

# DIGITAL ADVERTISING MEDIA ADOPTION IN CONSUMER GOODS INDUSTRY (AN INDONESIAN PERSPECTIVE)

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**ABSTRACT.** *In 2013 Indonesia had 80 million netizen, but the spending of consumer goods companies for digital advertising media such as the one provided by Google, Youtube, Yahoo, and U-Ad was very low, only about 1% from total advertising spending. Especially for total spending of companies in U-Ad, a digital advertising media provided by Telkom Indonesia, was remain the lowest among those digital media advertising players. In order to increase the adoption of U-Ad, it is important to identify the key variables influenced Behavior Intention of advertiser to start using U- Ad as new alternative advertising media. This study identified and predicted the key variables influenced the behavior intention of Indonesian consumer goods companies, which is the biggest spender on advertising among other industries in Indonesia. This study used a Modified Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) model. There were 161 valid data out of 312 data from respondents in consumer goods companies in Indonesia. The valid collected data were analyzed by using Smart PLS 3.0 and the result showed that there were six variables in Modified UTAUT2 which positive significant influenced the Behavior Intention of consumer goods companies in Indonesia to adopt U-Ad as digital advertising media. The influencing variables, ordered from the highest to the lowest respectively, are Facilitating Condition (0.324), Performance Expectancy (0.255), Hedonic Motivation (0.178), Social Influence (0.128), Price Value (0.1) and Habit (0.09). Meanwhile, Effort Expectancy had no significant effect to the behavior intention to adopt U-Ad.*

**Keywords:** Digital Advertising, Modified UTAUT2, Intention, Adoption, Indonesia

## 1. INTRODUCTION

Total advertising spent on digital media was increasing within the last three years. The growth of money invested in digital media advertising accounted 18.3% in Asia Pacific countries from 2013 to 2014 (eMarketer, 2014). Despite of life style and trend driven, the Return on Investment for digital media advertising was higher compared to other advertising medias such as television, radio, printed ad, billboard, etc. (Nielsen, 2013). As a Telecommunication, Information, Media, Edutainment, Services (TIMES) player, Telkom Indonesia was responding this opportunity with launching U-Ad as digital advertising media.

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U-Ad was able to connect with large number of advertisee (as Telkom Group subscriber such as subscriber of Telkomsel which was around 140 million, subscriber of Speedy which was around 2.6 million, subscriber of Wifi.id which was around 4.5million) scattered all around Indonesia. It reached one billion inventory of impressions each month. The core features of this digital advertising were very easy publishing, automated distribution, heuristic profiling of advertisee, and ads analytics. However with 80 million netizen in Indonesia (APJII, 2013), the digital advertising spending was remain low, it was only about 1% from total advertising spending in 2013. This situation was remain the same until late 2014, thus no wonder there was not much advertiser trying to use U-Ad as a new digital media (<http://adscenter.u-ad.info>). This situation was different with the picture given by VP Google Ads, Susan Wojcicki, on Adtech conference in San Francisco, when she mentioned that online advertiser was a huge market for digital advertising provider (<http://www.forbes.com/sites/roberthof/2013/04/10/heres-the-future-of-advertising-according-to-google/>).

The most potential online advertiser in Indonesia is the consumer goods industry, since it was the biggest advertising spender both online and offline. Nielsen research on 2012 also proved that the biggest three of online advertisers came from consumer goods industry, namely Procter & Gamble (P&G), Unilever, and L'oreal (Nielsen Global Ad View Pulse, Q3 2012). Thus, a study for consumer goods intention to adopt U-Ad as the digital advertising media was needed.

## **2. PROBLEM STATEMENTS AND PURPOSE OF THE STUDY**

The main problem that faced by U-Ad was that the adoption for this service was remain very low in Indonesia. Eventough the opportunity of digital advertising in consumer goods were increasing and U-Ad offer many advantages both for advertiser and advertisee, in fact, U-Ad has no significant growth in term of advertisers since it launched. In the process of decision making to buy or to use a service, different variables may play an important role, among others are variable Price, Brand and Performance Expectancy. One variable may have more impact or have more roles when compared to other variables. Knowing the variables that encourage consumers to buy or use the product is important because consumers are the ones who make final decision to purchase of a particular product.

