ANALYSIS OF FACTORS INFLUENCING THE INTENTION OF XYZ CUSTOMERS TO MIGRATE TO 4G SERVICE

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ABSTRACT

This research aimed at analyzing the factors influencing the intention to migrate to 4G service for cellular customers (prepaid customers). This study proposed a new modified model based on Unified Theory of Acceptance and Use of Technology (UTAUT). There was an addition of new factors namely affordability of services, affordability of devices, content, and process in this modified UTAUT model. The data collection method was performed through the distribution of a set of questionnaires with a purposive sampling technique. It was conducted using the Google docs application to 439 prepaid customers, a telecommunications operator, XYZ Telco. The targeted customers are prepaid customers who have not migrated to 4G services (still using 2G or 3G networks). The analysis technique used to interpret and analyze the data in the research were Partial Least Square (PLS) - Structural Equation Model (SEM) techniques. Based on the data processing results, it was obtained that the assessment of customers on the variables of Behavioral Intention, Performance Expectancy, Content, Effort Expectancy, Social Influence and Facilitating Conditions show high consumer ratings. And based on the results of data analysis, it can be concluded that the model can be accepted with the proof of the variables Performance Expectancy Content, Effort Expectancy, Affordability of Devices, Social Influence, and Process significantly influenced Intention. When XYZ Telco Company found out the main factors influencing the migration to 4G service, then they can maximize and increase the content related to the mobile activities often accessed by the customers and correspond to the customer needs. XYZ Telco Company also needs to improve the campaign or promotions of the 4G advantages as well as on their collaboration program with device partner in expanding the provision of 4G smartphones with affordable price.

Keywords: 4G Migration, Measurement Adoption, Behavioral Intention, Modified UTAUT, Indonesia

INTRODUCTION

Since the release of 4G technology commercially in 2014 in Indonesia, it seems that customers have not optimally used the 4G services. This phenomenon does not only occur in Indonesia, but also in several countries in Asia showing almost the same number. The 4G system provides a comprehensive IP solution where voice, data, and multimedia flows can reach users anytime and anywhere; on average the data are higher than the previous generation. In 2016, the GSMA Intelligence (Global System for Mobile Communications Association) released data from a survey that half (53%) of people in Asia live in 3G or 4G

network coverage capable of supporting high-speed internet access, but they do not subscribe to available cellular (GSMA Intelligence, 2016). According to reviews from McKinsey & Company in the article Unlocking Indonesia Digital Opportunity Data, in 2016 the internet penetration rate in Indonesia was still at the level of 34%, but the Indonesians who are connected understood digitally. They are netizens with the need for constant connectivity, instant information, and increasing digital content tastes. They spend more time than average on the internet, mainly in using social media and e-commerce (McKinsey & Company, 2016).

Currently, the increase of customer number connected to certain data becomes the focus of cellular operator in Indonesia. Besides, operators have invested in the development of infrastructure supporting the quality and speed of internet access through mobile broadband. The presence of 4G technology is significantly beneficial for the community in the quality of communication and in the context of lifestyle in this technological era. For cellular operators, data services will continue to be the main driver of income for their companies in the coming years. Therefore, cellular operators in Indonesia try to encourage their customers to migrate to 4G services because there are still many potential customers that can be developed. In the 2016 annual report, XYZ Telco Company as the largest operator in Indonesia noted that they have used the 4G LTE network in 169 cities, with a total customer base to reach more than 170 million customers including 19 million 4G LTE users. To use the 4G LTE service, customers must migrate their SIM cards and devices to 4G. USIM 4G is the 4G LTE sim card (specific sim card with the latest technology to support the experience of high-speed access). XYZ Telco Company has implemented 4G USIM migration program which is a program for customers who would like to swap their non-4G to the 4G card through online and offline mechanisms (visiting customer service centers).

This research intended to analyze the factors influencing the XYZ Telco customers' intention in using 4G services based on Unified Theory of Acceptance and Use of Technology (UTAUT) model from Venkatesh, et al. in 2003. This research proposed a new modification model with the addition of several independent variables

LITERATURE REVIEW

Unified Theory of Acceptance and Use of Technology (UTAUT)

UTAUT is a model suggested by Venkatesh et al. (2003) to be used in exploring the factors influencing consumer intention to adopt the technology. This model combines the components in eight models including: 1. Theory of Reasoned Action (TRA), 2. Technology Acceptance Model (TAM), 3. Motivational Model (MM), 4. Theory of Planned Behavior (TPB), 5. The combination of TAM and TPB (C-TAMTPB), 6. Model of PC Utilization (MPCU), 7. Innovation Diffusion Theory (IDT), 8. Social Cognitive Theory (SCT). The UTAUT model has been widely used in exploring the adoption of information technology. This model suggests that there is a set of factors that influence consumer acceptance intentions individually. These factors are grouped into two types of variables; the first is called the independent variable which includes factors that play a significant role in consumer acceptance, including Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI) and Facilitating Conditions (FC). Meanwhile, other categories are moderating or controlling variables including age, gender, experience, and voluntariness of use.

