THE EFFECT OF MARKETING MIX AND TECHNOLOGY ACCEPTANCE MODEL ON PURCHASE INTENTION VIA VENDING MACHINE MEDIATED BY ATTITUDE

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ABSTRACT

Indonesia's population in the year 2020 is 270.2 million, 26.5% is Generation Z and 25.8% is Millennial. Millennials and Generation Z are easier to accept new technology. Convenience of online significantly increased online shopping and E-money transactions. Several retail shops closed due to high operational costs and lack of visitors. Overseas retailers use vending machines for effectiveness saved labor costs and convenience for customers. Hence, vending machine can be an alternative for offline retailers in Indonesia. Scholars argue vending machine business is promising in Indonesia but not familiar due to lack of marketing and people's ignorance to use it. Not many vending machine research investigates the effect of marketing mix. This research is different with previous research by investigate the effect of marketing mix. Research objective is to investigate the effect of 4Ps Marketing Mix and TAM (independent variable) on purchase intention (dependent variable) mediated by attitude with theory of Behavioral Reasoning. This is Quantitative, Fundamental research, Non-Probability Convenience sampling with 100 samples, and used PLS-SEM analysis method. Primary data from questionnaires distributed during September 2021– October 2021 answered by vending machine users from age 21 years old or above and domicile in JABODETABEK. Research result found there was significant positive effect of TAM on attitude, attitude affect intention to purchase, and attitude mediates the effect of TAM on purchase intention. This research would be useful to researchers who will research to increase purchase intention and for retailers as one of strategies for increasing revenue via vending machines.

Key words: Retail, Customer Behavior, Technology, Marketing Strategy, Revenue

INTRODUCTION

Based on Badan Pusat Statistik (BPS) Indonesia, Indonesia's population in the year 2020 is 270.2 million, the majority or 26.5 percent of the total population is Generation Z (born in 1997 - 2012) and 25.8 percent is Millennial Generation (born in 1981 - 1996). Data World Bank GDP per capita, Indonesia's GDP per capita in the year 2020 is USD 3,869 was increased by 24% from the year 2010. Ministry of Industry recorded that throughout 2018, the food and beverage industry in Indonesia was able to grow by 7.91% or exceed the national economic growth of 5.17%. Bank Indonesia (BI) states E-commerce transactions in Indonesia throughout 2018 reached IDR 77.766 billion, an increase of 151% compared to the year 2017 and the volume of electronic money transactions at the end of 2018 jumped to 209.8% to 2.9 billion transactions compared to the year 2017.

In the past few years, several retail shops have closed its branch in several regions due to high operational costs and lack of visitors (Yulita et al., 2019). Decreasing number of offline customers indicates that consumer buying interest in offline stores has also declined (Shahnaz, 2016).

Retailers in overseas use vending machines for their effectiveness saved labor costs and convenience for customers without human intervention, such as in Japan has vending machines from cities to remote parts in the country selling drinks, foods, vegetables, tickets, cigarettes, and so on. Vending machines have been highly effective as they have helped to save labor costs, which has been driving demand of vending machine (Majerova et al.,2021).

The difference in operational cost between offline retail shop or a minimarket with a vending machine which vending machine required smaller space with smaller operating cost, decreasing number of offline store visitors, convenience of online and ability of vending machine to provide convenient to customers to purchase at 24 hours, a vending machine can be a solution for offline retailers to sell snacks or beverages in Indonesia. However, units of vending machines are operating in Indonesia is much lower than vending machine distribution coverage compares to other countries. Vending machine business is very promising to be implemented in Indonesia, and some reasons make vending machine not yet familiar in Indonesia are due to a lack of marketing and people's ignorance on how to use the vending machine system (Mulyani et al., 2019).

Thus, it is important to research factors that impact customers' intention to purchase via vending machines, especially in Indonesia, because Indonesia is a developing country with 4th largest population in the world, the increment value of GDP and beverage industry in Indonesia, this can generate a promising demand of beverages in Indonesia. Besides that, the behavior of using electronic money and online shopping is getting common in Indonesia, and the trend of accepting new technologies from the millennial and generation Z can increase the opportunity to purchase beverages or foods via vending machines. Hence, it is important to provide specific information to vending machine retailers to increase sales value through vending machines retail business by developing effective business strategies and achieving the market demands in the right way. Assuming fixed cost stay unchanged, the incremental sales will increase gross margin and will flow to the bottom line and increase net profits (Fisher et al., 2018; Malau, 2020b). Incremental net profit is needed by retailers for business sustainability and development.