Related to the problem statements, this research focused on predicting consumer goods companies' acceptance of U-Ad as a new digital advertising media by using Modified Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) model. The objectives of the study were to examine the variables in Modified UTAUT 2 model that had influenced the adoption of U-Ad by consumer goods companies Indonesia and if the differences in company and products characteristics had impacts on the relationship of the variables. This research chose the consumer goods that did not use U-Ad but already use other service managed by Enterprise Division of Telkom Indonesia. Restriction to only consumer goods companies was following the reason that consumer goods industry was the biggest spender for advertising.

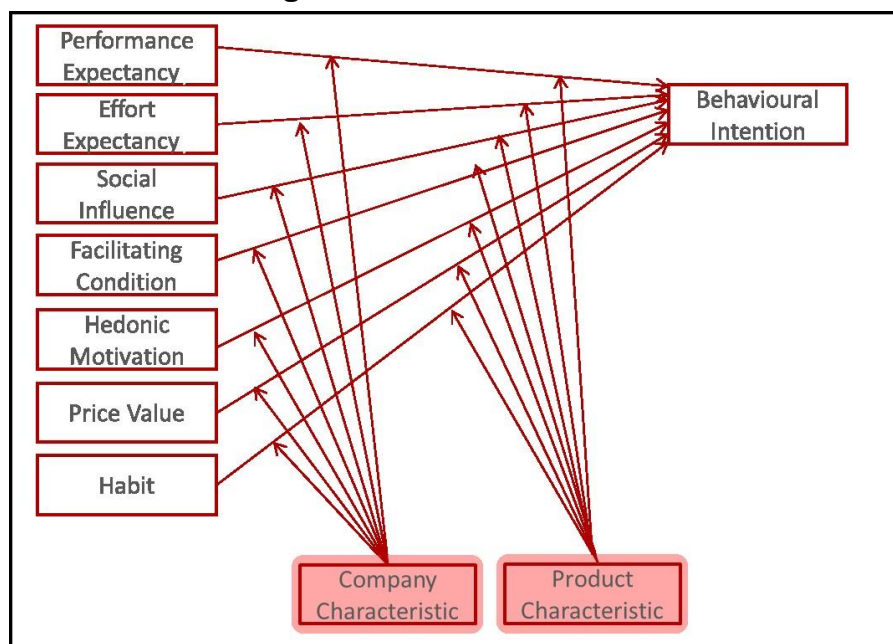
## **3. LITERATURE REVIEW AND CONCEPTUAL MODEL**

Advertising is any paid form of non personal presentation and promotion of ideas, goods, or services by an identified sponsor, its objective is a specific communication task to be accomplished with considering a specific advertisee during a specific

target (Kotler, 2010). The presence of digital advertising media as unconventional advertising media provide new value added to the advertiser, among them are a wide range of distribution, huge potential for viral communication, big data ability to reach specific target market, possibility of receiving direct response from advertisee, interactive, ability to provide broader space for creativity, also accurate and real time report with relatively lower cost (www.marketing.co.id/digital advertising, accessed 26 februri 2015).

Technology adoption theory which was suitable as a base of theoretical framework of this study was Modified Unified Theory of Acceptance and Use of Technology 2 (UTAUT 2). Due to its ability to explain the acceptance of the technology in the context of digital advertising for consumer goods companies (Venkatesh et al., 2012). UTAUT2 had been used to research the adoption of a product or service in the various studies. Variables of UTAUT2 Model in this study were Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Condition, Hedonic Motivation, Price Value and Habit, while dependent variable is Behavioral Intention. Based on the result of observations of the object, discussions with the U-Ad product owner, discussion with brands manager of consumer goods companies, and literature review on journal that have the same characteristic's as U-Ad, modification of UTAUT2 had been made, with adding company characteristics and products characteristic as moderator variables. The proposed model can be seen Figure 1.

**Figure 1. Modified UTAUT2**



As it can be seen from Figure 1, this study had seven independent variables, one dependent variable and two moderator variables. The independent variables consist of Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Condition, Hedonic Motivation, Price Value and Habit. While dependent variable was Behavior Intention and the moderator variables were Company Characteristic and Product Characteristic. The operationalization of variables was shown in Table 1.

