Global Research Review in Business and Economics [GRRBE]
ISSN (Online) 2454-3217, ISSN (Print) 2395-4671
| Open-Access | Volume 10, Issue 01,
Pages 157-164 ||2024||

Antecedents of Purchase Behavior in Commercial Cat Foods

[1]Bintang Mustika Buwana, [2]Yolanda Masnita, [3]Kurniawati
[1,2,3] (Magister Management, Universitas Trisakti, Indonesia)

ABSTRACT

The number of people who own companion animals especially cats is increasing. This could trigger an increase in commercial cat food sales. Indonesia ranks second as Southeast Asia's largest pet food market currently and this trend is predicted to continue to grow. This study investigated the factors that influence purchase intention and purchase behavior by adopting the Theory of Planned Behavior (TPB). The research aims to see the impact of price, subjective knowledge and perceived behavioral control on purchase intention to purchase behavior. A sample of 200 respondents who own cats and have purchased commercial cat food at least thrice was collected. The respondent data were analyzed using Structural Equation Modeling (SEM). The results of the study revealed that there was no positive influence of price or subjective knowledge on purchase intention, while perceived behavioral control had a positive influence on purchase intention. There was also a positive influence on purchase intention against purchase behavior. These findings suggest that cat food companies would prefer to make their products affordable for consumers or make high-priced products appear reasonable. In addition, it is necessary to educate consumers about nutritionally balanced and welfare-friendly cat food.

KEYWORDS – Cat food, Price, Purchase behavior, Subjective knowledge, Theory of Planned Behavior

1. INTRODUCTION

Based on data from Euromonitor International, the cat population has increased by 15.3% per year from 2016 to 2021 [1]. In 2022, a survey conducted by an American research company called Rakuten Insight Center interviewed 10442 Indonesian citizens, the results were recorded 67% of the respondents owned companion animals with the majority of cats. Pet owners naturally incur regular expenses for the care of their beloved animals. The Rakuten survey revealed that all pet owners spent more than Rp. 100.000,00 per month on pet care. It was even recorded that 3% of the respondents spent more than Rp. 700.000,00 per month. Approximately 88% of these expenses are used to purchase pet food products [2].

The increase in the cat population correlates with the value of pet food sales. Currently, the pet food market especially for cat food is growing in Indonesia. Indonesia is ranked second as the largest pet food market in Southeast Asia. The value of cat food sales has grown by 27.3% from 2016 to 2021. This industry is predicted to continue its upward trend until 2026 [1].

There are many cat food brands being commercialized in Indonesia. This study adopts the Theory of Planned Behavior (TPB), which has been proven effective in predicting consumer behavior. This approach is expected to identify factors that support consumers in purchasing these cat food products. Previous research has revealed that the Theory of Planned Behavior (TPB) can explain the behavior of cat owners in purchasing cat food products [3]. The novelty of this research lies in the addition of the price and subjective knowledge variables which are believed to influence the level of purchase intention in commercial cat food products.

Commercial cat food products are perceived to be more exclusive compared to homemade cooked food or raw food, so there are many products that are made at a premium and have higher prices. Consumer price sensitivity influences the intention to purchase such products, so income is an important factor in consumer purchase intention [4]. Consumer knowledge can also shape their perception of a product. The knowledge of pet owners affects their attitudes toward pet food [5]. Perceived Behavioral Control influences consumer intentions toward a product because it can reveal whether consumers can easily obtain the product or not [6]. Purchase intention is defined as the desire to purchase goods or services in the future considering driving factors such as consumer needs and interests [7]. This desire or intention becomes a factor in consumer purchase behavior [8].

The contribution of this study is to analyze the effects of price, subjective knowledge, and perceived behavioral control on purchase intention. Additionally, this research aims to examine the positive influence of purchase intention on purchase behavior. The benefits of this study are expected to provide additional references for future researchers regarding the topics of price, perceived behavioral control, subjective knowledge, purchase intention, and purchase behavior. Furthermore, this research is expected to be valuable for marketing managers in developing and managing factors that can influence purchase behavior in commercial cat food.

