

## The Impact of Marketing Mix On Customer Loyalty Towards Plaza Indonesia Shopping Center

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### ABSTRACT

As Jakarta is one of the cities with the highest numbers of shopping centers in the world as well as the most populous city in Southeast Asia, it is no surprise if the city is packed with buildings, malls, cars, and people. That is one of the reasons why there is Moratorium of shopping center in Jakarta. Left with 173 malls standing in Jakarta, they have to compete with what is left, the marketing strategy. Shopping centers compete crazily on their marketing in order to gain the loyalty of the customers, therefore the competition is so tense. To force out the competition, this research is conducted with the aim to find out the impact of Marketing Mix the 7Ps (as one of the most famous marketing tools) on customer loyalty toward Plaza Indonesia shopping center. The data was gathered using simple random sampling by distributing questionnaires to 147 respondents. Then, the data was analyzed using Multiple Linear Regression Analysis.

It is proven that the 7Ps of the Marketing Mix simultaneously has significant impact on customer loyalty toward Plaza Indonesia. However, only product, place, promotion and physical evidence are proven to individually has significant impact on customer loyalty toward Plaza Indonesia.

**Keywords:** Marketing Mix, Customer Loyalty, Shopping Center

### ABSTRAK

*Jakarta, sebagai salah satu kota dengan jumlah mal yang tinggi dan kota paling berpopulitas tinggi di Asia Tenggara, bukanlah hal yang mengagetkan apabila Jakarta terkenal dengan kepadatannya akan bangunan, mal, mobil dan orang-orang. Itulah salah satu alasan dengan adanya Moratorium terhadap Mal di Jakarta. Dikarenakan itu, tertinggal hanya 173 mal yang berdiri di Jakarta, mereka hanya bisa berkompetisi keras dengan strategi marketing yang mereka punya untuk menggaet loyalitas para pelanggan. Kompetisi marketing yang panas ini membuat peneliti mengadakan penelitian ini, penelitian ini meneliti dampak Marketing Mix (alat marketing dan strategi yang paling tenar) ke loyalitas pelanggan terhadap Plaza Indonesia Shopping Center. Data diperoleh dengan metode simple random sampling dan distribusikan ke 147 koresponden. Data kemudian diolah dengan Multiple Linear Regression Analysis.*

*Hasil penelitian menyatakan bahwa 7Ps dari Marketing Mix terbukti mempunyai dampak yang signifikan terhadap loyalitas pelanggan dari Plaza Indonesia. Akan tetapi, hanya produk, lokasi, promosi, dan bukti fisik yang terbukti mempunyai dampak individual yang signifikan terhadap loyalitas pelanggan dari Plaza Indonesia.*

**Kata Kunci:** Marketing Mix, Loyalitas Pelanggan, Pusat Perbelanjaan

### INTRODUCTION

Jakarta as the special capital region and the biggest city of Indonesia is known as the most populous city in Southeast Asia and ranked 4<sup>th</sup> in the world. Cities with high population density are overpopulated and Jabodetabek (Initials of Jakarta, Bogor, Depok, Tangerang, and Bekasi), the metropolitan area of Jakarta is known as one. The metropolitan area of Jabodetabek has a population

that exceeds 28 million and Jakarta itself scores 9.6 million of population in 2014. (Home: Countries: Indonesia Population, 2014). As the population density rises, the use of vehicles also rises. Based on the Jakarta Post survey, people in Jakarta spent about 400 hours a year in traffic. That makes Jakarta has the worst traffic in the world according to a survey conducted by British Lubricant producer Castrol, and one of the top 10 traffic jam monsters in the world (The Jakarta Post, 2015).

As the traffic is getting worse, people tend to stay in their office or shopping center longer rather than facing the traffic on the street. Visiting shopping center is a central activity in the lives of many Jakartans. It provides an escape from the heat, humidity and rain, and the many entertainment options like cinema and ice rinks. (Exparrivals, n.d.). This phenomenon causes a 17% growth of retail space, almost reaching 4 million square meters in 2014, according to Global Cities Retail Guide 2013/2014 (Kasdiono, 2014). The number of shopping centers in Jakarta has been evolving from Soeharto to SBY era, from the year 1970-2010. Since 1991 the number of Indonesian shopping centers, especially in Jakarta had increased by 100% from the previous total number in 10 years, from 53 shopping centers in 2001 to 106 in 2010. In an only 664.01 km<sup>2</sup> (Dickson, 2014) of city's parameters, in 2010 alone, there were 130 commercial venues and 106 shopping centers (Dickson, 2014). As the number of population and retail space is increasing respectively, with estimated population over 10.2 million people in 2014 (WPR, 2014), Jakarta had been overpopulated with people, infrastructure and shopping centers. Considering that the city is already overcrowded with concrete buildings, in 2011, to control the growth of shopping centers, former governor of DKI Jakarta, Fauzi Bowo introduced the moratorium of shopping centers in the late 2011, which will be effective until the end of 2012. The moratorium, according to Wiriyatmoko, the interim director for the Jakarta Building Supervisory Agency (P2B), the city administration will only stop issuing permits for shopping malls and commercial centers bigger than 5,000 square meters (The Jakarta Post: Editorial, 2011). However, the permits of shopping center construction that have been granted before the moratorium will still continue to be built (Gatra News, 2013). As Jokowi became the governor of Jakarta in 2013, as quoted by the Jakarta Post, he stated "At the moment, there are 173 shopping malls in Jakarta. There must be a balance in the development, this, I have stopped issuing shopping mall building permits." (The Jakarta Post, 2013). Jokowi continued the moratorium of shopping centers to ease traffic as well as to improve city planning efforts. (Tambun, 2013). There is still no further information about the end of the effective period of this moratorium.