Vending machine retailers need to compete with other vending machine retailers, modern retail stores, and many traditional grocery stores which can easily be accessed by customers in urban areas or remote areas. Purchase and sell transactions in vending machines are completed with the support of internet (online) and technology. With the emergence of the internet and technology, vending machines can also deliver adaptive marketing solutions across target markets (Johnston, 2015). Moreover, Venkatesan et al. (2015) found differences in the marketing mix strategies of self-service and full-service retail channels, demonstrating the necessity to establish a separate marketing mix for vending machine retailers. A vending machine is a stand-alone kiosk operating fully automatically through software integration (Van et al., 2010). This makes technology is one of the important parts of a vending machine. Thus, attitude towards the vending machine technology and intention to use vending machines is essential for the development of vending machines in the retail industry in Indonesia.

Customer of vending machine is customer in the retail business and the user of vending machine technology. Therefore, this research was designed specifically to close the gap in previous research, study the effect of marketing strategy (4Ps Marketing Mix) and Technology Acceptance Model on intention to purchase via vending machine. The research objective is to investigate the effect of the 4Ps Marketing Mix and TAM (independent variable) on purchase intention (dependent variable) mediated by attitude. This research concentrated on vending machine selling snacks or beverages in the JABODETABEK area.

Stoyanov (2021) as the first attempt to empirically establish the conventional elements of the vending marketing mix and to measure its variation across customer segments is focused the vendor's perspective and does not consider consumers' attitudes, perceptions, and levels of satisfaction with machines' design, product variety, and payment options (Stoyanov, 2021). Therefore, this research is different from previous research, this research is specially designed to include marketing mix. This research is to provide more benefits for researchers is to know the effect of 4Ps Marketing Mix and Technology Acceptance Model on attitude towards vending machine and for vending machine retailers, it can be used for formulating strategies to increase revenue from vending machine retail business.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

LITERATURE REVIEW

To evaluate the factors that influence intention to purchase via vending machine, this research used the Behavioral Reasoning Theory (BRT) model modified by Claudy et al., 2013. This theory was selected for this research as it is popular among scholars pursuing empirical research (Pillai et al., 2018; Gupta et al., 2017; Claudy et al., 2015; Ryan et al., 2018; Sofia et al., 2021). The main components of the modified BRT model are values, reasons (for and against), attitude, and intention to use (Sahu et al., 2020). In BRT, beliefs or values, and reasons are context specific (Sahu et al., 2020; Thamrin & Sembel, 2020). In many decision-making contexts, reasons provide unique insights by justifying and defending individual actions, which further support the acceptability of the judgement. According to BRT, the stronger the reasons for performing a behavior, the higher is the association between global motives and performing the behavior. BRT is related to several other behavioral theories, but it offers various advantages or merits compared to them (Ryan et al., 2018; Westaby, 2005).

Attitude is described in the literature as an individual's positive or negative feelings (evaluative effect) about performing the target behavior. Consumers' attitude is a directly influenced factor that affects the consumers' buying willingness (Guo et al., 2011). Ajzen et al. (1980) describe the attitude towards a behavior as a person's evaluation of a specified behavior involving an object or outcome.

Purchase intention is defined as the possibility of consumers purchasing product or service in the near future (Ajzen et al., 1980). Purchase intention is the result of subjective decisions made by person individually after evaluating a product or service (Shao et al., 2004). Purchase intention is a situation where a consumer tends to buy a certain product in certain condition (Mirabi et al., 2015). This reflects that purchase intention examines consumers' willingness to buy and further intention to buy, as well as to repurchase (Rahman et al., 2012). Many factors affect the consumer's intention while selecting the product and the ultimate decision depends on consumers' intention with large external factors. Purchase intention can measure the possibility of a consumer to buy a product, and the higher the purchase intention is the higher a consumer's willingness is to buy a product (Dodds et al., 1991, Schiffman et al., 2000; Malau, 2020).

The marketing mix is the set of controllable tactical marketing tools, which consists of product, price, place, and promotion that blends to produce the response it wants in the target market (Kotler, 2011). Product is defined as a physical product or service to the consumer and pay to get those products (Kotler and Armstrong, 2014). Price is the sum of money used or the sum of value that consumers are willing to sacrifice in exchange for a product or service (Kotler and Armstrong, 2016). According to Pride et al. (2010), place is distribution, a component of marketing mix that focuses on the decision and action involved in making the products available to consumers when and where they want to purchase them. Promotion is to communicate value propositions to customers (Kotler and Armstrong, 2014).

