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The Power of Strong Aroma: The Effects of Ambient Scent on Traditional Kapurung Food for Customer Impulsive Buying

Nofias Fajri[1*], Nurkhaerani Busri[2], Fhirdani Faujiah[3], Rindhi Marverissa[4] , Agnes Alvionita[5]

[1,2]Jurusan Teknik Industri Agro, Politeknik ATI Makassar, Makassar
[2]Electronics Industry Marketing Management, Politeknik APP Jakarta, Jakarta
[3]ccounting, Economic and Accounting Faculty, Universitas Pendidikan Ganesha, Buleleng
[4]Management Department, Faculty of Economic and Business, University of Riau, Pekanbaru
***Corresponding author**: fiasfajri@atim.ac.id

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Abstract
The development of the food UMKM sector has an important role in economic growth. Indonesia has a variety of traditional foods from various regions such as Kapurung. Public interest in traditional foods has decreased because of the tendency of people to consume modern foods that have a more appetizing aroma. The purpose of this study was to create a valid and reliable model that can represent scent ambient on impulsive buying behavior. The data analysis method used the Structural Equation Model PLS method. The results obtained in this study contained one initial hypothesis used in the development of 25 scent ambient items with 70 consumer respondents at the Pugalu Kapurung stall. The time spent (TS) indicator is an indicator that has a significant influence on impulsive buying behavior (IB) with a path coefficient value of 0.795, while the scent ambient variable significantly affects impulsive buying behavior with a path coefficient value of 0.539. The scent ambient variable is influenced by the scent intensity sub variable with a path coefficient value of 0.317. The stimulating indicator has a significant influence on scent intensity with a path coefficient value of 0.153.
Keywords: *traditional food, kapurung, scent ambient*

Abstrak
Perkembangan sektor UMKM makanan memiliki peranan penting dalam pertumbuhan ekonomi. Indonesia memiliki berbagai macam makanan tradisional dari berbagai daerah seperti kapurung. Minat masyarakat terhadap makanan tradisional menurun karena kecenderungan masyarakat untuk mengkonsumsi makanan modern yang memiliki aroma yang lebih menggugah selera makan. Tujuan penelitian ini adalah untuk menciptakan model yang valid dan reliabel yang dapat mereprentasikan scent ambient terhadap *implusive buying behaviour*. Metode analisis data dengan menggunakan metode *Structural Equation Model* PLS. Hasil yang diperoleh pada penelitian ini terdapat satu hipotesis awal digunakan dalam pengembangan 25 item scent ambient dengan 70 responden konsumen di warung pugalu kapurung. Indikator *time spent* (TS) adalah indikator yang memiliki pengaruh signifikan terhadap *implusive buying behaviour* (IB) dengan nilai path coefficient sebesar 0,795, sedangkan variabel scent ambient mempengaruhi secara signifikan *implusive buying* behaviour dengan nilai *path coefficient* 0.539. *Variabel scent ambient* dipengaruhi oleh sub *variabel scent intensity* dengan nilai *path coefficient* sebesar 0.317. Indikator *stimulating* memiliki pengaruh yang signifikan terhadap *scent intensity* dengan nilai *path coefficient* 0,153.
Kata Kunci: *makanan tradisional, kapurung, scent ambient*

1. Introduction

The Micro, Small, and Medium Enterprises (MSMEs) sector plays a crucial role in Indonesia's economic growth. The development of MSMEs encourages increased investment, employment, poverty reduction, and overall economic development [1]. The number of MSMEs in Indonesia increases annually. In 2017, the number of MSMEs reached 62,922,617 units, increasing to 64,194,056 units in 2018, an increase of 8.98%. One of the MSMEs experiencing growth is the food MSME sector. Based on data [2], the food business is the sector that contributes the most to the creative economy compared to other sectors. Food MSMEs contribute 34% to the Indonesian economy [3]. Indonesia has a wide variety of traditional foods from various regions. One traditional Indonesian food originating from South Sulawesi, specifically the Luwu region, is known as kapurung, made from sago flour. Kapurung is a traditional dish popular in Makassar. Kapurung is cooked with a mixture of fish or chicken and various vegetables in a broth [4].

