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# Analyzing the Influence of Product Attributes and Customer Characteristics Towards Customer's Purchase Intention on Edible Cutlery

# Samy Octavio Ibrahim\*1 and Sri Herliana2

School of Business and Management, Insitut Teknologi Bandung, Indonesia<sup>1,2</sup>

\*Email: samy octavio@sbm-itb.ac.id

#### **Abstract**

Plastic waste has become a significant threat and problem to the world, causing many environmental and ecosystem issues. Plastic pollution causes a disturbance towards habitats and interferes with natural processes, reducing the environment's ability to adapt to climate change. Indonesia consumes more than 93 million plastic straws every day, making the country the fourth largest plastic straw-consuming country in the world. Many actions have been taken to solve this problem, one of them being the introduction of edible cutleries, including edible straws. Although the market value for edible straws shows a great opportunity, predicted to reach USD 446.96 in the year 2029, a growth of 113% from 2020, several edible cutlery provider businesses have not been receiving the expected response from the market. Departing from this problem, this research was conducted to identify factors influencing a customer's purchase intention on edible cutlery products. Seventy-eight respondents who have ever consumed any edible cutlery product residing in DKI Jakarta or Kota Bandung were involved in this study. The data was gathered using an online survey in the form of a questionnaire, using Bahasa Indonesia as the survey language. The data was then analyzed by implementing multiple linear analysis methods. The result of the study indicates that psychological factors significantly and positively affect a customer's purchase intention on edible cutleries. On the other hand, product quality, product features, product style and design, cultural factors, social factors, and personal factors do not significantly affect the purchase intention of edible cutlery products of a customer. Moreover, each independent variable for this research simultaneously affects a customer's dependent variable on edible cutlery products.

**Keywords**: Customer Characteristics; Edible Cutlery; Product Attributes; Purchase Intention; Sustainable Living

### A. INTRODUCTION

The world produces around 2.01 billion tonnes of municipal solid waste annually; globally, over 300 million tonnes of plastic are produced yearly. From those numbers, 6.1 million tonnes ended up in the aquatic environments and 1.7 million tonnes in the ocean (CHEAPA WASTE SKIPS, 2022). Plastic has become a significant threat and problem to the world. Plastic waste causes many issues towards the environment and ecosystem. According to the United Nations Environment Program (UNEP), plastic pollution causes a disturbance in habitats. It interferes with natural processes, reducing the ecosystem's ability to adapt to climate change and directly disrupting millions of people's livelihoods, food production capabilities and social well-being. Unlike paper or other natural substances, plastics will not unravel. Furthermore, it takes 1000 years for plastics to decompose completely, and the decomposed particles will pollute the soil and groundwater (Ifrani, 2020).

Indonesia produced more than 19 million tonnes of waste in 2022, with plastic waste making up 15% of the total amount of waste (SIPSN, 2022). Indonesia also increased its plastic waste production from 9% in 1995 to 16% in 2018 (Republika, 2018). Based on data released by DLHK Banten in 2019, Indonesia consumed more than 93 million plastic straws daily, making the country's plastic straws the fourth largest in the world (Fatia, 2019). Like any other plastic waste, plastic straws can disrupt the marine environment. Plastic straws exposed to sunlight, sea waves, wind and extreme temperatures break into smaller pieces called "microplastics." This substance can infiltrate the bodies of all living beings, including humans. In addition, Beyond Plastics, a nationwide project based at Bennington College, Vermont, stated that most single-use plastic straws are made from the same materials used to make styrofoam polystyrene and are likely carcinogenic to humans.

Many actions have been taken to solve the problem of plastic waste, including the introduction of sustainable products. Sustainable products are "products with positive social and/or environmental attributes" (Luchs et al., 2010). Sustainable products come in various products, such as biodegradable cutlery, bamboo picnicware, reusable paper towel alternatives, silicon or stainless-steel products, etc. In addition to the several products mentioned before, edible cutlery is also one of the available alternatives for plastic cutlery. By meaning, edible cutlery is "a plant-based product in which meals can be served or taken as a meal itself" and is made of a mixture of flours (Roy and Morya, 2022). It is suggested that edible products are consumed right after being used to eat or drink. Edible cutleries help limit plastic cutleries' waste and are completely biodegradable. Compared to plastic's 1000 years, it generally takes edible cutleries from hours to a couple of months to decompose, depending on the ingredients.

