FOOD PRODUCT PACKAGING DESIGN AS MARKETING TOOLS IN PURCHASE DECISION

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ABSTRACT

This study examines the impact of packaging design on food packaging elements consisting of two independent variables (visual elements and information elements) on purchasing decisions, and also customer involvement and time pressure as moderating variables. Data collected using questionnaires and focus group discussions were used to find the right questions for the moderating variable. The hypothesis was tested using logistic regression because the purchase decision as the dependent variable only had two alternative answers (binary): yes (buy) or no (not to buy). Results show that three of the four elements have a significant effect on purchasing decisions, there are graphics and color, size and shape of packaging, and product information. Visual elements, graphics and product size and shape have a positive impact on purchasing decisions on low customer engagement and information elements affecting purchasing decisions at a higher level of engagement such as for customers who adopt healthy living.

Keywords: *logistic regression, packaging design, packaging elements, purchase decision*

1. INTRODUCTION

The packaging industry experts predicted that packaging products will reach the amount of USD 1 Trillion in global sales by 2020. This prediction was explained during the world's largest printing product exhibition, the Drupa Printing Exhibition, which was held in Germany in June 2016. Furthermore, the Director of Asia Pulp and Paper (APP) Europe as one of the biggest industry players in the packaging industry stated that there will be more than 9 billion consumers in the world living in the urban areas by 2050 and this could impact on the demand for food services and food packaging. (Izzudin, 2016).

Marketing often involves rapid communication; for example, watching a television commercial, driving past a poster, scanning packs in a supermarket, flipping through printed material.Research in psychology on brain laterality, shows that perception is not symmetrical; for instance, words are recalled better if they are perceived from the right-hand side of the individual, while pictorial or non-verbal cues are more successful if coming from the left-hand side. Under conditions of rapid perception, e.g. scanning packs while walking along the aisle in a supermarket, this differential perception and the positioning of the elements in a pack design may make the difference between identifying and missing the item concerned. (Rettie dan Brewer, 2000). Packaging communicates brand personality via multiple structural and visual elements, including a combination of

brand logo, colors, fonts, package materials, pictorials, product descriptions, shapes and other elements that provide rich brand associations (Underwood dan Klein, 2003).

Visual elements of packaging play an important role, which represents products for consumers, especially for products where the level of consumer involvement is low, and when they are pursued by time or in a hurry (Silayoi and Speece, 2004). Packaging is considered as the most important factor in purchasing decisions made at the point of sale (Prendergast and Pitt, 1996), which is an important part of the sales process. Design has moved forward in order to distinguish quality, because luxury factor become one of the main values for consumers at the beginning of the 21st century,. Design - for fashion, household products, automotive, cellular phones and computers - has become a critical factor for consumerism. With the sharper consumers' sensitivity about the quality of design, they are aware of the strength of packaging design and its influence on purchasing decisions (Klimchuk and Krasovec, 2007).

Along with the development product packaging value added, especially for food products, where in Indonesia at this time food in packaging can be found both in traditional markets and large supermarkets. Packaging began to become a special concern of producers both small and medium scale businesses or larger scale food companies, and even the government also contributed in providing education to small and medium entrepreneurs (MSMEs) about the importance of product packaging as an added value in marketing and its capability to increase sales volume .

Based on the explanation in the background of the study, the problems that can be identified are:

1. Is there any influence of the visual element of product packaging on consumer purchasing decisions?

2. Is there any influence of informational elements on product packaging on consumer purchasing decisions?

The scope of this study is limited to the variable visual element of the product, includes graphic elements and the shape and size of the packaging, and informational elements which include product information and technology used in product packaging and its effect on consumer purchasing decisions. Packaging here is packaging from food products. This study uses a survey method, while focus group discussions are used to formulate important aspects in compiling actual research questions.