**Table 1. Operationalization of Variables**

Variabel	Definisi	Item	Referensi
Performance Expectancy (PE)	Level of benefits of the respondents believed that the use of U-Ad will provide benefits for the company	U-Ad possibility in allowing consumer goods company to have efficient branding activity	Indrawati (2012); Stragier et al. (2010); Venkantesh et al. (2012).
		U-Ad ability in reaching target market	
		U-Ad ability in reaching broad advertisee	
		U-Ad advantage in increasing brand awareness	
		U-Ad ability in elevating number of sales	
		U-Ad ability in term of time delivering message from advertiser to edvertisee	
		U-Ad flexibility to build communication with advertisee	
Effort Expectancy (EE)	The easiness level to use U-Ad as digital advertising media by respondents	Level of ease to learn how to setting up advertising in U-Ad	Indrawati (2012); Stragier et al. (2010); Venkantesh et al. (2012).
		Level of ease to setting up advertising in U-Ad	
		Level of ease to learn how to create advertising in U-Ad	
		Level of ease to create advertising in U-Ad	
		Level of ease to have some changes in U-Ad compared with conventional media	
Social Influence	The degree to which respondents feel influenced by others that are important for respondents to use U-Ad	The influence of number of digital advertising media used by global consumer goods industry	Indrawati (2012); Stragier et al. (2010); Venkantesh et al. (2012).
		The influence of number of digital advertising media used by market leader in Indonesia's consumer goods industry	
		The influence of number of digital advertising media used by company's nearest competitor	
		The influence of supervisor or coleagues in using U-Ad for digital advertising media	
		The influence of consultant or advertising agency in using U-Ad as digital advertising media	
Facilitating Conditions	The availability of facilities that support the respondents in using U-Ad	Internet connection provided to display advertising in U-Ad	Indrawati (2012); Venkantesh et al. (2012).
		Internet connection provided to access advertising in U-Ad	
		Sufficient understanding of advertiser's company to advertise on U-Ad	
		Number of smartphone user as targeted advertisee	
		Number of laptop user as targeted advertisee	
		Sufficient budget of advertiser's company to advertise on U-Ad	
Hedonic Motivation	Level of pleasure gained by respondents when using U-Ad	Community assisstance and support whenever failure occur	Indrawati (2014); Venkantesh et al. (2012).
		Provider assistance whenever failure occur	
		Setting up advertising on U-Ad is more fun	
		Advertising placed on U-Ad is more fun	
		U-Ad is a trendy digital advertising media	
		U-Ad is a new modern digital media	
Price Value	Perception of benefits and costs incurred by the advertisers when using U-Ad	Advertising placed on U-Ad is more entertaining compare with conventional media	Indrawati (2012); Venkantesh et al. (2012).
		Advertising placed on U-Ad increasing company's prestige	
		Advertising placement pricing for U-Ad is cheaper than conventional media	
		Advertising placement pricing for U-Ad is worth the scope in reaching its target market	
		The fairnes perception of U-Ad's advertising placement price	
Habit	Changes in behaviour caused by routinity in using digital advertising media	Advertising placement pricing for U-Ad is worth the realtime report facility	Indrawati (2012); Venkantesh et al. (2012).
		Advertising placement pricing for U-Ad is worth the communication effectivity	
		My company is already use social media to communicate with consumen	
		My company is already use social media as advertising media	
		My company is already use digital media for CRM activity	
Behavioural Intention	Level of advertiser's confidence and trust for using U-Ad in the future time	My company is already use digital media as advertising media	Indrawati (2012); Venkantesh et al. (2012).
		My company is used to place its advertising on digital media	
		Plan to placed advertising on U-Ad in the near future	
		Plan to use U-Ad whenever quotation for advertising placement received	
		Plan to keep on learning on another alternative media placement	
		Plan to recommend advertising placement on U-Ad to my company	Venkantesh et al. (2012).
		Plan to recommend advertisings placement on U-Ad to the client or	
		Plan to add some more advertising on U-Ad in routine basis	

## 4. HYPOTHESIS AND MEASUREMENT

Based on the modified UTAUT2 as the research model, the hypotheses of this study are as shown in Table 2.

