

FACTORS INFLUENCING PARENT'S INTENTION TO BUY EARLY CHILDHOOD EDUCATIONAL TOYS

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Abstract

This study aims to examine the factors that influence the parents' intention to buy early childhood educational toys for their children by extending the theory of planned behavior as a base of explanation. The research method was a survey using online questionnaires with convenience sampling to 262 parents who have 0-6 years old children living in Indonesia. The analysis methods were descriptive statistics, exploratory factor analysis, and multiple regression. The results show that the most significant factor influencing the parent's intention to buy is the perceived behavioral control, followed by attitude, subjective norms, perceived value for money, and perceived product quality. However, perceived product risk does not significantly affect the intention to buy early childhood educational toys. The findings in this research will help marketers, producers, and distributors of early childhood educational toys to define a better strategy in approaching parents to buy the products for their children. Additionally, toy designers or educators can use the result to consider the design and approach that will satisfy parents as decision-makers. This study was limited to Indonesian parents, so the result cannot be generalized for a wider market. Thus, future research can capture more diverse categories, additional variables, and social groups.

Keywords: Early childhood educational toys, attitude, product, risk, intention to buy

Abstrak

Penelitian ini bertujuan untuk mengkaji faktor-faktor yang mempengaruhi niat orang tua dalam membelikan anaknya mainan edukatif anak usia dini dengan memperluas teori perilaku terencana sebagai dasar penjelasannya. Metode penelitian yang digunakan merupakan survei melalui kuesioner daring dengan metode convenience sampling kepada 262 orang tua yang memiliki anak usia 0-6 tahun yang tinggal di Indonesia. Metode analisis yang digunakan adalah statistik deskriptif, analisis faktor eksplorasi, dan regresi berganda. Hasil penelitian menunjukkan bahwa faktor yang paling signifikan mempengaruhi niat orang tua untuk membeli adalah persepsi kontrol perilaku, diikuti oleh sikap, norma subyektif, persepsi nilai uang, dan kualitas produk yang dirasakan. Namun persepsi risiko produk tidak berpengaruh signifikan terhadap niat beli. Temuan dalam penelitian ini akan membantu pemasar, produsen, dan distributor mainan pendidikan anak usia dini untuk menentukan strategi yang lebih baik dalam mendekati orang tua untuk membeli produk untuk anak-anak mereka. Selain itu, perancang mainan atau pendidik dapat menggunakan hasilnya untuk mempertimbangkan desain dan pendekatan yang akan memuaskan orang tua sebagai pengambil keputusan. Penelitian ini terbatas pada orang tua Indonesia, sehingga hasilnya tidak dapat digeneralisasikan untuk pasar yang lebih luas. Dengan demikian, penelitian selanjutnya dapat menangkap kategori yang lebih beragam, variabel tambahan, dan kelompok sosial.

Kata kunci: Alat permainan edukatif anak, sikap, produk, risiko, minat beli

INTRODUCTION

Early childhood (0-6 years) is a critical and the most decisive phase to form a person's character or personality. Intelligence development almost entirely occurs at the age of under five years with an additional year of potential language development (The Science of Early Childhood Development, 2007). Education, which is applied in the early childhood ages, is an essential foundation for the whole personality development of the child until they grow up. The early education phase should build children's self-awareness, problem-solving skills, extrapersonal skills, and physical growth.

Playing can support early childhood education during the child's growth and development process. Playing is an activity that stimulates the child's abilities to help them grow and develop optimally. Children that play can fulfill their development goals in motor skills, cognitive, language, creativity, emotional, social, values, and attitudes to life (Moeslicatoen, 2006). These goals are equally important for their growth to optimize during the development stage. Children can fulfill these development goals by learning through playing with toys, which they are happily volunteered to play with (Tedjasaputra, 2001).

Toys can stimulate children's learning development to explore and know their surroundings. Educational Toys is one of the medium/equipment for children to play with that contains the educational value to develop children's abilities (Direktorat PADU, 2003). The toys should be made with specific

materials, goals, and characteristics to provide learning for children as the medium to achieve the development value goals. Thus, children use different toys to learn various skills.

However, parents are the decision-makers of which type of toys the children will play with. Educational toys are one of the options for parents to provide high-quality tools for their children. Factors affecting the decision-making process are perception, interpretation, perceived, norm, and attitude. These include the external aspects that give stimuli to the decision-makers. Some factors that affect parents' decision-making process in buying children's toys are educational, emotional, informational, price, and demographic factors (Kurdi, 2008).

Previous studies of parents' decision-making process and toys-related subjects have been conducted in many places with different contexts. Parents' intention to enroll their children in a child care program in China shows a high correlation with positive attitudes and perceived product quality towards child care services (Wang et al., 2021). The toys-related subject was studied in China for smart toys that analyzed the impact of product innovation and perceived values on willingness to buy (Zhanga et al., 2020). Another study was conducted in the USA to understand the factors and preferences of parents' to choose children's toys (Richards et al., 2020). The same has been studied in Indonesia for general perceptions and factors that influence parents' decision-making process to buy their child toys (Ulfa & Djamaludin, 2016). Although previous studies had investigated the intention to buy children's

toys, the perceived value for money was not considered as an influencing factor, leaving it as a gap.