The respondents of this research were the customers who have been XYZ Telco prepaid customers and use cellular technology in their daily activities. When the latest technology is released (in this case 4G services) by the operator by offering a greater benefit expected by consumers who want to migrate using it. The factors encouraging consumers to adopt and

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ISSN: 2186-845X ISSN: 2186-8441 Print
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migrate in 4G services were examined further by using the modified Unified Theory of Acceptance and Use of Technology (UTAUT) model. Although based on the results of the review stated that UTAUT is the best model since it has the highest predictive power among previous models, but a model that is well implemented in a country cannot be applied in other countries due to various economic and social factors (Indrawati et al., 2017). To obtain a more suitable model, this study employed a modified UTAUT model by adding four independent variables (Affordability of Services, Affordability of Devices, Content, and Process). The modification has been made based on the observation of the respondents, discussion with business people in the related company, the opinions of other researchers and journal literature with similar characteristics. Therefore, the modified UTAUT consisted of 8 independent variables, 2 moderate variables, and 1 independent variable which can be seen in Figure 1 and the shaded variables are the additional variables in the UTAUT model.

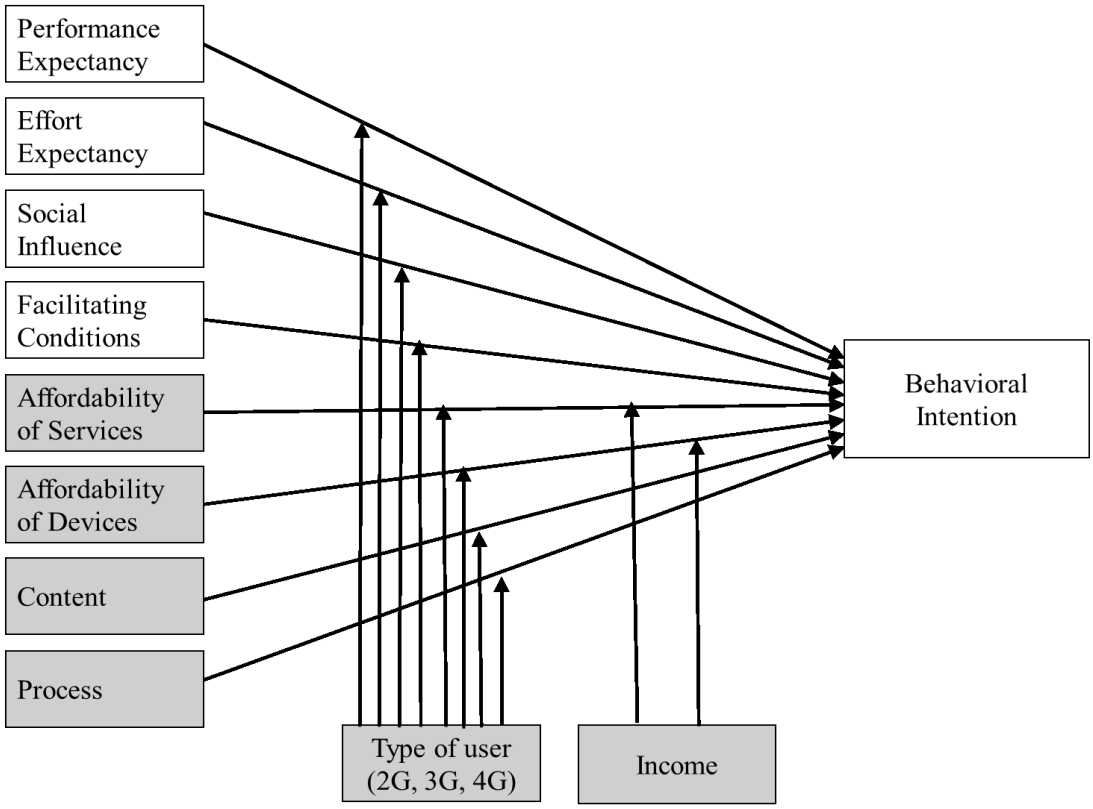

Figure 1. Research Framework Model

This study defined each original variable adapted and based on Venkatesh et al. (2003). The definition of each variable is described as follow:

Performance Expectancy is defined as the extent to which someone believes that migrating to 4G services will provide benefits in communicating, socializing and accessing internet data faster. The references used in defining this variable from several previous studies stated this variable has a significant influence on behavioral intention. Previous research that proved hypothetical hypothetically related to performance expectancy was research conducted by Indrawati et al (2010), Carlsson et al. (2006).