Technology Acceptance Model (TAM) is an information theory that models how users come to accept and use technology. The Technology Acceptance Model (TAM) originally formulated by Davis (1985). TAM has become so popular that it has been cited in most of the research that deals with users' acceptance of technology (Lee et al., 2003). Even though TAM has been tested widely with different samples in different situations and proved to be valid and reliable model explaining information system acceptance and use (Mathieson, 1991; Venkatesh and Davis, 1996). Two major cognitive response determinants in TAM are Perceived Ease of Use (PEOU) and Perceived Usefulness (PU) in which PEOU has a causal effect on PU (Davis, 1985). Davis (1989) defined PU

as "the degree to which an individual believes in using a particular system would enhance his or her performance". Davis (1989) defined PEOU as "the degree to which an individual believes in using a particular system would be free of effort".

Rhodes et al. (2019) many retailers have aggressively increased the size of their product assortments intending to become one-stop shops. Pan et al. (2006) product assortment was ranked highest among ten factors when customers had to choose a particular retailer (product variety). Kalyanaram et al. (1995) pointed out that customers compare prices when deciding on a product. Consumers are more inclined to use vending channels when they urgently need to buy a product and perceive that the price is fair (Dixit et al., 2014). Thang et al. (2003), customers choose a store to visit based on its accessibility, ease of transportation, and time required to go to this store. Verma et al. (2017) promotion affects customer satisfaction and customer loyalty.

According to Lai (2016), the perceived ease of use and perceived usefulness are the organism that represents the motivation to use the system that leads to consumers' response to using the system. Šumak et al. (2011), the perceived ease of use and the perceived usefulness are the major factors that can influence the attitudes of users toward using e-learning technology. Individuals use new technologies due to both perceived extrinsic benefits (e.g., usefulness and ease of use) and intrinsic benefits (e.g., playfulness and hedonic benefits) (Kim et al., 2016).

HYPOTHESIS DEVELOPMENT

a) Relationship Between 4Ps Marketing Mix and Attitudes

Researcher Guo et al. (2011) conclude that the perceived marketing mix has a significant positive impact on the consumers' attitude to adopt online purchases. Paulins et al. (2003) explained that stores are not displaying the merchandise that customer prefer would ultimately lose their customers. Thang et al. (2003) and Collins et al. (2003) cited merchandise as the most critical attribute of store selection preference. Terblanche (2018) in his research concluded that there is a positive relationship between merchandise value and merchandise variety to customer satisfaction. Sivadas et al. (2017) merchandise value has a strong influence on customer satisfaction. And based on research by Lyons (2015), adding cashless payments to vending machines leads to a 23% increase in sales because consumers tend to spend more when they do not have to pay by cash. A small difference in terms of distance can have a principal effect on customers. Lamb et al. (2011) claim that products need to be available in the right place and time. Kang et al. (2018) researched corporate social media messages and identified that the immediacy feature has a positive impact on purchase intention via a mediating impact of brand attitude. Therefore, the hypothesis is proposed as follows:
H1: 4Ps Marketing Mix has a positive effect on attitude towards vending machine.

b) Relationship Between Technology Acceptance Model and Attitudes

TAM posits that behavioral intention to initially adopt technology is determined by one's attitude towards using that system and its perceived usefulness, where attitude is a direct function of usefulness (Gupta et al., 2017). If users understand that using technology will be beneficial and satisfies their needs, they assume a positive attitude towards doing so (Lee, 2018; Morosan et al., 2016; Olaleye et al., 2018). Attitudes are cognitive reactions to action and are indications of how hard people are willing to try and of how much effort they are planning to exert (Baek, 2013). Less effort using mobile apps results a greater inclination to use the technology because it is supposedly easier and more service oriented (Laforet et al., 2005). Many studies have depicted the positive attitudinal effect of digital convenience (Gill et al., 2017; Hew et al., 2015; Hsu et al., 2016; Lu, 2015; Veríssimo, 2016). Thus, a hypothesis is proposed as follows:
H2: Technology Acceptance Model has a positive effect on attitude towards vending machine.

c) Relationship Between Attitudes and Intention to Purchase

Intention to perform an activity in a mobile app is determined by their attitude towards apps (Carter et al., 2016). The intention has been deemed as "attitude's conative component", whereas behavioral intention involves a person's subjective probability of engaging in certain behavior in the future (Ajzen et al., 1980). In other words, attitude is significant as a critical predictor for understanding behavior (Chu, 2018). A positive attitude towards app increases the number of times users are likely to visit an app and the duration of each visit. This leads to enhanced 'stickiness' and increases potential purchase intention (Hsu et al., 2016; Kim et al., 2015). Bellman et al. (2011) similarly concluded that successful apps can enhance positive attitudes and result purchase intention.
Thus, a hypothesis is proposed as follows:
H3: A positive attitude towards vending machine increase intention to purchase via vending machine.