This research intends to understand the decision-making process of parents' choice of educational toys for their children with the extended the Theory of Planned Behavior. The theory of Planned Behavior can predict behavioral intentions, but there is room to enhance conceptually or operationally on consumers' predictive behavior by adding other relevant external factors (Rivis & Sheeran, 2003). Hence, the research extends the main theory with adding perceived product quality, perceived product risk, and perceived value for money that influence the intention to buy. Studies focusing on early childhood toys were relatively limited. This research attempts to fill the gap by using theory of planned behavior with extended variable as aforementioned above. Thus, this study attempts to answer the following research question: What is the most influencing factor that affects the Indonesian parents' intention to buy early childhood educational toys? This research contributes to the existing literature related to consumer behavior, especially parents who have children. Also, this paper will provide managerial implications for business practices in toy industries.

LITERATURE REVIEW

1. Toddler toys or early childhood educational toys

Educational toys are anything that can be used as a game tool with a

predetermined purpose. Toys are learning facilities that represent a certain function or form of an object like a human body anatomy model. It contains an educational value to develop all aspects of children's abilities, both from the surrounding environment (nature) and purchased products (Ariesta, 2009). In addition, educational toys are related to educational game activities in which children take actions to utilize the given tools or interact with the surroundings such as color mixing experiments, role-playing activities, etc. (Yunanto et al., 2004). The characteristics of educational toys are (1) can be used in various ways, meaning that it can be played with various purposes, benefits, and various forms; (2) made for primarily pre-school age children and serves to develop various aspects of children's intelligence and motoric development; (3) In safety terms, it is very important both in terms of shape and use of paint; (4) make children actively involved; (5) constructive. (Tedjasaputra, 2001) Although every educational toy has its purpose to develop an aspect of children's development, one educational toy may improve more than one aspect of development.

2. Theory of planned behavior

Understanding the parent's behavior in choosing and buying educational toys is an important aspect leading to their intention to buy. Theory of Planned Behavior (TPB) is a conceptual framework

studies of human behavior (Ajzen, 2002). This theory assumes that volitional control is the factor that influences most human behaviors (Fishbein & Ajzen, 1975). Theory of Planned Behavior dictates that intention is shaped by attitudes, subjective norms, and perceived behavioral control to perform a behavior (Ajzen, 1991). Attitude is influenced by desirability perceptions of adopting a behavior, which is based on their beliefs of the outcomes (Armitage & Conner, 2001), subjective norms are the social pressure that moves an individual to do something (Ajzen, 1991), and perceived behavioral control is how they control their capability of implementing a behavior (Wu et al., 2015). In short, the attitudes, subjective norms, and perceived behavior control as in the Theory of Planned Behavior are certainly influencing the parents' intention to buy educational toys for their children.

3. Attitudes towards giving educational toys

Attitude is “an individual's positive or negative feelings about performing the target behavior” (Kamalul et al., 2021). According to the Theory of Planned Behavior (Ajzen, 1991), parents' attitude influences their behavioral intention to finally take action in buying educational toys. In this study, the attitude is defined as the parents' desirability attitude regarding the likely outcome. Giving educational toys to children might then be tied to more general parenting orientations (Laczniak et

al., 1999). Therefore, the first hypothesis is proposed as follows.

H1: Attitudes towards giving educational toys positively influence parents' intention to buy.

4. Subjective norms

Subjective norm is part of the Theory of Planned Behavior that will be defined, in this research, as external factors that affect parents' behavior. Subjective norm is defined as “the perception of a person thought and opinion of the individual's action and decision making” (Kamalul et al., 2021). This external perspective will help people to convince themselves when making a buying decision (Wu et al., 2015). The external factors could be referrals or suggestions from friends, family, professionals, and many more. The hypothesis suggests that the subjective norm will have a positive influence on parents' intention to buy early childhood educational toys.

H2: Subjective norms towards educational toys positively influence parents' intention to buy.

5. Perceived behavior control

Referring to the theory of Planned Behavior, the perceived behavioral control in this study is the parents' ability to control the opportunities to buy educational toys with some factors such as flexibility of money, time, and knowledge. Therefore, the more the parents can control their buying decision, the more likely they

will do the behavior. The third hypothesis is proposed below.

H3: Perceived behavioral control positively influences parents' intention to buy.

6. Perceived product quality

Every parent certainly wants to provide the best education or tools for their children's development so the perceived product quality of educational toys matters. Perceived product quality has been acknowledged as the push factor of product intentions (Brady et al., 2002). Perceived product quality is defined as "the consumer's judgment about a product's overall excellence or superiority" (Zeithaml, 1988 p.3). It has many components such as performance, features, reliability, conformance, design, durability, serviceability, and aesthetics (Lee and Jin, 2019). Consumers may intend to purchase products based on their current existing values (Yu & Wang, 2020). Educational toys hold a positive perceived product quality because of the impact on child developmental growth and the different outcome when children use educational toys and not (Tedjasaputra, 2001). Thus, we propose this hypothesis.

H4: Parents' perceived product quality of educational toys positively influences parents' intention to buy.

7. Perceived product risk

Perceived product risk is the degree to which consumers believe that if they purchase products or services, they may

suffer losses caused by the products or services (Lim, 2003). Every product contains risks because it holds a negative impact, so consumers only choose products with less risk than the others. The risk in this research is defined as negative factors that cause uncertainty to parents when making decisions to buy educational toys. As parents are the decision-makers in purchasing children's toys, they will measure the risk of a product and avoid them since they will give the product to their child (Chang & Chen, 2014; Schmiege, et al., 2009). Their perceived product risk will affect the intention and behavior (Mitchell, 1999). In the studies by Gao, Yang, and Jing (2020) in educational facilities for children, parents are concerned about children's safety. In the process of decision-making of buying educational toys, parents' cognition of risk might affect their behavioral intention and will act as a predictor of their buying intentions (Lu, et al., 2016). Therefore, the next hypothesis is proposed as follows.