Effort Expectancy is defined as the level of easiness related to the use of 4G services. This research followed the previous definition from some previous research to define these variables. Previous research on effort expectancy was conducted by Indrawati et al.(2010), Carlsson et al. (2006).

Social Influence is defined as to what extent an individual feel to be influenced by people they consider as important to use 4G services. This research followed the previous definition from previous research to define this variable. Positive influence of the social influence variable has been found in previous studies by Indrawati et al. (2010), Wu et al. (2008).

Facilitating Condition is defined as the level in which an individual believes that factors such as the area coverage, network, sim card, and handset availability to support the use of 4G services and activities. This research followed the previous definition from some previous research was conducted by Indrawati et al. (2010), Carlsson et al. (2006).

Affordability of Services is defined as the affordability of 4G services bought by the customers to enjoy the benefits of the 4G network. Previous research by Indrawati et al. in 2010 stated that the addition of this variable is because the research is carried out in the context of consumers rather than organizations. In the context of consumers, there are costs that must be borne by the user. And prices will be considered by consumers in Indonesia, given that Indonesia's average income is still low.

Affordability of Devices is defined as the affordability of 4G devices bought by customers to enjoy the benefits of the 4G network. This research followed the previous definition from previous research by Indrawati et al. in 2010.

Content is defined as the primary factor of the service provided by technology, prepared by practitioners or community which will be able to access through the 4G cellular services. The content was added in this study because in the context of 4G services, consumers are expected to use services if necessary or important content is available. This study followed the previous definition by Indrawati et al. in 2010, Kargin et al. (2009).

Proses is defined as the stage through by consumers to migrate to 4G services. This process may influence the behavioral intention; because to use the 4G LTE service, the customers must change their SIM card, use the device to 4G, and do some steps of activation.

This study defines Behavioral Intention as to what extent someone will use 4G services in the future. This research followed the previous definition from some previous research to define this variable.

After reviewing the UTAUT model, this model was developed using moderator income variables and customer type variables based on handset technology used, namely non-4G device customers (2G and 3G) and 4G device customers. This variable becomes relevant because it reflects conformity with the consumer population and the object of this research is made from the side of the organization. The hypotheses in this research are concluded in Table 1 below:

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Table 1. Hypotheses

No	Research Hypotheses
H1a.	Performance Expectancy positively influences behavioral intention.
H1b.	The influence of Performance Expectancy on behavioral intention is moderated by the type of user (non-4G, 4G).
H2a.	Effort Expectancy positively influences behavioral intention.
H2b.	The influence of Performance Expectancy on behavioral intention is moderated by the type of user (non-4G, 4G).
H3a.	Social Influence positively influences behavioral intention.
H3b.	The influence of Social Influence on behavioral Intention is moderated by the type of user (non-4G, 4G).
H4a.	Facilitating Conditions positively influences behavioral intention.
H4b.	The influence of Facilitating Conditions on behavioral Intention is moderated by the type of user (non-4G, 4G).
H5a.	Affordability of Services negatively influences behavioral intention.
H5b.	The influence of the Affordability of Services on behavioral intention is moderated by the type of user (non-4G, 4G).
H5c.	The influence of the Affordability of Services on behavioral intention is moderated by income.
H6a.	Affordability of Devices negatively influences behavioral intention.
H6b.	The influence of the Affordability of Devices on behavioral intention is moderated by the type of user (non-4G, 4G).
H6c.	The influence of the Affordability of Devices on behavioral intention is moderated by income
H7a.	Content positively influences behavioral intention.
H7b.	The influence of Content on behavioral Intention is moderated by the type of user (non-4G, 4G).
H8a.	Process negatively influences behavioral intention.
H8b.	The influence of the Process on behavioral intention is moderated by the type of user (non-4G, 4G).

MEASUREMENT MATERIAL

To test the hypotheses, in the period of October-December 2018, this research collected the data from 439 respondents through a survey using the questionnaire distributed to respondents using purposive sampling technique. Targeted respondents have the characteristics of customers using XYZ Telco prepaid products, which are located in cities that have 4G network coverage, but they have not migrated to 4G services. Before the questionnaire was distributed, researchers had conducted content validity by examining questionnaire items from previous research and adopting items to create questionnaire items based on research needs. The researcher also made several modifications to adjust the study. Furthermore, the researchers met the experts both in the marketing and academician fields from XYZ Telco Company, where those experts gave suggestions for the questionnaire improvement for an easier read. The items of each variable are presented in Table 2.