d) The Mediating Role of Attitudes Between 4Ps Marketing Mix and Intention to Purchase

Kim and Park in their research examined the relationships among marketing mix elements, brand attitudes, and purchase intentions. It was concluded that leveraging the marketing mix elements will impact the attitude strength (Kim et al., 2013). Thus, propose the following hypothesis:
H4: Attitude towards vending machine mediate the effect of 4Ps Marketing Mix on intention to purchase via vending machine.

e) The Mediating Role of Attitudes Between Technology Acceptance Model and Intention to Purchase

Amoroso and Ackaradejruangsri (2017) concluded that customer attitude in part moderates the link between perceived ease of use and satisfaction, while Rivera et al. (2015) noted the effect of technology experience on usage intention mediated by attitude. Therefore, consider the following hypotheses:

H5: Attitude towards vending machine mediate the effect of Technology Acceptance Model on intention to purchase via vending machine.

Attitude towards vending machine has been considered as one mediating factor in replications of Behavioral Reasoning Theory (BRT) and Technology Acceptance Model (TAM). Attitude towards vending machine clearly links effect factors of marketing mix (product, price, place, and promotion) and factors of TAM (perceived usefulness and perceived ease of use) to the consequent factor (intention to purchase) in this research. The hypotheses framework is presented in Figure 1:

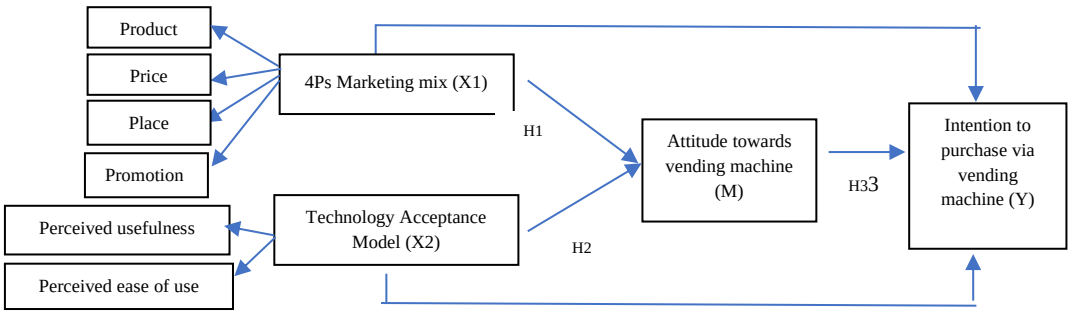

Figure 1: Hypotheses Framework (Researcher, 2021)

RESEARCH METHODOLOGY

This is Quantitative research, quantitative approach had been chosen is because data analysis is computerized, method of analysis is statistical and mathematical that would maintain a clear distinction between facts and judgements (Cooper et al., 2013). This research purpose is Pure or Fundamental research with the objective to equip oneself with additional knowledge of certain phenomena and problems that occur in several organizations and industries with a view to finding solutions (Sekaran et al., 2016). The population in this research was vending machine users aged 21 years old or above and domicile in JABODETABEK. The sampling method is Non-Probability Convenience sampling. This method is selected is because it is a quick, convenient, and less expensive method. The sample size is 100 respondents which is slightly higher than 98 samples size required calculated used Cohen Statistical Power Analysis with the level of significance (α) at .05, effect size (f^2) is .15 (medium) recommended by Ary et al. (1996) and the power is set at .80 as proposed by Cohen (1992).

Primary data of this research were obtained directly from the object of research through a questionnaire to respondents that have been compiled in the form of questions on the Likert scale (1-5). Each question was given with five answer options which were scaled as strongly agree (5), agree (4), neutral (3), disagree (2), strongly disagree (1). Secondary data were obtained from journals, reports, data, and figures from a research institute or previous research findings.

All measurements used in this research are adopted and modified from previous studies. Measurement for variable 4Ps Marketing Mix adopted and modified from Stoyanov (2021), measurement for variable Technology Acceptance Model (TAM) adopted and modified from Kucukusta et al. (2015) and Lee et al. (2015), measurement for variable Attitudes adopted and modified from Lee et al. (2015) and Chu (2018), measurement for Intention to Purchase adopted and modified from Chu (2018) and Erkan et al. (2016), scales measured are intention to purchase via vending machine in the near future, intention to purchase via vending machine at next time purchase and intention to recommend others to purchase via vending machine.