H5: Parents' perceived product risk of educational toys negatively influences parents' intention to buy.

8. Perceived value for money

The educational toys for children contain values that are only seen or felt by the users and buyers. This is called perceived value, which is defined as an evaluation or value felt by consumers of a product based on their perceptions of what they receive and what they are given

(Zeithaml, 1988). This value is a unique construction of satisfaction and quality obtained by consumers (Oliver, 1999). The perceived value for money is the comparison of the benefits and costs of a product (Sweeney & Soutar, 2001). Perceived value for money also applies to the conditions when parents are evaluating educational toys. Parents' value of money

in educational toys can influence their buying behavior towards it (Le Gall-Ely, 2009). Therefore, the last hypothesis is proposed as follows.

H6: Perceived value for money towards educational toys positively influences parents' intention to buy.

Based on the literature and hypotheses, the research model can be described in Figure 1.

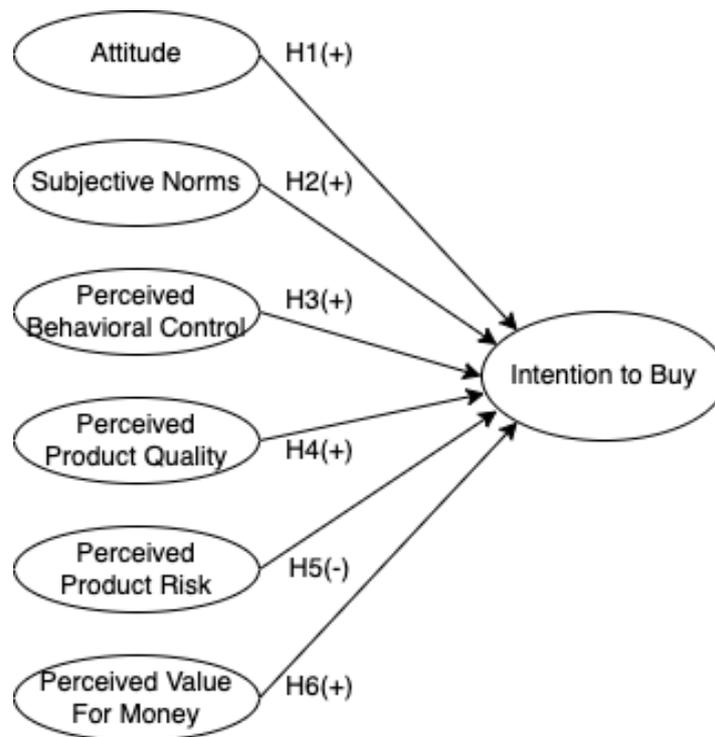


Figure 1. Research model

RESEARCH METHODOLOGY

The primary data was collected through an online survey from July to August 2022. The sampling method is through convenience sampling to parents who have 0-6 years old children and know about educational toys in Indonesia. The online survey was distributed to several chat groups, social media, and mailing lists. As the goal of this research is to understand the intention to buy towards early childhood educational toys in Indonesia, the

survey was filled by Indonesian parents as the decision makers to buy the toys. The total population of 0-6 years old children is 30.83 millions (Databooks, 2021), which assumes parents have 2 children, so the parents population is 15.41 millions. The sampling size is 262 samples based on the Sample Size method with margin of error 6.06% and confidence level 95%.

The survey consists of 27 questions, but 1 question was deleted. The questions were adapted from the previous literature as per

Table 3. Since the items originated in English but the survey was conducted in the Indonesian market, a translation-back translation procedure was done to ensure the validity of each item. In the initial development, the survey was distributed to 8 parents to gather feedback on wording and logical understanding of each item. Based on this initial evaluation, the questionnaire was modified without changing the purpose of the item. All the items were measured with a 5-points Likert scale.

Statistical package SPSS 28 was used for statistical analysis. First, descriptive analysis using mean value and standard deviation was conducted to validate the significance of general data. Second, exploratory factor analysis (EFA) was done to confirm the data's reliability. Lastly, the analysis is using multiple regression to understand which independent variables influence the dependent variable.

RESULTS AND DISCUSSION

1. Descriptive statistics

Total respondents were 262 with 27 invalid samples, Table 1 shows the background of the number of children, financial income, and educational toy purchasing price range. Descriptive analysis indicating the correlation of seven variables is shown in Table 2. In this study, the correlation between variables ranged from 0.156 to 0.576. The highest correlation is between attitude with intention to buy and perceived behavioral control with intention to buy, with the same number of correlation coefficient 0.576. All the correlation coefficients had $p < 0.001$ (two-tailed), which means a positive association between variables and intention to buy. Thus, the data can be used for analysis.