Table 2. Questionnaire

Item code	Items of Performance Expectancy
PE1	Using 4G services will be beneficial in my daily activities
PE2	Using 4G services will generate satisfaction since internet access will be faster
PE3	Using 4G services will enable me to communicate faster through email, chatting, or video call
PE4	Accessing mobile video: songs, games, entertainment, and such with 4G will be pleasurable
PE5	Using 4G services will increase productivity since the completion of work/ duties will be faster
Item code	**Items of Effort Expectancy**
EE1	Learning to use mobile internet in 4G services will be easy
EE2	4G Handphone will be easy to use
EE3	Using 4G internet services is easy
EE4	4G services for accessing videos, songs, music, games, and such are easy to use
EE5	Communicating using 4G services is easy
Item code	**Items of Social Influence**
SI1	My family or closely related people suggest that I must use 4G services
SI2	Coworkers suggest that I must use 4G services
SI3	Friends or family members will support me using 4G services
SI4	Most people around me have used 4G services
SI5	I look trendy (following trend) when using 4G handphone
Item code	**Items of Facilitating Conditions**
FC1	It is very easy to obtain 4G handset in outlets
FC2	It is easy to obtain 4G sim cards in outlets or XYZ Telco service centers
FC3	It is easy to get information on the setting of the 4G handset
FC4	4G signal is easy to obtain when accessing handphone
FC5	I obtain assistance from operator/outlet from the problems related to 4G services
Item code	**Items of Affordability of Services**
AS1	The price of 4G internet service package applied currently is still expensive
AS2	It is better for the operator to lower the 4G internet service cost
AS3	It is better for the operator to give more 4G quota bonuses
AS4	Downloading application in 4G services consumes a significant data volume
AS5	Using 4G internet services make my internet quota finish faster

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ISSN: 2186-845X ISSN: 2186-8441 Print
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Item code	Items of Affordability of Devices
AD1	The price of 4G handphone is still expensive
AD2	It is better for the price of 4G handphone to be decreased
AD3	The price of the 4G modem is still expensive
AD4	It is better for the price of 4G modem to be decreased
Item code	**Items of Content**
C1	There are more content selections which I can access when using 4G services (video, music, games, mobile TV, and such)
C2	Accessible content through 4G internet services will fulfill my needs
C3	The content which can be accessed in 4G services (video, music, games, mobile TV, and such) will be more up to date or following the development of information
C4	By using 4G services, many applications which make my activities easier can be accessed
C5	The contents which can be accessed in 4G services make me entertained and enjoy
Item code	**Items of Process**
P1	The swapping process of 4G USIM card is not easy
P2	The upgrade process to 4G USIM card will take a longer time
P3	The upgrade process of 4G USIM card experiences failure
P4	Information on migration or upgrade to USIM is lacking (including the information of service center locations)
P5	I do not have time to come to service center offices / outlets to get my new USIM card
P6	There is a setting process in the handphone to set 4G network after the migration process
Item code	**Items of Behavioral Intention**
BI1	I intend to use 4G services than 3G or 2G services
BI2	I will use 4G services more often in the future to complete my work
BI3	I tend to use 4G service as often as possible in the future
BI4	I will tend to use 4G internet services to access mobile video, music, games, and songs
BI5	I tend to use 4G internet services to download or upload through mobile

METHOD AND RESULTS

Method

In conducting the data analysis and assessment of the measurement model, structural model (assessment of the structural model) and the influence of moderator variables, this study used Partial Least Square (PLS) software tools, SmartPLS 3.0. The following is the results of data

processing from the total of valid respondents as many as 402 out of 439 respondents (37 respondents were not valid or incomplete in answering the questionnaire). These questionnaires used a Likert scale with a score of strongly disagree = 1, disagree = 2, neutral =3, agree = 4 and strongly disagree =5 for each question. However some questionnaires contain negatively worded questions that show in parameter Affordability of Devices, Affordability of Services (it describes the price of 4G devices and services which are currently assumed to be expensive) and Process (it describes processes that are not easy). For these negatively worded questions, this study do reverse scoring that the numerical scoring scale runs in the opposite direction (with a score of strongly disagree = 5, disagree = 4, neutral =3, agree = 2 and strongly disagree =1 for each question).

Measurement Model (Outer Model)

The testing of the measurement model aimed at testing the indicators on dependent variables or measuring to what extent the indicator can explain the latent variables. Model competencies were evaluated by convergent validity, discriminant validity and reliability (Henseler et al., 2009: Ringle et al., 2012; Urbach and Ahlemann, 2010). The criteria that become the reference of this test is the factor loading value of >= 0.70 and AVE value >=0.50 (convergent validity), Cronbach's Alpha value >=0.60 and Composite Reliability value >=0.70 (reliability). Meanwhile, to test the discriminant validity is shown by cross loading parameter, where the correlation of indicator item must be higher than other constructs (Indrawati, 2017).

