

THE INFLUENCE OF SELF-SUFFICIENCY, INFORMATION SEEKING, AND KNOWLEDGE TOWARDS SMART PURCHASING BEHAVIOR IN INDONESIA

Rana Chyntia Azzara^{*1}, Megawati Simanjuntak^{*}, Retnaningsih^{**}, Yandri^{***}

^{*})Department of Family and Consumer Sciences, Faculty of Ecology, IPB University
Jl. Lingkar Akademik, IPB Dramaga Campus, Bogor 16680, Indonesia

^{**})School of Business, IPB University
Jl. Pajajaran, Bogor 16151, Indonesia

^{***})Department of Electrical Engineering, Tanjungpura University
Jl. Prof. Dr. H. Hadari Nawawi, Pontianak 78124, Indonesia

Article history:

Received
22 August 2022

Revised
10 October 2022

Accepted
9 January 2023

Available online
31 January 2023

This is an open access
article under the CC BY
license ([https://
creativecommons.org/
licenses/by/4.0/](https://creativecommons.org/licenses/by/4.0/))



OPEN ACCESS

Abstract: Smart purchasing behavior is a bright act of a consumer in deciding to use a product. Several studies show that consumer needs and desires contribute to purchasing behavior. This study aimed to analyze the influences of self-sufficiency, information seeking, and knowledge on smart purchasing behavior in Indonesia. There were 2100 married or working respondents with an age range of 17-60 years from which several data were generated, including self-sufficiency, information seeking, knowledge, and smart purchasing behavior. Data analysis applied Structural Equation Modelling using LISREL 8.7. The findings showed that self-sufficiency significantly influenced information seeking. Moreover, a significant positive correlation was evident between information-seeking, knowledge, and smart purchasing behavior. Governments and consumer protection institutions need to increase the quantity and quality of socialization to improve the perspective of consumer knowledge and smart purchasing behavior.

Keywords: information seeking, knowledge, self-sufficiency, smart purchasing behavior, SEM

Abstrak: Perilaku pembelian cerdas adalah tindakan cerdas konsumen dalam memutuskan untuk menggunakan suatu produk. Beberapa penelitian menunjukkan bahwa kebutuhan dan keinginan konsumen berkontribusi pada perilaku pembelian. Penelitian ini bertujuan untuk menganalisis pengaruh self-sufficiency, pencarian informasi, dan pengetahuan tentang perilaku pembelian cerdas di Indonesia. Terdapat 2100 responden sudah menikah dan/atau bekerja dengan rentang usia 17-60 tahun yang darinya beberapa data dihasilkan, termasuk self-sufficiency, pencarian informasi, pengetahuan, dan perilaku pembelian cerdas. Analisis data menggunakan Structural Equation Modelling dengan LISREL 8.7. Temuan menunjukkan bahwa self-sufficiency secara signifikan mempengaruhi pencarian informasi. Selain itu, korelasi positif yang signifikan terlihat antara pencarian informasi, pengetahuan, dan perilaku pembelian cerdas. Pemerintah dan lembaga perlindungan konsumen perlu meningkatkan kuantitas dan kualitas sosialisasi untuk meningkatkan perspektif pengetahuan konsumen dan perilaku pembelian cerdas.

Kata kunci: pencarian informasi, pengetahuan, perilaku pembelian cerdas, self-sufficiency, SEM

¹ Alamat Korespondensi:
Email: ranachyntiaa@gmail.com

INTRODUCTION

Over the past five years, the distribution of Indonesian household consumption expenditure contributed to 56.62 percent of Gross Domestic Product (GDP), which means that the stability of the national economy is influenced by household consumption (Central Bureau of Statistics Republic of Indonesia, 2019). As the country's most considerable income was affected by household consumption, it may indicate that the behavior of Indonesian people tends to be consumptive. Consumptive behavior tends to be detrimental to consumers because purchases are made excessively without consideration (Chita et al. 2015). Consumers should pay attention and evaluate the product; this is useful for determining decisions in making buying behavior (Oktari et al. 2016).

Purchasing behavior is a choice consumers make in the context of actual purchases that are influenced by various factors (Zhang et al. 2020). The factors that influence purchasing behavior are social, psychological, and personal (Kotler, 2002). Other research shows that psychological factors such as motivation, learning, and positive attitude significantly influence purchasing decisions (Suardika et al. 2014). In addition, consumer satisfaction, item consideration, and store location significantly influence purchasing behavior (Widyasari, 2008). According to Devaraj et al. (2003), purchasing behavior was influenced by the efficiency in search, value (competitive prices and good quality), and interactions (information, security, load time, and navigation). However, Ramadhan and Simanjuntak (2018) found that consumer self-concepts had no significant effect on buying behavior.

Rachmat (2008) stated that self-sufficiency refers to one's belief in his ability. Self-sufficiency is one of the factors that come from within a person (personal factor). This concept says that there is a need to limit the consumption of resources. Changes in behavior from a focus on desires to a focus on needs are challenging, except for internal and social support (Speck & Hasselkuss, 2015). The existence of needs requires consumers to start searching for information to meet these needs, namely consumption. An activity motivated by knowledge stored in memory or acquiring information from the environment is information search (Suhari, 2011). Initially, the consumer will search for information stored in his memory (internal search) and information from outside (external search).

Memory construction, one of which consists of knowledge, influences consumers in making purchases (Punj & Staelin, 1983). Knowledge is all information and experience possessed by consumers regarding various products and services and information related to its function as a consumer. For instance, Septifani et al. (2014) found that knowledge positively influences smart purchasing behavior because consumers consider product attributes (brand, quality, and price) in purchasing a product. In addition, Karimi et al. (2015) found that knowledge makes consumers differ in their buying behavior.