Table 1. Respondents profile

Background Variables	Category	Frequency	(%)	Cumulative Percent
Number of children	1	136	51.9	51.9
	2	90	34.4	86.3
	3	30	11.5	97.7
	4	6	2.3	100.0
		262	100.0	
Annual household income	Under 4 million rupiah	11	4.2	4.2
	4 - 7 million rupiah	50	19.1	69.5
	8 - 12 million rupiah	80	30.5	100.0
	12 - 20 million rupiah	86	32.8	50.4
	More than 20 million rupiah	35	13.4	17.6
	262	100.0		
Price preference of educational toys	Under 100 thousand rupiah	25	9.5	78.2
	100 - 250 thousand rupiah	47	17.9	97.3
	250 - 500 thousand rupiah	7	2.7	100.0
	More than 500 thousand rupiah	3	1.1	79.4
		262	100.0	

Source: Internal data processing

Table 2. Correlations of variables, means, and standard deviations

No	Construct	Mean	SD	1	2	3	4	5	6
1.	Attitude	4.4151	0.58697	-	-	-	-	-	-
2.	Subjective norms	3.9109	0.63117	0.467	-	-	-	-	-
3.	Perceived behavioral control	4.4237	0.57615	0.515	0.516	-	-	-	-
4.	Perceived value for money	3.6807	0.65654	0.245	0.350	0.232	-	-	-
5.	Perceived product quality	3.8626	0.66969	0.375	0.366	0.391	0.206	-	-
6.	Perceived product risk	4.0210	0.66490	0.303	0.295	0.292	0.228	0.156	-
7.	Intention to buy	4.2013	0.66506	0.576	0.524	0.576	0.391	0.425	0.275

Source: Internal data processing

2. Factor analysis

Exploratory factor analysis (EFA) was performed to confirm the correctness of the research model construction affiliated with the identified variables (Akturan & Tezcan, 2012). To measure sample adequacy, the p -value must be <0.05 as in Bartlett's Test of Sphericity and criteria must be >0.5 in Kaiser-Meyer-Olkin (KMO) (Malhotra, 2020). The result calculation of EFA is the KMO score of 0.867, Bartlett's test value of 3,588.405, and a significance level of 0.00 (p -value < 0.05). These indicators mean that the data can be used for further calculation.

The score of factor loading was used to measure convergent validity by setting a threshold of 0.5 to identify significant

factor loading (Hair et al, 2014). The study used six factors as the main aspects of intention to buy. The resulting score of factor loading is 0.540 to 0.826 which was relatively large because it is higher than the minimum acceptable measure of 0.5. Furthermore, the assessment was carried out to understand the internal consistency using Cronbach's alpha. The calculation implies a significantly high value of Cronbach's alpha ranging from 0.649 to 0.893 because the threshold is above 0.60 (Malhotra, 2010). The detail factor loading and Cronbach's alpha of each variable are presented in Table 3. Based on this analysis, the variables in this study are valid and reliable.

Table 3. Measurements of scale

Construct	Statements	References	Factor loadings
Attitude toward giving educational toys (Cronbach's $\alpha = 0.893$)	Att1: It's a good choice to give educational toys to my children	Adapted from Wang <i>et al.</i> (2021)	0.826
	Att2: It's a sensible decision to give educational toys to my children		0.813
	Att3: I'm in favor of giving educational toys to my children.		0.778
	Att4: I think it's necessary to give educational toys to my children		0.748

Subjective norms (Cronbach's $\alpha = 0.852$)	Nor1: Other parents around me give their children educational toys.	Adapted from Wang <i>et al.</i> (2021)	0.644
	Nor2: My friends / colleagues / neighbors give their children educational toys		0.752
	Nor3: Those who have an important influence on me (such as my trusted friends) think that I should give their children educational toys.		0.785
	Nor4: The people I respect think I should give their children educational toys.		0.698
	Nor5: Most urban parents give their children educational toys		0.688
	Nor6: The people I will consult (e.g. professionals, teacher, other experienced people, etc.) think that I should give their children educational toys		0.540
Perceived Behavioral Control (Cronbach's $\alpha = 0.779$)	Con1: It's up to me to give educational toys for my children.	Adapted from Wang <i>et al.</i> (2021)	0.557
	Con2: If I want to give my children educational toys, I am confident that I can find suitable educational toys for my children		0.763
	Con3: My family resources (e.g. money, time) allow me to give my children educational toys		0.699
Perceived Product Quality (Cronbach's $\alpha = 0.724$)	Qua1: Generally speaking, I think most of the educational toys for children in consuming markets have satisfactory quality.	Adapted from Wang <i>et al.</i> (2021)	0.786
	Qua2: Educational toys for children in consuming markets can ensure the safety of children.		0.824
Perceived Product Risk (Cronbach's $\alpha = 0.759$)	Ris1: There are potential safety risks in educational toys for children.	Adapted from Wang <i>et al.</i> (2021)	0.818
	Ris2: Safety accidents may occur due to negligence on using educational toys for children.		0.825
	Ris3: Design on educational toys for children may lead to accidental injury of children.		0.702
	Ris4: Unqualified educational toys for children may not achieve the learning goals.		0.570
Perceived value for money (Cronbach's $\alpha = 0.649$)	Pri1: Educational toys for children are reasonably priced.	Adapted from Sweeney & Soutar. (2001)	0.768
	Pri2: Educational toys for children offer value for money		0.563
	Pri3: Educational toys for children would be economical.		0.749
Intention to buy (Cronbach's $\alpha = 0.880$)	Int1: I will give my children educational toys in the near future.	Adapted from Wang <i>et al.</i> (2021)	0.721
	Int2: I'm likely to give my children educational toys.		0.709
	Int3: I have a plan to give my children educational toys		0.679
	Int4: I will recommend my friends to give children educational toys		0.749

Source: Internal data processing

3. Multiple regression

a. Multicollinearity testing

Multicollinearity is a pre-test before running regression analysis to check the correlation between independent variables. The multicollinearity measurement uses Variance Inflation Factor (VIF) and tolerance (Hair et al., 2014). The tolerance value in this study

ranges from 0.610 to 0.854, which is within 0.1–1.0 (Kutner et al., 2004). The VIF in this study ranges from 1.171–1.640, which is less than 3.0 for non-existent multicollinearity problems (Bhukya & Singh, 2015). In short, this study has no multicollinearity problems.