Structural Model (Inner Model)

The testing of the structural model is to examine the influence between construct variables. The testing is done using the value of path and t-value obtained from the bootstrapping process with SmartPLS software. To describe the level of ability of exogenous latent construct explaining endogen latent construct, R-Square reference was used (Indrawati, 2017).

The Testing of Moderating Variable Influence

The testing of moderating variable Influence in this research used a group comparison approach because by using this group comparison usually multicollinearity does not occur; eventually, the calculation results can generate a common standard of error so that the influence of predicting variables can be observed easily (Indrawati, 2017). The measurements with the group comparison approach in this study were divided in two based on each moderator category, namely: type of device (non-4G and 4G groups) and income (groups below and above IDR 2.5 million per month). Grouping type of device into two groups: non 4G (2G and 3G mobile users) and 4G device users which are categorized as "low-hanging fruit" (interpreted as a potential clients who seems very likely to buy a product, especially compared to other reluctant prospects). The correlation in this study is that to migrate to 4G services, 4G device users only need to exchange their sim cards with the new USIM card, while users of 2G and 3G devices need to change their phones and exchange their sim cards. The following steps are to test the differences between subgroups: 1. Divide the sample according to the group; 2. Calculate each group in a separate model in SmartPLS; 3. Compare the path difference using the proposed method by Chin (Chin, 2000) as follow:

$$t = \frac{Path_{sample1} - Path_{sample2}}{\sqrt{s.e^{2}_{sample1} + s.e^{2}_{sample2}}}$$

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RESULT AND DISCUSSION

In Table 3, the results of measurement model testing fulfill the required criteria of convergent validity; all factor-loadings are significant and greater than 0.70 and AVE values for each construct above 0.50. Table 3 also shows the reliability test results that show the CA and CR numbers above criteria 0.70 for all constructs.

Table 3. The Results of Measurement Model

Constructs	Item	FL	CA	CR	AVE
Affordability of Devices (AD)	AD1	0.824	0.914	0.940	0.796
	AD2	0.908			
	AD3	0.927			
	AD4	0.905			
Affordability of Services (AS)	AS1	0.823	0.906	0.930	0.727
	AS2	0.883			
	AS3	0.857			
	AS4	0.853			
	AS5	0.844			
Behavioral Intention (BI)	BI1	0.879	0.951	0.962	0.835
	BI2	0.930			
	BI3	0.917			
	BI4	0.917			
	BI5	0.925			
Content (C))	C1	0.866	0.941	0.955	0.810
	C2	0.903			
	C3	0.902			
	C4	0.915			
	C5	0.913			
Effort Expectancy (EE)	EE1	0.868	0.937	0.952	0.800
	EE2	0.889			
	EE3	0.904			
	EE4	0.907			
	EE5	0.903			
Facilitating Conditions (FC)	FC1	0.884	0.921	0.941	0.760
	FC2	0.865			
	FC3	0.902			
	FC4	0.856			
	FC5	0.852			
Process (P)	P1	0.855	0.930	0.944	0.739
	P2	0.874			
	P3	0.880			
	P4	0.882			
	P5	0.844			
	P6	0.822			
Performance Expectancy (PE)	PE1	0.874	0.939	0.953	0.804
	PE2	0.908			
	PE3	0.902			
	PE4	0.910			

	PE5	0.887			
Social Influence (SI)	SI1	0.882	0.916	0.937	0.750
	SI2	0.895			
	SI3	0.900			
	SI4	0.821			
	SI5	0.828			

Notes: FL = Factor Loading, CA = Cronbach's Alpha, CR = Composite Reliability, AVE = Average Variance Extracted

Meanwhile, the discriminant validity test shows the correlation value between variables where the value visible in the diagonal column is greater than the value in the columns other than the diagonal column (Table 4).

