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POLBAN
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Understanding Costumer Intention in Using Online Ticket Purchasing as Self-Service Technology

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ABSTRACT

This study present and modifies the technology acceptance model (TAM) in understanding behavioural intention to use for online ticket purchasing. With 306 respondent, this study identifies the relationship and influence among perceived ease of use, technology readiness, perceived usefulness, attitude towards using, and behavioural intention to use. The findings revealed that technology readiness is the determinant factor in forming an attitude towards using and perceived usefulness on the contrary. These findings can be used for Cinema company to attract more people using online ticket purchasing since its still lack of user although this technology exists for customer benefit.

Keywords
TAM, self-service technology, behavioural intention

1. BACKGROUND

World's movies industry is growing rapidly. It can be seen from the revenue from box office movies earn yearly which increase each year significantly. Based on Box Office Mojo [1] data, gross revenue of box office movies each year from 2011 – 2017 increase as presented in Figure 1.

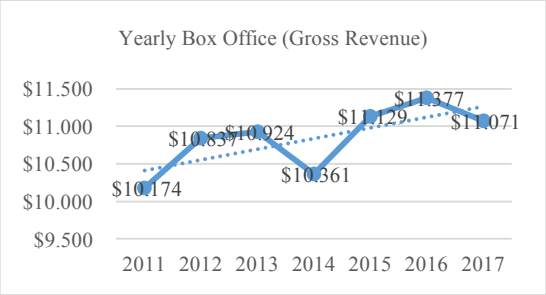


Figure 1. Yearly Box Office (Gross Revenue)

Figure 1 shows yearly gross revenue of box office movies in billion USD. The trend line on Figure 1 indicates that there is high demand for movies around the world including Indonesia. As one of the costumer, Indonesia with total population that reached 255 million people, recorded have 1.084 cinema screens available to meet the demand for movies show [2]. Compared with South Korea which total population is one-fifth of Indonesia population, South Korea have 2.400 cinema screens available to meet the demand for the movie show [3]. From the comparison, cinema screens in Indonesia still lack to meet the demand.

The lack of cinema screens in Indonesia can cause customer dissatisfaction with cinema services. The problems that can occur such as long ticket queues, running out the ticket, etc. The alternatives to reduce the occurrence of such problems is Self-Sevice Technology (SST) utilisation. According to Kolah [4] research, SST gives customers more control from the production process, not only make customer spend less time and effort to achieving the results, but also avoiding the possibility of interaction with slow or unhelpful staff. Meuter et al. [5] said the development of self-service is due to increased human consciousness to save time and money. Cinema using online ticket purchase facility as their SST.

Although the existences of SST is intended for customer benefit but based on Kominfo [6] data, only 11% of internet user in Indonesia using internet basis facility for online transaction. Robertson [7] studies found that some costumer still prefers to interact with staff than handling SST or even refuse to use it. Costumer may think that technology makes a mistake and it might cause problems for them [4, 7]. Costumer also concerns about their guarantee not being ignored when they complain if they use SST [7].

In this study, researchers aim to determine: (1) the acceptance of SST (in this case online ticket purchase facility in cinemas) and (2) the causes of lack user for SST in Indonesia. To do that, researchers using Technology Acceptance Model (TAM) to measure

purchase facility. A good understanding of customer behavioural intention in using SST beneficial for cinemas industry to attract more people using SST. This research contains the following context: first, a brief review of TAM and its variable. Followed by the insight of research model and hypothesis development. Results and discussion to make a conclusion and for future research consideration.

2. LITERATURE REVIEW

2.1 A brief review of Technology Acceptance Model (TAM)

Each customer has personality traits as the willingness factor for a customer to accept the technology [4, 8]. It affects their perception towards SST itself. To determine the willingness of costumer to accept the technology, Davis et al. [9] develop Technology Acceptance Model (TAM) concept. From the previous TAM studies, there is commons variable that they used to measure behavioural intention for technology usage, those are Perceived Ease of Use, Perceived Usefulness, and Attitude Towards Using [9, 10, 11].