The analytical tool used to test the hypotheses in this study is logistic regression analysis. This method was chosen with the consideration that the dependent variable in this study only has two alternative answers (binary), buy (yes) and not buy (no). In this study there are two main independent variables the visual element of packaging and the informational element of packaging which will be subdivided into four independent variables, the graphic element and shape and size, product information and packaging technology. In this study there are two other independent variables that are thought to have an influence on the relationship between the dependent and independent variables, the moderator variable, the two variables are the level of consumer involvement and the level of time pressure. The dependent variable in this study is the purchase decision.

2. LITERATURE REVIEW

The logistics function of the main product packaging is to protect the product during the time of distribution, while in terms of marketing, product packaging is an attractive way to convey messages about product attributes to consumers at the time of purchase (point of sale). Product packaging sells products by attracting attention and communicating and filling, sharing, combining and protecting products. Packaging is a critical factor in the decision making process because packaging is a form of communication with consumers. If packaging communicates high quality, consumers will assume that product quality is also high, and vice versa if packaging develops low quality, consumers will transfer perceptions about low quality (Silayoi and Speece, 2004).

In most supermarkets there are tens of thousands of different products lined up on shelves. Department stores, grocery stores, specialty goods stores, outlets and the internet are retail opportunities, and in this environment the product is more highlighted by the packaging. In fact, the product has been integrated into all aspects of our lives, so that the product is no longer a necessity item but a desire. With so many choices of consumers comes the product competition. Competition ultimately drives the need for market differentiation and the need to be different from the market. The packaging design serves to visually communicate product differences. From an appearance standpoint, without different packaging designs for all product brands, especially bread, milk and vegetables to perfume, lipstick and drinks, each product will appear the same. The role of packaging design as a sales tool will be very effective when marketing people have determined a certain market share class to target or a specific consumer class as a target (Klimchuk and Krasovec, 2007).

The function of the packaging relating to the marketing function is divided into two, namely packaging as an attraction for the product and strengthening the image of the product, packaging provides an attractive method for conveying the goodness of the product. Second, packaging has a strategic goal and also features competitors' products. While the role of packaging in relation to marketing and logistics is to provide convenience for consumers when carried and stored, secondly, packaging is seen as an outer product wrapper and the packaging can also be a place for packaging with smaller sizes into larger quantities. Third, packaging can facilitate the use of products, for example the use of shoe polish and consumption of fast food (Prendergast and Pitt, 1996).

The packaging element is divided into two namely the visual element and the informational element, where the visual element is further divided into two namely the graphic and color elements, while for the informational element is divided into two namely the product information element and packaging technology (Silayoi and Speece, 2004)

1. Graphic and Color Elements

   Graphic Elements include layout, color combination, typography (letter layout), and product photography, all of which create an image. Packaging that attracts consumers at the time of purchase will help them to make quick decisions at the store. When consumers' views traverse the shelves at shopping places, different new packaging will appear to challenge competitors (Silayoi and Speece, 2004).

2. Packaging Size and Shape

   The form of packaging also affects consumer judgments and decisions, but is not always easily known. Enderung consumers see packaging to assess product volume (Raghubir and Khrisna, 1999). Different sizes also have different appeal. For example,

low prices for products with a low level of involvement, such as generic products, tend to be packaged in larger packages, due to cost savings reasons (Prendergast and Marr, 1997). What is meant by the shape and size of product packaging in this research is how the form of product packaging, the size of the product size both width and length, because this is seen to affect consumers' decisions to choose the product concerned or not (Silayoi and Speece, 2004).

3. Elemen Informasional

Divided into two things, namely product information and technology. Information written on the packaging can help consumers make their decisions more carefully, because they consider the characteristics of the product. Too much, inaccurate and misleading information on the packaging can confuse consumers. What is meant by product information in this study is information that can be known from food product packaging labels such as, product name, content, expiration time, quantity of content, identification of product origin, nutritional information, halal certification and other quality signs (Silayoi and Speece , 2004).