Table 4. The Correlation Value of Cross Loading

	AD	AS	BI	C	EE	FC	P1	PE	SI
AD1	**0.824**	0.505	-0.397	-0.397	-0.342	-0.125	0.475	-0.334	-0.236
AD2	**0.908**	0.621	-0.478	-0.484	-0.412	-0.096	0.431	-0.392	-0.223
AD3	**0.927**	0.605	-0.501	-0.502	-0.439	-0.118	0.447	-0.409	-0.257
AD4	**0.905**	0.615	-0.460	-0.430	-0.380	-0.077	0.408	-0.355	-0.210
AS1	0.534	**0.823**	-0.507	-0.487	-0.438	-0.120	0.419	-0.445	-0.315
AS2	0.587	**0.883**	-0.501	-0.495	-0.470	-0.124	0.370	-0.474	-0.284
AS3	0.569	**0.857**	-0.512	-0.521	-0.495	-0.160	0.347	-0.490	-0.331
AS4	0.557	**0.853**	-0.462	-0.502	-0.441	-0.180	0.373	-0.434	-0.319
AS5	0.565	**0.844**	-0.427	-0.483	-0.395	-0.134	0.455	-0.391	-0.282
BI1	-0.446	-0.519	**0.879**	0.707	0.621	0.363	-0.357	0.634	0.517
BI2	-0.475	-0.545	**0.930**	0.729	0.631	0.352	-0.378	0.657	0.498
BI3	-0.472	-0.525	**0.917**	0.723	0.613	0.346	-0.346	0.618	0.522
BI4	-0.469	-0.491	**0.917**	0.705	0.613	0.363	-0.345	0.602	0.520
BI5	-0.499	-0.514	**0.925**	0.719	0.620	0.372	-0.370	0.636	0.537
C1	-0.482	-0.494	0.687	**0.866**	0.581	0.360	-0.347	0.565	0.508
C2	-0.455	-0.497	0.702	**0.903**	0.626	0.341	-0.319	0.609	0.511
C3	-0.471	-0.557	0.695	**0.902**	0.594	0.369	-0.398	0.551	0.533
C4	-0.448	-0.551	0.718	**0.915**	0.612	0.379	-0.394	0.606	0.535
C5	-0.443	-0.528	0.725	**0.913**	0.627	0.400	-0.349	0.594	0.579
EE1	-0.409	-0.421	0.577	0.588	**0.868**	0.379	-0.231	0.643	0.486
EE2	-0.384	-0.468	0.585	0.588	**0.889**	0.429	-0.236	0.657	0.509
EE3	-0.352	-0.461	0.599	0.604	**0.904**	0.403	-0.235	0.633	0.484
EE4	-0.406	-0.496	0.641	0.620	**0.907**	0.437	-0.261	0.656	0.536
EE5	-0.429	-0.508	0.627	0.622	**0.903**	0.435	-0.236	0.686	0.539
FC1	-0.088	-0.168	0.392	0.376	0.420	**0.884**	0.018	0.413	0.583
FC2	-0.072	-0.192	0.321	0.336	0.423	**0.865**	0.073	0.390	0.512
FC3	-0.142	-0.176	0.356	0.398	0.427	**0.902**	-0.006	0.398	0.534
FC4	-0.103	-0.108	0.340	0.360	0.388	**0.856**	0.027	0.385	0.546
FC5	-0.097	-0.077	0.288	0.312	0.372	**0.852**	0.085	0.329	0.500
P1	0.455	0.407	-0.323	-0.303	-0.211	0.022	**0.855**	-0.200	-0.166
P2	0.431	0.380	-0.288	-0.306	-0.199	0.079	**0.874**	-0.182	-0.135

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P3	0.429	0.368	-0.296	-0.311	-0.183	0.061	**0.880**	-0.182	-0.091
P4	0.408	0.436	-0.322	-0.338	-0.236	0.046	**0.882**	-0.220	-0.128
P5	0.376	0.406	-0.358	-0.375	-0.249	0.038	**0.844**	-0.259	-0.134
P6	0.429	0.365	-0.406	-0.408	-0.280	-0.011	**0.822**	-0.283	-0.162
PE1	-0.368	-0.458	0.631	0.593	0.613	0.359	-0.250	**0.874**	0.465
PE2	-0.357	-0.501	0.596	0.558	0.662	0.382	-0.230	**0.908**	0.456
PE3	-0.356	-0.458	0.601	0.592	0.667	0.428	-0.240	**0.902**	0.502
PE4	-0.401	-0.481	0.641	0.589	0.688	0.413	-0.215	**0.910**	0.533
PE5	-0.393	-0.462	0.616	0.583	0.654	0.399	-0.244	**0.887**	0.555
SI1	-0.200	-0.247	0.487	0.499	0.483	0.526	-0.150	0.468	**0.882**
SI2	-0.229	-0.308	0.505	0.530	0.486	0.526	-0.154	0.482	**0.895**
SI3	-0.218	-0.305	0.511	0.514	0.509	0.536	-0.120	0.499	**0.900**
SI4	-0.214	-0.356	0.491	0.495	0.515	0.570	-0.085	0.512	**0.821**
SI5	-0.262	-0.345	0.460	0.531	0.481	0.509	-0.190	0.466	**0.828**

Hypothesis Testing

The hypothesis testing was performed using PLS (software SmartPLS), the statistical testing of each hypothesized correlation was conducted using simulation. In this case, the bootstrap method was performed on the sample. The support of a research hypothesis is: if the coefficient or direction of the relationship of the variable (indicated by the original sample value) is in line with the hypothesized, and if the statistical t value is more than 1.64 (one-tailed) or 1.96 (two-tailed), and probability value (p-value) is less than 0.05 or 5% (Hair et al., 2010). In Table 5, the path coefficient and t-value of the model as the results of bootstrap:

