intergenerational online buying behavior: the Baby Boomer Generation born in 1946-1964, Generation X, born in 1965-1977, and Generation Y, born in 1977-1994 (William & Page, 2011). Generational differences are important to study to understand online purchasing behavior because each generation is unique.

A person's self-concept can also provide an overview of individual differences in purchasing decisions. Each individual has a different self-concept. The concept of self is a view of self towards itself. There was a significant positive correlation between self-concept and purchasing decision-making. Environmental factors can also influence consumer purchasing decisions, including the reference group. A reference group is a group of people or individuals who can influence a person's behavior (Joseph, 2017). Next, Wahdiniwaty and Wijayanti (2016) demonstrated that a reference group influences purchasing decisions. Advances in Internet technology can affect marketing activities. This aligns with research by Guo and Jaafar (2011), which stated that competitive prices, attractive promotions, and high-quality products could influence consumers' buying decisions.

The main reason why consumers do online shopping is because they cannot find the right time to travel and are not ready to spend hours shopping. This popular new way of purchasing is used by consumers to fulfill the needs of daily life, because of its convenience, time-saving, and more information (Guo & Jaafar, 2011). This online purchase began to grow due to the development of the internet, starting from websites, social media, and even smartphones, which consumers are increasingly using. The existence of smartphones makes it easier for people to access the internet and even make online buying and selling transactions. The increasing number of internet users in Indonesia is one of the factors causing the emergence of online stores in Indonesia. The increasing number of online stores will cause competition in terms of marketing strategies offered by marketers to attract consumer buying interest. This certainly causes consumers to be easily influenced and make purchases by prioritizing their desires, so consumers must control themselves to avoid these purchases. In addition, the surrounding environment, especially relatives and family, has a very strong influence, giving a person certain criteria when purchasing (Amaldos & Jain, 2008). Research by Neuneur et al. (2005) stated that there are significant differences in purchasing behavior regarding age. Klynveld, Peat, Marwick, and Goerdeler (KPMG) conducted an online survey in 2016 to 18,430 consumers across 50 countries with respondents aged between 15 and 70. The survey results show that each respondent has purchased goods online at least in the last 12 months. This has led to consumer shopping behavior that originally bought something directly coming to the market to buy an item (offline) to buy goods digitally by only visiting online shopping sites. This research is important to provide an overview for companies regarding online shops to prepare company strategies that can provide online shopping experiences for consumers.

This research analyzes and compares online buying behavior based on previous studies. Factors that influence these behaviors are self-concept, reference groups, and marketing strategies aimed at comparing and analyzing the influence on online buying behavior. Furthermore, very limited research focuses on factors influencing online purchasing behavior by comparing intergeneration, namely the Baby Boomer Generation, Generation X, and Generation Y. Therefore, conducting a comparative study of self-concept, reference groups, marketing strategies, and

intergenerational online buying behavior is interesting.

## **2. LITERATURE REVIEW**

### *2.1 Buying Decision*

According to Schiffman and Kanuk (2010), the purchasing decision is a problem-solving made by a consumer in deciding a purchase action. Consumer behavior determines the decision-making process in purchasing. Consumer decision is a process in which consumers evaluate various alternatives and choose the required alternatives based on consideration. There are five stages in buying decision-making: need recognition, consumer information, product and brand evaluation, and purchase and post-purchase evaluation. Suhari (2008) concluded that the purchasing decision system is influenced by several factors, namely efficiency for searching (fast time, easy to use, and easy search effort), value (competitive price and good quality), and interaction (information, security, load time, and navigation). Ray and Choudhury (2015) mentioned three things that influence consumer purchasing decisions, including demographic, psychographic, and behavioral factors from consumers.

### *2.2 Online Buying Behavior*

The growth of online trade has a massive market opportunity, so the number of internet users in Indonesia is increasing. McKinsey's research results on the Cable News Network (CNN) Indonesia predicts that Indonesian online shopping penetration will increase to 83% of total internet users, or about 9% compared to online shopping. This online trade generates efficiency and effectiveness in buying and selling, which becomes more flexible. An innovative online shopping pattern provides a variety of consumer needs and offers a vast market for consumers. Many factors influence consumers' online purchasing process: online security, privacy protection, and after-sales service. This problem can directly affect consumers' attitudes toward shopping online. Many scams have also become a big problem for consumers who shop online. Personality, the benefits of online shopping, and perceptions affect a person in making online purchases and the frequency of purchases made by consumers (Delafrooz et al., 2010).