Public interest in traditional foods has begun to decline due to the tendency to consume modern foods and junk food. Young people tend to choose to eat at fast food restaurants because they have affordable prices, quality service, and comfortable places [5]. In addition, modern foods and junk food have aromas that are more appetizing, which can influence consumer purchases [6]. Based on research from the Instituto Universitario de Lisboa in 2019, it was stated that there are five senses that influence consumer decision-making regarding food purchases, these five senses are taste, sight, smell, sound, and touch. According to [7], the most important five senses are sight and smell. The sense of smell or smell influences a person's emotions, mindset, and behavior very highly in decision-making in purchasing a product [8].

According to [9], concluded that pleasant ambient scents will have a positive impact, while unpleasant ambient scents tend to have a negative effect. This shows that scent can provide a response that can regulate a person's emotions. A person's emotions consist of several dimensions, generally namely pleasure and intensity [10]. Pleasure refers to the extent to which a person feels happy, cheerful and satisfied in a situation [11]. While Intensity refers to a person with a high intensity of influence showing a higher intensity of emotions thus creating a positive attraction [12]. A person's mood can influence three impulsive buying behaviors, namely Money Spent, Time Spent, Revisit Intention [13]. The Structural Equation Modeling Partial Least Square (SEM PLS) method is a multivariate analysis method which is an analysis method used to analyze several variables simultaneously [14]. There are two variables in SEM PLS, namely constructs (Latent Variables) and indicators (Manifest Variables) [15].

2. Material and Methods

This research was conducted at Warung Pugalu Kapurung, located at Jl. Andi Djemma No. 4, Banta-Bantaeng, Rappocini District, Makassar City, South Sulawesi. The research period began in March 2025 to June 2025. The type of research conducted was descriptive quantitative where the influence of ambient scent can influence impulsive buying behavior towards food through data obtained and analysis using the SEM method. The sample size in the study chosen to represent the population in this study was adjusted to the Structural Equation Model (SEM) analysis model. The sample size using the Partial Least Square (PLS) model is 30-200 samples. Or as many as 5-10 times the number of estimated parameters (Siregar, 2017). In this study, the number of parameters was 12, so 12 x 5 = 60 samples so that this number has met the minimum requirements for data processing. The number of samples used in this study was 70 samples. The indicators in this study can be seen in **Table 1.**

Table 1. Research Indicators

Construct	Indicator		Code
Scent Ambient	***Scent Pleasure***	*Comfortable*	**X1**
			X2
		Colorful	**X3**
			X4
		Motivating	**X5**
			X6
	Scent Pleasure		**X7**
			X8
			X9
	Scent Intensity	*Positive*	**X10**
			X11
		Stimulating	**X12**
			X13
	Scent Intensity		**X14**
			X15
			X16
Implusive Buying Behavior	***Time Spent***		**X17**
			X18
	Money Spent		**X19**
			X20
			X21
	Revisit Intention		**X22**
			X23
Scent Ambient			**X24**
Implusive Buying Behaviour			**X25**

3. Results and Discussion

The age group used in this study is based on generational stratification. This generational stratification is divided into four groups. The first group is Baby Boomers, born between 1964 and 59 years old. This generation is adaptive, easily accepting and adapting to the emergence of new technologies, such as electronic devices. The second group is Generation X, born between 1965 and 1980, aged 43 and 58, during the early years of PC, internet, and other technologies. The third generation is Generation Y, or Millennials, born between 1981 and 1994, aged 29 and 42. This generation is already familiar with technology and the internet. The fourth generation is Generation Z, or the net generation, born between 1995 and 2010, aged 13 and 28. This generation has been familiar with technology and sophisticated gadgets since childhood. The age composition of respondents in this study based on age groups can be seen in **Figure 1**.