**Table 2. Research Hypotheses**

	Hypothesis	Source
H1a	Performance Expectancy has positive significant influenced to Behavioural Intention of Consumer Goods Company in U-Ad adoption	Venkatesh et al 2012; Indrawati 2010
H2a	Effort Expectancy has positive significant influenced to Behavioural Intention of Consumer Goods Company in U-Ad adoption	Venkatesh et al 2012; Indrawati 2010
H3a	Social influenced has positive significant influenced to Behavioural Intention of Consumer Goods Company in U-Ad adoption	Venkatesh et al 2012; Indrawati 2010
H4a	Facilitating condition has positive significant influenced to Behavioural Intention of Consumer Goods Company in U-Ad adoption	Venkatesh et al 2012; Indrawati 2010
H5a	Hedonic Motivation has positive significant influenced to Behavioural Intention of Consumer Goods Company in U-Ad adoption	Venkatesh et al 2012; Indrawati 2010
H6a	Price Value has positive significant influenced to Behavioural Intention of Consumer Goods Company in U-Ad adoption	Venkatesh et al 2012; Indrawati 2010
H7a	Habit has positive significant influenced to Behavioural Intention of Consumer Goods Company in U-Ad adoption	Venkatesh et al 2012; Indrawati 2010
H8a	Company Characteristic affects the influence of Performance Expectancy to Behavioural Intension Consumer Goods Company in U-Ad adoption	Venkatesh et al 2012; Indrawati 2010
H9a	Company Characteristic affects the influence of Effort Expectancy to Behavioural Intension Consumer Goods Company in U-Ad adoption	Venkatesh et al 2012; Indrawati 2010
H10a	Company Characteristic affects the influence of Social Influence to Behavioural Intension Consumer Goods Company in U-Ad adoption	Venkatesh et al 2012; Indrawati 2010
H11a	Company Characteristic affects the influence of Facilitating Condition to Behavioural Intension Consumer Goods Company in U-Ad adoption	Venkatesh et al 2012; Indrawati 2010
H12a	Company Characteristic affects the influence of Price Value to Behavioural Intension Consumer Goods Company in U-Ad adoption	Venkatesh et al 2012; Indrawati 2010
H13a	Company Characteristic affects the influence of Hedonic Motivation to Behavioural Intension Consumer Goods Company in U-Ad adoption	Venkatesh et al 2012; Indrawati 2010
H14a	Company Characteristic affects the influence of Habit to Behavioural Intension Consumer Goods Company in U-Ad adoption	Venkatesh et al 2012; Indrawati 2010
H15a	Product Characteristic affects the influence of Performance Expectancy to Behavioural Intension Consumer Goods Company in U-Ad adoption	Venkatesh et al 2012; Indrawati 2010
H16a	Product Characteristic affects the influence of Effort Expectancy to Behavioural Intension Consumer Goods Company in U-Ad adoption	Venkatesh et al 2012; Indrawati 2010
H17a	Product Characteristic affects the influence of Social Influence to Behavioural Intension Consumer Goods Company in U-Ad adoption	Venkatesh et al 2012; Indrawati 2010
H18a	Product Characteristic affects the influence of Facilitating Condition to Behavioural Intension Consumer Goods Company in U-Ad adoption	Venkatesh et al 2012; Indrawati 2010
H19a	Product Characteristic affects the influence of Price Value's to Behavioural Intension Consumer Goods Company in U-Ad adoption	Venkatesh et al 2012; Indrawati 2010
H20a	Product Characteristic affects the influence of Hedonic Motivation to Behavioural Intension Consumer Goods Company in U-Ad adoption	Venkatesh et al 2012; Indrawati 2010
H21a	Product Characteristic affects the influence of Habit to Behavioural Intension Consumer Goods Company in U-Ad adoption	Venkatesh et al 2012; Indrawati 2010

## 5. DATA COLLECTION, ANALYSIS, AND RESULT

Data were collected from respondents that were responsible in deciding advertising placement in consumer goods companies both local and multinational companies. The questionnaires were distributed through online and offline media. Online media used are Google Forms and email, and offline media used are paper based questionnaires delivered by Telkom's Account Manager. It took 7 weeks for data collection, and the data obtained from 164 respondents with 161 considered valid.