With Jakarta is one of the cities with the highest numbers of malls in the world, mall has indeed become an identity of the city. A lot of Jakartans start to think that there is nowhere else to go but malls. With the high demand from the market, malls are tightly competing on how to get the loyalty of the people. (Global Indonesian Voices, 2014). Left with 173 malls standing in Jakarta, it is not a matter of how to compete with new entrants or expansion because of the moratorium, but how to compete from what is left,

the marketing strategy (The Jakarta Post, 2013). Shopping malls have gone crazy on their marketing, each malls come up with big promotions, big events, frequent engaging digital activities and many other activities. This is what the competition is all about, how to make a better and greater marketing strategy. The famous marketing strategy tool, marketing mix, have taken place to force out the competition. Hence, this research will find out about the impact of marketing mix on customer loyalty towards shopping centre with Plaza Indonesia as the medium.

The justifications of this research came from 3 concerns, the changing of people's preference, the negative growth of visitor traffic of Plaza Indonesia in the 21<sup>st</sup> century and the competitors' condition in competing between one another. Hence, in this research these are the important questions to be answered through this research. First, does marketing mix have significant influence on the customer loyalty towards Plaza Indonesia Shopping Centre? Second, do Product, Price, Place, Promotion, People, Process and Physical evidence individually have significant influence on customer loyalty toward Plaza Indonesia Shopping Centre?

## LITERATURE REVIEW

There are two main theories used as the basis to conduct this research, those are the theories of marketing mix (7Ps) and customer loyalty. The marketing mix theories will help examining which of the variable of 7Ps that gives the most significant influence on customer loyalty toward Plaza Indonesia shopping center and definitely will talk about customer loyalty itself. The further explanation regarding each theory will be explained in the following subsections.

### The Theory of Marketing Mix (7Ps)

Business Dictionary defines marketing mix as "a planned mix of the controllable elements of a product's marketing plan – product, price, place, promotion- all of which I adjusted into the right combination will be able to serve the needs of the product's customers and results to income."

The history of marketing mix is actually constructed since 1910s, but it did not bloom until 1940s and 1950s. The concept of marketing mix was firstly suggested by James Culliton in 1948. He called the business executive as a "mixer of ingredients" (Culliton, 1948). Inspired by Culliton's word, Borden surmised, if the marketer was the mixer of ingredients, what they designed was a marketing mix. (Silverman, 1995). The original marketing mix elements consist of 12 elements. Furthermore, McCarthy (1964) refined Borden's 12 elements into 4Ps, which are generally known today as Product, Price, Place and Promotion and that 4Ps has been

used by the marketers all around the world ever since. (Goi, 2009)

Over the years gone by, numerous marketing thinkers need to explore new theoretical approaches and expanding the scope of marketing concept. (Goi, 2009). Booms and Bitner (1981) extended the 4Ps concept and added 3 more Ps to specific adaptations for service marketing. Those 3 extended Ps are people, process and physical evidence. The traditional marketing mix, the 4Ps are developed into 7Ps, the service marketing mix used as marketing strategy. (Bitner & Booms, 1981)

### Shopping Center Marketing Mix

With the extended marketing mix, the 7Ps, Kirkup and Rafiq (1999) along with Warnaby (2005) developed and conceptualized the Booms and Bitner 7Ps service marketing mix framework into shopping center context. Detailed explanation about each of the 7Ps is as follows:

Product, according to Kirkup and Rafiq (1999) as well as Warnaby et al. (2005), the variables classified under product are as tenant mix and entertainments. Tenant mix here means the variety of stores provided in the shopping center, tenant assortments or categories like fashion apparels, luxury brands, sports & lifestyle, furniture, etc. Shopping center entertainment can be classified into 3 general categories: *special event entertainment*, *specialty entertainment* and *food entertainment*. Special event entertainment are events that are conducted in seasonal basis for a short period of time, this includes fashion show, exhibition, etc. On the other side, specialty entertainment are permanent components of the retailing mix of a shopping center, this includes cinema or ice-rinks. While food entertainment refers to the range of eateries, cafes and restaurant at the shopping center.