The analysis process used the PLS-SEM (Partial Least Square). PLS-SEM method was selected is because and can accept a small number of samples and for multiple variables and PLS-SEM is suitable for depicting research with several theories that are not too many and the form of a model that cannot be ascertained (Gefen et al., 2000) and research with prediction-oriented or an extension of an existing theory, PLS path modelling should be employed (Hair et al., 2010). PLS had the advantage of estimating construct relationships (structural model) and relationships between indicators and their corresponding latent constructs (measurement model) at the same time (Chin et al., 2003). SmartPLS software used for data analysis, SmartPLS was used because additional improvements made to SmartPLS in recent years have contributed to its widespread use of it lately (Hair et al., 2014). Relationship between variables tested use bootstrapping method with a 5% (1.96) significance level or confidence level of 95%, criteria for Ha accepted is when t values > 1.96. Hair et al. (2017).

RESULTS

Pre-test and Descriptive Statistics

A pre-test with 30 respondents was conducted to test the validity and reliability of the questionnaire questions. The pre-test result is exceeding the minimum validity and reliability cut-off value for Pearson correlation > 0.3 and Cronbach's Alpha > 0.7 (Hair et al., 2003).

The distribution of questionnaires of this research was through Google Forms during September 2021 - October 2021 to respondents of various ages ranging via e-mail and WhatsApp. Total valid respondents are 100. By gender, the respondents are dominated by males with 57%. 44% of total respondents aged 21-30, aged 31-40 with 43%, aged 41-50 with 6%, and aged above 50 with 7%. Most respondents (36% of total respondents) are domiciled in Bogor, and 57% of total respondents with monthly income Rp 5 million to Rp 10 million.

The descriptive analysis was examined through SPSS version 26. Table 1 is the table of descriptive statistics and figure 2 is the graphic of the mean value of variables.

Table 1: Descriptive Statistics

	4Ps Marketing Mix				**Technology Acceptance Model**		**Attitude towards vending machine (Attitude)**	**Intention to purchase (ITP)**
	Product	**Price**	**Place**	**Promotion**	**Perceived Usefulness (PU)**	**Perceived Ease of Use (PEOU)**		
Mean	4.108	4.002	3.620	3.653	4.030	3.998	4.014	3.822
Std. Deviation	0.580	0.582	1.059	0.909	0.595	0.610	0.588	0.735
Skewness	-0.102	0.138	-0.785	-0.915	-0.104	0.099	0.158	-0.617
Kurtosis	-0.536	-0.643	0.096	1.016	-0.341	-0.705	-0.760	1.267

Source: Developed by researcher (2021)

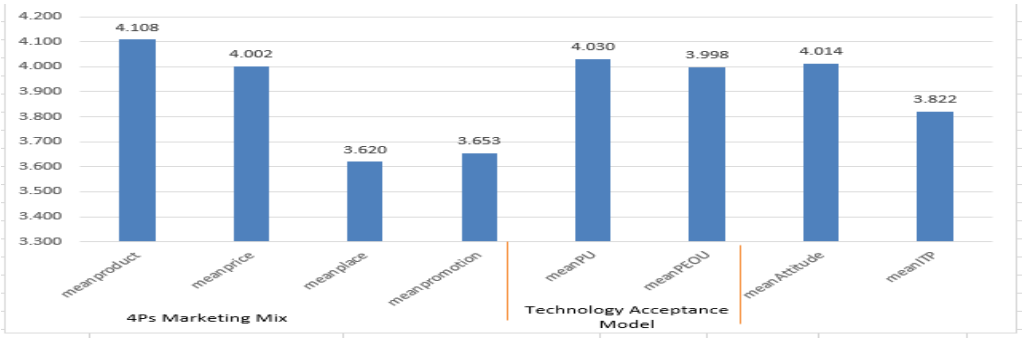

Figure 2: Mean value of Variables (Researcher, 2021)

Measurement Model Evaluation

Table 2: Measurement Model Evaluation Result

Variable	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
4Ps Marketing Mix	0.879	0.898	0.545
Technology Acceptance Model	0.871	0.898	0.695
Attitude towards vending machine	0.667	0.701	0.888
Intention to purchase via vending machine	0.850	0.890	0.574

Source: Developed by researcher (2021)

Construct Validity was used to define how good is the results found from the use of measurement in relation to the theories that are used to express a construct (Hartono, 2008), consisting of convergent validity and discriminant validity. Cronbach's Alpha and Composite Reliability were used for reliability test to analyze the internal consistency reliability, it shows the accuracy, consistency, and accuracy of a measuring instrument in making measurements (Hartono, 2008). Convergent validity was evaluated using outer loading and AVE. The result for outer loading is > 0.6 and AVE > 0.5, this exceeds the minimum required cut-off value according to Ghozali (2014). Discriminant validity test used Cross-Loading Table, the indicator is the value of each indicator included on one variable is a greater value than the value of cross loading indicators in other latent variables (Ghozali, 2014). Cronbach's Alpha test result is exploratory scale to good scale with the highest values at 0.879 for variable 4Ps Marketing Mix. Composite reliability exceeds > 0.7 (satisfactory level) according Nunnally & Bernstein, 1994. The result is shown in Table 2.