Edible straws recorded a market value of USD 209.03 million in 2020, and with a CAGR of 10.14%, the market is expected to reach USD 446.96 in the year 2029 (DataMIntelligence, 2022). By looking at the problem and the opportunities available, 4PACT decided to become the pioneer of edible straws in West Java and DKI Jakarta. In early 2022, 4PACT started developing its business by partnering with food and beverage provider businesses, beginning in Bandung, supplying edible straws to several cafes. 4PACT recorded a positive trend between Q1 and Q2 of 2022 by gaining 33% in sales and another 50% in sales growth between Q2 and Q3 of 2022. However, 4PACT has had stagnant sales for the last 3 quarters from July 2022 until March 2023.

Edible cutlery is a plant-based product made of various ingredients (usually some specific flours are used to get the desired attributes for the ultimate product) generally recognized as EBO (eco-friendly, biodegradable and organic) in which meals can be served or be taken as a meal itself (Roy and Morya, 2022). The product's attributes heavily influence customer's purchasing intentions towards certain products after several evaluations regarding the characteristics in terms of their values, beliefs, and past experiences (Peter & Olson, 2010). Product attributes comprise product quality, features, style, and design (Kotler & Armstrong, 2017).

Product quality is the quality of the product that emphasizes its value and ability to satisfy a customer's needs (Muljani and Koesworo, 2019). In this research, the authors will classify several factors of product quality in edible cutlery products: taste, durability, eco-friendliness, and affordability. Product features are widely interpreted as components that increase the strength of a product's functionality (Kumar et al., 2015). In this research, the authors break down several aspects of the product features of edible cutlery products into various shapes and sizes: nutrition, health, long shelf life, product certification, biodegradability, and purchasing bonus features.

Style is described as the appearance of a product, and design is a larger concept than style. Style helps products to grab more attention and give pleasant aesthetics to customers. On the other hand, design is central to the product; it influences its functionality and presentation (Kotler & Armstrong, 2017). ). In this research, the authors break down two aspects of product style and design into colour and design. Customer characteristics and product attributes are key factors that affect customer purchase intention (Ho & Wu, 2011). A consumer's behavior is generally influenced by cultural, social, personal, and psychological factors (Kotler & Armstrong, 2017). These are also the factors that this research will refer to.

According to (Kotler and Armstrong, 2017), cultural factors deeply influence customer behaviour, including culture, subculture, and social class aspects. At its most basic level, culture can be interpreted as a shared symbol, norms, and values in a social organization (Walsham, 2002). Meanwhile, subculture arises in culture from interactions between people or groups with similar values, experiences, and lifestyles, such as religion, nationalities, or racial groups (Yakup & Jablonsk, 2012). Social classes are society's generally permanent and orderly divisions whose members share similar ideals, interests, and behaviours. Social class is determined by various factors, including income, occupation, education, wealth, and other variables (Kotler & Armstrong, 2017).

Social factors include the consumer's small group, social networks, family, and social roles and status, which these factors may directly or indirectly influence their behaviour (Kotler & Armstrong, 2017). People might behave differently according to their roles and status, with these roles and statuses affecting their buying behaviour to adjust to people and groups around them (Rani, 2014). Personal factors, including age, occupation, lifestyle, personality, and self-concept, might influence buyers' final purchase decisions. It is also mentioned that changes in customers' tastes and preferences follow a shift in age (Nagarkoti, 2014). Moreover, Rani (2014) also stated that customers' preferences change according to their situation. According to Rosenberg (1979), self-concept, which is closely related to personality, is defined as "the totality of the individual's thoughts and feelings having reference to himself as an object" (Nagarkoti, 2014).

Psychological factors are divided into four major categories: motivation, perception, learning, and beliefs and attitudes (Kotler & Armstrong, 2017). Motivation is defined as the driver which causes someone or some groups of people to achieve a high level of performance (Tohidi, 2012). Meanwhile, according to Nurhayati (2020), perception is a psychological process through experiences gained from the five senses, in which individuals can conclude these responses as either positive or negative perceptions. Learning is interpreted as changes in an individual's behaviour arising from experience, where it is also widely believed that human behaviour is also learned (Kotler & Armstrong, 2017). In addition, belief is defined as a person's descriptive idea about something, while attitude is defined as an individual's mainly consistent evaluations, views, and dispositions toward an object or notion, and both are acquired through doing and learning (Kotler & Armstrong, 2017).