Price, according to Kirkup & Rafiq (1999) along with Warnaby et al. (2005), the variables classified under price are parking fees (Fees occurred to acquire a parking lot for as long as the customers stay in the shopping center), transportation fees to the shopping center (Fees occurred when customers try to get to the mall), and time expended in getting to the shopping center.

Place, as Kirkup & rafiq (1999) as well as Warnaby et al. (2005) conceptualized the consumer marketing mix for managed shopping centre, the variable classified under place are location (particular position or place) and accessibility (approaches to get to the location).

Promotion, marketing communication mix according to Kotler & Keller (2009) consist of advertising: Any paid or non-paid forms of promotion for commercial products/services (i.e: Posters, Billboards, etc.), sales promotion: Marketing activities undertaken to boost marketing products/services (i.e: Exhibits, contests, et cetera.),

public relations: A set of variety events held in public to promote company's products/services (i.e: Seminars, annual reports), direct marketing: The usage of digital & non-digital platforms to communicate directly to existing and prospective customers (i.e: Catalogs, mail, internet, etc.), word-of-mouth marketing: The promotion done by the customers who have experienced the products/services and pass it to other people, and personal selling: Face-to-face interaction to present the products/services, answer the buyers' questions, persuade buyers to make purchase and sell the products/services to the buyers.

Physical Evidence, the variables classified as physical evidence are exterior design: Outer design or appearance of the building. This includes the architecture, building materials and interior design: Inner design and layout of the building. This includes lighting, air-conditioning (temperature), floor, finishes, music, the overall ambiance inside the shopping center.

Process, according to Kirkup & rafiq (1999) along with Warnaby et al. (2005), in shopping center context, process is classified as customer service and customer service is classified as call center, maps, information points and guides.

People, according to Kirkup & Rafiq (1999) along with Warnaby et al. (2005), the variables classified under people are operational staffs (i.e: doorman), cleaners, security officers and store staffs.

### The Theory of Customer Loyalty

Oliver (1997) and Kotler & Keller (2009) defined loyalty as "a commitment deeply held by the customer, to re-buy or to re-patronize a preferred product or service in the future, thereby causing repetitive same-brand or same brand-set purchasing."

In his book of Marketing Management, Kotler & keller (2009) have 4 indicators to measure customer loyalty, which are:

The customer's intention to keep buying a particular product/service, the customer's intention to do cross-selling, the willingness of the customer to spread positive word-of-mouth about the product/service, the customer's intention to offer ideas to the company regarding the development of the product/service.

According to Customer Loyalty Index as a tool to measure customer loyalty, it lies in the expression of the highest form of customer emotional adherence to the brand and business by:

Recommend a product or service to others or a positive word-of mouth. In shopping center context, if customers recommend a particular shopping center to others it means the customers have extraordinary confidence in the value of the shopping center they recommend, a degree of customer retention. Customer retention according to business dictionary are "typically expressed as a percentage of long term clients, and they are very important to a business

since satisfied retained customers tend to spend more, cost less and make valuable references to new potential customers.”

The 6 indicators of Roberts, K., et al (2003) are share information, say positive things, recommend friend, continue purchasing, purchase additional service, test new service.

The combination of Kotler & Keller (2009) indicators and Customer Loyalty Index indicators as well as the 6 indicators of Roberts, K., et al (2003) will be used in this research. Therefore, to answer the research problems, the hypotheses are constructed, such as followings:

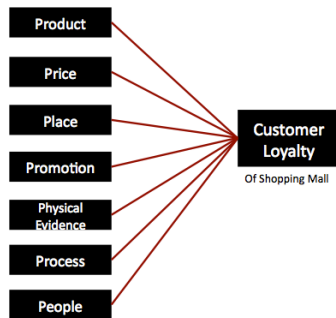


Figure 1. Relationship Between Concepts

- H1: Marketing Mix (7Ps) simultaneously has significant influence on customer loyalty toward Plaza Indonesia Shopping Center.
- H2: Product, Price, Place, Promotion, Physical Evidence, Process and People individually have significant influence on customer loyalty toward Plaza Indonesia Shopping Center.

**RESEARCH METHOD**

The purpose of this research is to conduct a hypotheses testing as researcher is going to explain the relationship between the 7Ps of Marketing Mix and the customer loyalty toward Plaza Indonesia shopping center. This research will describe the variation in the customer loyalty toward Plaza Indonesia shopping center as the dependent variable, as a result of the changes made on the independent variables, the 7Ps of Marketing Mix. Hence, this research will use the causal-predictive study.