Structural Model Evaluation

Collinearity assessment, Effect size (f^2), Coefficient of determinant (R^2), and Predictive relevance (Q^2) were used for Structural Model evaluation. Collinearity was assessed through Variance Inflated Factor (VIF). VIF value is < 5 (no potential collinearity problems), as based on Hair et al., 2011, potential collinearity problems arise when VIF ≥ 5. Based on Cohen's (1988) guideline, the f2 value of Attitude on Intention to Purchase is a small effect (0.098), f^2 of the technology Acceptance model on Attitude is a large effect (0.937). According to Ghozali (2014), R^2 values between 0.25 – 0.50 are considered as weak, values between 0.50 – 0.75 are considered as moderate, and values above 0.75 are considered as substantial, and Q^2 values larger than 0 indicates that the model has predictive relevance for a certain endogenous (dependent) construct. These results are shown in Tables 3, 4, and 5.

Table 3: F square (f2) Results

	Attitude	Intention to purchase
4Ps Marketing Mix	0.001	0.100
Attitude		0.098
Technology Acceptance Model	0.937	0.003

Table 4: R Square and R Square Adjusted

	R Square	R Square Adjusted
4Ps Marketing Mix	0.999	0.999
Attitude towards vending machine	0.667	0.653
Intention to purchase	0.342	0.321
Technology Acceptance Model	0.999	0.999

Table 5: Q square (Q2) Results

	SSO	SSE	Q^2 (=1-SSE/SSO)
4Ps Marketing Mix	1700.000	1147.987	0.325
Attitude	500.000	335.749	0.329
Intention to purchase	600.000	492.126	0.180
Technology Acceptance Model	900.000	468.917	0.479

Source: Developed by researcher (2021)

Hypothesis Test

Reject or accept a hypothesis using probability values, P-value will be to determine whether the hypothesis is accepted or not. The hypothesis will be accepted if the P-value < 0.05 (Ghozali, 2014). From the result shown in Figure 3 and Table 6, it can be explained as the following:

H1: Rejected. The result of the analysis shows the 4Ps Marketing Mix is no effect on Attitudes towards vending machine, since the T-value = 0.240 and P-value = 0.811.

H2: Accepted. The result of the analysis shows that the Technology Acceptance Model (TAM) has a significant effect on Attitude towards vending machine, it's T-value = 10.251, P-value = 0.000, and the path coefficient value of the relationship between the Technology Acceptance Model (TAM) on attitude towards vending machine is positive 0.790. Thus, it can be concluded that if the Technology Acceptance Model (TAM) increases by 1, it will increase the Attitude towards via vending machine by 0.790.

H3: Accepted. The result of the analysis shows that a positive attitude towards vending machine increase the intention to purchase via vending machine it's T -value = 2.539 and P-value = 0.011, and the path coefficient value of the relationship between attitude towards vending machine to intention to purchase via vending machine is positive 0.414. Thus, it can be concluded that if the attitude towards vending machine increases by 1, it will increase the intention to purchase via vending machine by 0.414.

H4: Rejected. The result of the analysis shows the Attitude towards vending machine did not mediate the effect of 4Ps Marketing Mix on intention to purchase via vending machine, since the T-value = 0.049 and P-value = 0.961.

H5: Accepted. The result of the analysis shows that Attitude towards vending machine mediates the effect of TAM on intention to purchase via vending machine, it's T-value= 2.532 and P-value = 0.012, and the path coefficient value of the Attitude towards vending machine mediates the effect of the Technology Acceptance Model on intention to purchase via vending

machine is positive 0.327. Thus, it can be concluded that if the Technology Acceptance Model (TAM) increases by 1, it will increase the intention to purchase via vending machine mediated by attitude towards vending machine by 0.327.