Perceived ease of use is the degree of person believes in using technology would give them less effort to achieve something [11, 12]. Perceived ease of use significantly affects a person to accept a technology [9, 10, 11]. Perceived usefulness is the degree of person believes in using technology would enhance their performance [9]. They found that perceived usefulness and perceived ease of use as the significant attributes to make costumer accept a technology. These two variable lead to individual behaviour intention to use and actual behaviour to use. In their previous research Davis [9] finds that the strongest predictor of people intend to use a technology is perceived usefulness. On the other hand, perceived ease of use and perceived usefulness forming an attitude towards using variable that has a significant effect to behavioural intention to use [8, 9]. Attitude towards using refer to overall person believes in making a reaction to the use of technology [10, 11].

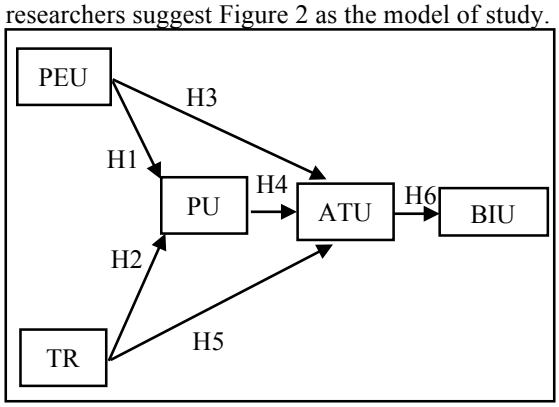
2.2 The development of Technology Acceptance Model (TAM)

In the development of TAM Venkatest et al. [10] make a construct of the four key in measuring behavioural intention of usage. The construct consists of performance expectancy, effort expectancy, social influence and facilitating condition. These key make a comprehensive measurement for the dimension of the model.

Lin and Chang [8] argue that to accept technology the need to understand costumers readiness to use SST. Therefore, to support their argument, Lin and Chang [8] construct four indicators to measure Technology Readiness (TR), those are optimism, innovativeness, discomfort, and insecurity. The result of their research indicates that TR positively influences perceived usefulness, perceived ease of use, attitude toward use, and intention to use for SST.

3. RESEARCH MODEL & HYPOTHESIS

According to previous studies of Shih [13], the acceptance of technology can be tested with TAM. It can be seen from customer behavioural intention to use for the technology. Based on the literature review researchers suggest Figure 2 as the model of study.



Note:
PEU : Perceived Ease of Use
PU : Perceived Usefulness
TR : Technology Readiness
ATU : Attitude Toward Using
BITU : Behavioral Intention to Use

Figure 2. Yearly Box Office (Gross Revenue)

Besides forming an attitude towards using, perceived ease of use influences forming perceived usefulness [9, 10, 11]. Further Lin and Chang [8] suggested that technology readiness also influences in forming perceived usefulness. Therefore, the relationship between perceived ease of use, technology readiness, and perceived usefulness are hypothesised as the following:

1) H1 : Perceived ease of use positively influence perceived usefulness in using online ticket purchase facility.
2) H2 : Technology readiness positively influences perceived usefulness in using online ticket purchase facility.

Behavioural intention to use is the measurement of person intention power into a particular behaviour [9]. That variable is influenced by attitude towards using [12]. Attitude towards it selves is formed by the influence of perceived ease of use, technology

the relationships among those variables are hypothesized as below:

1. H3: Perceived ease of use positively influence attitude towards using in using online ticket purchase facility.
2. H4: Perceived usefulness positively influence attitude towards using in using online ticket purchase facility.
3. H5: Technology readiness positively influences attitude towards using in using online ticket purchase facility.
4. H6: Attitude towards using positively influence behavioural intention to use in using online ticket purchase facility.

4. RESEARCH METHOD

This study using quantitative approach with an online survey for data collection. Online survey data collection give researchers several benefits, not only saving times and expenses it also overcome geographic distance problems [14]. Due to technology research, the online survey was an appropriate tool. The researcher using the Likert-style rating scale to measure the degree of respondent agree or disagree with the statement with five-point rating scale [15]. Survey section uses 5-point Likert response scale where 1: Strongly disagree, 2: Disagree, 3: Neutral, 4: Agree, and 5: Strongly agree. For sampling method, convenience technique is used for this study. As Saunders et al. [15] said convenience technique sampling is a non-probability method where the sample is taken from a group of people easy to contact or reach. Ont only because many researchers used this method to investigating technology acceptance, it also gives a short amount of time in response rate. Researcher is affiliated with an estimated population of 200 respondent based on Malhotra's [16] as the minimum sample for doing research. Within one week from 26 – 31 may 2018, researchers collect 306 respondent to be used for the analysis. The data that have been collected will be used to identify the relationship among variables proposed in the research model.