The main function of technology is to protect the product and its contents from damage and leakage during storage, in transit and when in use (Smith and Taylor, 2004). The technology developed for packaging comes directly from current trends in product and consumer behavior. Retailers who have the power will try to look for the ability / reaction and flexibility of producers, including packaging, to satisfy increasingly demanding and complicated consumers (Adebanjo, 2000). Using packaging with the latest technology will add value to a product in the minds of consumers, such as ease of opening, ease of storage, ease of recycling, not perishable, child friendly, environmentally friendly (Shah et al, 2013).

4. Level of Involvement

The level of involvement is the level of perceived personal interest and or interest generated by the stimulus in a specific situation to the extent of its presence, consumers act deliberately to minimize risk and maximize the benefits derived from purchase and use (McKechine, 2012). Consumer involvement is also assumed to be the person who feels important and / or consumer interest in the acquisition, consumption, and disposition of goods, services, or ideas. (Jones, 2008). Consumers with a high level of involvement will tend to be loyal to a brand. The level of involvement will be perceived based on the importance of the product. In consumer buying behavior, the most familiar products have more potential to be purchased. For example, products from well-known companies are more trusted. Consumers also assess the quality of the product from the appearance of the product, where product quality will tend to be reflected in how the product is packaging. Higher levels of involvement require more attention so as to create different engagements for the same product (Silayoi and Speece, 2004)

5. Time pressure

Consumers who are under time pressure tend to make decisions when there are packages with different looks and provide simple and accurate information. The unique form of packaging makes it possible to arouse consumers' curiosity more quickly and encourage their purchasing decisions (Silayoi and Speece, 2004). Increasing the number of consumers who are single, and a decrease in the number of family members, behavior change is a major factor of the lack of time available for

many consumers. In other words, time pressure tends to be an important factor to be considered or considered by a packaging designer.

When consumers have high time constraints, they will spend less time making purchasing decisions. Shopping under high time pressure results in consumers making decisions in a short time without careful consideration, which sometimes causes them to make fewer purchases than intended or planned (Silayoi and Speece, 2004).

6. Research Model
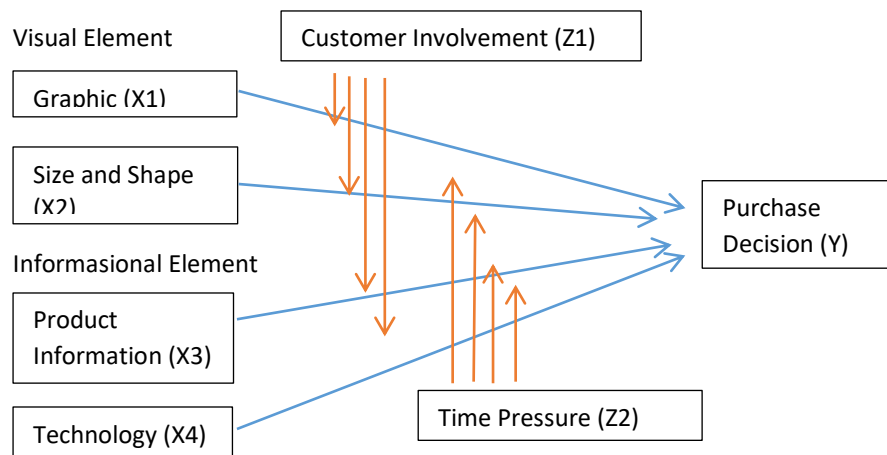
2.1 Research model (Silayoi dan Speece, 2004).

Research Hypothesis

H1: The graphic visual elements of product packaging positively influence purchasing decisions

H2: The visual elements of the size and shape of the product packaging affect purchasing decisions positively

H3: The informational element of packaging technology influences purchasing decisions positively

H4: The informational element of packaging technology influences purchasing decisions positively

H5a: The degree of product involvement has a moderating effect on the relationship between graphic packaging elements and purchasing decisions

H5b: The degree of product involvement has a moderating effect on the relationship between the shape / size of the packaging and the purchasing decision