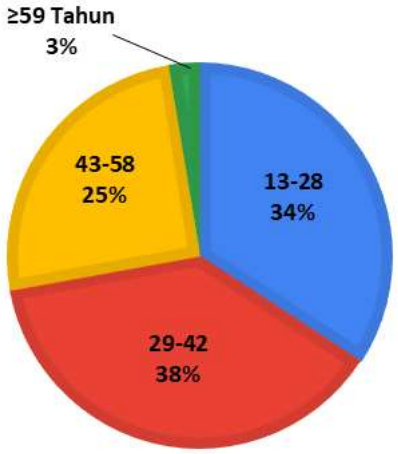

Figure 1. Age Group of Responden

Based on gender, female respondents dominated, representing 69% of the customers who purchased kapurung at the Pugalu Kapurung stall. Male respondents, on the other hand, represented only 31%. Based on the average results for kapurung purchase intensity, the frequency of kapurung purchases positively influenced impulsive buying behavior. The average purchase intensity of kapurung had a value of 3.32, indicating a strong correlation between kapurung purchase intensity and impulsive buying behavior, indicating that consumers are loyal to the store due to frequent purchases. This aligns with research that suggests that aroma is used in marketing strategies to increase sales and customer loyalty.

This validity test was designed to assess the questionnaire's or instrument's ability to make predictions. This was obtained by examining the correlation between the instrument being tested and other instruments deemed comparable to what the instrument would assess. The Pearson product moment (r) test was used to compare each dependent variable; a higher correlation indicates strong validity. A commonly used reliability test is the Cronbach's alpha coefficient. A good reliability test is recommended to have a Cronbach's Alpha value greater than or equal to 0.6. Instrument reliability can be seen for a value <0.5 has low reliability, a value of 0.5-0.7 has moderate reliability, a value of 0.7-0.9 has high reliability and >0.9 has excellent reliability. The results of the Pearson Product Moment validity test on each questionnaire item in this study can be seen in **Table 2**.

Table 2. r Value for Quetioner Validity Test

Question Code	R Calculaion	R Table	Explanation
X1	**0,163**	**0,235**	**Not Valid**
X2	0,452	0,235	Valid
X3	0,376	0,235	Valid
X4	0,361	0,235	Valid
X5	0,650	0,235	Valid
X6	0,717	0,235	Valid
X7	0,767	0,235	Valid
X8	0,790	0,235	Valid

X9	0,776	0,235	Valid
X10	**0,220**	**0,235**	**Not Valid**
X11	**0,120**	**0,235**	**Not Valid**
X12	**0,217**	**0,235**	**Not Valid**
X13	0,364	0,235	Valid
X14	0,774	0,235	Valid
X15	0,807	0,235	Valid
X16	0,598	0,235	Valid
X17	0,484	0,235	Valid
X18	0,840	0,235	Valid
X19	0,760	0,235	Valid
X20	0,813	0,235	Valid
X21	0,794	0,235	Valid
X22	0,802	0,235	Valid
X23	0,750	0,235	Valid
X24	0,704	0,235	Valid
X25	0,620	0,235	Valid

Based on the Pearson Product Moment validity test, four questionnaire items were found to be invalid, with calculated r values ranging from 0.160 to 0.220, indicating they were lower than the table r value. The reliability test for the questionnaire items, using Cronbach's alpha, showed a value of 0.944, indicating high reliability, as it was greater than 0.6 and greater than the table r value. The SPSS analysis also showed that the case processing summary was 100% valid, as the questionnaire items were completed completely.

Data analysis and processing in this study used a Structural Equation Modeling (SEM) approach based on Partial Least Squares (PLS). The PLS SEM analysis process involved five stages: first, creating a conceptual model, determining the analysis algorithm, determining resampling, drawing a path diagram, and evaluating the model. The path diagram was connected according to the conceptual framework previously created from the literature review. The path diagram of impulsive buying behavior used in this study can be seen in **Figure 2**.