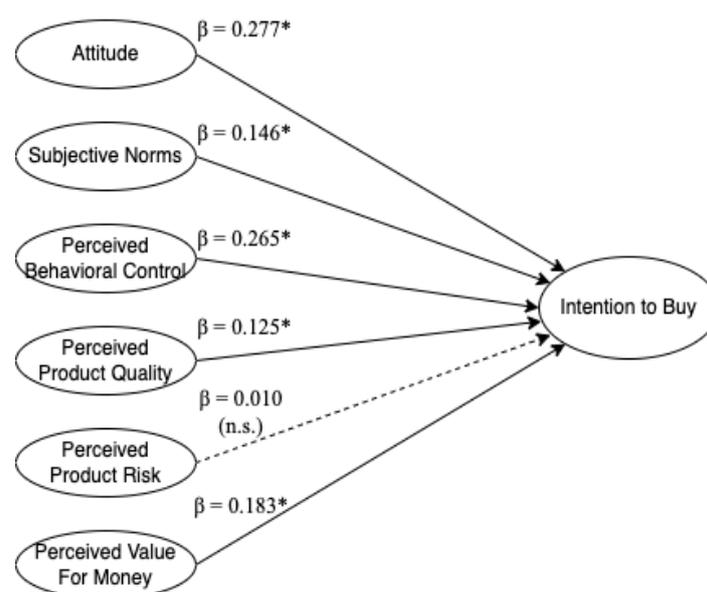
b. Model fit testing

The model of this study is $F(6, 262) = 45.268, p < 0.01$, with adjusted $R^2 = 0.504$. It means that the prediction model was statistically significant and the independent variables can explain 50.4% of the total variance of the dependent variable. The study checked autocorrelation using the Durbin Watson test with a result of 1.961, which is between 1.5 and 2.5 for no autocorrelation (Dave & Sohani, 2019).

c. Hypothesis testing

Multiple regression analysis was performed to test the hypothesis on the influence of independent variables to the dependent variables. Understanding the study used the same scale, standardized regression coefficients (β) were treated as parameter estimates. Nonetheless, the t-value were not all statistically significant (p -value < 0.05)

as per Figure 2. The result shows that independent variables of attitude, subjective norms, perceived behavioral control, and perceived value for money in this study significantly influenced parents' intention to buy. On the other hand, the independent variables of perceived product quality and perceived product risk are not significantly influencing parents' intention to buy. The most influencing variable is the perceived behavioral control of parents to buy early childhood educational toys with $\beta = 0.265, p < 0.05$. Following that, the most important variables are attitude ($\beta = 0.277, p < 0.05$), perceived value for money ($\beta = 0.183, p < 0.05$), subjective norms ($\beta = 0.146, p < 0.05$), and perceived product quality variable ($\beta = 0.125, p > 0.05$). The least impactful variable is the perceived product risk variable ($\beta = 0.010, p > 0.05$).



Notes: * $p < 0.05$; (n.s.) = not significant

Figure 2 Path analysis result

Source: Internal data processing

Table 4. Path coefficients and their significance

Hypothesis	Path	Coefficient Beta	Sig.	Inference
H1	ATT → INT	0.277	0.000	Supported
H2	NOR → INT	0.146	0.009	Supported
H3	CON → INT	0.265	0.000	Supported
H4	QUA → INT	0.125	0.012	Supported
H5	RIS → INT	0.010	0.837	Not supported
H6	PRI → INT	0.183	0.000	Supported

Source: Internal data processing

Discussion

As the research seeks to understand the influencing factors of parents' intention as decision-makers to buy early childhood educational toys in Indonesia, the result shows that attitude, subjective norms, perceived behavioral control, perceived value for money and perceived product quality had significant effects on parents' intention to buy ($p < 0.05$). The results of this study can also be an insight to help early childhood educational toys business actors in Indonesia to take strategic steps when developing their products and related businesses.

First, the factor that has the highest effect on parents' intention to buy is perceived behavioral control ($\beta = 0.265$, $p < 0.05$). In this study, perceived behavioral control measured parents' perception of their discretion, capability, availability, and affordability in buying educational toys. This is aligned with prior research that parents are more likely to purchase a certain product if they can control the resources and decision-making processes (Grogan, 2012). This also affects the business actors, where parents' involvement plays an

important role in purchasing this product. Therefore, it would be a great decision if business actors carry out marketing strategies that involve the parents in an event or give them product trials. Regular research and development regarding parents' insight and value also need to be carried out regularly, so that the products that will be produced truly answer the consumers' needs, and are aligned with their discretion, capability, availability, and affordability.

Second, attitude provides a high effect on parents' intention to buy educational toys ($\beta = 0.277$, $p < 0.05$). This confirmed the Theory of Planned Behavior by Ajzen (1991) in which the perceived behavior control and attitude are influencing parents' intention to buy early childhood educational toys for their children. The results of the study show that giving educational toys to children is a proper and reasonable decision for parents. Also, the parents have a positive view towards educational toys and think that providing educational toys is essential for children. This positive result on attitude can make parents more likely to have the intention to buy

educational toys for their children (Scopelliti & Musatti, 2013). Therefore, business actors do not have to worry about the image and attitude that parents have toward the early childhood educational toys industry and products.