The collected data were analyzed by using Partial Least Square (PLS) which has two stages. First, namely assessment of the measurement model in order to had reliability and validity, and second stage was assessment testing of structural models (Hair, Black, Babin, Anderson, 2010). The aim of assessment on a measurement model was to make sure that the items used were reliable and valid to measure the variables. The tests carried out using Cronbach's Alpha (CA) as a reliability indicator with the reference value of 0.7, Composite Reliability (CR) with a reference value of 0.7 and Average Variance Extracted (AVE) with the reference value of 0.5. The collected data were processed by using the SmartPLS 3.0 software and generate results of value measurement testing revealed that all the reliability and validity requirements were fulfilled.

Having the test results that all variables were valid and reliable, continue with the next testing stage of PLS for Structural Model in order to get the value of the path coefficients and the  $R^2$ . T-values for path coefficient should be at least 1.96, and 1.28 considered significant at the 95% dan 90% confidence level for one tailed test (Chin and Dibbern, 2010; Indrawati, 2015; Urbach and Ahlemann, 2010). In this study, t-values are then obtained using bootstrapp re-sampling techniques (Chin and Dibbern, 2010; Indrawati, 2014; Urbach and Ahlemann, 2010). The path coefficients and t-values of the model as a result of bootstrapping are shown at Table 3.

**Table 3. T-value for Each Variable**

Pengaruh Variabel	Path	t-Value	Status
PE → BI	0,225***	4,539	Accepted
FC → BI	0,324***	3,752	Accepted
SI → BI	0,128***	2,178	Accepted
HM → BI	0,178***	2,177	Accepted
PV → BI	0,100**	1,776	Accepted
H → BI	0,90**	1,501	Accepted
EE → BI	-0,043	0,772	Rejected

Note : \*\*\* Significant Level : 0.95 \*\*Significant Level : 0.9

Based on the results shown in Table 3, it can be concluded that the independent variables Habit, Performance Expectancy, Facilitating Condition, Social Influence, Hedonic Motivation, Price Value, and Habit have positive influenced on the Behavior Intention to adopt U-Ad. While this study did not have enough evidence to suggest that the independent variable Effort Expectancy had positive influenced on the adoption of U-Ad. To convince whether the proposed model can be used to predict the behaviour intention to adopt U-Ad, the assessment of its R-square is needed. The R-square resulted from calculation of PLS Algorithm was 0.598. This means that the model had substantial power to predict the behaviour intention to adopt U-Ad.

In order to measure the influence of two moderating variables, namely company characteristic and product characteristic, this study uses group comparison approach. The result of testing related to moderating variables are showed in Table 4:

**Table 4. Results for Company Characteristic as Moderation Variables**

Correlation of Variables	t-value	Status
Effort Expectancy * Company Characteristic → Behavior Intention	-0,506	Rejected
Facilitating Condition * Company Characteristic → Behavior Intention	-0,824	Rejected
Habit * Company Characteristic → Behavior Intention	0,930*	Accepted
Hedonic Motivation * Company Characteristic → Behavior Intention	0.899*	Accepted
Performance Expectancy * Company Characteristic → Behavior Intention	0,164	Rejected
Price Value * Company Characteristic → Behavior Intention	-0,435	Rejected
Social Influence * Company Characteristic → Behavior Intention	0.43	Rejected

\* Significant Level : 0.8

Refer to the t-values of the Company Characteristic moderation variables as shown in Table 4, it was concluded that moderating variable Company Characteristic only moderated the effect on Habit and Hedonic variables. The result of the test shows that there are slightly differences between local dan multinational company in their views about Habit and Hedonic Motivation. The local company thinks more on the Habit and Hedonic Motivation of adopting U-Ad.