H5c: The degree of product involvement has a moderating effect on the relationship between product information and purchasing decisions

H5d: The degree of product involvement has a moderating effect on the relationship between packaging technology and purchasing decisions

H6a: Time pressure has a moderating effect on the relationship between packaging graphic elements and purchasing decisions

H6b: Time pressure has a moderating effect on the relationship between the shape / size of the packaging and the purchasing decision

H6c: Time pressure has a moderating effect on the relationship between product information and purchasing decisions

H6d: Product time pressure has a moderating effect on the relationship between packaging technology and purchasing decisions

3. RESEARCH METHOD

Population and Sample

The population of this research is all consumers of Cilandak Transmart Carrefour. Samples were taken using a purposive sampling method with the following criteria: Consumers who have shopped at Cilandak Carrefour Transmart, Consumers who have purchased packaged food products at Transmiland Carrefour Cilandak, Consumers who buy packaged food products at Transmiland Carrefour Cilandak during the time period of this research are conducted in January-March 2018.

This sampling method is used with the aim of getting samples that are in line with research objectives and can solve research problems and can provide a more representative value. The minimum sample size for which data is used is ten times the number of variables (Hair et al, 2010). The number of samples used in this study is twenty times the number of variables, the number of variables is five variables, so the sample used is at least 100 samples.

Variable Measurement

a. Independent Variable

In this research, product packaging elements include visual packaging elements, namely graphic elements (X1) and packaging shape and size (X2). Graphic elements include layout, color combinations, fonts and product photography. Whereas what is meant by the shape and size of the packaging, which is intended as the dimensions of the shape of the product packaging, the length and width of the product packaging (Silayoi and Speece, 2004). The next independent variable is product information (X3), which means that product information contained in the product packaging is the product name, content, expiry time, quantity of content, halal certification, identification of product origin, nutritional information and other quality signs. The next variable is packaging technology (X4) is a technology used in product packaging, which is directly related to product durability in packaging, friendliness to the environment and product safety.Measurement of this independent variable will be measured using an interval scale which is a measurement that combines the characteristics of two other measurement scales namely the nominal scale and ordinal scale plus one characteristic, namely equality concept (equality), where in the interval scale the distance between 1 and 2 is equal to distance 2 and 3 (Cooper and Schindler, 2013). The interval scale to be used in this study is a five-point Likert scale with each point being 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree.

b. Dependent Variable

The dependent variable or the dependent variable in this study is the consumer purchasing decision. The dependent variable in this study is measured by a noun scale, where by a noun scale, data is categorized in each group that is numbered (numerical symbol). quantitative (Cooper and Schindler, 2013). Because the dependent variable in this study only has two alternative choices (dichotomy), the measurement scale to be used is the simple category scale, where the answer choices are 1 = yes (buy) and 0 = no (not buy). Diskusi kelompok *(Focus Group Discussion)*. To measure the moderator variables in this research, namely time pressure and the level of consumer involvement, it is necessary to arrange questions that will be used as a measurement tool on variables considered as moderator variables in order to find and formulate important aspects related to the two variables that are used to arrange the questions in the actual research questionnaire. The group discussion to be carried out aims to find important aspects related to the moderator variable in this study, namely time pressure (Z1) and level of consumer involvement (Z2) in relation to product packaging as a topic to be discussed.

Validity Test

Testing this study uses construct validity which is defined as the ability of a measurement to provide empirical evidence that is consistent with the theory in the concept. Construct validity indicates for what purpose a test is intended, what theoritical construct is desired to be measured. The construct validity can be used by testing the correlation between variables, the correlation coefficient is indicated by the value of r. One method for conducting this validity test is to use Factor Analysis. Factor Analysis is a term intended for a multivariate statistical method where the main objective is to describe the basic structure between various variables in an analysis (Hair et al, 2010). This factor analysis will see whether a group of question items that make up one variable will be grouped according to the variable or factor in question.