Third, the result revealed that the perceived value for money positively influenced parents' intention to buy ($\beta = 0.183$, $p < 0.05$). This factor defines parents' monetary worth perception as well as the comparison of the benefit and the cost of educational toys (Sweeney & Soutar, 2001). Based on the results of this study, it is necessary for business actors to conduct research on the needs and demands of parents regarding the affordability of educational toys. Price is always the determining factor of consumer behavior (Becker et al., 2018), and affordability is also important for parents when deciding to purchase educational toys (Wang et. al., 2021). The price given should not be less or more than the price range that can be purchased, because it can affect the consumer's perceived product risk.

Fourth, subjective norms are positively and significantly associated with the parents' intention to buy educational toys ($\beta = 0.146$, $p < 0.05$). Subjective norms represent that the behavioral intention of consumers is influenced by the social pressure from their peers (Schepers & Wetzels, 2007). Trustworthy significant others might confirm parents in making a reliable decision. The study shows that the most impactful peers in parents' decision-making process on buying educational toys are those living closest (e.g., trusted friends, family), people in the surrounding

environments (e.g., friends / colleagues / neighbors), and respected people. The peer approach can be done as a marketing strategy, where business actors can apply referral and testimonial strategies for consumers to invite other new potential consumers to buy the products. Testimonials from satisfied users and credible influencers about their personal experience or opinion of the product can strongly influence parents' purchase of the educational toys, and confirm their decision in buying. It can be a message strategy that significantly influences their behavior and encourages them to try the product (Federal Trade Commission, 2009).

Lastly, perceived product quality is the least influencing factor in parents' intention to buy educational toys ($\beta = 0.125$, $p < 0.05$). Choosing educational toys requires careful consideration of quality and safety. This becomes parents' concern because educational toys are proven and known to give positive developmental growth to children (Tedjasaputra, 2001) so it needs to have good quality to deliver a good development result. The quality and safety standards should also comply nationally and internationally (Kemenperin, 2014). Understanding that the quality and the safety of educational toys both have a standard that is not arbitrary, perceived product quality shows a positive relationship towards parents' intention to buy educational toys as per the initial hypothesis. This factor might have a low impact because parents feel that the current educational toys option in the market has satisfactory quality and safety for children.

However, our study discovered that the perceived product risk is not significantly related to parents' intention to buy ($\beta = 0.010$, $p < 0.05$), it does not affect parents' decision-making process in buying educational toys. The results of this study are quite similar to the study conducted by Wang et al. (2021) in their journal regarding parents' intention to use childcare services that perceived product risk was not a significant predictor of their intention. The perception of safety might be covered by the national and international safety standards in children's toys (Kemenperin, 2014) because all toys in the market should have had this standardization. Therefore, it is also important for business actors to register their toy products nationally or internationally following the standard regulations, so the product will have a credibility value, and the parents will directly believe that the quality is up to standard.

CONCLUSION

This study was conducted to understand the factors that influence Indonesian parents' intention to buy early childhood educational toys. Quantitative causality methods using the Research Model are expected to provide a complete picture of the factors affecting consumers intention to buy.

Based on these results, it can be concluded that the factors that have a major influence on parents' intention to buy are perceived behavioral control, attitude, perceived value for money, subjective norms and perceived product quality. The results of the study are quite align

with the hypothesis predicted at the beginning, that the variables of attitude, subjective norms, perceived behavioral control, perceived value for money and perceived product quality all positively influence parents' intention to buy, yet perceived product risk is not a significant factor that influence parents' intention to buy towards early childhood educational toys.

Limitations & Recommendations For Future Research

This current research has several limitations that could provide some suggestions for future research. The data for this research was collected from parents who lived in big cities in Indonesia such as Jakarta, Bogor, Depok, and Tangerang area using the convenience sampling method. Future extended research using more extensive or different groups of respondents and/or interviews is recommended to enhance generalizability findings.

Second, the current sample does not adequately represent parents' intentions toward the educational toys market. It is important to investigate in more detail about the educational toy market, social-economic status, parents' education level, preferred type of toys, and behavior among families in different cities.

Lastly, the current study is mainly based on the parental perspective and not having other perspectives from different social groups (e.g., education experts, toy designers, policy-makers, etc). For the next step, future research can take a toy business/company to examine their viewpoints on educational toys and their perspective. Despite the limitations, the results

of the study give important implications that parents tend to buy educational toys when they have more positive attitudes toward them. In addition, parents will show a positive attitude towards educational toys when they perceive the quality and purpose of using educational toys.