Looking at the purpose of this research, quantitative research is appropriate to be utilized by the researcher. The research result later will be used to generalize the concepts and to either predict the future results or investigate causal relationships. This research will gather the data needed by survey and several questions will be developed and the result will be gathered using multiple regression analysis.

The dependent variable in this research would be the customer loyalty toward Plaza Indonesia shopping center as the result of the effect of the independent variables. Several indicators will be used as indicators to measure customer loyalty of Plaza

Indonesia Shopping Center. The indicators are as shown below:

**Table 1. Research Indicators – Dependent Variable**

Underlying Theories	Research Indicators
<i>Roberts, K. et al (2003)</i>	
1.Say positive things	“I am giving positive comments about Plaza Indonesia shopping center”
2.Purchase additional service	“I am willing to acquire additional service that PI offers (like Valley, Wi-fi plan, PI privilege card)”
3.Recommend Friend	“I will give recommendation to other parties to come and shop at Plaza Indonesia shopping center”
4.Share Information	“I am willing to share any information I know about PI to other parties”
<i>Kotler &amp; keller (2009)</i>	
5.Intention to keep buying product/service >> coming & shopping	“I am willing to keep coming to Plaza Indonesia” “I am willing to keep shopping in Plaza Indonesia”
6.Customer Intention to offer ideas to the company regarding the development of the product/service	“I am willing to give recommendation to Plaza Indonesia regarding the development of product/service in Plaza Indonesia”
<i>Customer Loyalty Index</i>	
7.Customer Retention	“I am willing to involve in any events held by Plaza Indonesia”

The independent variables will be derived from the theory of Marketing Mix, which was conceptualized in shopping center context, those indicators are as shown below:

**Table 2. Research Indicators – Independent Variable**

Research Variable	Research Indicators
Product	“I go to PI because it provides many variety of stores” “I go to PI because it provides attractive entertainments” “I go to PI because it provides many variety of Food & Beverage destinations”
Price	“I go to PI because the cumulative parking fees are affordable” “I go to PI because it is worth spending money on transportation fees to get there” “I go to PI because it is worth my time”
Place	“I go to PI because it can be found easily” “I go to PI because it is easy to get there” “I go to PI because it is located near public transportation”
Promotion	“I go to PI because it has attractive advertisement on printed media (magazines & newspaper)” “I go to PI because it has attractive posters, billboards inside and outside the shopping center” “I go to PI because there are attractive exhibitions or events held in PI (ex: Photo Exhibition, Fashion show, Press Conference, Midnight sale, etc)” “I go to PI because it has attractive cooperation programs with various parties (ex: Cooperation with On Pedder to have Victoria Beckham coming to the store & 1-on-1 interview, Citibank card holders with extra discount on certain tenants, etc)” “I go to PI because it has informative website” “I Go to PI because it has informative and engaging posts on Social Media (ex: Insta quizzes, etc)” “Goes to PI because it is recommended by other parties”
Physical Evidence	“I go to PI because it has attractive exterior appearance” “I go to PI because it has sophisticated interior layout (the layout of the mall is not confusing)” “I go to PI because it has convenience ambiance (good music, lighting and temperature)”
Process	“I go to PI because it has clear information points (concierge)” “I go to PI because it has clear signage”

	“I go to PI because it has clear guidelines and maps”
People	“I go to PI because it has friendly operational staffs” “I go to PI because it has friendly security staffs” “I go to PI because it has friendly cleaners”

According to Cooper and Schindler (2014), the combinations of classification, order, distance, and origin provide four widely used classification of measurement scales: nominal, ordinal, interval, and ratio. Furthermore, Cooper and Schindler (2014) also classified 10 types of rating scales, which have several uses, design features and requirements.

Specifically for this research, the type of data and rating scale used in the research questionnaire are as follows:

**Table 3. Type of Data and Rating Scale**

Questions	Data	Scale
Plaza Indonesia Visitation	Nominal	Simple Category Scale (dischotomus)
Gender	Nominal	Simple Category Scale (dischotomus)
Last Visiting Time	Nominal	Multiple-Choice for Single-Response Scale
Age	Nominal	Multiple-Choice for Single-Response Scale
Average Expenditure	Nominal	Multiple-Choice for Single-Response Scale
Weekly Frequency of Shopping Center Visitation	Nominal	Multiple-Choice for Single-Response Scale
Weekly Frequency of Plaza Indonesia Visitation	Nominal	Multiple-Choice for Single-Response Scale
Most Frequent Visited Shopping Center	Nominal	Multiple-Choice for Single-Response Scale
7Ps Indicators	Interval	Summated Likert Scale
Customer Loyalty Indicators	Interval	Summated Likert Scale

For the source of data, the researcher will use primary, secondary and tertiary sources. The primary data will be gathered from the primary sources, which

are the respondents through a questionnaire. The respondents will be Plaza Indonesia visitors, the people who have ever been to Plaza Indonesia. Then, the researcher also takes available information which has already existed, like articles, journals online, website, textbooks, newspaper articles and also Plaza Indonesia visitors traffic from the yearly report of event and promotion division to ensure the relevance and importance of the issue. Last but not least, the tertiary sources for this research is the bibliography from secondary sources to find other journal articles, which are relevant and support this research.