### *2.3 Intergenerational Characteristics*

A generation is a group of individuals based simultaneously on similarities in birth and life (William & Page, 2011). The age difference of each generation encourages each individual in the consumption behavior of his daily life. Therefore, understanding cross-generation marketing activities is needed so that marketing strategies follow intergenerational characteristics. According to American generation research from various sources, there are six groups of generations, namely Generation Pre-Depression, Generation Depression, Baby Boomer Generation, Generation X, Generation Y, and Generation Z (Dietz, 2003; Hawkins et al., 2010;). The focus of this research is the analysis and comparison of online buying behavior of three generations, namely the Baby Boomer Generation born in 1946-1964, Generation X born in 1965-1977; and Generation Y, born in 1977-1994.

### *2.4 Self Concept*

Baron and Byrne (2004) stated that self-concept is self-identity as a basic schema consisting of a collection of beliefs and attitudes toward oneself. A person's self-concept can influence behavior in making decisions in the buying process, especially online purchases. In addition, self-concept can be influenced by other things outside the individual, such as environmental support and interactions with others. The way a person thinks and evaluates himself, such as aspects of physical, moral, personal, family, and social situations, is called self-concept. West and Turner (2008) suggested that self-concept can be formed based on talents, roles, values, skills, emotional states, intellectuality, and social limitations. Individuals have two types of self-concept: positive and negative. A negative self-concept sees itself as incapable and failing and has a negative view of life. On the other hand, positive self-concepts have a more favorable view of themselves and an acceptance of themselves.

### *2.5 Reference Group*

Schiffman and Kanuk (2010) suggested that a reference group or reference group is any person or group that is considered a basis for comparison (or reference) for a person in forming general or specific values and attitudes or specific guidelines for behavior. A reference group is a group that becomes a reference for someone in making purchasing decisions (Rorlen, 2007). Yang et al. (2007) demonstrated that the reference group influences each stage of consumer purchasing decision-making. Reference groups influence the buying behavior made by a consumer. Second, fellow reference group members often make decisions together as a group. Various reference groups influence consumers, including family, friends, and work groups.

### *2.6 Marketing Strategy*

Marketing strategy is a form of sales communication to achieve marketing objectives. Tjiptono (2015) mentioned that promotion is a form of marketing mix communication to inform, persuade, and remind buyers to get

feedback about the products the company markets. The promotion has a strategy between marketing mix elements, namely advertising, personal sales promotion, public relations, direct and online marketing, and word-of-mouth advertising that is used to achieve sales program objectives. The most important thing in marketing is a promotion that aims to increase product sales with an effective system and special strategies (Hartono et al., 2012).

2.7 *The Relationship between Self-Concept and Online Buying Behavior*

Personality influences consumer selection of brand personality that follows their self-concept (Wardana, 2011). The research of Chita et al. (2015) concluded that there was a relationship between self-control support and consumptive behavior in online shopping for fashion products among students of the Faculty of Medicine, Sam Ratulangi University. There was a significant positive effect between self-concept and decision-making in buying make-up products for middle-aged women. Suminar and Meiyuntari (2015) concluded that the self-concept significantly influences consumptive behavior in adolescents. Next, Darmawati et al. (2007) mentioned that self-concept significantly affects purchasing decisions for Shar'e products.

- H2a: Self-concept significantly affects the online buying behavior of the Baby Boomer Generation.
- H2b: Self-concept significantly affects the online buying behavior of Generation X.
- H2c: Self-concept significantly affects the online buying behavior of Generation Y.
- H2d: Self-concept significantly affects online buying behavior in all generations.

2.8 *The Relationship between Reference Groups and Online Buying Behavior*

Wahdiniwaty and Wijayanti's (2016) research showed that product quality and reference groups influence purchasing decisions. Next, Anoraga and Iriani's (2013) research showed that the reference group significantly affects purchasing decisions. The reference group affects purchases, and the reference group considered to have a greater influence and is more trusted is the family.

- H3a: The reference group significantly affects the online buying behavior of the Baby Boomer Generation.
- H3b: The reference group significantly affects the online buying behavior of Generation X.
- H3c: The reference group significantly affects the online buying behavior of Generation Y.
- H3d: The reference group significantly affects online buying behavior in all generations.