Purchase intention is defined as an indicator of a customer or consumer's likelihood to plan or willingness to purchase a particular product or service in the future (Wu et al., 2011). Three components, namely purchase consideration, purchase desire, and repurchasing desires, make up purchase intention (Rahman et al., 2012). (Ferdinand, 2002) mentioned that to determine a customer's purchase intention, transactional, referential, preferential, and explorative interest can all be utilized. For this research, transactional, referential, and explorative points will be used as tools to measure the customer's purchase intention in the purchase of edible cutleries.

Due to limited resources, 4PACT needs to identify the internal and external aspects, in this case, 4PACT's products' attributes and customer characteristics, that most influence their purchase intentions when purchasing edible cutlery. This study aims to understand those influencing factors to identify possible product improvement and business strategies that can be done by 4PACT to increase its sales.

### **B. RESEARCH METHODS**

The first step in doing the research is to find the root cause of the problem, which can be found in the problem identification process. The second step is to conduct a literature review related to the topics and variables used in this research. Third, the questionnaire will be constructed to design the method used to collect the data. Fourth, the researchers will collect data using a quantitative method with online surveys in the form of a questionnaire, which will be used after the analysis of the data from the questionnaire. The researcher will then process and analyze the data in the fifth process. The final process in this research will summarise the analyzed data into conclusions and recommendations based on the research objectives.

This research will implement a quantitative approach for the data collection method. According to Lucas-(Alfieri, 2015), a quantitative analysis will show a relationship between sets of variables. A quantitative method uses scientific numbers and mathematical facts with specified measurements. In contrast to the qualitative approach, which focuses on the depth of a few individual responses, a quantitative approach focuses more on the sufficiency of the amount of predetermined number of respondents. For this research, the data collection method will use the survey method in the form of an online questionnaire. The survey was conducted using Google Forms in Bahasa, Indonesia. The researcher chose to implement a survey approach as the data collected and taken from this study reflects an individual's subjective attitude and view of the factors that influence them when purchasing edible cutlery.

The population of this research is Indonesian citizens older than 17 years of age residing in DKI Jakarta or Bandung who have ever consumed any form of edible cutlery. Older than 17 years of age is considered for this research as 17 is the age limit that distinguishes children from teenagers and adults, and must have ever consumed any edible cutlery to be categorized as an edible cutlery consumer. As the population for this research is unknown, the researcher implemented the minimum sample size calculation method using Lemeshow theory and came up with 68 as the minimum number of respondents.

This research used primary data collection through distributing online questionnaires in the form of Google Forms, and the measurement data scale was collected using a five-point Likert scale. The Likert Scale measures the attitudes, opinions, and perceptions of an individual or a particular group of people regarding a social phenomenon (Sugiyono, 2008). In addition, the typical Likert scale is a 5-7 points ordinal scale used to rate the degree of agreement or disagreement towards a certain statement of a respondent (Sullivan & Artino, 2013). According to Saleh & Ryan (1991), using a five-point scale rather than a seven-point scale to compare the reliability coefficients with other research is more manageable. Additionally, If the value range of the Likert scale remains constant, the Likert scale can be transformed into an interval scale (Ghozali, 2006). For this research, the range of values of each Likert scale variable is calculated to be equal and consistent. Based on the theoretical

foundation that has been decided, the researcher carried out several measurement developments as a tool to measure the criteria for each variable. The measurement is as follows:

Table 1. Research Measurement for Each Variables

Variable	Sub- Variable	Element	Code	Item	Reference(s)		
	Product Quality	Taste	PQ1	I chose to purchase an edible cutlery that has no taste			
		Durability PQ2 I choose to purchase an edible cutlery that can last long in my beverages					
		Eco- Friendliness	PQ3	I choose to purchase edible cutlery with minimal to no environmental impact.	1 		
		Affordability	PQ4	I choose to purchase an edible cutlery that is easy to get	(Malh atra		
		Variety of Shapes and Sizes	PFA1	I chose to purchase an edible cutlery that varies in shapes and sizes	(Malhotra, 2005); (Roy & Morya, 2022);		
Product		Nutritious and Healthy	PFA2	I choose to purchase edible cutleries that are nutritious and healthy	(Patil & Sinhal, 2018);		
Attributes	Product Features	Long Shelf Life	PFA3	I choose to purchase edible cutleries that can last long in storage	(Kotler & Armstrong,		
		Biodegradable	PFA4	I chose to purchase an edible cutlery that is made from biodegradable materials.	2017); and Author's Analysis		
		Product Certifications	PFA5	I choose to purchase edible cutleries with product certifications			
		Purchasing Bonus	PFA6	I choose to purchase edible cutleries that offer purchasing bonus			
	Product Style and Design	Colour	PSD1	I chose to purchase an edible cutlery that is colourful			
		Use Design	PSD2	I chose to purchase an edible cutlery that is easy to use			
	Cultural Factors  Social Factors	Culture	CF1	I purchase edible cutleries because of my culture			
		Subculture	CF2	I purchase edible cutleries because of my awareness towards the environment.			
		Social Class	CF3	I purchase edible cutleries because of my upper social class			
		Family	SF1	I purchase edible cutleries because of the opinions of people I am close with	- (Kotler & Armstrong, 2017)		
		Groups and Social Networks	SF2	I purchase edible cutleries because certain people use them			
Customer Characteristics		Roles and Status	SF3	I purchase edible cutleries because of my upper status in my social environment.			
	Personal	Age	PFB1	I purchase edible cutleries because of my age			
		Occupation	PFB2	I purchase edible cutleries because of my current job			
		Economic Situation PFB3		I purchase edible cutleries because my current economic situation is good			
	Factors	Lifestyle PFB4		I purchase edible cutleries because I care about sustainability			
		Personality and Self- Concept	PFB5	I purchase edible cutleries because they fit my personality			

Variable Sub- Variable		Element	Code	Item	Reference(s)
		Motivation PFC1		I purchase edible cutleries because I want to help clean the environment	
	Psycholog	Perception PFC2 I purchase edible cutlery because of my positive perception towards them.			
ical Factors		Learning	PFC3	I purchase edible cutleries because I have a positive experience after using them.	
		Beliefs and Attitudes	PFC4	I purchase edible cutleries because I believe I will take part in sustainability.	
		Transactional	PI1	I am likely to purchase some form of edible cutleries	
Purchase	Purchase	Referential	PI2	I will recommend edible cutleries to others	Æ 1: 1
Intention	1 41 411 415	Preferential	PI3	I prefer to purchase edible cutleries rather than options with similar functions.	(Ferdinand, 2002)
		Explorative	PI4	I tend to explore information about edible cutleries	

Source: research data, 2023

The data collected from the survey will then be analyzed by using multiple regression analysis techniques. For the multiple regression test to be conducted, several tests must be passed to prove the eligibility of the data. These tests to prove eligibility are the validity test, reliability test, and classical assumption test (consisting of normality test, multicollinearity test, and heteroscedasticity test). If the collected data passes the predetermined test, the data is eligible enough, and multiple regression tests can be conducted. Descriptive statistics will also be displayed to summarise the overall unprocessed data.

## C. RESULTS AND ANALYSIS

The total number of respondents was 78, from both Jabodetabek and Kota Bandung, gathered in 2 weeks. The researcher will describe the profiles of the respondents in this part of the research, including their gender, age, occupation, monthly income, and how many times they have used edible cutlery. The result shows that from a total of 78 respondents, 41% are female (32 respondents) and the remaining 59% are male (46 respondents). From a total of 78 respondents, 6.4% of the respondents are above 40 years old (5 respondents), another 6.4% are between 25 and 40 years old (5 respondents), and the remaining 87.2% are between 17 and 25 years old (68 respondents). The distribution of the occupations of the 78 survey respondents, with 1.3% of the respondents do not work (1 respondent), 1.3% of the respondents work as a civil servant (1 respondent), 1.3% of the respondents a freelancer (1 respondent), and another 1.3% works as a teacher (1 respondent), 6.5% works as an entrepreneur (5 respondents), 10.4% of the respondents are corporate workers (8 respondents). The remaining 79.2% of the respondents are students (61 respondents). From 78 respondents, 2.6% of the respondents have a monthly income between Rp6.000.001 and Rp8.000.000 (2 respondents), 6.4% have a monthly income between Rp8.000.001 and Rp10.000.000 (5 respondents), 11.5% have a monthly income below Rp1.000.000 (9 respondents), 15.4% have a monthly income above Rp10.000.000 (12 respondents), 20.5% have a monthly income between Rp1.000.000 and Rp2.000.000 (16 respondents), 20.5% have a monthly income between Rp4.000.001 and Rp6.000.000 (16 respondents) and the remaining 23.1% have a monthly income between Rp2.000.001 and Rp4.000.000 (18 respondents). From 78 respondents, 10.3% of the respondents have used edible cutlery for 6-10 times (8 respondents), 11.5% have used edible cutlery for more than 10 times (9 respondents), 28.2% have used edible cutlery just once (22 respondents) and the remaining 50% have used edible cutlery for 2-5 times (39 respondents).