2. THEORITICAL FRAMEWORK AND HYPOTHESES

2.1 Theory of Planned Behavior (TPB)

The theory of Planned Behavior has gotten a lot of interest in a variety of fields, including health sciences, environmental science, business and management, and educational studies. Cognitive attitude, subjective norm, perceived behavioral control, and habit were all connected to intents in a substantial way, with perceived behavioral control being the strongest predictor [9]. Therefore, this study utilizes the variable of perceived behavioral control. To have the purpose to do anything, someone must have trust. The perceived behavioral control variable is used to determine how easy or difficult it is to implement a behavior. Perceived behavioral control will provide an understanding of the simple or difficult way of executing a behavior based on prior experience, as well as obstacles that can be looked for in a solution to performing a behavior. Perceived behavioral control will substantially encourage someone who has attitudes and subjective norms when performing a specific behavior [10,3].

Previous research examining the Theory of Planned Behavior (TPB) in relation to pet food provides valuable insights into consumer behavior and decision-making regarding pet food products. It helps to establish a comprehensive understanding of how TPB can be applied to different pet food contexts and provides a basis for further investigation into factors influencing purchase intention and behavior in the pet food market [11,3].

2.2 The Relationship between Price and Purchase Intention

Price is one of the variables that shape product perception in the market, leading consumers to consider price factors when making purchasing decisions. Price is not always seen as a negative aspect by consumers, although there is a theory stating that higher prices lead to lower purchase intention [12,13]. Research has revealed that price positively influences purchase intention [14]. Other studies have shown that price has a significant positive effect on purchase intention. This means that when the price becomes more attractive, the purchase intention increases [15]. Therefore, the following hypothesis is proposed:

H1: Price Has a Positive Effect on Purchase Intention

2.3 The Relationship between Perceived Behavioral Control and Purchase Intention

The ease or difficulty of behavior is influenced by each individual's perception of their ability. Previous research has revealed that perceived behavioral control (PBC) affects the purchase intention of pet food products [3]. PBC positively influences purchase intention [6]. In addition, other studies have shown that PBC has a significant impact on the Purchase Intention of a product [8]. Perceived Behavioral Control has a positive effect on Purchase Intention for both male and female respondents [16]. Therefore, the hypothesis is proposed as follows:

H2: Perceived Behavioral Control Has a Positive Effect on Purchase Intention

2.4 The Relationship between Subjective Knowledge and Purchase Intention

Subjective knowledge possessed by consumers serves as a supporting factor for purchase intention. This subjective knowledge is acquired through consumption experience. Consumer subjective knowledge has a significant positive effect on purchase intention [17,18]. Other studies have also analyzed the impact of subjective knowledge on purchase intention and found significant positive results [19]. So the hypothesis is put forward as follows:

H3: Subjective Knowledge Has a Positive Effect on Purchase Intention

2.5 The Relationship between Purchase Intention and Purchase Behavior

The previous research results indicate that purchase intention has a positive impact on purchase behavior [8]. Other studies have shown that purchase intention to buy a product is an important indicator for predicting purchase behavior [20]. Purchase intention which has a positive influence on purchase behavior, aligns with the Theory of Planned Behavior [21]. Therefore, the following hypothesis is proposed:

H4: Purchase Intention Has a Positive Effect on Purchase Behavior

3. RESEARCH METHOD

This research utilizes primary data obtained by directly collecting information from respondents through a questionnaire distributed via Google Forms. The minimum sample size should be five times greater than the number of indicators, but it is preferable to use 200 or more respondents [22]. The indicators in this study were 16 items with 5-point Likert scale response options. These indicators will be tested for validity and reliability.