Smart purchasing behavior cannot be separated from self-sufficiency, information seeking, and knowledge possessed by consumers. Purchasing behavior is a psychological process that drives such actions (Suardika et al. 2014). This research is critical because there has been no prior research discussing the relationship between self-sufficiency, information seeking, knowledge, and smart purchasing behavior simultaneously. In addition, it has been explained that self-sufficiency, information seeking, and knowledge can be influential factors for a person in making a purchase. Also, there is still little literature that discusses self-sufficiency. This study discusses the way an individual decides to allocate available resources. Based on the aforementioned facts, study into self-sufficiency, information seeking, and smart purchase behavior is required in Indonesia. As a result, this research aims to look at how self-sufficiency, information seeking, and knowledge affect smart purchase behavior in Indonesia.

METHODS

The design of this study used explanatory research and descriptive research. Primary data collection was carried out in 14 provinces in Indonesia. In addition, in-depth interviews were conducted with ten selected people using purposive sampling to sharpen and deepen the discussion. The selection is conducted with criteria of age between 17-60 years and status of married or already working.

Requirements of respondents are married or working and willing to be research respondents. The research sample included the general public with the age range of 17-60 years. Determination sampling techniques using multi-stage sampling included systematic random

sampling in determining selected households and the Kish grid sampling method to determine respondents at the household level. The Kish grid technique is used to determine respondents in the household, more than one person who qualifies as a respondent was present. The total number of primary respondents was 2100 people. There were two variables analyzed in this study, exogenous and endogenous. Exogenous or independent variables influence and are not influenced by other variables, namely self-sufficiency (X1). Endogenous variables or dependent variables are variables that are influenced by exogenous variables, namely information seeking (X2), knowledge (X3), and smart purchasing behavior (Y).

The operational definition of self-sufficiency is the respondent's confidence in oneself adopted from Rachmat (2008). Furthermore, information seeking is defined as the activities undertaken by respondents to obtain information about a product before making a purchase. Knowledge is defined as a collection of information owned by respondents about consumer right and obligations as well as consumer protection. Finally, smart purchasing behavior is a series of smart

actions respondents take before and after buying a product. The measurement of these three variables was adopted from instruments referring to Simanjuntak et al. (2013) and Simanjuntak et al. (2014).

Self-sufficiency consists of six indicators, information seeking consists of 13 indicators, knowledge consists of seven indicators, and smart purchasing behavior consists of 10 indicators. This research used a Likert scale and a dichotomous scale to rate the responses. Self-sufficiency used a four-point Likert scale consisting of responses as follows: strongly disagree (1), disagree (2), agree (3), and strongly agree (4). Information seeking used a four-point Likert scale as well with the following responses: never (1), sometimes (2), often (3), and always (4). Knowledge was rated on a dichotomous scale with "know" rated as (1) or "do not know" rated as (0). Finally, responses on smart purchasing behavior were rated on a four-point Likert scale as follows: never (1), sometimes (2), often (3), and always (4). Research variables, operational definitions, and operational indicators are summarized in Table 1.

Table 1. Summary of research variables, operational definitions, and operational indicators

Latent variables	Operational definition	Indicator	Code
Self-Sufficiency (X1)	Belief in one's own ability	Dependent on others to get things done	ss_1
		Responsible for making decisions	ss_2
		Able compared to other people	ss_3
		Live life in any way	ss_4
		Confused by the thing done	ss_5
		Will be a great person	ss_6
Information seeking (X2)	Activities to obtain information about a product before making a purchase	Information on electronic or electrical equipment	pi_1
		Information on food and beverage	pi_2
		Information on banking	pi_3
		Information on clothing and cosmetics	pi_4
		Information on vehicle	pi_5
		Information on public transportation	pi_6
		Information on health services	pi_7
		Information on educational institutions	pi_8
Knowledge (X3)	A collection of information about the consumer right and obligations as well as consumer protection	Knowledge of the consumer protection act	s_peng
		Knowledge of consumer rights	s_peng
		Knowledge of legal rights to advocacy	s_peng
		Knowledge of consumer protection institutions	s_peng
		Knowledge of consumer obligations	s_peng
Smart purchasing behavior (Y)	A series of smart actions taken before and after buying a product	Check the product before and after buying	pp_1
		Through when purchasing car fuel	pp_2
		Read the product terms and conditions	pp_3
		Check the warranty card	pp_4

Data that researchers have obtained is processed through the data collection process primary to data analysis. Data processing and analysis are performed using Microsoft Excel 2013, Statistical Package for Social Science (SPSS) 25.0, and Structural Equation Modelling with LISREL method 8.7. The data analysis carried out is descriptive analysis, Independent Samples T-test, and Structural Equation Modelling (SEM). Through descriptive analysis and independent sample T-test will describe the data based on the results of respondents' answers. Then through SEM analysis, the model can describe the actual conditions. However, the model must pass the assessment criteria based on the goodness of fit to be evaluated. This test is based on some influences between the following variables.

The Effect of Self-Sufficiency on Information Seeking

The process of finding information can help a consumer to consider products because self-sufficiency owned by consumers leads individuals to rethink before making a purchase (Daoud, 2018). Literature related to self-sufficiency is classified as limited, so other similar self-studies are used to describe the study results. Other self-studies can still support research results because all self-concepts are based on the grand theory of self. The results found that one's perception of self-efficacy influences information-seeking behavior (Bronstein, 2014). Ren (2000) found that student self-efficacy significantly affected electronic information seeking. However, other studies prove that positive information-seeking experiences lead to increased self-efficacy (Chiou & Wan, 2007). Also, self-regulated learning positively significantly influences students in searching by using the internet (Chiu, Liang, Tsai, 2013). Following these arguments, we hypothesized:
H1: Self-sufficiency has a significant effect on information seeking.