In conducting this research, the researcher will use probability sampling, with simple random method because this element considers an equal chance to be the subject of the sample. Then, by using simple random sampling, the population criteria of this sample are people whose age are more than 17 years old and people who have visited Plaza Indonesia shopping center at least once in the past 1 year.

The researcher will use SPSS version 21.0 for Macintosh to run the statistic data and analyze the results. For the processing data method, the researcher will apply multiple linear regression analysis since this analytical method is used to measure relationship between several independent variables and dependent variable, which in this research, the researcher wants to observe the impact of marketing mix on customer loyalty towards Plaza Indonesia Shopping Center as well as to analyze which P of the 7Ps that has the most significant influence on customer loyalty toward Plaza Indonesia Shopping Center. Hence, since this analytical method is used, researcher has to conduct the classic assumption test in prior, in order to examine the existence of normality, autocorrelation, multicollinearity, and heteroscedasticity in the data. A good research has to be free of bias and distortion. To prevent any bias and distortion, reliability and validity are two concepts that are important to define and measure bias and distortion.

According to Cooper and Schindler (2014), validity test reveals the degree to which an instrument measures what it is supposed to measure. Validity test is used to make sure that the data is valid. Corrected Item-Total Correlation measurement will be used in this research to see the correlation of the variables. To construct validity test, after inputting the questionnaire data to SPSS, the researcher has to compare the r-value or Corrected Item-Total Correlation results to the r-table available in Ghazali's book "*Aplikasi Analisis Multivariate dengan Program IBM SPSS 21*" table. Then, if the r-value gotten from SPSS is greater than r-value in the table, the concept of variable is valid (Ghozali, 2013).

On the other hand, reliability test is used to make sure that the data is reliable. Reliability concerns about the degree to which a measurement is free of random or unstable error. This research will use Internal Consistency Reliability to conduct

reliability test and in using multiple likert scale in the questionnaire, it is most common to use Cronbach's Alpha. Hence, to measure the reliability of the data, one shot measurement is used in this research. The formula to get the value of Cronbach's Alpha is as follow:

$$\alpha = \frac{n}{n-1} \left( 1 - \frac{\sum Vi}{V_{test}} \right)$$

Where:

- $\alpha$ : Instrument reliability / Cronbach's Alpha
- n: Number of questions
- $V_i$ : Variance of scores on each question
- $\sum V_i$ : Total number of variance
- $V_{test}$ : Total variance of overall scores on the entire test

According to Ghazali (2013), the acceptance standard of reliable data is if the value of Cronbach's Alpha ( $\alpha$ ) is higher than 0.7. However, if the value gets closer to the point of 1, it means that the measuring instrument is better.

The primary step in conducting multiple regression analysis, several classic assumption tests have to be conducted. The tests consist of the 4 following tests. Normality test, Ghazali (2013) mentioned that the purpose of normality test is to examine whether the residuals in a regression model are normally distributed. This research used both graphic and statistical analysis. In graphic analysis, the normal plot, would compare the observed values with the ones expected from a normal distribution. When the distribution is normal, the points or dots on the plot should be fairly close to the diagonal line in the graph or the dots must not spread too broadly from the diagonal lines (Ghozali, 2013). To avoid a wrong interpretation, the researcher has to examine the skewness and kurtosis values of the residual for the statistical analysis. In order to get the skewness and kurtosis value, the researcher should first run the descriptive statistic in SPSS. Then those values will be divided by N, the number of sample and if both the Zskewness and Zkurtosis values are located between -2 up to +2, the residuals are normally distributed. However, if both ratios are lower than -2 or higher than +2, the residuals are not normally distributed.

Multicollinearity test, Ghazali (2013) mentioned that the purpose of multicollinearity test is to find inter correlation among the independent variables in the regression model. One of the common indicators that multicollinearity occurs is the regression model is having a high Coefficient of Determination ( $R^2$ ). Multicollinearity also occurs if the absolute value of correlation between independent variables is above 0.90. Another way is to see from the tolerance value and Variance Inflation Factor (VIF). Both indicators can show which variables that

can be explained through which variables. Tolerance value measures the variability of the independent variables, which is not explained by other independent variable. While, VIF is equal to 1 divided by the tolerance then low tolerance value will have equal meanings. Thus, the standard cutoff to indicate the occurrence of multicollinearity is when,