Reliability Test

Reliability testing is intended to measure the accuracy, accuracy and consistency of the instrument (Cooper and Schindler, 2014). The commonly used test is Cronbach's Alpha which shows the value of the reliability coefficient to measure the magnitude of positive relationships between variables. The test results are getting closer to 1, showing the consistency of higher internal reliability (Sekaran, 2016). Reliability testing will be carried out with 60 respondents using Cronbach's Alpha. The lowest standard yield for Cronbach's Alpha is 0.70 (hair, black, babin, & anderson, 2010)

Hypothesis test

Relationships between variables will be tested using logistic regression. Logistic regression analysis is a special regression for the dependent variable which is non-metric and dichotomous or binary (hair, black, babin, & anderson, 2010). This method was chosen with the consideration that the dependent variable in this study only has two alternative answer choices, namely buying (yes) and not buying (no). In this study there are two independent variables, namely the product packaging element which includes the visual packaging element, namely the graphic element (X1) and the shape and size of the package (X2) and the informational element which includes two variables, namely product information (X3) and packaging technology (X4). The dependent variable or dependent variable in this study is the consumer purchasing decision (Y). In this study

there are other variables that influence the relationship between the independent variable and the dependent variable, namely the moderator variable (hair, black, babin, & anderson, 2010). The moderator variable is an independent variable that changes the form of the relationship between the dependent and independent variables, the variable is time pressure (Z1) and the level of consumer involvement (Z2).

4. RESULT AND DISCUSSION

Validity and Reliability Test

The results of the validity test with factor analysis produce the division presented in table 4.1. KMO-MSA value> 0.5 (0.733) indicates that the intercorrelation between the factors is considered small and the value of Bartlett's Test is 0.595 with a significance level of 0.000 which means that the value is deemed to meet the requirements and is considered valid, so that no question items are discarded .

Tabel 4.1 Factor Analysis Result (Rotated Component Matrix)

	Component					
	1	**2**	**3**	**4**	**5**	**6**
X1.1					.602	
X1.2					.746	
X1.3					.780	
X1.4					.815	
X1.5				.374	.694	
X2.1						.621
X2.2						.659
X2.3			-.313			.609
X2.4			-.322			.709
X2.5						.710
X2.6						.706
X3.1	.756					
X3.2	.778					
X3.3	.726					
X3.4	.771					
X3.5	.704					
X3.6	.775					
X4.1		.704				
X4.2		.706	.326			
X4.3		.728	.450			
X4.4		.543	.442			
X4.5		.678				
X4.6		.710				
Z1.1			.599	.348		
Z1.2			.509			
Z1.3			.456			
Z1.4			.759			
Z1.5			.631			
Z1.6		.304	.645			
Z2.1				.669		
Z2.2				.615		
Z2.3	.307			.673		

Z2.4				.672		
Z2.5		.351		.616		
Z2.6		.471		.510		

Reliability testing uses Cronbach's Alpha which produces the following values:

Table 4.2 Reliability Test Results

Variabel	Cronbach's Alpha	Status
Elemen Grafis Kemasan (X1)	0.8204	Baik
Bentuk dan Ukuran Kemasan (X2)	0.7744	Baik
Elemen Informasional (X3)	0.8691	Baik
Teknologi Kemasan (X4)	0.8568	Baik
Tingkat Tekanan Waktu (Z1)	0.7510	Baik
Tingkat Keterlibatan (Z2)	0.8186	Baik

The above results indicate that all variables having a reliability value of more than 0.6 are considered reliable, where the value means that the items per variable are consistent with each other.