The Effects of Information Seeking on Knowledge

Pre-knowledge will encourage someone to evaluate the search engine, which indirectly influences information seeking and will form a new knowledge that provides information in the future (Gursoy, 2019; Sanchiz, Amadiou, Fu & Chevalier, 2019; Han, 2018; Rogith et al. 2016). The results show that sellers search to improve and enrich product knowledge (Jang & Neme, 2017; Monchaux, Amadiou, Chevalier & Mariné, 2015). Furthermore, older adults search for information to

obtain the required knowledge (Sanchiz et al. 2017). Therefore, high knowledge will help search for in-depth and complicated information (Sanchiz et al. 2017). On the other hand, the research of Guo and Tang (2017) found that information seeking will decrease when having creative knowledge. It has resulted in the following hypothesis:

H2: Information seeking has a significant effect on knowledge.

The Effects of Self-Sufficiency on Smart Purchasing Behavior

The activity of reducing food waste illustrates that self-sufficiency requires a readiness to make changes in behavior. The choice of behavior will impact significant changes in consumption patterns or reduction in consumption levels, especially those that produce waste that will interfere (Spangenberg & Lorek, 2019). This study uses the concept of self, in general, to explain the research results because the literature on the relationship between self-sufficiency and purchasing behavior is still minimal. Patel et al. (2020) found that self-identity influences purchasing behavior. Lee (2009) stated that adolescent self-identity significantly influences buying behavior. A strong identity as a consumer responsible for the environment, organic, and social will change buying behavior in a positive direction (Hustvedt & Dickson, 2009). Other research on self that is self-construals affects buying behavior directly. At the same time, self-hedonic/expressive mediates between the two (Millan & Reynolds 2014). The results of the study concluded that self-efficacy influences purchasing behavior (Davis & Lang, 2012). These results prompted the following hypothesis:

H3: Self-sufficiency has a significant effect on smart purchasing behavior.

H4: Self-sufficiency has a significant effect on smart purchasing behavior through information seeking.

The Effects of Information Seeking on Smart Purchasing Behavior

There are a relationship and influence of information seeking (internet or social environment) on product purchases (Ishibashi & Yada, 2019; Jun & Park, 2016). Consumers who spontaneously look for information are expected to have good decisions in determining purchasing behavior (Kato & Tsuda, 2018). Therefore, information seeking becomes an action that significantly affects purchasing behavior (Abulibdeh &

Zaidan, 2017; Dutta & Das, 2017). Also, purchasing behavior will increase and the increase in information seeking (Hotle et al. 2015). Park and Agarwal (2018) analyzed the number of individuals seeking information through electronic media about a product until the purchase behavior occurred. In line with Yang et al. (2019), information seeking on social media increases purchasing behavior due to convenience, such as ease and fast (Minghong et al. 2019). Based on these empirical findings, we hypothesized:

H5: Information seeking has a significant effect on smart purchasing behavior.

H6: Information seeking has a significant effect on smart purchasing behavior through knowledge.

The Effects of Knowledge on Smart Purchasing Behavior

Insight into products is a significant factor that needs to be enriched in purchasing behavior (Zhu et al. 2020; Abulibdeh & Zaidan, 2017). Limited consumer knowledge and lack of understanding of the consequences of purchasing decisions raise uncertainty for consumers regarding the product to be chosen (Joshi & Rahman, 2019). The study results confirm that there is an impact of product knowledge on measured consumer behavior (Karimi et al. 2015). Therefore, it can influence the structure and complexity of the decision-making process in purchasing behavior (Karimi, Holland & Papamichail, 2018). Furthermore, knowledge significantly affects purchasing behavior (Schütz et al. 2019; Liobikiene, Mandravickaite & Bernatoniene, 2016). In this case, knowledge can play a role in investigating and being responsible for purchasing decisions (Kanchanapibul et al. 2014). Based on the arguments presented, the following hypothesis was tested in this study:

H7: Knowledge has a significant effect on smart purchasing behavior.

Based on the results of previous studies on the factors that influence purchasing behavior, this study will analyze the effect of self-sufficiency, information seeking, and knowledge on smart purchasing behavior in Indonesia. As a result, consumers who have high self-sufficiency, the ability to search for information, and knowledge of rights as consumers will understand

smart purchasing behavior. This research framework is presented in Figure 1, developed based on empirical research on the direct effects of self-sufficiency, information seeking, and knowledge on smart purchasing behavior.

RESULTS

Overall Model Fit

SEM tests the model as a whole through the model suitability test, which examines the suitability of the sample covariance matrix with the estimated population covariance matrix produced (Vieira, 2011). According to Maydeu-Olivares et al. (2018), the goodness of fit is considered best to see from various perspectives. Table 2 presents the results of the overall model fit criteria. The root means a square error of approximation (RMSEA) is a measure that tries to correct the chi-square tendency to reject models with large sample sizes. Based on the analysis, the RMSEA results obtained are equal to 0.043 (categorized as close fit) and indicate that the model is acceptable.

Measurement of Fit

The indicator is said to be valid if the t-value is more significant than 1.96. In the initial testing phase, there were several indicator questions classified as invalid. The SEM analysis model is presented in Figure 2.