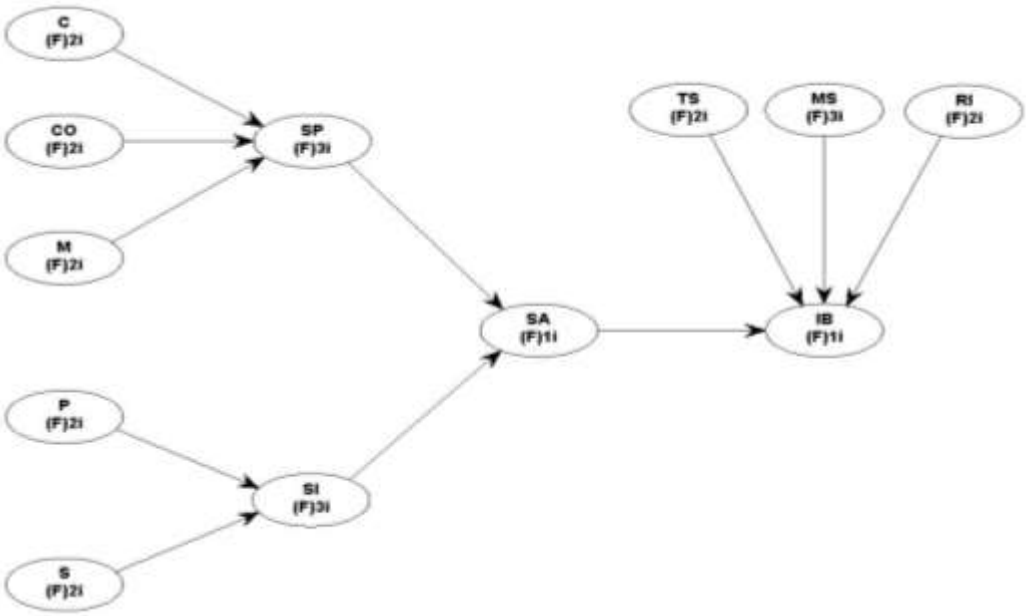

Figure 2. Part Diagram of Implusive Buying Behaviour Model

Based on the path diagram that was formed, the regression equation model for the impulsive buying behavior model from the design model in **Figure 2** can be seen in **Table 3**.

Table 3. Regresion Equation Model

Variable	Regresion Equation
SP	*A1*C + A2*CO + A3*M + ε1*
SI	*B1*P + B1*S + ε2*
SA	*C1*SP + C2*SI + ε3*
IB	*E1*SA + ε5*
IB	*D1*TS + D2*MS + D3*RI + ε4*

Variables ε1, ε2, ε3, and ε4 are not included in the study. This represents the error weighted by the Warp PLS software for each variable. The values of A1, A2, A3, B1, B2, C1, C2, D1, D2, and D3 can be determined based on the path coefficient values obtained from the structural model evaluation. Convergent validity was conducted to determine the validity of each relationship between indicators and other latent variable constructs in the model. The convergent validity of the model reflects the indicators assessed based on the correlation between component scores and construct scores estimated by the PLS program.

Factor loading values are considered to have a high level of validity if the loading factor is greater than 0.7 and are considered adequate if they range between 0.5 and 0.6. Values that do not meet convergent validity are considered less than 0.5. The results of the outer loading values in this model can be seen in Table 4 for each indicator within the latent variable in the model.

Table 4. *Outer Loading (Measurement Model)*

Laten Variable	Code	*Outer Loading*
Comfortable	*C2*	1.000
Motivating	*M1*	0.947
	M2	0.947
Scent Pleasure	*SP1*	0.922
	SP2	0.916
	SP3	0.891
Stimulating	*S1*	1.000
Scent Intensity	*SI1*	0.907
	SI2	0.888
	SI3	0.817
Scent Ambient	*SA1*	1.000
Time Spent	*TS1*	0.938
	TS2	0.938
Implusive Buying Behaviour	*IB1*	1.000

The results of data processing using Wrap PLS in **Table 4** show that all indicators for each variable have a loading factor greater than 0.50, therefore no indicators need to be eliminated. This indicates that all indicators for the variables with loading factor values above 0.50 demonstrate a good level of validity, thus meeting convergent validity. This indicates that the indicators are valid.

The research model must be tested for convergent and discriminant validity, as well as construct or latent variable reliability, which is measured by examining the composite reliability value of each indicator block measuring the constructs. A construct is considered reliable if the composite reliability value is greater than 0.50. The Warp PLS output values for measuring reliability from the composite reliability values are shown in **Table 5**.

Tabel 5. Nilai *Composite Reliability*

Variable	*Composite Reliability*
M	0.946
SP	0.935
SI	0.904
TS	0.936

The reliability results from the Warp PLS output show that the composite reliability values for all constructs are above 0.50. This value indicates that the constructs have good reliability, meeting the minimum threshold of 0.50.