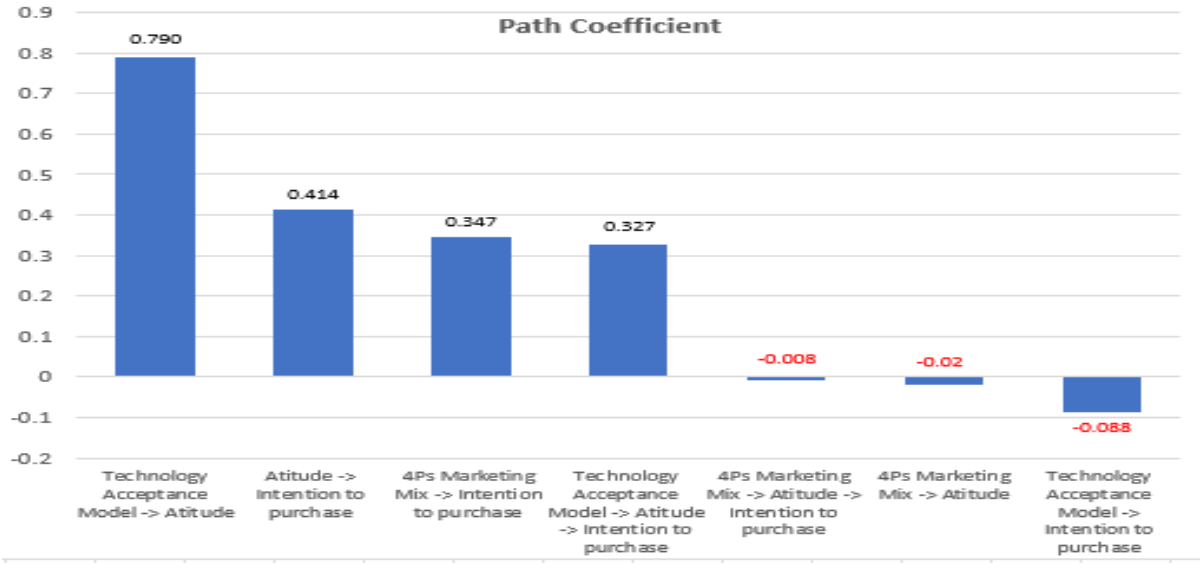

Figure 3: Path Coefficient (Researcher, 2021)

Table 6: Hypothesis Testing Result (Direct & Indirect Effect)

Hypothesis		Path Coefficient	T-value	P-value	Result
H1	4Ps Marketing Mix has a positive effect on attitude towards vending machine	-0.020	0.240	0.811	Not supported
H2	Technology Acceptance Model has a positive effect on attitude towards vending machine	0.790	10.251	0.000	Supported
H3	A positive attitude towards vending machine increase intention to purchase via vending machine	0.414	2.539	0.011	Supported
H4	Attitude towards vending machine mediate effect of the 4Ps Marketing Mix on intention to purchase via vending machine	-0.008	0.209	0.835	Not supported
H5	Attitude towards vending machine mediate effect of the Technology Acceptance Model on intention to purchase via vending machine	0.327	2.532	0.012	Supported

Source: Developed by researcher (2021)

DISCUSSIONS

4Ps Marketing Mix and Attitude Towards Vending Machine

According to this research, it is concluded there is no effect of 4Ps Marketing Mix on attitude towards vending machine. This means the implementation of the 4Ps Marketing Mix will not affect on customer's attitude towards vending machine. This result is different from previous research conducted by Terblanche (2018). Terblanche (2018) did research addresses to customers of supermarket retailers and the result of his research is there was a positive relationship between merchandise value and merchandise variety on customer satisfaction.

The difference result of this research with research conducted by Terblanche (2018) might be due to not all factors of 4Ps Marketing Mix having a positive effect on attitude towards the vending machine and different of products sell in supermarket with vending machine. This research is only focused on vending machine selling beverages and snacks. Beverages and snacks are convenience products. According to Kotler and Armstrong (2014), customer buying behavior for convenience products is little planning, little comparison, and low customer involvement. And based on Solomon et al., 2010, the steps that create an attitude on low involvement hierarchy is cognition ➧behavior ➧ affect➧attitude, based on the behavioral learning process the consumer's interest in the attitude object may be unenthusiastic.

Technology Acceptance Model (TAM) and Attitude Towards Vending Machine

This research found that TAM has a significant positive impact on attitude towards vending machine. This means whenever TAM level is high, this will make attitude high. This result is consistent with several previous research. As research conducted by Vahdat et al. (2021), perceived ease of use positively affects attitude. Uncomplicated use encourages customers to make in-app purchases (Amoroso and Ackaradejruangsri, 2017). Rabbani et al. (2020) perceived usefulness is an important determinant of acceptance in technology.