Because TAM is formed by latent variables, the Partial Least Square (PLS) method is suitable for measuring in this study [17]. SmartPLS 3 is a program based on the PLS method used in the research. The analysis in the PLS used in the study is as follows: (1) PLS Alogarithm to measure the quality of latent variables, (2) Blindfolding to evaluate the criteria in the model, and (3) Bootstrapping to test the statistical significance in the research model [17, 18, 19].

5. DATA ANALYSIS AND RESULTS

5.1 Demographics

Part of the questioner contains demographic characteristics of respondents. These data information are presented in Table 1.

Table 1. Demographic characteristics of respondents

Variable	Behavioural Intention Index (N = 305)	
	N	%
Age		
< 20 year	69	22.5
20 – 30 year	235	76.8
> 30 year	2	0.7
Income		
< Rp. 1.000.000,-	160	52.3
Rp. 1.000.000 – Rp. 3.000.000	100	32.7
> Rp. 3.000.000,-	46	15
Frequency of Watching Movies		
< 1 times / Month	149	49
1 – 3 times /Month	107	35
> 3 times / month	50	16
Occupation		
Student	239	78.1
Worker	35	11.4
Other	32	10.5

5.2 Validity and reliability

A further test is performed to assess the validity and reliability of data that have been collected. Commonly Cronbach Alpha is used to measure reliability [18]. Alarcón & Sánchez [20] suggest measuring validity using Average Variance Extracted (AVE) with 0.5 as a standard score to called it valid data. While reliability is considered to have internal consistency if the value exceeds 0.7 [18, 20].

In this study, validity and reliability assessment was done using Smart PLS 3. All the measurement from the data shows high reliability with score exceed 0.7, with the highest score of 0.91 (see table 2) for attitude towards using. While validity assessment result also exceeds the cut-off limit with the lowest score 0.55 for perceived ease of use and the highest score 0.91 for attitude towards using (see table 2). Those data are presented in Table 2.

Table 2. Loading of the item measurement model, CR, and AVE

Construct/ Indicators	Customer satisfaction index (N = 511)			
	Loading	Cronbach α	CR	AVE
Perceived Ease of Use		**0.80**	**0.86**	**0.55**
Computer Self-efficacy	0.74			
Perception of external control	0.69			

Construct/ Indicators	Customer satisfaction index (N = 511) Loading	Cronbach α	CR	AVE
Perceived enjoyment	0.83			
Objective usability	0.83			
Perceived Usefulness		**0.88**	**0.93**	**0.81**
Job relevance	0.91			
Output quality	0.94			
Result demonstrability	0.85			
Technology Readiness		**0.89**	**0.91**	**0.78**
Optimism	0.82			
Discomfort	0.92			
Insecurity	0.91			
Attitude Towards Using		**0.91**	**0.95**	**0.91**
Idea perspective	0.95			
Idea perception	0.96			
Behavioural Intention to Use		**0.79**	**0.89**	**0.80**
Intention Willingness	0.87			
	0.92			

Table 3. Heterotrait-Monotrait Ratio (HTMT)

Variable	1	2	3	4	5
Attitude Towards Using (1)					
Behavioural Intention to Use (2)	0.84				
Perceived Usefulness (3)	0.83	0.86			
Perceived Ease of Use (4)	0.77	0.74	0.80		
Technology Readiness (5)	0.87	0.88	0.85	0.86	

HTMT assessment is necessary to identify that the indicators in the constructs measuring different phenomenon [21] Based on HTMT results, all correlated values lie below 0.9, it indicates that the constructs posses discriminant validity according to HTMT 0.9 criterions [22].

5.3 Structural model and hypotheses testing

To analyse the structural model and hypotheses testing, SmartPLS 3 is used for this study. Bootstrap-based test is used to assess the goodness-of-fit index (GoF) and make sure that the data are appropriate for the proposed model [23]. GoF considered small if the value within 0.10, 0.25 for medium and considered significant if it exceeds 0.36. Based on the result of the analysis (see table 4), GoF score is 0.67 that indicates the data are appropriate for the proposed model.