The Q2 value illustrates the accuracy of the observed values generated by the model and its estimated parameters. A Q2 value greater than 0 indicates the model exhibits predictive relevance, while a value less than 0 indicates reflective relevance. The Q2 values ranged from 0.031 to 0.634, indicating that none of the endogenous latent variable constructs had relevant predictions. The summary results of the research model, which are PLS outputs, show the R2 variances in the dependent constructs and their respective path coefficients.

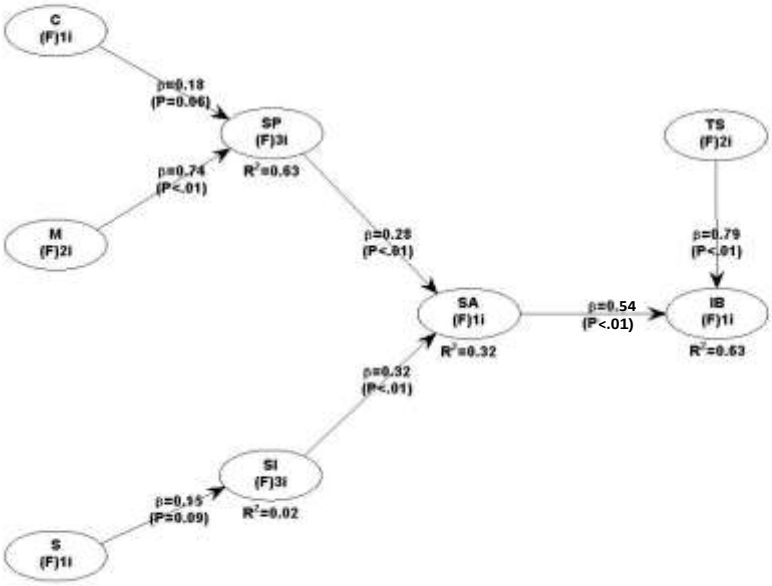

Figure 3. Structural Test Result

Each part of the research model requires validation of the measurement model, the structural model, and the overall model, which can be measured using the Goodness of Fit (GoF) index. A Goodness of Fit (Gf) value in a Warp PLS model of ≥0.1 indicates low overall model quality; a Gf value of ≥0.25 indicates medium model quality; and a Gf value of ≥0.36 indicates high overall model quality. The Gf index value of this model, based on the output, is 0.603, indicating high overall model quality, as the Gf index value is ≥0.36.

The final model resulted in four eliminated paths. Two reflective paths, meaning they have an inverse relationship to the variables, were identified. The first was the impulsive buying behavior variable, which influences money spent, indicating a person's willingness to spend more when purchasing kapurung. The scent intensity variable influenced the positive indicator, indicating that a good aroma intensity would have a positive impact on a person. The colorful indicator had no significant effect on scent pleasure, and the revisit intention indicator had no significant effect on impulsive buying behavior. The solution to increase public interest is by adding a special seasoning, namely patikala acid and a mixture of fish stock, resulting in a distinctive aroma that can attract people to consume kapurung. This is in line with Musniar's research (2008), a person's behavior in choosing a restaurant certainly has considerations, one of which is having a distinctive characteristic both from the menu served and the place. For example, one of the kapurung restaurants in Makassar city is characterized by using a special seasoning from patikala acid or torch ginger. Based on the perspective of the time spent factor, which is an indicator that influences impulsive buying behavior according to Salomon (2018), a person will spend their time just listening to music to create the desired feelings and emotions.

4. Conclusion

The results of processing and testing using the Warp PLS 7.0 application obtained factors that the ambient scent variable is influenced by the scent intensity sub-variable with a path coefficient value of 0.317, then the scent intensity indicator variable is influenced by the stimulating indicator with a path coefficient value of 0.153. The ambient scent variable significantly influences impulsive buying behavior with a path coefficient value of 0.539. The impulsive buying behavior variable found that of the three indicators that most influenced was time spent with a path coefficient value of 0.784. Based on the results of the study, ambient scent significantly influences impulsive buying behavior. Based on the results of the

research strategy in making decisions about a scent, then by focusing on the time spent factor will affect impulsive buying behavior. Time spent is a person's willingness to wait for service or spend their time.

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