REFERENCES

- Ajzen, I. (n.d.). The theory of planned behavior: Reactions and reflections. *Psychology & Health*, 26(9), 1113-1127. <https://doi.org/10.1080/08870446.2011.613995>
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Ajzen, I. (2001). Nature and operation of attitudes. *Annual Review of Psychology*, 52(1), 27-58. <https://doi.org/10.1146/annurev.psych.52.1.27>
- Ajzen, I. (2002). Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. *Journal of Applied Social Psychology*, 32(4), 665-683. <https://doi.org/10.1111/j.1559-1816.2002.tb00236.x>
- Akturan, U., & Tezcan, N. (n.d.). Mobile banking adoption of the youth market: Perceptions and intentions. *Marketing Intelligence & Planning*, 30(4), 444-459. <https://doi.org/10.1108/02634501211231928>
- Angulo, A. M., & Gil, J. M. (2007). Risk perception and consumer willingness to pay for certified beef in Spain. *Food Quality and Preference*, 18(8), 1106-1117. <https://doi.org/10.1016/j.foodqual.2007.05.008>
- Ariesta, R. (2009). Alat permainan edukatif lingkungan sekitar untuk anak usia 0-1 tahun (Sopandi ed.). Bandung: Sandiarta Sukses.
- Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *British Journal of Social Psychology*, 40(4), 471-499. <https://doi.org/10.1348/014466601164939>
- Becker, S. J., Helseth, S. A., Frank, H. E., Escobar, K. I., & Weeks, B. J. (n.d.). Parent preferences and experiences with psychological treatment: Results from a direct-to-consumer survey using the marketing mix framework. *Professional Psychology: Research and Practice*, 49(2), 167-176. <https://doi.org/10.1037/pro0000186>
- Bhukya, R., & Singh, S. (2015). The effect of perceived product risk dimensions on purchase intention: An empirical evidence from Indian private labels market. *American Journal of Business*, 30(4), 218-230. <https://doi.org/10.1108/AJB-10-2014-0055>
- Brady, M. K., Cronin, J. J., & Brand, R. R. (2002). Performance-only measurement of service quality: A replication and extension. *Journal of Business Research*, 55(1), 17-31. [https://doi.org/10.1016/S0148-2963\(00\)00171-5](https://doi.org/10.1016/S0148-2963(00)00171-5)
- Center on the developing child at Harvard University. (2007). Retrieved June 7, 2022, from www.developingchild.harvard.edu
- Chang, C. H., & Chen, Y. S. (2014). Managing green brand equity: The perspective of perceived risk theory. *Quality & Quantity*, 48(3), 1753-1768. <https://doi.org/10.1007/s11135-013-9872-y>
- Databoks. (2021). Anak Usia Dini di Indonesia Capai 30,83 Juta pada 2021 | Databoks. Katadata. Retrieved June 12, 2022, from <https://databoks.katadata.co.id/datapublish/2021/12/15/anak-usia-dini-di-indonesia-capai-3083-juta-pada-2021>
- Dave, Y., & Sohani, N. (n.d.). Improving productivity through lean practices in central India-based manufacturing industries. *International Journal of Lean Six Sigma*, 10(2), 601-621. <https://doi.org/10.1108/IJLSS-10-2017-0115>
- Direktorat PADU. (2003). Alat permainan edukatif untuk kelompok bermain. Jakarta: Depdiknas.
- Federal Trade Commission. (n.d.). Guides concerning the use of endorsements and testimonials in advertising. www.ftc.gov/sites/default/files/attachments/press-releases/ftc-publishes-final-guides-governing-endorsements-

- testimonials/091005revisedendorsementguides.pdf
- Fishbein, M. A., & Ajzen, I. (1975). *Belief, attitude, intention and behaviour: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Gan, C., & Wang, W. (2017). The influence of perceived value on purchase intention in social commerce context. *Internet Research*. <https://doi.org/10.1108/IntR-06-2016-0164>
- Grogan, K. E. (2012). Parents' choice of pre-kindergarten: The interaction of parent, child and contextual factors. *Early Child Development and Care*, 182(10), 1265–1287. <https://doi.org/10.1080/03004430.2011.608127>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (n.d.). *Multivariate data analysis* (7th ed.). Pearson Education: Harlow.
- Kamalul, A.S., Rahman, M.F.R.A., Muhammad, A.M., & Qi, Z. (2021). Understanding the consumer's intention to use the e-wallet services. *Spanish Journal of Marketing - ESIC*, 25(3), 446-461. DOI:10.1108/SJME-07-2021-0138
- Kassim, A.W.M., Igau, O.A., Harun, A., & Tahajuddin, S. (2014). Mediating effect of customer satisfaction on perceived product quality, perceived value and their relation to brand loyalty. *International Journal of Research in Management & Business Studies (IJRMBS)*, 1(2), 13-18.
- Kemenperin. (2014). Petunjuk teknis pelaksanaan pemberlakuan dan pengawasan penerapan standar nasional indonesia (SNI) mainan secara wajib. Direktorat Jenderal Basis Industri Manufaktur. https://www.bsn.go.id/uploads/download/Petunjuk_Teknis_pemberlakuan_penerapan_SNI_wajib_mainan_anak_20141.pdf
- Kodu, S. (2013). Harga, kualitas produk dan kualitas pelayanan pengaruhnya terhadap keputusan pembelian mobil toyota avanza. *Jurnal EMBA* 1251, 1(3).
- Koller, M., Floh, A., & Zauner, A. (2011). Further insights into perceived value and consumer loyalty: A “green” perspective. *Psychology & Marketing*, 28, 1154-1176. <https://doi.org/10.1002/mar.20432>
- Kurdi, B. A. (2008). Investigating the factors influencing parent toy purchase decisions: Reasoning and consequences. *International Business Research*, 10(4). 10.5539/ibr.v10n4p104
- Kutner, M., Nachtsheim, C., & Neter, J. (2004). *Applied linear regression models* (4th ed.). McGraw Hill.
- Laczniak, R.N., Carlson, L., & Walsh, A. Exploring the antecedents of mothers' attitudes toward the FCC's policy statement on toy-based programming. *Journal of Marketing Theory and Practice*, 7(4), 59-69
- Le Gall-Ely, M. (2009). Definition, measurement and determinants of the consumer's willingness to pay: a critical synthesis and avenues for further research. *Recherche et Applications en Marketing (English Edition)*. 24(2), 91-112. <https://doi.org/10.1177/205157070902400205>.
- Lee, J.-Y. and Jin, C.-H. (2019). The Role of Ethical Marketing Issues in Consumer-Brand Relationship. *Sustainability* 2019, 11, 6536. <https://doi.org/10.3390/su11236536>
- Lim, N. (2003). Consumers' perceived risk: sources versus consequences. *Electronic Commerce Research and Applications*, 2(3), 216-228
- Lin, C. (2003). The role of customer perceived value in generating customer satisfaction: An e-business perspective. *Journal of Research in Marketing & Entrepreneurship*, 5(1), 25-39.
- Lu, C. Y., Yeh, W. J., & Chen, B. T. (2016). The study of international students' behavior intention for leisure participation: Using perceived risk as a moderator. *Journal of Quality Assurance in Hospitality & Tourism*, 17(2), 224-236. <https://doi.org/10.1080/1528008X.2015.1115267>
- Malhotra, N. K. (2015). *Essentials of marketing research: A hands-on orientation* (Global ed.). Pearson Education Limited: Harlow.
- Mitchell, V. W. (1999). Consumer perceived risk: Conceptualisations and models. *European Journal of Marketing*, 33(1/2), 163-195. <https://doi.org/10.1108/03090569910249229>
- Moeslichatoen. (2006). *Metode pengajaran di taman kanak-kanak*. Departemen Pendidikan dan Kebudayaan.
- Oliver, R. L. (1999). Whence consumer loyalty? *Journal of Marketing*, Vol 63, 33–44.
- Omar, N.A., Alam, S.S., Aziz, N.A., & Nazri, M.A. (2011). Retail loyalty programs in Malaysia: The relationship of equity, value, satisfaction, trust and loyalty among