2.9 *The Relationship between Marketing Strategy and Online Buying Behavior*

The research of Suhari (2008) shows that marketing stimuli positively affect online purchasing decisions. However, Verina et al. (2014) show that only four variables have a partial effect, namely atmosphere, promotion, trust, and consumer characteristics, while products, prices, and services partially have no significant effect on purchasing decisions at stores fashion on Facebook.

- H4a: Marketing strategy significantly affects the online buying behavior of the Baby Boomer Generation.
- H4b: Marketing strategy significantly affects the online buying behavior of Generation X.
- H4c: Marketing strategy significantly affects the online buying behavior of Generation Y.
- H4d: Marketing strategy significantly affects online buying behavior in all generations.

2.10 *Research Framework*

Based on the results of previous studies regarding the factors that influence online buying behavior, in this study, the factors that are compared and analyzed for their effects on the three-generation difference test are self-concept, reference groups, and marketing strategies in the Baby Boomer Generation, Generation X, and Generation Y. Based on empirical research which shows that the variables of self-concept, reference group, and marketing strategy influence online buying behavior. This research framework is presented in Figure 1.

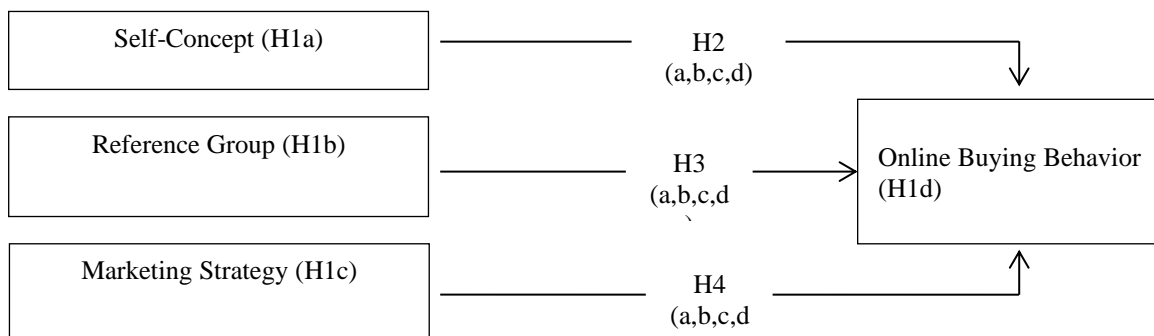


Figure 1. Research framework

### 3. METHOD

This study applied a quantitative approach with a cross-sectional study design, which is research conducted at one time in a certain period and is not sustainable. The method used is direct interviews with respondents. This research was carried out in Bogor Regency. The sampling technique used quota sampling. The technique was chosen to determine the population sample with specific characteristics to the desired amount (quota) in several groups and unknown respondent populations from the three-generation groups. The family becomes the unit of analysis with intergenerational housewife respondents, namely the Baby Boomer Generation, housewife Generation X, and Generation Y. The Baby Boomer Generation comprises housewives born between 1946 and 1964; Generation X comprises housewives born between 1965 and 1977, while Generation Y comprises housewives born between 1977 and 1994. How to get respondents of this research is done by accidentally meeting respondents who are appropriate to the age required and have made online purchases at least once in the past six months. Respondents are taken by giving a quota or quorum to each generation after the quota is fulfilled, then data collection is stopped. The quota respondents in this study were 90 housewives, with 30 respondents per generation, according to the minimum statistic requirements. The selection of housewives is based on the consideration that housewives are the main decision makers in purchasing goods in the family.

The data were obtained through direct interviews. Primary data included respondents' characteristics (age, birth year, age of marriage, income, education, job, monthly family expenses for online shopping), self-concept, reference group, marketing strategies, and online purchasing behavior). The variables were exogenous and endogenous, with 52 indicators divided into several dimensions. Exogenous variables in this study are self-concept (X1), reference group (X2), and marketing strategy (X3). The self-concept is an entity respondents own to see and control their behavior. An instrument of self-concept consists of three dimensions: actual self-concept consisting of five indicators, ideal self-concept consisting of four indicators, and extended self-concept consisting of four indicators. A reference group is a person who influences respondents to make purchases. The reference group instrument was cited from Kaul (2007), consisting of eight indicators. Finally, the seller used a marketing strategy to attract consumers to buy an item. The marketing strategy is referred to as the marketing mix according to Kotler and Keller (2012), which consists of four dimensions: the product consists of five indicators, price consists of four indicators, promotion consists of four indicators, and place consists of three indicators. The endogenous variables in this study are online purchasing behavior (Y), which is the real behavior of respondents in buying an item online. The instrument of purchasing behavior online refers to Adnan's (2014), which consisted of 15 indicators.