Hypothesis Testing Using Logistic Regression

Tabel 4.3 Hasil Pengujian Statistik Keputusan Pembelian

Classification Table

Observed			Predicted		
			Keputusan Pembelian Produk		
			Tidak Membeli	Membeli	Percentage Correct
Step 1 Purchase Decision	Not Buying		26[1]	17[2]	60.5[5]
	Buying		8[3]	99[4]	92.5[6]
Overall Percentage					83.3[7]

Remarks :

• a The cut value is .500

• 1 Number of predicted results of consumers who do not buy

• 2 The number of observations by consumers who change the decision from not buying to buying (misclassified)

• 1 + 2 Total number of prediction results for consumers who do not buy

• 3 The number of consumer observations that change not to buy (misclassified)

• 4 the number of observations of consumers who buy

• 3 + 4 number of overall predicted outcomes of consumers who buy

• 5,6,7 Percentage of accuracy of the classification of observations

The results of data processing using logistic regression analysis in table 4.3 illustrate that the accuracy of the model classification to predict the opportunity not to buy is 60.5%, namely 26 respondents plus 17 respondents who initially had a decision not to buy (misclassified) with the presence of packaging elements, then 99 and 8 respondents who have the decision to buy, predicted to decrease 8 respondents who changed the decision to not buy with the accuracy of the model classification in predicting consumers' chances of buying by 92.5%

The general equation model used is as follows:

$$Y = X1+X2+X3+X4+Z1+Z2+Z3+Z4+ X1.Z1.Z2+X2.Z1.Z2+X3.Z1.Z2+X4.Z1.Z2$$

Table 4.4 Logistic Regression Testing Results

Variables in the Equation

		B	S.E.	Wald	df	Sig	Exp(B)
Step 1(a)	X1	.791	.318	6.181	1	.013	2.207
	X2	1069	.422	6.408	1	.011	2.912
	X3	.878	.425	4.264	1	.039	2.406
	X4	-.539	.288	3.503	1	.061	.583
	Z1	1.295	.440	8.657	1	.003	3.652
	Z2	1.017	.382	7.091	1	.008	2.765
	X1.Z1.Z2	-.001	.001	2.134	1	.144	.999
	X2.Z1.Z2	-.002	.001	6.504	1	.011	.998
	X3.Z1.Z2	-.002	.001	3.626	1	.057	.998
	X4.Z1.Z2	-.002	.001	7.394	1	.007	1.002
	Constant	-67.114	19.962	11.304	1	.001	.000

X1 has a significance level of 0.013 <0.05, so it can be concluded for hypothesis 1 that Ho is rejected and Ha is accepted, which means the first hypothesis is supported and the graphical elements of packaging have a significant effect on purchasing decisions. X2 has a significance level of 0.011 <0.05 so it can be concluded for hypothesis 1 that Ho is rejected and Ha is accepted, which means the second hypothesis is supported and the variable elements of shape and packaging size significantly influence the purchase decision. X3 has a significance level of 0.039 <0.05, so it can be concluded that hypothesis 3 Ho is rejected and Ha is accepted, which means the first hypothesis is supported and the informational element variable of product information is significantly proven to influence purchasing decisions. The X4 variable has a significance value of 0.061> 0.05 so that it can be concluded that the 3 Ha hypothesis is rejected and Ho is accepted and the packaging technology variable does not significantly influence the purchase decision. The test results for hypothesis 5a show that this hypothesis does not significantly influence the purchase decision, this can be seen from the results of the significance of 0.144> 0.05. So it can be said that the level of consumer involvement has no influence on the relationship between the graphic elements of packaging with the decision purchase. Hypothesis 5b statistical test results indicate that the significance value of 0.011 <0.05 so that Ho is rejected and Ha is accepted and the hypothesis is stated