$$\text{Tolerance} < 0.10 \text{ or } \text{VIF} > 10$$

Autocorrelation test, Ghozali (2013) mentioned that the purpose of conducting autocorrelation tests is to find a correlation between the residual of a certain period (t) with the residual of its preceding period (t-1). If there is correlation between residuals, it is said that autocorrelation occurs. The researcher chose Run test for the statistic test. The result of Run test can be seen through the test value (the median) as well as the significance value of the unstandardized residual. If the significance value of unstandardized residual is higher than the significance level, which in this research is 0.05, then the null hypothesis (H0) is failed to be rejected. It means that the residuals are said to be random or there is no correlation. However, if the significance value of the unstandardized residual is lower than the significance level of 0.05, then the null hypothesis (H0) will be rejected. It means that the residuals in the regression model are not random or in another word, autocorrelation occurs in the regression model.

Heteroscedasticity test, Ghozali (2013) mentioned that the purpose of conducting heteroscedasticity test is to examine whether the regression model is having inequality of variance from residual of one observation to other observation. In this research, researcher chooses to use Glesjer test. The decision rule is that the null hypothesis is failed to be rejected if the parameter coefficients of all the independent variables are having the significance F (p-value) of higher than the significance level of 0.05. It means that the residuals are homoscedastic or not heteroscedastic. However, if the parameter coefficients of all the independent variables are lower than the significance level of 0.05, the null hypothesis will be rejected. It means that the residuals are heteroscedastic.

Measuring the relationship between the independent variables, the elements of Marketing Mix (7Ps), and the dependent variable, customer loyalty toward Plaza Indonesia Shopping Center, the research uses Multiple Linear Regression Analysis. The purpose of using Multiple Linear Regression is to measure the relative importance of each independent variable in explaining the variation in the dependent variable, hence, the researcher wants to measure the relative importance of each P in the Marketing Mix as the independent variables in explaining the variation in customer loyalty toward Plaza Indonesia Shopping Center. In multiple regression analysis, the accuracy of the regression function in predicting the value of

the dependent variable is determined by the goodness-of-fit (Ghozali, 2013). In measuring the goodness-of-fit of a multiple linear regression model can be analyzed through F-test, t-test and Adjusted R2. F-test and t-test are basically the tests of significance, which will examine the set of independent variables to have significant impact toward the dependent variable.

Basically, F-test is to measure the overall significance of the independent variables inputted in the regression model, simultaneously have significant impact toward the dependent variable. As this research is using the confidence level of 95%, therefore, significance level ( $\alpha$ ) is 5%. In order to test the hypothesis developed using F-test, the researcher have to look at the significance value (P-value) or at the F-value (F-test). P-value (significance value) is compared to the significance level ( $\alpha$ ), while F-value (F-test) is compared to the F-table (F-critical value). The decision rules used in this test are if significance F (P-value) is lower than  $\alpha$  (5%), or F-value (F-test statistic) is greater than the F-table (F-critical value), then the null hypothesis (Ho) is rejected, meaning that Marketing Mix (7Ps) simultaneously has significant influence on customer loyalty toward Plaza Indonesia Shopping Center. If significance F (P-value) is greater than  $\alpha$  (5%), or F-value (F-test statistic) is lower than the F-table (F-critical value), then the null hypothesis (Ho) is failed to be rejected, meaning that Marketing Mix (7Ps) simultaneously does not have significant influence on customer loyalty toward Plaza Indonesia Shopping Center.

Basically, t-test measures the significance of each independent variable included in the regression model. It examines each independent variables inputted in the regression model, individually has significant impact toward the dependent variable. In order to test the hypotheses developed using t-test, researcher has to either look at the significance t (P-value) or at the t-value (t-test statistic). Significance t (P-value) is compared to the significance level ( $\alpha$ ), while the t-value (t-test statistic) is compared to the t-table (t-critical value). For the t-critical value, researcher can get the data available from the 1-tailed t-table with the significance level of 5% (since this research is using confidence level of 95%). The decision rules used in this test are if significance t (P-value) is lower than  $\alpha$  of 5%, or t-value (t-test statistic) is lower than (-) t-table (-) t-critical value), or t-value (t-test statistic) is greater than (+) t-table (+) t-critical value), then the null hypothesis (Ho) is rejected, meaning that the particular independent variable tested (product or price or place or promotion or physical evidence or process or people) has significant influence on customer loyalty toward Plaza Indonesia Shopping Center. If significance t (P-value) is greater than  $\alpha$  of 5%, or t-value (t-test statistic) is between than (-) t-table (-) t-critical value) and (+) t-table (+) t-critical value), then the

null hypothesis (Ho) is failed to be rejected, meaning that the particular independent variable tested (product or price or place or promotion or physical evidence or process or people) does not have significant influence on customer loyalty toward Plaza Indonesia Shopping Center

Basically, adjusted R2 is the indicator of to which extent the variation in the independent variables can explain the variation in the dependent variable, adjusted for the number of independent variables used (Cooper & Schindler, 2014). According to Gurajati (2003), when the value is closer to 1, meaning most of the variation in the dependent variable can be explained by the regression model, which consists of the independent variables. While the value is closer to 0, meaning most of the variation in the dependent variable cannot be explained by the regression model, which consists of the independent variables. According to Ghozali (2013), it is better to use adjusted R2 rather than R2, because adjusted R2 evaluates which is the best regression model. Moreover, unlike R2, the value of adjusted R2 is always smaller than the value of R2, which always increases as the number of independent variable increases.