Self-concept, reference group, marketing strategy, and online purchasing behavior were tested for reliability and validity. The result of reliability produces a Cronbach's Alpha value of 0.604 for self-concept, 0.779 for the reference group, 0.737 for marketing strategy, and 0.900 for online purchasing behavior. Thus, all variables are reliable due to Cronbach's alpha being more than 0.6 (Babbie, 2014). Data were analyzed using descriptive analysis, One Way ANOVA, and SEM by Partial Least Square (PLS).

### 4. RESULT AND DISCUSSION

#### Result

##### 4.1 Characteristics of Respondents

The level of education influences the consumer's decision to choose goods and services consumed or used. The education level is the length of formal schooling completed by the respondent. The highest education of respondents in the Baby Boomer Generation and Generation X is at the high school level. More than one-third of the education of Generation Y respondents is at the bachelor level.

Overall the respondents were dominated by unemployed (53.4%). Meanwhile, overall, 18.9% of the respondents' jobs are traders or entrepreneurs. Nearly half (44.5%) of the three generations of respondents did not have an income because they were classified as unemployed. Meanwhile, one-fourth of the respondents had an income of Rp3.000.000, with each Baby Boomer Generation at 33.3%, generation X at 26.7%, and Generation Y at 13.3%. The p-value shows a value of 0.076 ( $p < 0.1$ ), thus, there is a significant difference in income between the three generations, with the most significant income owned by Generation X of Rp3.360.000.

##### 4.2 Self-concept

Self-concept is something that respondents own to see and control their behavior. The distribution of index categories on variables and dimensions of self-concept is grouped with low categories <60, moderate 60-80, and high > 80 (Table 1).

**Table 1.** Self-Concept and Anova Test based on Generations

Category	Gen BB	Gen X	Gen Y	All Gen	p-value
<b>Actual self-concept</b>					
Low	33.3	23.3	30.0	28.9	

Category	Gen BB	Gen X	Gen Y	All Gen	p-value
Moderate	66.7	63.3	63.3	64.4	
High	0.0	13.3	6.7	6.7	
Index Average	60.66 <sup>a</sup>	67.56 <sup>b</sup>	63.11 <sup>cba</sup>	63.78	0.066*
<b>Ideal self-concept</b>					
Low	53.3	40.0	46.7	46.7	
Moderate	26.7	46.7	40.0	37.8	
High	20.0	13.3	13.3	15.6	
Index Average	65.00	68.06	64.17	65.74	0.531
<b>Extended self- concept</b>					
Low	70.0	53.3	83.3	68.9	
Moderate	30.0	46.7	13.3	30.0	
High	0.0	0.0	3.3	1.1	
Index Average	55.00	58.61	54.44	56.02	0.363
<b>Self-Concept</b>					
Low	50.0	30.0	50.0	43.3	
Moderate	50.0	70.0	46.7	55.6	
High	0.0	0.0	3.3	1.1	
Index Average	60.26	64.96	60.77	61.99	0.102

Note: \*significant at  $p$ -value  $<0.1$ ; different superscript letters show significantly different; the same superscript letters show no significant difference between generations

In the overall dimension of actual self-concept, the category is 64.4%; more than six-tenths of the Baby Boomer Generation, Generation X, and Generation Y are in the moderate category, and the rest are in the low and high categories. In the ideal dimension of self-concept, a small portion of the Baby Boomer Generation, Generation X, Generation Y, and overall have a moderate categorized index. The rest are in the low and high categories. Finally, in the extended self-concept dimension, most of the Baby Boomer Generation, Generation X, Generation Y, and overall are in the low index category, and the rest are in the moderate and high categories.

The result of Anova shows that self-concepts are significantly different by generation. Overall between groups of generations for the actual dimension of the self-concept ( $p$ -value = 0.066) shows significant differences between the Baby Boomer Generation, Generation X, and Generation Y. Among the three generations significantly different from the actual self-concept, the dimension between the Baby Boomer Generation and Generation X is significant at  $p=0.022$  ( $p<0.1$ ). Meanwhile, the self-concept variable did not differ significantly between the three generations, thus rejecting the H1a hypothesis.