The test result shows that affordability has the most significant mean of 4.29, indicating that most respondents agree that affordability significantly affects purchase intention. Meanwhile, Roles and status have the lowest mean of 2.63, meaning many respondents disagree that roles and status affect purchase intention. Culture has a standard deviation of 1.361, representing the most significant number of disagreements between the respondents. On the other hand, learning has the lowest standard deviation of 0.816, representing the lowest number of disputes among the respondents.

Table 1. T-Test Results

#### Coefficients<sup>a</sup>

		Unstandardized Coefficients		Standardized Coefficients			90.0% Confidence Interval for B		Collinearity Statistics	
Model		В	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	4.343	1.882		2.308	.024	1.206	7.481		
	PQ	.079	.126	.080	.630	.531	130	.289	.480	2.084
	PFA	.002	.077	.003	.023	.982	126	.129	.629	1.591
	PSD	229	.190	122	-1.208	.231	545	.087	.759	1.318
	CF	.216	.132	.209	1.631	.107	005	.436	.471	2.124
	SF	017	.112	019	155	.877	203	.169	.538	1.858
	PFB	.080	.085	.119	.939	.351	062	.222	.478	2.093
	PFC	.475	.125	.490	3.812	.000	.267	.683	.467	2.143

a. Dependent Variable: Pl.

Source: research data, 2023

Based on the t-test result, it can be concluded that:

- 1. h1: Product Quality significantly affects the purchase intention of a customer on edible cutleries The first hypothesis assumed that product quality positively affects purchase intention on edible cutlery. Based on the test result, product quality has a t value of 0.63, lower than 1.66462 and a Sig. Value of 0.531, higher than 0.1. Therefore, reject the hypothesis.
- 2. h2: Product Features significantly affect the purchase intention of a customer on edible cutleries The second hypothesis assumed that product features positively affect purchase intention on edible cutlery. Based on the test result, product features have a t value of 0.023, lower than 1.66462 and a Sig. Value of 0.982, higher than 0.1. Therefore, reject the hypothesis.
- 3. h3: Product Style and Design significantly affect the purchase intention of a customer on edible cutleries The third hypothesis assumed that product style and design positively affect purchase intention on edible cutlery. Based on the test result, product style and design have a t value of -1.208, lower than 1.66462 and a Sig. Value of 0.231, higher than 0.1. Therefore, reject the hypothesis.
- 4. h4: Cultural Factors significantly affect the purchase intention of a customer on edible cutleries The fourth hypothesis assumes cultural factors positively affect purchase intention on edible cutlery. Based on the test result, cultural factors have a t value of 1.631, lower than 1.66462 and a Sig. Value of 0.107, higher than 0.1. Therefore, reject the hypothesis.
- 5. h5: Social Factors significantly affect the purchase intention of a customer on edible cutleries The fifth hypothesis assumes that social factors positively affect purchase intention on edible cutlery. Based on the test result, social factors have a t value of -0.155, lower than 1.66462 and a Sig. Value of 0.877, higher than 0.1. Therefore, reject the hypothesis.
- 6. h6: Personal Factors significantly affect the purchase intention of a customer on edible cutleries The sixth hypothesis assumed that personal factors positively affect purchase intention on edible cutlery. Based on the test result, individual factors have a t value of 0.939, lower than 1.66462 and a Sig. Value of 0.351, higher than 0.1. Therefore, reject the hypothesis.
- 7. h7: Psychological Factors significantly affect the purchase intention of a customer on edible cutleries The seventh hypothesis assumed that psychological factors positively affect purchase intention on edible cutlery. Based on the test result, psychological factors have a t value of 3.812, higher than 1.66462 and a Sig. Value of 0.000, lower than 0.1. Therefore, accept the hypothesis.