Table 4. Goodness-of-fit (GoF) index, Q^2, and R^2

Variable	AVE	Q^2	R^2	
Perceived Ease of Use	0.55			
Technology Readiness	0.78			
Perceived Usefulness	0.81	0.48	0.62	
Attitude Towards Using	0.91	0.58	0.66	
Behavioural Intention to Use	0.80	0.36	0.48	
Average score	0.77		0.59	
AVE x R^2				0.45
GoF= $\sqrt{(AVE\ x\ R^2)}$				0.67

R^2 is a statistical measure that shows how close the data is to the regression line, which means the closer data with regression line the stronger relationship that data have among variable. Chin [24] divides the standard of significance into three groups: weak (0.19), moderate (0.33), and strong (0.67). Based on results on Table 4, behavioural intention to use moderate relationship among the variable, while perceived usefulness and attitude towards using can be considered have a strong relationship among variable since the difference with cut-off is too small, each with 0.05 and 0.01 respectively, and can be ignored [24].

Researcher used Q^2 to become the predictive standard of significance in the model using SmartPLS based on the recommendation of Chin [24]. When the value of Q^2 larger than 0, indicates the predictive relevance of the tested model, while the value of Q^2 less than 0 indicates a lack of predictive relevance [19]. The results show that Q^2 value on perceived usefulness, attitude towards using, behavioural intention to use are considered have predictive relevance with the tested model since all of Q^2 value larger than 0.

Table 5. Path Coefficient

Variable	Coefficient	t-Stat	p-value
Perceived Ease of Use => Perceived Usefulness	0.32	4.80	0.00
Technology Readiness => Perceived Usefulness	0.53	7.68	0.00
Perceived Ease of Use => Attitude Towards Using	0.30	3.91	0.00
Perceived Usefulness => Attitude Towards Using	0.12	1.97	0.05
Technology Readiness => Attitude Towards Using	0.46	7.31	0.00
Attitude Towards Using => Behavioural Intention to Use	0.73	17.00	0.00

From the analysis result in Table 5, it can be observed that perceived ease of use and technology readiness

Stat value > 1.96, each with 4.80 and 7.68 respectively. With p-value < 0.05 H1 and H2 are supported. Based on Table 5 results, perceived ease of use and technology readiness also have a significant influence towards attitude towards using with t-Stat value > 1.96, each with 3.91 and 7.31 respectively. With p-value < 0,05 H3 and H5 are supported. Meanwhile, even though perceived usefulness does have a significant influence towards attitude towards using, the t-stat value only have a slight difference with the cut-off value which is 1.97 > 1.96. Therefore, H4 is supported with p-value = 0.05. On the other hand, attitude towards using have a positive and significant influence towards behavioural intention to use with t-Stat 17.00 and H6 is supported with p-value < 0.05.

6. DISCUSSION

The construct TAM that has been modified in this study support Lin and Chang [8] previous study. The results of this study show that technology readiness has a significant and positive influence towards attitude towards using online ticket purchase facility as self-service technology. On the other hand, the result of this study on the contrary with Davis et al. [9] previous study that shows perceived usefulness as the major determinant in forming attitudes towards using. Researcher suspect that this result is because the majority of the respondent is from Z generation and Millenial generation. Z generation is the generation that familiar with such technology since their childhood, while the Millenial generation grows along with the development of technology [25, 26, 27, 28]. Because they are familiar with the technology, they are easily accepting technology in their daily life. The reason for perceived usefulness does not have a significant influence towards attitude towards using because they use technology, not for its usefulness but technology is just their needs since they grew up with it. On the contrary with older generations, they will hesitate to emerge with technology except they need it or confident to use it [26].

7. CONCLUSION AND IMPLICATION

In brief, this study modified the original TAM to assess the behavioural intention to use online ticket purchase facility as self-service technology. Even the lack of internet user in Indonesia using internet basis facility for an online transaction, this study prove that they are ready to accept the technology itself.

Practically, in this case, the findings of this study can be used by Cinema to attract more people using online ticket purchase facility as self-service technology. This technology can help Cinema to for movies cannot meet the demand. Cinema can emphasise the usefulness of online ticket purchase facility, mainly to Z generation and Millenial generation, so many people will use the technology.

8. LIMITATION AND RECOMMENDATION

This study has some limitation. First, there is no gender in a demographic characteristic that may become a crucial factor to make a conclusion in the study. Second, a various additional sample is needed to make the conclusion more comprehensive since this study lack of older generation sample. In addition, since this study relates to technology that grows rapidly, the findings may not be the same for a long time as the perspective of people growing with the technology.

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