## RESULTS AND DISCUSSION

From the Validity and Reliability test conducted in the first step, it can be said that most of the items are valid and reliable enough to be included on further research. From the first independent variable, product, looking at the result of the reliability test, product is said to be a reliable variable since its Cronbach's Alpha is 0.787, which is higher than 0.7. in the Corrected Item-Total Correlation, it is shown that all indicators are said to be valid because all the values of 3 indicators are higher than the r-table, which is 0.1620 with the degree of freedom of 145.

From the second independent variable, price, looking at the result of the reliability test, the Cronbach's Alpha is 0.766 and it is higher than 0.7. While from the column of Corrected Item-Total Correlation, it is seen that all the 3 indicators are valid as all the values of r-data are higher than the r-table, which is 0.1620. The third independent variable, place, the Cronbach's Alpha of 0.844 is higher than 0.7. Looking at the Corrected Item-Total Correlation column, all the values are higher than the r-table, which is 0.1620. Hence, place is said to be valid. The fourth independent variable, promotion is a reliable variable because Cronbach's Alpha of 0.846 is higher than 0.7. the Corrected Item-Total Correlation column shows that all the indicators of promotion are valid since all the r-data are higher than the r-table, which is 0.1602. The fifth independent variable, physical evidence is reliable since the Cronbach's Alpha of 0.758 is higher than 0.7. All the values of Corrected Item-Total Correlation are higher than r-table, which

is 0.1620. Hence, physical evidence is also valid. The sixth independent variable, people, the Cronbach's alpha of 0.883 is higher than 0.7. Thus, People is one reliable variable. From the Corrected Item-Total Correlation column, it is seen that all values are higher than the cut off in the r-table, which is 0.1620. Thus, the indicators of People are said to be valid. Looking at the seventh independent variable, the Cronbach's Alpha value is 0.885. Thus, process is said to be reliable because it is higher than the cut off of 0.7. all valued of Corrected Item-Total Correlation are higher than the r-table, which is 0.1620. Thus, the indicators of process are said to be valid. For the dependent variable, customer loyalty, looking at the Cronbach's Alpha, which is 0.918, customer loyalty is said to be a reliable variable. From examining the column of Corrected Item-Total Correlation, all the 7 indicators are said to be valid since all the r-data are higher than the r-table of 0.1620.

For the normality test, According to histogram, the normality assumption is fulfilled and the residuals in the regression model are normally distributed. The plots in the normal probability plot graph fall near the diagonal line and it follows the diagonal line. Hence, the residuals in this regression can be said as normally distributed. While from the descriptive statistics for Skewness and Kurtosis values and calculation it can be said that the data are normally distributed.

$$\text{Skewness Ratio} = \frac{-0.187}{\frac{0.200}{0.200}} = -0.935$$

$$\text{Kurtosis Ratio} = \frac{0.444}{\frac{0.397}{0.397}} = 1.118$$

For the autocorrelation test, having conducted the run test, it can be seen that the significance of the unstandardized residual of 0.563 is higher than the significance value of 0.005. This, the null hypothesis is failed to be rejected, showing that the residuals in the regression model are random or there is no autocorrelation between the residuals in the regression model. For the multicollinearity test, firstly, using the coefficient correlations, according to the decision rule is, if the absolute value of correlation between any two independent variables is lower than 0.9, meaning there is no multicollinearity. From the result of the coefficient correlation table, the highest correlation is 0.648 or 64.8%, which is between process and people. While the correlations among any two independent variables are even lower than that. Thus, based on coefficient correlations, there is no multicollinearity between the independent variables in the regression model. Secondly, using the tolerance value or variance inflation factor (VIF), the decision rule is, if the tolerance value of all the independent variables is higher than 0.10 or the VIF is lower than 10, meaning there is no multicollinearity. From the



results, it can be seen that the tolerance value of all the independent variables are far higher than 0.1, in which the lowest is 0.336. Moreover, looking at the VIF values, all values are far below 10, in which the higher is only 2.981. Therefore, based on the collinearity statistics of tolerance value or VIF, there is no multicollinearity between the independent variables in the regression model.