The t-test also serves a beta score  $(\beta)$ , in which the greater the beta score of a variable, the stronger the variable affects the customer's purchase intention on edible products. The beta score of each independent variable is 4.343 (Constant), 0.079 (Product Quality), 0.002 (Product Features), -0.229 (Product Style and Design), 0.216 (Cultural Factors), -0.017 (Social Factors), 0.080 (Personal Factors), and 0.475 (Psychological Factors). The linear regression equation model for this research can be seen below.

Linear Regression Model

$$PI = 4.343 + 0.079x_1 + 0.002x_2 - 0.229x_3 + 0.216x_4 - 0.017x_5 + 0.080x_6 + 0.475x_7$$

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*PI* = Purchase Intention (Dependent Variable)

 $x_1$  = Product Quality (Independent Variable)

 $x_2$  = Product Features (Independent Variable)

 $x_3$  = Product Style and Design (Independent Variable)

 $x_4$  = Cultural Factors (Independent Variable)

 $x_5$  = Social Factors (Independent Variable)

 $x_6$  = Personal Factors (Independent Variable)

 $x_7$  = Psychological Factors (Independent Variable)

Table 2. f -Test Result

# ANOVA<sup>b</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	279.304	7	39.901	8.544	.000ª
	Residual	326.914	70	4.670		
	Total	606.218	77			

a. Predictors: (Constant), PFC, SF, PSD, PFA, PFB, PQ, CF

# Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin- Watson
1	.679ª	.461	.407	2.161	2.016

a. Predictors: (Constant), PFC, SF, PSD, PFA, PFB, PQ, CF

The f test result shows that the f value of the data is 8.544, higher than the critical f value of this research (1.803) and the Sig. The value is 0.000, less than 0.1. Therefore, it can be concluded that the independent variables (PQ, PFA, PSD, CF, SF, PFB, and PFC) influence the dependent variable (PI). The R Square also indicates that the independent variables (PQ, PFA, PSD, CF, SF, PFB, and PFC) affect the dependent variable (PI) by 46.1%.

# D. CONCLUSIONS

Based on the result of the t-test from the Multiple Linear Regression analysis, only 1 out of the 7 variables tested significantly influence the purchase intention of a customer when buying an edible cutlery product, namely psychological factors. The rest of the variables, namely product quality, product features, product style and design, cultural factors, social factors, and personal factors, do not significantly affect the purchase intention of an edible cutlery product. Meanwhile, the f-test result from the Multiple Linear Regression analysis shows that each of the independent variables, namely product quality, product features, product style and design, cultural factors, social factors, personal factors, and psychological factors, have a simultaneous effect on purchase intention, the dependent variable for this research. The tested variables had a simultaneous influence of 46.1% on a customer's purchase intention of edible cutlery products. Therefore, it can be concluded that all variables used for this research can be considered to influence the customer's purchase intention on edible cutlery products.

The limitation of this research is caused by the estimated amount of people who have ever consumed any edible cutlery product, which is hard to calculate. Thus, the author used Lemeshow's formula for unknown population sampling strategy to determine the minimum number of respondents for the research. Even though the respondents' occupations are not limited, the result of the analysis indicated that most of the respondents are students (79.2%), which may have caused the result of the analysis to focus on Gen-z's behaviour. Moreover, there might have been another limitation as most of the respondents tend to be dominated people who have a monthly income between Rp2.000.001 and Rp4.000.000, which can cause the respondent tendency to focus on

b. Dependent Variable: Pl

b. Dependent Variable: Pl

the behaviour of the lower-middle income class. Another limitation is that there is still very little research on edible cutlery products; thus, the analyses are based on exploratory research and analysis of secondary data.

For future research, the author recommends further refining the research scope scattered in many aspects of the profile of the respondents with more comprehensive parameters. After improvement in the study, a different insight might be gained for the result of a particular study area. Another recommendation would be to conduct an in-depth interview with experts using several approaches to gather additional data for a deeper insight into the analysis. Different results may be obtained if the research is applied to various product lines or services, inside or outside the same industry.

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