#### 4.3 Reference Group

A reference group is a person who influences consumers to purchase goods. Unfortunately, almost all generations have a low reference group level (Table 2). Based on Table 1, none of the generations has a high index (0.0%). The Baby Boomer Generation (93.3%), generation X (83.3%), and Generation Y (93.3%) also have a low category index. ANOVA different test results of the reference group variables are distinguished by generation. Overall, the reference group variable ( $p$ -value = 0.696) between generations of generations shows no significant difference in the variables owned by the Baby Boomer Generation, generation X, and Generation Y, meaning hypothesis H1b is rejected. This happens because the differences in the respondents' backgrounds significantly influence the study results. Respondents in this study are housewives who are generally believed to be able to make their own decisions with various considerations that exist without having to be influenced by certain reference groups, such as artists, friends, or certain officials. However, several respondents claimed that friends and family influenced purchasing of goods.

**Table 2.** Reference Groups and Anova Test based on Generations

Category	Gen BB	Gen X	Gen Y	All Gen	P-value
Low	93.3	83.3	93.3	90.0	
Moderate	6.7	16.7	6.7	10.0	
High	0.0	0.0	0.0	0.0	
Index Average	45.97	44.17	43.06	44.40	0.696

#### 4.4 Marketing Strategy

The seller uses a marketing strategy to attract respondents to buy an item (Table 3). The results show that the majority of the dimensions of the product are categorized as being for the entire generation in the dimension of the lowest price index obtained by Generation Y. In the promotion dimension, the Baby Boomer Generation obtains the

highest low category at the highest place index dimension obtained by Generation X. The results of different ANOVA dimensions and marketing strategy variables are differentiated by generation. Overall generation groups for the promotion dimension ( $p$ -value = 0.018) and the marketing strategy ( $p$ -value = 0.056) indicate a significant difference between the promotion and the marketing strategy variables of the Baby Boomer Generation, X generation, and Y generation. Among the three generations that differ markedly from the promotion, the dimension is between the Baby Boomer Generation and Generation X significant at 0.005 ( $p < 0.1$ ) and the Generation X and Y significant at 0.074 ( $p < 0.1$ ). The marketing strategy variables of the three generations that are significantly different are the Baby Boomer Generation and Generation X is significant at 0.01 ( $p < 0.1$ ), meaning that the H1c hypothesis in this study was accepted.

**Table 3.** Marketing Strategy and Anova Test Across Generations

Category	Gen BB	Gen X	Gen Y	All Gen	<i>p</i> -value
<b>Product</b>					
Low	30.0	20.0	20.0	23.3	
Moderate	53.3	70.0	70.0	64.4	
High	16.7	10.0	10.0	12.2	
Index Average	66.89	66.89	65.56	66.44	0.909
<b>Price</b>					
Low	60.0	56.7	63.3	60.0	
Moderate	36.7	36.7	13.3	28.9	
High	3.3	6.7	23.3	11.1	
Index Average	57.22	62.78	63.33	61.11	0.203
<b>Promotion</b>					
Low	73.3	50.0	66.7	63.3	
Moderate	26.7	36.7	30.0	31.1	
High	0.0	13.3	3.3	5.6	
Index Average	52.22 <sup>ac</sup>	62.78 <sup>b</sup>	56.11 <sup>ca</sup>	57.04	0.018**
<b>Place</b>					
Low	36.7	26.7	36.7	33.3	
Moderate	43.3	43.3	50.0	45.6	
High	20.0	30.0	13.3	21.1	
Index Average	62.59	72.22	67.78	67.53	0.121
<b>Marketing Strategy</b>					
Low	36.7	13.3	40.0	30.0	
Moderate	63.3	83.3	60.0	68.9	
High	0.0	3.3	0.0	1.1	
Index Average	60.00 <sup>ac</sup>	65.83 <sup>bc</sup>	63.06 <sup>cb</sup>	62.96	0.056*

Note: \*significant at  $p$ -value  $< 0.1$ ; \*\*significant at  $p$ -value  $< 0.05$ ; Different superscript letters show significantly different; the same superscript letters show no significant difference between generations

#### 4.5 Online Buying Behavior

Online purchasing behavior is real behavior by respondents in buying something goods online. The Baby Boomer Generation (60%) and Generation X (60%) in most online categorized buying behavior variables because not all respondents shop online whenever they want. Meanwhile, a small proportion of Generation Y is in the moderate category at 46.7%. Anova's test shows that online purchasing behavior is distinguished by generation. Overall, there is no significant ( $p$ -value = 0.959) difference in the online purchasing behavior between the Baby Boomer Generation, Generation X, and Generation Y, which shows that the H1d hypothesis is rejected. This is presented in Table 4.