to have a significant effect. The next hypothesis is hypothesis 5c where the statistical test results show the number 0.057> 0.05 so it is stated that Ho is accepted and Ha is rejected and hypothesis 5c is declared insignificant. The statistical test results for the 5d hypothesis are the significance value 0.007 <0.05 so that the hypothesis is proven significant and it can be concluded that the moderator variable level of involvement has a moderating effect on the relationship between elements of packaging technology and purchasing decisions, that is, at high levels of involvement, consumers will pay more attention to the technology used in packaging to determine purchasing decisions. Hypothesis 6a has a significance value of 0.144> 0.05 so that hypothesis 6a is not supported, that time pressure does not have a moderating effect on the relationship between graphical elements and purchasing decisions. Statistical test results for hypothesis 6b indicate that there is a significance value of 0.011 <0.05 which means that Ha is accepted that the time pressure variable has a moderating effect on the relationship between elements / forms of packaging and purchasing decisions. The statistical test for hypothesis 6c shows a significance value of 0.057> 0.05 so it is stated that the hypothesis is not supported. The statistical test for the 6d hypothesis shows a significance value of 0.007 <0.05 which can be interpreted that the 6d hypothesis is supported namely time pressure has a moderating effect on the relationship between elements of packaging technology and purchasing decisions.

5. CONCLUSION

1. The visual elements of packaging, namely the graphic elements of packaging and the informational elements of packaging, significantly influence the purchase decision.

2. Packaging informational elements namely product information elements significantly influence purchasing decisions.

3. The level of consumer involvement and time pressure have a significant effect on the relationship between the shape / size of the packaging and purchasing decisions

4. The level of consumer involvement has a moderating effect on the relationship between packaging technology and purchasing decisions

5. Limitations of this study are that research is only carried out on elements of packaging of food products outside of packaged drinks, baby food and baby milk. Then the limitations are also only applied to respondents in one study location.

Suggestion

1. Further research can be done on other types of products in packaging

2. Further research can be carried out with different respondents who can come from more than one location

3. Subsequent research variables can be narrowed down to be able to get more specific results

4. In the current digital era where food products are also sold online, food packaging plays an important role to support product attractiveness and increase sales.

6. REFERENCES

Boddy, C (2005). "A rose by any another name may smell as sweet but "group discussion" is not another name for a "focus group" nor should it be, "*Qualitative Market Research : An International Journal*, Vol. 8 No.3, pp.248-255

Cooper, D.R. dan Schindler, P.S. (2014). *Business Research Methods*. New York: McGraw-Hill.

Hair, j., Black, w., Babin, b. j., & Anderson, r. e. (2010). *multivariate data analysis.*

Izzudin. (2016, june 21). *ekbis sindo news*. Retrieved from ekbis sindo news: https://ekbis.sindonews.com

Klimchuk, Marianne R., & Krasovec, Sandra A. (2007). Desain Kemasan: Perencanaan Merek Produk yang Berhasil Mulai dari Konsep sampai Penjualan (Bob Sabran, Penerjemah.). Jakarta : Erlangga

Prendergast, P.G. and Marr, N.E. (1997). "Generic Products : Who Buys Them and How Do They Perform Relative to Each Other?."*European Journal of Marketing,* Vol. 31 No.2, pp.94-109

Prendergast, P.G and Pitt, L.(1996)."Packaging, Marketing, Logistic and the Environtment : Are There Trade-Offs?,"*International Journal of Physical Distribution & Logistic Management,* Vol. 26 No.6,pp 60-72

Rettie, R. and Brewer, C. (2000). "The Verbal and Visual Components of Package Design," *Journal of Product and Brand Management,* Vol. 9, pp. 56-70.

Silayoi, P and Speece, M (2004). "Packaging And Purchase Decision : an Exploratory Study on Impact of Involvement Level and Time Pressure," *British Food Journal,* Vol. 106 No.8, pp.607-628

Shah Sabeehullah., Adnan Ahmad & Nawaz Ahmad. (2013). *Role of Packaging in Consumer Buying Behavior: A Study of University Students of Peshawar Region KPK Pakistan.* Internationa Review of Basic Applied Scince, July 2013, Vol. 1, Issue 2.

Smith, P.R. & Taylor, J. 2004, Marketing Communications - An Integrated Approach, 4th edn, Kogan Page, Ltd., London, UK.

Underwood, Robert L. (2003). The Communicative Power Of Product Packaging: Creating Brand Identity Via Lived And Mediated Experience. Journal Of Marketing Theory And Practice