Validity and Reliability Test

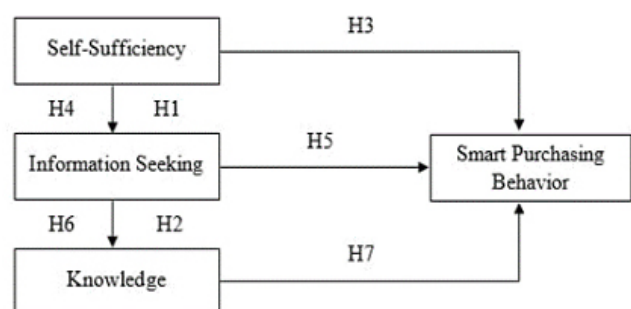


Figure 1. Research framework

Table 2. Overall model fit

Goodness of Fit	Cut of value	Result	Conclusion
Root Mean Square Residual (RMR)	≤ 0.1	0.03	Good fit
Goodness of Fit Index (GFI)	$0.80 \leq \text{GFI} < 0.90$	0.95	Marginal fit
Root Mean Square Error of Approximation (RMSEA)	≤ 0.08	0.043	Close fit
Adjusted Goodness of Fit Index (AGFI)	≥ 0.90	0.94	Good fit
Incremental Fit Index (IFI)	≥ 0.90	0.94	Good fit
Normed Fit Index (NFI)	$0.80 \leq \text{NFI} < 0.90$	0.93	Good fit
Comparative Fit Index (CFI)	≥ 0.90	0.94	Good fit

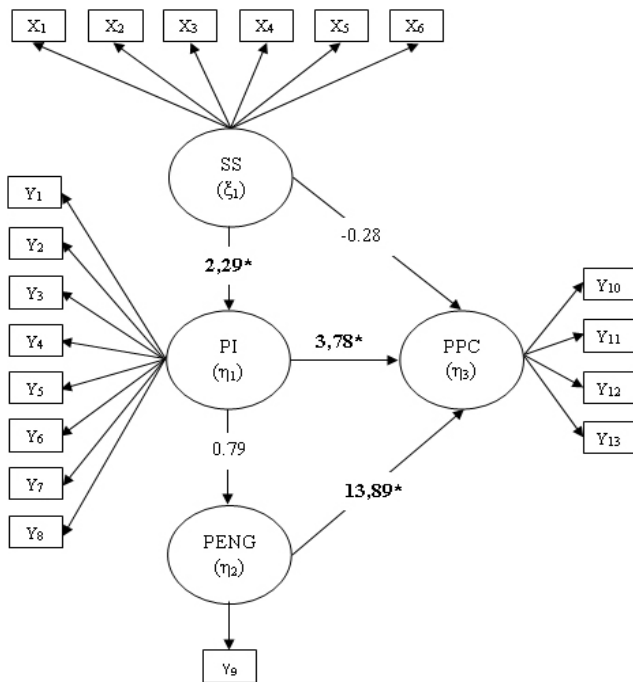


Figure 2. Full SEM model (*) significant at t-value > 1.96; SS (Self-sufficiency); PPC(Smart purchasing behavior); PI (Information seeking); and PENG(Knowledge).

Testing the suitability of the measurement model is conducted by examining validity and reliability. The reliability test is carried out through the construct reliability test (CR) by testing the reliability and consistency of the data. In contrast, the validity test is carried out through the average variance extracted (AVE) test by looking at the average variance extracted between the indicators of a variable. The results of reliability and validity testing using construct reliability (CR) and average variance extracted (AVE) tests can be seen in Table 3.

Direct Effect

Based on the empirical model proposed in this study, hypothesis analysis can be done through the path coefficient of testing in the structural equation model. Table 4 provides the results of the SEM model, which shows that most variables have a significant influence, such as the effect of self-sufficiency on information seeking, information seeking on smart purchasing behavior, and knowledge. However, the effect of information seeking on knowledge and self-sufficiency on smart purchasing behavior is not significant.

Table 4 shows the results of the indirect effect between the variables that have been analyzed in this study. In this research model, there are two indirect effects, namely, between self-sufficiency of smart purchasing behavior through information seeking and between information seeking on smart purchasing behavior through knowledge.

The Effect of Self-Sufficiency on Information Seeking

The results of SEM model analysis show the effect of self-sufficiency on information seeking with a beta coefficient of 0.07, indicating a significant effect. Thus, H1 can be accepted. It means that the higher the self-sufficiency that consumers need, the higher the search for information carried out by consumers.

Reviewed from the question indicators, most consumers feel responsible for each decision, so respondents will find more information to be more careful in making decisions. In addition, information-seeking is helpful to assist consumers in considering a product or service that they will consume. Supported by in-depth interviews, the respondents stated independent dominance in searching for the information needed. For instance, one respondent stated the action taken when going to buy a product as follows:

“Oftentimes, I do it (decide on a purchase) myself if the item is necessities because I can weigh my own needs based on the level of need and I can also determine whether the item must be purchased immediately or can be postponed.”

Other respondents tended to decide on a purchase independently and stated the following reason:

“I am among those who are not too consumptive, so I buy things based on my needs and their use.”

The third respondent states the reasons for being independent in making a choice:

“Because asking people actually makes me doubt and they may not be able to recommend better.”

This research is in line with Daoud (2018), suggesting that, with good self-sufficiency, information-seeking will be carried out with several considerations based on the level of importance and priority of consumers. However, due to limited literature, this study used other self-theories, such as self-efficacy and self-regulated learning. This research also supports Bronstein (2014), who found an effect of self-efficacy on information seeking. Furthermore, self-efficacy significantly affects electronic information seeking (Ren, 2000). This finding is also reinforced by the results of the study of Chiou and Wan (2007), in which self-regulated learning positively significantly influences a person to conduct research. These results add to the self-theory literature that consumers who have self-sufficiency will do more

helpful information searches to narrow the scope of their purchases.

The Effect of Information Seeking on Knowledge

The research of this study indicates that information-seeking has no significant effect on knowledge. Because the resulting beta coefficient of 0.02, which is more than 0.05, H2 was rejected in this investigation. It means that consumers seeking information do not meet the desired level of knowledge or desired information. Based on the indicators, the dominant respondent searches for information about goods or services needed, such as electronic or electrical equipment, compared to the Consumer Protection Law. It means that consumers prefer to look for information to avoid apparent losses. Furthermore, it is supported by the results of in-depth interviews that respondents did not voluntarily search for information about consumer protection laws or related consumer protection agencies. Instead, a respondent stated his/her knowledge and desire to seek information about the Consumer Protection Law and consumer protection agencies.