**Table 4.** Online Purchasing Behavior and Anova Test based on Cross-Generation

Category	Gen BB	Gen X	Gen Y	All Gen	<i>p</i> -value
Low	36.7	30.0	40.0	35.6	
Moderate	60.0	60.0	46.7	55.6	
High	3.3	10.0	13.3	8.9	
Index Average	62.9	63.9	62.89	63.23	0.959

#### 4.6 Convergent Validity

Convergent validity is the outer loadings of latent variables and indicators. According to Ghazali (2008), the value of outer loadings 0.50 to 0.60 for early-stage research is considered adequate. In this study, the outer loadings limit

of 0.50 was applied. The results of the goodness of fit test of the initial measurement model and after eliminating show that the outer loadings of all variables did not meet the convergent validity because there are several outer loadings values below 0.50. To meet the convergent validity, it is necessary to eliminate the indicator for each variable. The self-concept needs to be eliminated; five indicators for the Baby Boomer Generation of 13 indicators, six indicators for Generation X, five indicators for Generation Y, and overall generation, there are five indicators for self-concept variables that need to be eliminated.

In the reference group eliminated, five indicators in the Baby Boomer Generation, two indicators in Generation X, four indicators in Generation Y, and overall generation, three indicators for the reference group variable must be eliminated on the eliminated marketing strategy variable, nine indicators on the Baby Boomer Generation, five indicators on Generation X, three indicators on Generation Y, and four indicators on the marketing strategy that needed to be eliminated. On online purchasing behavior, several indicators need to be eliminated: three indicators on the Baby Boomer Generation, ten on Generation X, six on Generation Y, and overall generation. Lastly, seven indicators of online purchasing behavior need to be eliminated. Then all indicators on each variable have met the limit of outer loadings  $\geq 0.50$ , so the indicator meets the requirements of good convergent validity.

#### 4.7 Discriminant Validity and Composite Reliability

The next stage of processing is to test validity and reliability. For example, the root of Average Variance Extracted (AVE) is valid if each dimension and variable has a value  $\geq 0.50$  (Hair et al., 2014). Based on the value of root AVE of each dimension and variables of the whole generation, that is as many as 90 respondents. If the value  $\geq 0.50$ , the dimensions and variables have a good value in discriminant validity. Reliability is the internal consistency of construct indicators that show the degree to which each indicator indicates a common construct or latent factor. The reliability test is carried out to test the consistency of the instrument. Variables or dimensions are highly reliable if the composite reliability value exceeds 0.60 (Vinzi et al., 2010). Table 5 presents the discriminant validity and composite reliability of the entire generation, namely 90 respondents.

**Table 5.** Value of Discriminant Validity and Composite Reliability

<b>Variable</b>	<b>Root AVE</b>	<b>Composite Reliability</b>
Self-Concept	0.497	0.706
Actual self-concept	0.731	0.771
Ideal self-concept	0.762	0.806
Extended self-concept	0.891	0.885
Reference Group	0.670	0.799
Marketing Strategy	0.453	0.768
Product	0.642	0.776
Price	0.773	0.744
Promotion	0.795	0.831
Place	0.813	0.854
Online Buying Behavior	0.676	0.870

The root value of the AVE dimension of actual self-concept, ideal self-concept, extended self-concept, reference group, product dimensions, price, promotion, place, and online purchasing behavior have fulfilled AVE root requirements of more than 0.50. However, based on the above results, the root value of AVE obtained from the self-concept and marketing strategy is smaller than 0.50. However, with a composite reliability value exceeding 0.60, the discriminant validity of the latent construct can be quite adequate. The results show that all dimensions and variables meet the composite reliability because the value  $\geq 0.60$  indicates that the dimensions and variables have good reliability and can measure the construct well. Based on the overall evaluation results, both convergent validity, discriminant validity, and composite reliability, it can be concluded that indicators as gauges of latent variables can be declared valid and reliable.