**Table 5. Results for Product Characteristic as Moderation Variables**

Correlation of Variables	t-value	Status	
Effort Expectancy * Product Characteristic → Behavior Intention	food drink - personal care	-0.266	Rejected
	food drink - home care	0.650	Rejected
	personal care - home care	0.907*	Accepted
Facilitating Condition * Product Characteristic → Behavior Intention	food drink - personal care	0.120	Rejected
	food drink - home care	-1.185*	Accepted
	personal care - home care	-1.133*	Accepted
Habit * Product Characteristic → Behavior Intention	food drink - personal care	0.169	Rejected
	food drink - home care	1.568**	Accepted
	personal care - home care	1.000*	Accepted
Hedonic Motivation * Product Characteristic → Behavior Intention	food drink - personal care	0.379	Rejected
	food drink - home care	1.114*	Accepted
	personal care - home care	0.763	Rejected
Performance Expectancy * Product Characteristic → Behavior Intention	food drink - personal care	0.189	Rejected
	food drink - home care	-2.008***	Accepted
	personal care - home care	-1.424**	Accepted
Price Value * Product Characteristic → Behavior Intention	food drink - personal care	0.145	Rejected
	food drink - home care	0.905*	Accepted
	personal care - home care	0.772	Rejected
Social Influence * Product Characteristic → Behavior Intention	food drink - personal care	0.067	Rejected
	food drink - home care	1.284**	Accepted
	personal care - home care	0.969	Rejected

Refer to the t-values of the Product Characteristic moderation variables as shown in Table 5, it was concluded that moderating variable Product Characteristic moderated the influence of all variables.

## 6. CONCLUSION

Based on the descriptive analysis of customer responds, the two highest respond were given to this research are Performance Expectation and Facilitating Condition. This research's model had an R-Square value of 0.598 which mean that the 59.8% of behavior intention for U-Ad in this model can be explained by the Perfomance Expectancy, Effort Expectancy, Social Influence, Facilitating Condition, Hedonic Motivation, Price Value and Habit. There were six variables in the Modified UTAUT2 were shown to have a positive and significant influence on the intention to adopt U- Ad services in Indonesia, in order from the highest to the lowest are respectively Facilitating Condition (0.324), Performance Expectation (0.255), Hedonic Motivation (0.178), Social Influence (0.128), Price Value (0.100) and Habit (0.90). Meanwhile, Effort Expectancy was declared not enough evidence to suggest that Effort Expectancy had a positive influence in the intention to adopt U-Ad.

Based on six variables that had influenced the U-Ad's adoption, it could be defined that respondents perceived U-Ad as a new digital advertising media that meet the curent life style and trend based on the result showed that three of life style variable are positively significant influencing respondent adoption to U-Ad. However, the main preference for respondent to adopt U-Ad still remain on technical function and usefulness, referring the first and second highest variables are for service development dan support from providers.

Company Characteristic had moderated the influence of Habit and Hedonic Motivation on Behavior Intention. The effect of Habit and Hedonic Motivation to Behavioral Intention in adopting U-Ad was higher in local company group as compared with the multinational company group. Meanwhile, Product Characteristic had moderated all the variables the influence to Behavior Intention.

## 7. RECOMMENDATION

A variable that became the most influential variable to the intention to adopt U-Ad was Facilitating Condition and the effect were moderated by Product Characteristic. Based on the descriptive analysis, the respondent suggested that the provider support is really needed in the use of U-Ad. Based on these findings, this study advised U-Ad provider to focus on managing the quality both for internet connection and U-Ad services.

Perfomance Expectancy was the second variable that affects the intention to adopt a U-Ad. The descriptive analysis found that respondents very concern on how the adoption of U-Ad can brings them value and improvement in sales. Based on this result, this study advise U-Ad product owner to provide better real time report and develop intensive communcation with advertiser to understand how the Key Performance Indicator from each brand meet their expectation and where area of improvement can be filled by Telkom. Also Telkom need to define its pricing carefully, eventough this study reveal that the consumer goods companies were not price sentitive to price variable, the respondents mention that efficiency in using this media is really important.



For further research, it is necessary to explore the continuity of usage (use behavior) of this service. This study has proven that Facilitating Condition and Performance Expectancy had the most significant impact on the intentions to adopt U-Ad. Further research is needed to confirm the detail expectancy that needed and wanted by respondents.

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