- cardholders. *Journal of Business Economic and Management*, 12(2), 334.
- Peter, J. P., & Olson, J. C. (2010). *Customer Behavior & Marketing Strategy*. McGraw-Hill Companies.
- Richards, M. N., Putnick, D. L., & Bornstein, M. H. (2020). Toy buying today: Considerations, information seeking, and thoughts about manufacturer suggested age. *Journal of Applied Developmental Psychology*, 68. <https://doi.org/10.1016/j.appdev.2020.101134>
- Rivis, A., & Sheeran, P. (2003). Descriptive norms as an additional predictor in the theory of planned behaviour: A meta-analysis. *Current Psychology*, 22(3), 218-223. <https://doi.org/10.1080/0954412989171>
- Ruhl, C. (2021, June 29). Montessori method of education. *Simply Psychology*. Retrieved June 5, 2022, from <https://www.simplypsychology.org/montessori-method-of-education.html>
- Schepers, J., & Wetzels, M. (2007). A meta-analysis of the technology acceptance model: Investigating subjective norm and moderation effects. *Information & Management*, 44(1), 90-103. <https://doi.org/10.1016/j.im.2006.10.007>
- Schmiege, S. J., Bryan, A., & Klein, W. M. (2009). Distinctions between worry and perceived risk in the context of the theory of planned behavior. *Journal of Applied Social Psychology*, 39(1), 95-119. <https://doi.org/10.1111/j.1559-1816.2008.00431.x>
- The Science of Early Childhood Development. (2007). Center on the Developing Child at Harvard University. Retrieved June 7, 2022, from www.developingchild.harvard.edu
- Scopelliti, M., & Musatti, T. (2013). Parents' view of child care quality: Values, evaluations, and satisfaction. *Journal of Child & Family Studies*, 22(8), 1025-1038. <https://doi.org/10.1007/s10826-012-9664-3>
- Sweeney, J. C., & Soutar, G. N. (2001). Consumer perceived value: The development of a multiple item scale. *Journal of Retailing*, 77(2), 203-220. [https://doi.org/10.1016/S0022-4359\(01\)00041-0](https://doi.org/10.1016/S0022-4359(01)00041-0)
- Sweeney, J. C., & Soutar, G. N. (2001). Consumer perceived value: the development of a multiple item scale. *J. Retail*, 77(2), 203-220. [https://doi.org/10.1016/s0022-4359\(01\)00041-0](https://doi.org/10.1016/s0022-4359(01)00041-0).
- Tedjasaputra, M. S. (2001). *Bermain, mainan dan permainan*. Gramedia Widiasarana Indonesia.
- Ulfa, M., & Djamaludin, M. D. (2016). The Influence of Parent's Perception and Involvement in Purchasing Decision of Toys For Children. *Journal of Consumer Sciences*, 01(01), 59-71. E-ISSN : 2460-8963
- Ulfa, M., & Djamaludin, M. D. (2016). The influence of parent's perception and involvement in purchasing decision of toys for children. *Journal of Consumer Sciences*, 1(1), 59-71. <https://doi.org/10.29244/jcs.1.1.59-71>
- Wang, X., Zhang, M., Yu, Y., Hu, B., & Yang, X. (2021). Extending the theory of planned behavior to examine Chinese parents' intention to use child care services for children under age 3. *Children and Youth Services Review*, 129. <https://doi.org/10.1016/j.chilyouth.2021.106208>
- Wu, J. H., Cheng, C. M., & Cheng, P. J. (2015). Behavioral intention toward urban ecoland performance assessment models using TPB tests. *Journal of Business Research*, 68(4), 771-776. <https://doi.org/10.1016/j.jbusres.2014.11.026>
- Yunanto, S. J., Priyono, S. A., & Sipayung, T. F. (2004). *Sumber belajar anak cerdas*. Grasindo.
- Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. *Journal of Marketing*, 52(3), 2-22. <https://doi.org/10.2307/1251446>
- Zhanga, F., Sun, S., Liu, C., & Chang, V. (2020). Consumer innovativeness, product innovation and smart toys. *Electronic Commerce Research and Applications*, 41. <https://doi.org/10.1016/j.elerap.2020.100974>