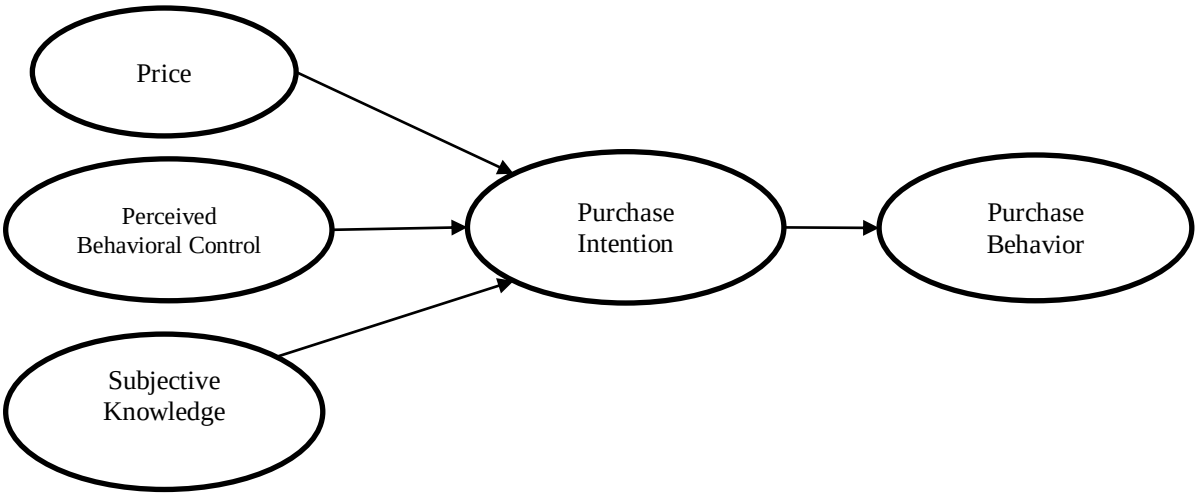

Fig 1. Conceptual Framework

Based on these indicators, the criteria for selected respondents are individuals who have owned a cat for at least 6 months and have purchased the same brand of cat food at least 3 times. A total of 216 respondents provided data, but only 207 respondents met the criteria to be included as samples in this study. After the results of the questionnaire are obtained, then proceed with data processing. Data processing is performed on 200 respondents, with a factor loading threshold of 0.40 [22].

The sampling results indicate that women are more likely to own cats and make purchases of commercial cat food, accounting for 75.5% of the respondents. The majority of the respondents in this study are aged between 22-26 years. The most recent education of most respondents was undergraduate, and the majority of them have a monthly income ranging from 1,000,000 to 5,000,000 Rupiah. The most frequently purchased brand of commercial cat food by the respondents is Royal Canin. Respondents typically purchase cat food 1-2 times per month, with a package size of 1kg. A more detailed summary of the demographic sample results is provided in Table 1 below.

Table 1. Sample Demography

Demography	Category	Frequency	Percentage (%)
Gender	Male	49	24.5
	Female	151	75.5
Age	17-21 y/o	14	7
	22-26 y/o	75	37.5
	27-31 y/o	52	26
	>31 y/o	59	29.5
Last Education	High School	39	19.5
	Diploma	26	13
	Bachelor	97	48.5
	Masters	36	18
	Doctoral	2	1
Monthly Income	1.000.000 - 5.000.000	103	51.5
(in Rupiah)	5.000.001 - 10.000.000	69	34.5
	>10.000.000	28	14

Commercial	Royal Canin	57	28.5
Cat food Brand	Cat Choize	30	15
	Whiskas	24	12
	Bolt	23	11.5
	Kitchen Flavor	12	6
	Purina Pro Plan	12	6
	Others	42	21
Monthly Purchase Frequency	1-2 times/month	103	51.5
(Pack of 1kg)	3-4 times/month	64	32
	>4 times/month	33	16.5

Table 2. Measurement of Validity and Reliability

Variable	Indicator	Factor Loading	Cronbach Alpha	Description
Price (PR)	PR1.	0.871	0.709	Valid and Reliable
	PR2.	0.892		
	PR3.	0.626		
Perceived Behavioral Control	PBC1.	0.757	0.691	Valid and Reliable
	PBC2.	0.676		
	PBC3.	0.686		
	PBC4	0.785		
Subjective Knowledge	SK1.	0.89	0.789	Valid and Reliable
	SK2.	0.894		
	SK3.	0.722		
Purchase Intention	PI1.	0.803	0.699	Valid and Reliable
	PI2.	0.831		
	PI3.	0.735		
Purchase Behavior	PB1.	0.879	0.718	Valid and Reliable
	PB2.	0.892		
	PB3.	0.732		