Table 5. The value of Path Coefficient and T-Value

Correlation between Variables	Path Coefficients	T-Value	Conclusion
Content (C)) to Behavioral Intention (BI)	0.44	7.71	Significant
Performance Expectancy (PE) to Behavioral Intention (BI)	0.21	3.47	Significant
Effort Expectancy (EE) to Behavioral Intention (BI)	0.11	2.11	Significant
Process (P) to Behavioral Intention (BI)	-0.07	2.04	Significant
Affordability of Devices (AD) to Behavioral Intention (BI)	-0.08	2.02	Significant
Social Influence (SI) to Behavioral Intention (BI)	0.08	1.81	Significant
Affordability of Services (AS) to Behavioral Intention (BI)	-0.03	0.66	Not Significant
Facilitating Conditions (FC) to Behavioral Intention (BI)	0.01	0.27	Not Significant

In Table 5, 6 out of 8 hypotheses are significant at 95% level and 2 two hypotheses (AS - BI and FC - BI) which do not meet the conditions of this study as described in table 1. While the R-Square test was used as a reference in describing the magnitude of the ability of the construct the independent variable explains the dependent variable. The results of the R-Square test in this study showed a value of 0.70 which means the large percentage of

Behavioral Intention that can be explained by Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Condition, Affordability of Services, Affordability of Devices, Content, and Process are 70%, and the rest of the 30% is explained by other variables which are not included in this research.

Table 6. The Test Results of Moderating Variables

Correlation between Variables	T-value of Paths	
	Type of Device	Income
Content (C)) to Behavioral Intention (BI)	1.38	0.59
Performance Expectancy (PE) to Behavioral Intention (BI)	0.26	0.42
Affordability of Devices (AD) to Behavioral Intention (BI)	0.43	1.34
Process (P) to Behavioral Intention (BI)	-0.29	-0.99
Effort Expectancy (EE) to Behavioral Intention (BI)	-2.31 *	0.56
Social Influence (SI) to Behavioral Intention (BI)	1.57	-0.90

* Level of significance 0.95

Table 6 shows there is no path having a significant difference between income group, while significant difference only occurs in the path of Effort Expectancy (EE) - Behavioral Intention (BI) in the type of customer using 2G or 3G and 4G devices. Therefore, the model supported by the data in this research is as seen in Figure 2.

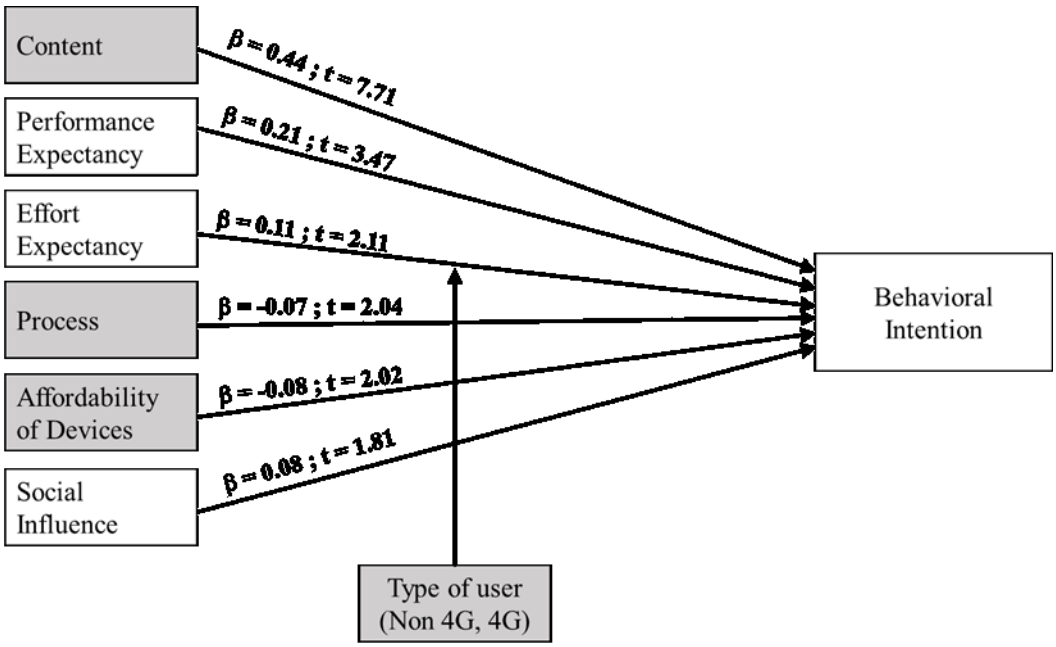

Figure 2. The model supported with research data

Leena and Luna International, Chikusei, Japan.
(株) リナアンドルナインターナショナル, 筑西市,日本
ISSN: 2186-845X ISSN: 2186-8441 Print
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CONCLUSION AND MANAGERIAL IMPLICATIONS

Based on the data processing using the modification of UTAUT model in this research showed that factors influencing Behavioral Intention in the migration of 4G services by XYZ Telco customers, sequentially starting from the biggest to lowest influences are Content, Performance Expectancy, Effort Expectancy, Process, Affordability of Devices and Social Influence. The R-square value of Behavioral Intention is 70%. The type of user has moderated the effect of Effort Expectancy on Behavioral Intention where the test results show that the group of 4G device users who have not migrated ($\beta = 0.30$) expect easier use in 4G services than in non-4G device group ($\beta = 0.01$), however, both groups do not have different opinions than other variables.