“I don’t know, and I’ve never tried to find out because it’s not really important to me.”

Other respondents stated:

“Because if I don’t need it, I won’t look for information. I also lack motivation if I don’t feel the need. “

Table 3. Validity and reliability analysis of variables

Variables	CR	AVE
Smart purchasing behavior	0.67	0.40
Self-sufficiency	0.69	0.69
Information seeking	0.82	0.86
Knowledge	0.96	0.96

Table 4. Direct effects result

Path	Estimate	T-values	Conclusion
Self-Sufficiency → Information Seeking	0.07	2.29	Accept H1
Information Seeking → Knowledge	0.02	0.79	Reject H2
Self-Sufficiency → Smart Purchasing Behavior	-0.01	-0.28	Reject H3
Information Seeking → Smart Purchasing Behavior	0.10	3.78	Accept H5
Knowledge → Smart Purchasing Behavior	0.38	13.89	Accept H7

All of that is supported by Guo and Tang (2017)'s findings, which show that when consumers lack creative knowledge, their information-seeking behavior decreases. Other research also explains that there is no association between information seeking and knowledge. When consumers do not have prior knowledge, the act of searching for information will decrease (Sanchiz et al. 2019; Han, 2018). However, this finding contrasts with several other studies stating that knowledge influences information seeking (Sanchiz et al. 2017).

The Effect of Self-Sufficiency on Smart Purchasing Behavior

This research shows that self-sufficiency does not significantly influence smart purchasing behavior with a beta coefficient of -0.01. The conclusion is that the H3 in the proposed model was rejected. It means that consumer self-sufficiency, either low or high levels, will not influence smart purchasing behavior. The results of in-depth interviews found that respondents sometimes still depend on others before making smart purchasing behavior.

"It depends on the goods. For example, (when) I buy a gadget, I will ask people who understand like relatives. The goal is I want to get justification from others. But if it's a need, I tend to decide for myself because I know what I need."

"In my opinion, personal choice will be more suitable for me. Sometimes it depends on the product or my mood. When it comes to dressing, I usually ask for people's opinions because I feel that outward appearance is judged by others. I will ask many people, then I see which is the most dominant choice, then that is the item I will buy."

Besides, the indirect effect of self-efficiency on smart purchasing behavior through information seeking is classified as significant. It means that when consumers feel confident about themselves, they will often seek information before making a purchase, and then they will tend to make smart purchasing behavior.

This research aligns with Ramadhan and Simanjuntak (2018), which stated that the consumer's self-concept does not significantly influence hedonistic buying behavior. Also, supported by the research results of Pramesty and Simanjuntak (2020), consumer self-concept does not affect impulsive purchases. Contrary to the results of Millan and Reynolds (2014)'s research,

the level of consumer self-construable will affect their buying behavior directly. Davis and Lang (2012)'s research also mentioned that individual self-efficacy would influence the individual's buying behavior.

The Effect of Information Seeking on Smart Purchasing Behavior

The research of this study indicates that information-seeking has a significant positive effect on smart purchasing behavior with a beta coefficient of 0.10, so that H5 in the SEM model is acceptable. It means that high information seeking affects the high level of smart purchasing behavior. The influence of information seeking on smart purchasing behavior is because information seeking will direct consumers in deciding better behavior. Reviewed through indicators, the dominant respondent searches for information about electronic equipment, food/beverage, clothing, and cosmetics before deciding to consume goods or services. It means that when the respondent did a little information seeking, it would reduce the possibility of making a purchase. Supported by the results of in-depth interviews with respondents, it was found that digging up more information makes smart purchasing behavior.

"Every time I feel the need to, (I) will search. Every morning in the office, I usually search for information about work. Especially when I want to buy an item, (I) will find out first, such as comparing between brands and between sellers in order to get a lot of information or the item reviews I want to buy first, so that I do not regret when I have bought it."

"When (shopping) online, I tend to check through other buyers' reviews, especially reviews in sentence form. If (shopping at) offline store, I check before buying, but after buying (I) rarely pay attention to the receipt. But now I have become more careful when buying discounted items. Because I once got a price difference due to the excess items listed, then I complained, and now I am more aware of discounted goods."

Information seeking is an effort to enrich knowledge about a product to convince consumers to make a purchase. This research is in line with Ishibashi and Yada (2019) and Jun and Park (2016), in which the significant influence of information seeking on purchasing behavior was evident. Also, as a source of information, the internet has become influential in shaping behavior (Minghong et al. 2019; Kulkarni, Ratchford & Kannan, 2012). According to earlier studies, brand awareness mediates the purchase

behavior of a product (Situmorang et al. 2021). One of the factors that significantly shapes customer brand awareness is the ease of finding information. The easier and more accessible information search media are, the higher the level of consumer confidence, which increases the consumer's desire to make purchases (Susilowati & Hargyatni, 2021). The indirect effect of information seeking on smart purchasing behavior through knowledge results in a beta coefficient of 0.01, which is insignificant. It means that knowledge does not have an indirect effect.

The Effect of Knowledge on Smart Purchasing Behavior

The result shows that knowledge has a significant positive effect on smart purchasing behavior with a beta coefficient of 0.38, which means that an increase in knowledge will increase smart purchasing behavior. Furthermore, this knowledge will impact the way of thinking, feelings, and needs of consumers so that it influences decision-making in smart purchasing behavior.

Based on the indicators, the knowledge of dominant respondents is low regarding the consumer protection law and consumer protection agencies. It means that when respondents have better knowledge, it will increase purchasing behavior. Supported by the results of in-depth interviews, respondents stated that knowing a product would have more potential for smart purchasing behavior than not knowing the product at all.