#### 4.8 The Effect of Self-Concept, Reference Groups, and Marketing Strategies on Online Purchasing Behavior

Based on the SEM, the effect of each variable can be seen in Table 6. At the 95% confidence level, the Adjusted R Square value of online purchasing behavior for all generations is obtained. The results obtained indicate that online purchasing behavior is influenced by factors examined in detail 23.4% (Baby Boomer Generation), 16.9% (Generation X), 36.2% (Generation Y), and 5.5% (all generations), and the rest is influenced by factors others that were not examined in this study. These are explained in more detail in Table 6.



**Table 6.** Hypotheses Test of Online Purchasing Behavior

Path	Gen BB		Gen X		Gen Y		All Gen	
	$\beta$	Result	$\beta$	Result	$\beta$	Result	$\beta$	Result
Self Concept→ Online Buying Behavior	0.128	Reject H2 <sub>a</sub>	0.240	Tolak H2 <sub>b</sub>	0.343	Reject H2 <sub>c</sub>	0.254**	Accept H2 <sub>d</sub>
Reference Group→ Online Buying Behavior	-0.392**	Accept H3 <sub>a</sub>	0.150	Reject H3 <sub>b</sub>	-0.273	Reject H3 <sub>c</sub>	-0.185	Reject H3 <sub>d</sub>
Marketing Strategy→ Online Buying Online	0.552**	Accept H4 <sub>a</sub>	-0.593	Reject H4 <sub>b</sub>	0.366	Reject H4 <sub>c</sub>	0.277	Accept H4 <sub>d</sub>
<i>Adjusted R Square</i>	0.234		0.169		0.362		0.055	

\*Significant at  $p < 0.1$ ; \*\*Significant at  $p < 0.05$

## Discussion

### 4.9 The Effect of Self Concept on Online Purchasing Behavior (H2).

Based on the results, only all generations accept the hypothesis that self-concept affects online purchasing behavior (H2d). Toth (2009) stated that consumers tend to buy goods to maintain their identity in the community; this happens if a suitable product is purchased with the consumer's self-concept. In addition, respondents of all generations feel they want to be respected and have a good impression in the eyes of others, so they care about their appearance. This research aligns with Ferrinadewi's (2016) research, which stated that the consumer's self-concept influences purchasing decisions.

In contrast to the results of the Baby Boomer (H2a) generation, Generation X (H2b), and Generation Y (H2c), self-concept variables did not significantly influence online buying behavior, so the research hypothesis was rejected. This happens because every generation is not too fond of luxury goods. The Baby Boomer Generation, Generation X, and Generation Y feel they are not popular, so they do not prioritize using luxury items for their appearance. This means that these three-generation groups buy things following their wants and needs, not as a means for themselves to be valued by others. This aligns with Octaviani and Kartasasmita's (2017) that self-concept has no significant effect on purchasing behavior.

### 4.10 The Effect of Reference Group on Online Purchasing Behavior (H3).

The reference group significantly affects online purchasing behavior in the Baby Boomer Generation. This can be seen from the p-value of less than 0.05; thus, H3a in the Baby Boomer Generation can be accepted. The influence of the reference group on online purchasing behavior can be seen as the influence of the opinions of a consumer's friends before making a purchase. This study is in line with the research of Wahdiniwaty and Wijayanti (2016) that the reference group has a significant effect on purchasing decisions, and the reference group that is considered to have a more considerable and more trusted influence is the family.

In contrast to Generation X, Generation Y, and all of the reference group variable groups have no significant effect on online purchasing behavior, so hypotheses H3b, H3c, and H3d are rejected. The reference group was not influential in this generation because respondents claimed they bought goods based on their own decisions. Therefore, this study does not align with Anoraga and Iriani's (2013) statement that the reference group significantly affects purchasing decisions. This study also did not align with Ramadan and Simanjuntak's (2018) research, which stated that the reference group significantly affects purchasing behavior.

### 4.11 The Effect of Marketing Strategy on Online Purchasing Behavior (H4).

The results of SEM-PLS analysis show that marketing strategy significantly affects online buying behavior in the Baby Boomer and all generations, so the H4a and H4d hypotheses can be accepted. Furthermore, the hypothesis testing results mean that respondents make online purchases because they see attractive products, low prices, and easy access to online purchases. This study aligns with Suhari's (2008) research, which stated that marketing stimuli positively affect online purchasing decisions.