Content is the factor having the most significant influence on XYZ Telco customers in the behavioral intention to migrate to 4G services. To increase the customer's behavioral intention to migrate to 4G services, XYZ Telco Company needs to improve content related to mobile activities that are often accessed by customers and according to customer needs. The APJII (Asosiasi Penyelenggara Jasa Internet Indonesia) survey results in 2017 related to Penetration and Behavior of Indonesian Internet Users, states that services are often accessed include entertainment services, downloading videos, songs, and files, buying and selling goods and banking, music) and purchase online. The customer needs on the aspects above are in line with the survey results conducted by global agency (We Are Social and Hootsuite) on mobile activities and the behavior of internet users in Indonesia.

Performance Expectancy is the second factor influencing the behavioral intention of XYZ Telco customers to migrate to 4G services. XYZ Telco Company needs to increase awareness of the superiority of super-fast 4G internet through ATL campaign material (Above the Line) and BTL (Below the Line) which are conducted. In terms of network, XYZ Telco needs to conduct an improvement mainly in the cities indicated having high potentials of 4G users but the 4G coverage is not yet optimal.

Effort Expectancy is the third factor influencing the behavioral intention of XYZ Telco customers to migrate to 4G services. XYZ Telco Company besides increasing its promotion by emphasizing the benefits when customers access using a super-fast 4G network, XYZ Telco needs to emphasize the ease of using 4G mobile internet services through education or video tutorials on digital channels such as social media, website corporate and corporate applications as the source of reference accessed by the customers when searching for information related to XYZ Telco program/ product.

Process is a new variable added in this research which is the stage through by the customers to migrate to 4G services. A negative path value indicated the opposite of the effect of the process variable on behavioral intention. The questionnaire items in process variables are negative statements to describe processes that are not easy. Based on the results, it can be interpreted that the easier the migration process is, the higher the influence of the customer's intention to migrate to 4G. This needs to be a concern for XYZ Telco to increase customer understanding of additional settings after having USIM 4G and provide an alternative solution for customers who cannot come to the operator service centers to swap their USIM card (for example by optimizing the delivery service of USIM card and adding more USIM card distribution channel).

Affordability of Devices is the level where the customers considering the price of 4G handset/ devices are relative to their income/ allowance. In the same way as the process variable, the negative path value indicated the opposite of the effect of the affordability of

devices variable on behavioral intention. The indicators in the affordability of devices variable were negative statements to describe the price of 4G devices which are currently assumed to be expensive. It can be interpreted the more affordable the price of 4G devices, the higher the influence on the customer's intention to migrate to 4G. XYZ Telco Company with a bundling program with device partners that has been running needs to be a priority also in providing affordable 4G devices (4G smartphone with affordable price) and the trade-in programs (both exchanging and trade-in programs (trade-in of old handphone/modem with the new version of the product)

Social Influence is defined as to what extent an individual feels the significant others believe that they must use the new system. XYZ Telco Company in designing programs needs to optimize the role of family members in influencing each other to migrate to 4G services for family members who have not migrated. Besides, XYZ Telco in carrying out campaigns or promotion of its programs, it is necessary to target communities that are usually formed from similarities in hobbies and activities. Where influence from the community member can be optimized in accelerating the migration to 4G services.

FUTURE RESEARCH

The research results showed that there were six variables contributing significant effects to customer behavioral intention in migrating to 4G services namely Content, Performance Expectancy, Effort Expectancy, Process, Affordability of Devices dan Social Influence. Content is the aspect that have a significant influence on Behavioral Intention: therefore, it is necessary to conduct further research on these factors which as long as the results of the literature study conducted by researchers have not been discussed. This can be done in line with the telco company product campaign trend in 2019 which will be dominated by 'blend of all services' which is a combination of all services (for example: offering TV service, internet, and telephone services in one package) which will be highly supported by relevant contents.

This research is also limited to customers of the biggest operator in Indonesia. Further research can be developed with a cross-operator customer target. Similarly, the accessible cities of the target can be focused on both rural and urban customers.

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ISSN: 2186-845X ISSN: 2186-8441 Print
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