The instruments used in this study were tested for their validity and reliability. The results of the instrument test are presented in Table 2. The factor loading threshold used for the 200 respondents is 0.40 [22]. All factor loading values for each indicator are above 0.40, so it can be stated that the indicators used are valid to measure the variables studied. An instrument is considered reliable if Cronbach's alpha coefficient is above 0.6 [23]. All Cronbach's alpha values for each variable are above 0.6, indicating that the statement items in this instrument are reliable.

3.1 Structural Equation Modeling (SEM)

A confirmatory technique for quantitative research was applied in this study. The hypotheses in this study were tested using statistical analysis tools. The analysis method employed is Structural Equation Modeling (SEM) using the Analysis of Moment Structures (AMOS) program. Structural Equation Modeling (SEM) is commonly used in social, behavioral, and management research. SEM analysis aims to evaluate the connections between proposed variables. SEM provides a comprehensive understanding of the research phenomenon. This method is considered the most potent multivariate method. One available computer program for data processing in SEM is AMOS [24].

4. DATA ANALYSIS AND DISCUSSION

The analysis of descriptive statistics provides a summary of minimum, maximum, mean, and standard deviation values obtained from the research variables. The mean is commonly used in descriptive statistics for data that has an interval scale. It represents the average obtained by dividing the sum of the values by the number of

respondents examined for each statement of the designated variable. The standard deviation is the square root of the variance and describes the distribution of data within the sample as well as how closely the data correspond with the mean [23]. After the data was processed, it was found that the results of the distribution of data in this study were quite diverse. Table 3 displays the outcomes of data processing.

The data analysis technique used in this study is Structural Equation Modeling (SEM) using the AMOS program. Hypothesis testing begins with the Goodness of Fit Model test to examine the adequacy of the research model. The research model is considered appropriate if at least one Goodness of Fit criterion is met [22]. The findings of this study reveal that there are four Goodness of Fit metrics, indicating that the research model is eligible for further testing.

Table 3. The Result of Descriptive Statistic

Variable	N	Indicator	Min	Max	Mean	Std
Price (PR)	200	MEAN_PR	1.33	5	3.57	0.74
	200	PR1.	1	5	3.76	0.871
	200	PR2.	1	5	3.69	0.92
	200	PR3.	1	5	3.26	1.010
Perceived Behavioral Control	200	MEAN_PBC	2	5	4.04	0.63
	200	PBC1.	1	5	4.19	0.837
	200	PBC2.	1	5	3.69	0.91
	200	PBC3.	1	5	3.88	1.000
	200	PBC4	2	5	4.39	0.728
Subjective Knowledge	200	MEAN_SK	1.33	5	3.64	0.8
	200	SK1.	1	5	3.47	1.017
	200	SK2.	1	5	3.51	0.951
	200	SK3.	2	5	3.94	0.872
Purchase Intention	200	MEAN_PI	1.67	5	3.88	0.68
	200	PI1.	1	5	3.78	0.913
	200	PI2.	1	5	3.82	0.882
	200	PI3.	1	5	4.04	0.804
Purchase Behavior	200	MEAN_PB	2	5	4.18	0.72
	200	PB1.	2	5	4.26	0.804
	200	PB2.	1	5	3.95	0.965
	200	PB3.	1	5	4.33	0.937

Table 4. The Result of Goodness of Fit

Measurement	**Value**	**Acceptance Limit**	**Conclusion**
ECVI	1.810	Closer to saturated value than independence	*Goodness of fit*
RMSEA	0.098	≤ 0,1	*Goodness of fit*
CMIN/DF	2.910	1-5	*Goodness of fit*
AIC	360.256	Closer to saturated value than independence	*Goodness of fit*

4.1 Hypotheses Testing

The results of the hypothesis testing proposed in the study are displayed in Table 5. There are two unsupported hypotheses, namely H1 and H3, while the other hypotheses (H2 and H4) are supported. If the P-Value is greater than the critical value, the hypothesis is declared unsubstantiated [22].