**Table 4. Collinearity Statistic Results**

Model	Collinearity Statistics	
	Tolerance	VIF
1 (Constant)		
AV_PRODUCT	.625	1.599
AV_PRICE	.716	1.396
AV_PLACE	.514	1.946
AV_PROMOTION	.767	1.304
AVPEOPLE	.336	2.981
AV_PROCESS	.343	2.917
AV PE	.805	1.242

For the heteroscedasticity test, from the graph analysis result, it can be seen that all the plots are not only scattered below and above the zero point of Y-axis, but also not forming any specific pattern. Hence, based on the graph analysis using the scatterplot graph, it can be said that the data is homoscedastic, which means that the variance of errors in this research keeps staying the same across different observation or different values of independent variables. From the statistical result, the significance F (p-value) of all the parameter coefficients of the independent variables are higher than the alpha of 0.05. Hence, the null hypothesis is failed to be rejected, meaning that there is no heteroscedasticity among the residuals in the regression model, or the variance of the residuals keep staying the same across different observation or different values of independent variables.

**Table 5. Results of F-test**

Model	F	Sig.
Regression	36.639	.000

From the F-test results, it can be seen that the significance F is 0.000, or far below the significance level ( $\alpha$ ) of 0.05. Moreover, the F-value of 36.639 is also far beyond the F-table of 2.0096. Therefore, it can be said that the null hypothesis is rejected, and thus, Marketing Mix or the 7Ps – product, price, place, promotion, physical evidence, people, process – as the independent variables, simultaneously have significant influence on the customer loyalty toward Plaza Indonesia shopping center as the dependent variable.

**Table 6. Results of t-test**

Independent Variable	Standardized Coefficients	t-test statistic	P-value
Product*	.201	3.156	.002
Price	.026	.446	.657
Place*	.344	4.903	.000
Promotion*	.195	3.395	.001
People	.098	1.132	.260
Process	.068	.793	.429
Physical Evidence*	.193	3.438	.001

\*has significant influence on the dependent variable

From the t-test results, product, place, promotion, and physical evidence are independent variables whose P-value is lower than significance level of 0.05, and whose t-test statistic fall outside the range of (-) 1.9765 ( (-) t-critical value) and (+) 1.9765 ( (+) t-critical value). On the other hand, the other 3Ps- price, people, and process- are having the P-value higher than the significance level of 0.05, the t-test statistic are all lie in the range of (-) 1.9765 ( (-) t-critical value) and (+) 1.9765 ( (+) t-critical value). Therefore, it can be said that from the researcher’s second hypothesis, only product, place, promotion, and physical evidence that are individually have significant influence on customer loyalty toward Plaza Indonesia shopping center, while the rest of the Ps (price, people, and process) are confirmed not to have significant influence on customer loyalty of Plaza Indonesia individually.

**Table 7. Results of Adjusted R Square**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.805 <sup>a</sup>	.649	.631	.470

From the adjusted R square result, the Adjusted R Square is 0.631, meaning that 63.1% of the variation in the customer loyalty toward Plaza Indonesia shopping center as the dependent variable can be explained by the variation in the 7Ps of the Marketing Mix, taking into account the sample size and number of independent variables. While the remaining 36.9% is explained by the variation of other variables outside the regression model.

**CONCLUSION**

In conclusion, this research shows that the 7Ps of Marketing Mix simultaneously have significant influence on the customer loyalty towards Plaza Indonesia shopping center only if the 7Ps stand as a group. Individually, it is said that only product, place, promotion and physical evidence that are proven to be individually influencing customer loyalty of Plaza Indonesia.

There have been several limitations of the research which may affect the research results. First, limited

number of independent variables. In this research, the researcher only uses the 7Ps of the Marketing Mix as the independent variables, which are observed to see how significant they influence the customer loyalty toward Plaza Indonesia shopping center. Based on the result of the multiple linear regression analysis, specifically the adjusted R square, the variation in the marketing mix determined 61.3% of the variation in the customer loyalty toward Plaza Indonesia, meaning that there are other variables influencing the customer loyalty toward Plaza Indonesia, which are not examined in this research. While there are a lot of factors that might influence the customer loyalty toward Plaza Indonesia shopping center. Thus, the researcher suggests that the future research will add more independent variables by collaborating more theories because the theory of Marketing Mix does not stop at 7Ps only.

Second, limited items of each of the independent variables. In shopping center context, to measure each Ps of the independent variables, the items or indicators could be a lot. This research uses 3 items minimum for each Ps except for promotion. Meanwhile shopping center context is broad, and there are a lot of factors influencing customer to be loyal to one particular shopping center. Therefore, there might be more indicators to cover the whole factors influencing the customer loyalty toward Plaza Indonesia. Thus, the research suggests the future research to add items or indicators for each of the independent variables.

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