In contrast to Generation X and Generation Y, marketing strategies did not significantly influence online buying behavior, so H4b and H4c were rejected. Although Generation X and Generation Y are more often exposed to advertisements on the internet, given the time of use of smartphones in this generation much more compared to the Baby Boomer Generation, this generation is not easy to believe in advertisements in the mass media. Respondents tend to be influenced by other factors, such as searching for information, compared to advertisements conducted by marketers.

This generation of respondents claimed that the source of information from the family was more trusted than the ad impressions. This is not in line with Ramadan and Simanjuntak's (2018) research, which stated that marketing promotion has a relationship with buying behavior.

#### 4.12 *Implications for Government Policy and Consumer Education*

The government should cooperate with consumer protection institutions such as the Indonesian Consumers Foundation (YLKI) and the National Consumer Protection Agency (BPKN). In addition, the Indonesian Ministry of Trade has to formulate a solutive policy related to the consumer rights of e-commerce users. Furthermore, providing routine education and outreach, especially at the family level, is critical to do with the rights and obligations of consumers so that they can be more selective in making online purchases that empowered consumers will be achieved, i.e., consumers who buy according to the needs which goods are needed or not needed. Besides, the government should play a role in regularly monitoring online shopping, which is becoming a trend now, so as not to fool consumers and not to cause harm to consumers, as stipulated in Law No. 8 of 1999 concerning Consumer Protection.

#### 4.13 *Research Limitations*

This study has several limitations, such as it could not be generalized and did not represent a generation, which only involved 30 respondents in each generation, unable to provide a picture of online purchasing behavior in each generation. Also, the sampling method used non-probability quota sampling, which causes the results of the research cannot be generalized to the entire online consumer population because the sample is too small, so the data cannot represent the population.

## 5. CONCLUSION AND SUGGESTION

### 5.1 *Conclusion*

The results concluded that the self-concept of the three generations included in the criteria of moderate. This means that consumers' self-concept is positive because it has control to overcome the impulses in them. The intergenerational reference group belongs to the low category because most respondents are employed, so friends are not one of the references for consideration in deciding to purchase goods. Housewives are generally trusted to make their own decisions with various existing considerations without being influenced by certain reference groups. Overall, almost the entire generation belongs to the moderate marketing strategy category. While the price and promotion dimensions have a low category, it means that the prices and promotions provided by businesses are not the main reason for purchasing. However, the dimensions of product and place have a moderate category, which means consumers prefer quality products and easy access to online shopping to decide on a purchase. Finally, the results showed that all generations had a categorized level of online purchasing behavior, meaning respondents did not buy goods online excessively.

Anova's test shows that not all variables and dimensions show significant intergenerational differences. On dimension, actual self-concept shows a significant difference between the Baby Boomer and Generation X. The promotion dimension significantly differs between the Baby Boomer, Generation X, and Generation Y. The different marketing strategies are significantly Baby Boomer Generation and Generation X. So, there were no significant differences in the three generations' reference groups and online purchasing behavior.

The accepted hypothesis is the reference group and marketing strategy, meaning that the reference group and marketing strategy significantly affect the online buying behavior of the Baby Boomer Generation. In Generation X and Generation Y, all hypotheses are rejected, so online purchasing behavior is not influenced by the variables studied in this generation. Overall the generation of significant influence is the self-concept variable and marketing strategy on online purchasing behavior.

### 5.2 *Suggestion*

The findings in this study show a trend toward online buying behavior among housewives from the Baby Boomer Generation, Generation X, and Generation Y. This is because of the many conveniences provided when making online purchases. However, with the ease of shopping without having to move places and not spending much energy, online buying behavior is a threat to getting scams and unplanned shopping addictions. Furthermore, online shopping has much uncertainty because the way to buy must pay first before the product is received in the hands of consumers. The discount offers make consumers always want to shop because it is easy to get the desired item. Therefore, the Baby Boomer Generation, Generation X, and Generation Y are advised when shopping online to control their behavior, consider transaction security factors more, search for information first, readjust to their needs and availability at home, and buy only as needed. Making a priority scale is also very important before deciding to purchase to avoid unwanted online buying behavior and family financial problems in the future.

It can be investigated further on other factors relevant to this research, such as complaint behavior, lifestyle, and

hedonic behavior, to see their influence on online buying behavior. In addition, other research subjects related to online buying behavior are interesting to study, such as online shopping behavior in working husbands, single parents, and Generation Z. Finally, the number of respondents in future studies is also recommended to exceed the number of respondents in this study to more clearly describe the diversity.

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