Both factor of TAM (perceived ease of use and perceived usefulness) has a significant positive impact on attitudes. Perceived ease of use has result of coefficient = 0.598, T-value = 9.778, P-value = 0.000 and perceived usefulness has result of coefficient = 0.456, T-value = 8.954, P-value = 0.000. Vending machine is a technology system, hence there is no doubt that factors of Technology Acceptance Model have significant effect on customers' attitude towards vending machine. App developers should continue to improve user-friendliness of mobile app design and navigation and providing users with clear and easy-to-follow instructions (Qin et al., 2011).

Attitude Towards Vending Machine and Intention to Purchase via Vending Machine

According to this research, it is concluded there is a relationship of attitude to intention to purchase via vending machine. This means whenever attitude level is high will make intention to purchase via vending machine high. A person needs to have a positive feeling towards vending machine to arise the intention to purchase via vending machine. This result is synchronized with Behavioral Reasoning Theory modified by Claudy et al. (2013) and previous research results revealed by Chu (2018) that generating a positive attitude toward organic foods enables to raise the purchase intention of consumers toward organic foods.

The Mediating Effect of Attitude Towards Vending Machine Between 4Ps Marketing Mix and Intention to Purchase via Vending Machine

This research found that attitude towards vending machine did not mediate the effect of 4Ps Marketing Mix on intention to purchase via vending machine. This means 4Ps Marketing Mix did not have effect on intention to purchase via vending machine mediated by attitude. This failure might be due to failure to identify the effect of 4Ps Marketing Mix on attitude towards vending machine (Hypothesis 1). As mentioned earlier this failure might be due to not all factors of 4Ps Marketing Mix has a positive effect on attitude towards vending machine and type of products sold in this research is beverages and snacks, where the consumer's interest in the attitude object for convenience products and low involvement hierarchy products may be unenthusiastic.

The Mediating Effect of Attitude Towards Vending Machine Between TAM and Intention to Purchase via Vending Machine

As expected, attitude towards vending machine was found to mediate the effect of TAM on intention to purchase via vending machine. This result was expected, as previous research shows that attitude plays an important role in the acceptance of technology (Vahdat et al., 2021 and Venkatesh et al., 2003). It shows that the higher effect of TAM will increase the effect on the intention to purchase mediated by attitudes. This result can be seen in the reality that when people are like the ease of use and usefulness of technology will tend to accept and use the technology.

CONCLUSIONS, LIMITATION, IMPLICATIONS, AND RECOMMENDATIONS

Conclusions from this research are:

1) There is no effect of the 4Ps Marketing Mix on attitude towards vending machine.
2) There is a significant positive effect of the Technology Acceptance Model (TAM) on attitude towards vending machine.
3) Attitude towards vending machine has a positive effect on intention to purchase via vending machine.
4) Attitude towards vending machine did not mediate the effect of 4Ps Marketing Mix on intention to purchase via vending machine.
5) Attitude towards vending machine did mediate the effect of TAM on intention to purchase via vending machine.

In overall, 4Ps Marketing Mix did not have effect on purchase intention via vending machine mediated by customer's attitude, TAM (perceived usefulness and perceived ease of use) have significant effect on purchase intention via vending machine mediated by attitude towards vending machines. Hence, customers will have intention to purchase via vending machine and intention to recommend to friends or others to purchase via vending machine when customers believe using the vending machine is useful for him or her and using the vending machine would be free of effort.

Time constraint to distribute the questionnaires, gather the result from respondents and timeline of data analysis, hence researcher only collects questionnaires from respondents with no proportional number of respondents from each city of JABODETABEK (Jakarta, Bogor, Depok, Tangerang, and Bekasi).

This research will be useful to researchers who would need to conduct research about increasing the intention to purchase via vending machine in Indonesia especially in JABODETABEK and for retailers could use this research as one of their strategies to increase revenue via vending machine by using vending machine that can provide usefulness to customer such as a faster process and vending machine that easy to be used by customer such as easy feature or easy to be operated. Result of this research could be

as a reference also to other countries especially developing countries that Technology Acceptance Model is an important variable for vending machine use.

To produce higher quality research, it is recommended to carry out a similar test with a larger number of total samples. Future researchers can consider using the same construct to be tested in other types of vending machines or study in other countries or use different variables or only a few factors of 4Ps Marketing Mix such as product (product assortment) and price (selling price and payment option) to study their effect on attitude towards vending machine or intention to purchase via vending machine. Adoption and intention to use mobile services such as text messaging, internet usage, mobile commerce, and online shopping in youth have been significantly different from the older population (Lian et al., 2014). Studies have also reported significant differences in the frequency of use of mobile phones between age groups (Forgays et al., 2014). Thus, it is recommended also for future researchers to study the direct or indirect effect of age on intention to purchase via vending machines.

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