Table 5. Analysis of Hypotheses

Hypotheses	**P-Value**	**Estimate**	**Conclusion**

H1: Price → Purchase Intention	0.374	-0.055	Not Supported
H2: Perceived Behavioral Control → Purchase Intention	0	0.912	Supported
H3: Subjective Knowledge → Purchase Intention	0.1	0.104	Not Supported
H4: Purchase Intention → Purchase Behavior	0	0.78	Supported

The results of hypothesis 1 (H1) show a P-Value of 0.374 which exceeds the α value of 0.05, indicating that the hypothesis is not supported. This finding differs from previous studies that state price has a positive influence on purchase intention [15,25]. Price is often considered an extrinsic factor of product quality when consumers have limited knowledge about the product [25]. Looking at the results of the descriptive statistics (Table 4), respondents perceive commercial cat food prices to be relatively high. However, if the product is regarded as interactive, a high price can still contribute to a high buy intention. Engaging visual information can make a product more interactive [26]. A cat food company can provide clear and appealing information on product packaging such as composition, nutritional content, and recommended daily feeding quantities. This can alter the perception of a higher price and make it appear reasonable, leading consumers to be willing to pay more for the cat food product.

Similar to H1, hypothesis 3 (H3) also has unsupported results with a P-Value exceeding α 0.05, which is 0.104. This means that the higher subjective knowledge of consumers does not influence an increase in purchase intention. This finding contradicts previous research that states subjective knowledge has a significant positive effect on the purchase intention of a product [27]. According to the descriptive statistics (Table 4), the mean value of the subjective knowledge variable is 3.64, respondents do not have in-depth knowledge of commercial cat food items on average. The descriptive statistics illustrate that respondents still have a limited understanding of the nutritional content of the purchased cat food products. Given the characteristics of the respondents who mostly purchase premium cat food brands, there may be mediating factors between subjective knowledge and purchase intention. For example, there may be mediating effects between subjective knowledge and purchase intention. Subjective knowledge, for example, may have a beneficial influence on purchase intention when mediated by attitude [28].

Hypotheses 2 (H2) and 4 (H4) have P-Values of 0. These hypotheses are supported as the P-Values do not exceed the α value of 0.05. The results of the H2 test align with previous research stating that perceived behavioral control (PBC) has a significant positive effect on the purchase intention of cat food products [3]. According to the Theory of Planned Behavior (TPB), the positive influence of PBC on purchase intention plays a role in increasing consumers' actual purchase behavior [8]. The highest mean value for the indicators of this variable is that consumers know exactly where to buy cat food products. Improving PBC can be done by providing convenience to consumers in accessing commercial cat food products. The results of the H4 test are also supported, indicating that purchase intention has a positive influence on purchase behavior. Previous research has shown that the purchase behavior of pet food is significantly positively influenced by the purchase intention of customers [3]. Other reported studies consistently demonstrate that the application of the TPB framework, such as purchase intention, has a positive effect on purchase behavior [8,20].

5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

The Indonesian market for commercial cat food products is expected to expand. This study discovered a positive relationship between perceived behavioral control and purchase intention, as well as a positive relationship between purchase intention and purchase behavior of cat food products. These results are aligned with the Theory of Planned Behavior. Another discovery from this research is the absence of a positive influence of price and subjective knowledge on the purchase intention of cat food products.

This study has managerial significance in that marketing managers of a cat food firm can make the product more interactive and appealing. Offering the goods at a low price is likely to enhance purchase intention. Additionally, it is critical to educate consumers about the need for adequate nutrition for the health and well-being of cats. It's worth noting that this study only looked at cat food, despite the fact that many people in Indonesia have pets other than cats. As a result, more research on additional pet food products such as dog and rabbit food is required. Exploring new theories outside of the TPB framework can also be interesting.

Furthermore, integrating mediating variables to investigate their influence would be an improvement for future research.

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