"I know that I have the rights that I must get (as a consumer), but I do not know that it is already clearly regulated by the government. Examples of the (consumer) right are to get the appropriate products, good services, and warranty for certain products".

These results are in line with research by Karimi et al. (2015; 2018), in which there is an impact of knowledge on consumer purchasing behavior. However, this finding contrasts with the research of Liobikiene et al. (2016) and Schütz et al. (2019), which say that knowledge will be responsible for decisions in purchasing behavior. Abulibdeh and Zaidan (2017) also stated that a person's insight about a product would be a major influential factor in purchasing behavior.

Managerial Implications

The results showed that knowledge had a significant positive effect on smart purchasing behavior. Therefore, the National Consumer Protection Agency (BPKN), which has the function of providing advice and consideration to the government in efforts to develop consumer protection in Indonesia. The implications of the research that can be carried out by BPKN are proposing the government to work with local stakeholders to facilitate the community by providing direct counseling or with interpersonal contact, and utilizing the use of electronic media. Furthermore, BPKN can also encourage the government to improve the quality and quantity of socialization regarding the importance of information seeking in purchasing activities.

The information-seeking that consumers need to do is not only limited to luxury goods but also basic needs, such as clothing, health, education, and others. In this regard, the role of Non-Governmental Consumer Protection Institutions (LPKSM) is necessary because it is duty is to disseminate information to increase awareness of the rights, obligations, and caution in consuming goods and/or services, as well as providing advice to consumers. The research implication for LPKSM is to provide direct education to improve public confidence. Also, counseling regarding the use of electronic media or social media is to increase the ability of the community to search for information.

The Ministry of Trade, Republic of Indonesia, in particular, the Directorate General of Consumer Protection and Orderly Commerce, has the task to formulate and implement policies in the field of consumer empowerment. Based on the research finding, this institution needs to re-tighten and distribute control over goods that are spread freely, especially from the completeness of information on the packaging.

Business actors can provide services to facilitate consumers in getting information about a product. The provision of information can be made through electronic media or to provide information directly. The electronic media used must be adjusted to the trends in the use of social media in the community, such as media sharing (e.g., Instagram), social networks (e.g., Facebook), and/or e-commerce. Business operators need to provide complete information about similar products, ranging from procedures for use to complaint services. The

provision of information must be creatively made so that people are interested in knowing the message to be conveyed by business actors.

This research was conducted amid the COVID-19 pandemic, which resulted in difficulty in collecting primary data. Due to a lack of references in the literature on this topic, further elaboration of the findings is similarly limited. For instance, one of the variables in this study, self-sufficiency, is yet scarce in the literature. Other similar references (e.g., self-identity, self-efficacy, self-concept, and others) are used as an alternative. A similar limitation is also found in other variables.

Several factors may affect smart purchasing behavior yet have not been studied, such as social, cultural, psychological, and personal factors. Future research may develop other factors that could influence behavior smart purchase. It is also needed to enrich the literature on this topic. Finally, future studies can also examine self-sufficiency more deeply to reproduce the literature.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The results showed that respondents' search for information and knowledge was relatively low. Self-sufficiency tends to fall into the medium category, while smart purchasing behavior is classified as high. Based on the findings of the different tests, there were significant differences between rural and urban respondents on the variables of knowledge and smart purchasing behavior.

Based on SEM analysis, information and knowledge search variables significantly influence smart purchasing behavior, which means that more frequent searches for information and consumer knowledge will improve smart purchasing behavior. There is also a significant positive influence between self-sufficiency and information retrieval. That is, the higher the self-sufficiency a consumer has, the higher the desire to conduct information searches. However, the test results on the effect of self-sufficiency on purchasing behavior did not show significant results. Therefore, Self-sufficiency does not affect a person's behavior in making smart purchases. The search for information does not affect knowledge; that is, searching for such

information will not increase a person's knowledge. It is due to the need for prior knowledge to conduct information searches.

Recommendations

Based on research on the influence of self-sufficiency, information search, and knowledge on smart purchasing behavior on several factors that influence smart and unexplored purchasing behavior such as social, cultural, psychological, and personal factors, subsequent research can develop other factors that influence smart purchasing behavior. Further research can also examine self-sufficiency in more depth to reproduce the literature.

This study can help the government assess its policies to enhance their effectiveness and ensure they are dispersed equally across Indonesia. The government also needs social institutions or agencies related to consumer protection so that the public is more educated and feels protected as consumers. Furthermore, to reduce incorrect understandings, family members with higher education can carry out socialization in the family.

REFERENCES

- Abulibdeh A, Zaidan E. 2017. Empirical analysis of the cross-cultural information searching and travel behavior of business travelers: A case study of MICE travelers to Qatar in the Middle East. *Applied Geography* 85:152–162. <https://doi.org/10.1016/j.apgeog.2017.06.001>
- Bronstein J. 2014. The role of perceived self-efficacy in the information seeking behavior of library and information science students. *Journal of Academic Librarianship* 40(2):101–106. <https://doi.org/10.1016/j.acalib.2014.01.010>
- Chiou W Bin, Wan CS. 2007. The dynamic change of self-efficacy in information searching on the internet: Influence of valence of experience and prior self-efficacy. *Journal of Psychology: Interdisciplinary and Applied*. 141(6):589–603.
- Chita RCM, David L, Pali, C. 2015. Hubungan antara self-control dengan perilaku konsumtif online shopping produk fashion pada mahasiswa fakultas kedokteran Universitas Sam Ratulangi angkatan 2011. *Jurnal e-Biomedik* 1(3):297–302. <https://doi.org/10.35790/ebm.3.1.2015.7124>

- Chiu YL, Liang JC, Tsai, CC. 2013. Internet-specific epistemic beliefs and self-regulated learning in online academic information searching. *Metacognition and Learning* 36:391–400. <https://doi.org/10.1007/s11409-013-9103-x>
- Daoud A. 2018. Unifying Studies of Scarcity, Abundance, and Sufficiency. *Ecological Economics* 147:208–217. <https://doi.org/10.1016/j.ecolecon.2018.01.019>
- Davis R, Lang B. 2012. Modeling the effect of self-efficacy on game usage and purchase behavior. *Journal of Retailing and Consumer Services* 19:67–77. <https://doi.org/10.1016/j.jretconser.2011.09.002>
- Devaraj S, Fan M, Kohli, R. 2003. E-loyalty. *Communications of the ACM* 46(9):184–191. <https://doi.org/10.1145/903893.903936>
- Dutta CB, Das DK. 2017. What drives consumers' online information search behavior? Evidence from England. *Journal of Retailing and Consumer Services* 35:36–45. <https://doi.org/10.1016/j.jretconser.2016.10.015>
- Guo L, Tang C. 2017. Employees' knowledge searching in professional virtual forums and in teams: A complement or substitute? *Computers in Human Behavior* 74:337–345. <https://doi.org/10.1016/j.chb.2017.05.004>
- Gursoy D. 2019. A critical review of determinants of information search behavior and utilization of online reviews in decision making process (invited paper for 'luminaries' special issue of International Journal of Hospitality Management). *International Journal of Hospitality Management* 1–8. <https://doi.org/10.1016/j.ijhm.2018.06.003>
- Han H. 2018. Children's help-seeking behaviors and effects of domain knowledge in using Google and Kids.gov: Query formulation and results evaluation stages. *Library and Information Science Research* 1–11.
- Hotle SL, Castillo M, Garrow LA, Higgins MJ. 2015. The impact of advance purchase deadlines on airline consumers' search and purchase behaviors. *Transportation Research Part A: Policy and Practice* 82:1–16. <https://doi.org/10.1016/j.tra.2015.09.001>
- Hustvedt G, Dickson MA. 2009. Consumer likelihood of purchasing organic cotton apparel: Influence of attitudes and self-identity. *Journal of Fashion Marketing and Management* 13(1):49–65. <https://doi.org/10.1108/13612020910939879>
- Ishibashi K, Yada K. 2019. Analysis of social influence on in-store purchase behavior by using ecological system of ants. *Procedia Computer Science* 159:2162–2171. <https://doi.org/10.1016/j.procs.2019.09.390>
- Jang S, Nemeh A. 2017. Salespeople knowledge search behavior and sales performance: An investigation of printing equipment industry. *Technological Forecasting and Social Change* 120:1–11. <https://doi.org/10.1016/j.techfore.2016.12.014>
- Joshi Y, Rahman Z. 2019. Consumers' Sustainable Purchase Behaviour: Modeling the Impact of Psychological Factors. *Ecological Economics* 159:235–243.
- Jun SP, Park DH. 2016. Consumer information search behavior and purchasing decisions: Empirical evidence from Korea. *Technological Forecasting and Social Change* 107:97–111. <https://doi.org/10.1016/j.techfore.2016.03.021>
- Kanchanapibul M, Lacka E, Wang X, Chan HK. 2014. An empirical investigation of green purchase behaviour among the young generation. *Journal of Cleaner Production* 66:528–536. <https://doi.org/10.1016/j.jclepro.2013.10.062>
- Karimi S, Papamichail KN, Holland CP. 2015. The effect of prior knowledge and decision-making style on the online purchase decision-making process: A typology of consumer shopping behaviour. *Decision Support Systems* 77:137–147.
- Karimi S, Holland CP, Papamichail KN. 2018. The impact of consumer archetypes on online purchase decision-making processes and outcomes: A behavioural process perspective. *Journal of Business Research* 91:71–82. <https://doi.org/10.1016/j.jdss.2015.06.004>
- Kato T, Tsuda K. 2018. Contribution to purchase behavior of voluntary search compared to web advertisement. *Procedia Computer Science* 126:1329–1335.
- Kotler P. 2002. *Manajemen Pemasaran (terjemahan)*. Jakarta: PT Prenhallindo.
- Kulkarni G, Ratchford BT, Kannan PK. 2012. The impact of online and offline information sources on automobile choice behavior. *Journal of Interactive Marketing* 26:167–175. <https://doi.org/10.1016/j.intmar.2012.02.001>
- Lee K. 2009. Gender differences in Hong Kong adolescent consumers' green purchasing behavior. *Journal of Consumer Marketing* 26(2):87–96.

- Liobikiene G, Mandravickaite J, Bernatoniene J. 2016. Theory of planned behavior approach to understand the green purchasing behavior in the EU: A cross-cultural study. *Ecological Economics* 125:1–9.
- Maydeu-Olivares A, Shi D, Rosseel Y. 2018. Assessing Fit in Structural Equation Models: A Monte-Carlo Evaluation of RMSEA Versus SRMR Confidence Intervals and Tests of Close Fit. *Structural Equation Modeling* 25(3):389–402.
- Millan E, Reynolds J. 2014. Self-construals, symbolic and hedonic preferences, and actual purchase behavior. *Journal of Retailing and Consumer Services* 21(4):550–560.
- Minghong C, Xianjun Q, Xiaoli L, Jing, L. 2019. Understanding users' searching behavior switching from pc to mobile: From a dual perspective of enablers and inhibitors. *Procedia Computer Science* 162:355–360.
- Monchaux S, Amadiou F, Chevalier A, Mariné C. 2015. Query strategies during information searching: Effects of prior domain knowledge and complexity of the information problems to be solved. *Information Processing and Management* 51(5):557–569.
- Oktari AD, Dewi RS, Febriana SKT. 2016. Hubungan antara gaya hidup konsumtif dengan keputusan pembelian perhiasan emas pada pelanggan toko emas di kawasan Banjarmasin-Banjarbaru-Martapura. *Jurnal Ecopsy* 1(4):1–5.
- Park CH, Agarwal MK. 2018. The order effect of advertisers on consumer search behavior in sponsored search markets. *Journal of Business Research* 84:24–33.
- Patel JD, Trivedi RH, Yagnik A. 2020. Self-identity and internal environmental locus of control: Comparing their influences on green purchase intentions in high-context versus low-context cultures. *Journal of Retailing and Consumer Services* 53:1–10.
- Pramesty DW, Simanjuntak M. 2020. Intergenerational self concept, life style, marketing strategy, and impulsive buying. *Jurnal Ilmu Keluarga dan Konsumen* 13(1):87–98.
- Punj GN, Staelin R. 1983. A Model of Consumer Information Search Behavior for New Automobiles. *Journal of Consumer Research* 9(4):366–380.
- Ramadhan AF, Simanjuntak M. 2018. Perilaku Pembelian Hedonis Generasi Z: Promosi Pemasaran, Kelompok Acuan, dan Konsep Diri. *Jurnal Ilmu Keluarga dan Konsumen* 11(3):243–254.
- Ren WH. 2000. Library instruction and college student self-efficacy in electronic information searching. *Journal of Academic Librarianship* 26(5):323–328.
- Rogith D, Yusuf RA, Hovick SR, Fellman BM, Peterson SK, Burton-Chase AM, Li Y, Bernstam E V. 2016. Patient knowledge and information-seeking about personalized cancer therapy. *International Journal of Medical Informatics* 88:52–57.
- Sanchiz M, Chin J, Chevalier A, Fu WT, Amadiou F, He, J. 2017. Searching for information on the web: Impact of cognitive aging, prior domain knowledge and complexity of the search problems. *Information Processing and Management* 53(1):281–294.
- Sanchiz M, Chevalier A, Amadiou F. 2017. How do older and young adults start searching for information? Impact of age, domain knowledge and problem complexity on the different steps of information searching. *Computers in Human Behavior* 72:67–78.
- Sanchiz M, Amadiou F, Fu WT, Chevalier A. 2019. Does pre-activating domain knowledge foster elaborated online information search strategies? Comparisons between young and old web user adults. *Applied Ergonomics* 75:201–213.
- Schütz K, Kässer M, Blome C, Foerstl K. 2019. How to achieve cost savings and strategic performance in purchasing simultaneously: A knowledge-based view. *Journal of Purchasing and Supply Management* 26(2):1–14.
- Septifani R, Achmadi F, Santoso I. 2014. Pengaruh green marketing, pengetahuan dan minat membeli terhadap keputusan pembelian. *Jurnal Manajemen Teknologi* 13(2):201–218.
- Simanjuntak M, Amanah S, Puspitawati H, Asngari P. 2013. Modelling consumer empowerment level. *Economic Journal of Emerging Markets* 5(2):109–119.
- Simanjuntak M, Amanah S, Puspitawati H, Asngari PS. 2014. Consumer Empowerment Profile in rural and urban area. *ASEAN Marketing Journal* 6(1):38–49.
- Situmorang E, Letsoin B, Briyan A, Suryani L, Ekasari A, Kurniawati K. 2021. Perilaku pembelian merek fast fashion pada generasi milenial di Indonesia. *Jurnal Aplikasi Bisnis dan Manajemen* 7(3):778–786.

- Spangenberg JH, Lorek S. 2019. Sufficiency and consumer behaviour: From theory to policy. *Energy Policy* 129:1070–1079. <https://doi.org/10.1016/j.enpol.2019.03.013>
- Speck M, Hasselkuss M. 2015. Sufficiency in social practice: searching potentials for sufficient behavior in a consumerist culture. *Sustainability: Science, Practice, and Policy* 11(2):14–32. <https://doi.org/10.1080/15487733.2015.11908143>
- Suardika I, Ambarawati I, Sukaatmadja I. 2014. Analisis perilaku konsumen terhadap keputusan pembelian sayur organik CV Golden Leaf Farm Bali. *Jurnal Manajemen Agribisnis* 2(1):1–10.
- Suhari Y. 2011. Kepercayaan terhadap internet serta pengaruhnya pada pencarian informasi dan keinginan membeli secara online. *Jurnal Dinamika Informatika* 3(1):1–7.
- Susilowati H, Hargyatni T. 2021. Purchase intention: Can brand awareness mediate online consumer reviews? *E-Bisnis : Jurnal Ilmiah Ekonomi dan Bisnis* 14(2):162–172. <https://doi.org/10.51903/e-bisnis.v14i2.562>
- Vieira AL. 2011. Interactive LISREL in Practice: Getting Started with a SIMPLIS Approach. *Interactive LISREL in Practice*. <https://doi.org/10.1007/978-3-642-18044-6>
- Widyasari S. 2008. Analisis perilaku brand switching konsumen dalam pembelian produk sepeda motor. *Jurnal Bisnis dan Ekonomi* 15(2):107–127.
- Yang Z, Zheng Y, Zhang Y, Jiang Y, Chao HT, Doong SC. 2019. Bipolar influence of firm-generated content on customers' offline purchasing behavior: A field experiment in China. *Electronic Commerce Research and Applications* 35:1–13. <https://doi.org/10.1016/j.elerap.2019.100844>
- Zhang L, Yan Q, Zhang, L. 2020. A text analytics framework for understanding the relationships among host self-description, trust perception and purchase behavior on Airbnb. *Decision Support Systems*. <https://doi.org/10.1016/j.dss.2020.113288>
- Zhu Y, Chen YP, Ayed C, Li B, Liu Y. 2020. An online study about consumers' perception and purchasing behavior toward umami seasonings in China. *Food Control* 110:1–8. <https://doi.org/10.1016/j.foodcont.2019.107037>