Research Article

Social Media Marketing to Brand Awareness in Private University

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Abstract.
Social media can be used as a selling strategy, services, communication, and a source of information. This research aims to measure the impact of digital marketing using four different social media, that is. Youtube, Facebook, Instagram, and Twitter through brand awareness in the private universities in Indonesia based on how the user gets information from social media and makes it the information source.
The methodology used in this research is the quantitative method of causal effect. This research was conducted by using primary and secondary data. The sampling technique uses non-probability sampling by using minimum respondents from Bernoulli. While, the data analysis was done using path analysis.
By using 385 respondents, the research shows that digital marketing simultaneously influences university brand awareness by 22.96%. This result shows that digital marketing is one of the media which can be used to increase public brand awareness through university. Meanwhile, Facebook and Twitter have a positive influence on university brand awareness. In conclusion, Facebook and Twitter can increase the brand awareness of a university.

Keywords: digital marketing; social media; brand awareness; private university

1. Introduction

The growth of social media in Indonesia make the huge impact for the information dissemination in Indonesia. Based on APJII (Indonesia Internet Service Providers Association) on 2018, the internet user penetration growth in Indonesia reach 171,17 million people of Indonesia or 64,8% from total population. Hootsuite [1] show that Indonesian internet usage spend 8 hours and 51 minutes, which 3 hours and 23 minutes of it used for social media.

Hootsuite[1] states that the major social media used by Indonesians, i.e. Youtube, Facebook, Instagram, and Twitter. Where it shows that the penetration of social media users in Indonesia reaches 47% or greater than 7% for world penetration. By using social media, people can get a lot of information.

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2. Literature Review

2.1. Digital Marketing

Chaffrey and Chadwick [2] state that digital marketing is an application from internet and connecting to digital technology which it associated with traditional communication to achieve the marketing goals. The Digital marketing could be used to improve the knowledge about consumer, i.e. profile, behavior, value, and loyality, which combine them to the targeting communication and online services which appropriate with every consumer [3].

Meanwhile, Purwana[4] describe that Digital marketing is the promotion activity and market searching by using online digital media.

Furthermore, digital marketing is a marketing activity by using digital media, i.e. web, social media, email, database, mobile/ wireless and tv digital to increase the target consumers personally.

2.2. Social Media

The new effective media to develop marketing media is social media. Social media is the low-cost tools which can be used to combine between technology and social interaction by using words which share through internet application i.e. Twitter, Facebook, MySpace and Youtube [5], [6]

Social media application offers the users to interact, correspond and communicate each other by sharing text, picture, audio, and video [7]. The social media users add the attractive value from a brand to increase the level of consumer closeness with the brand [8].

The social media are used by this research, i.e., Youtube, Facebook, Instagram, and Twitter. Youtube is one of social media which allows the users to upload, download, watch, and share video. Some companies have been used this platform to increase ROI (Return On Investment), indeed 51,9% of professional marketers in the world nominate some video in Youtube as the best content with the best ROI[9].

The second social media which used in this research is Facebook. Facebook is a social network service which can connect people in the world with the same preferences and grouping it together. This platform can be used to find friend, promote product, communication, and share the information between users.

The third social media which used is Instagram. This platform facilitates the user to take photo, video, apply digital filter, and share it to other users. One of the services offer sharing story for 24 hours to give short company information.

The last social media which used in this research is Twitter. This platform enables users to write and share 280 characters text, photos, and video. Every content can be rated by the readers with like, re-tweet, comments and share to other. Until now, Twitter still be one of the favorite microblogging to share anything.

2.3. Brand Awareness

The brand awareness is the person level awareness to know how the brand as part of the product category [10] or the customer ability to know and member that a brand is a member of certain product category [11]. The potential buyers have ability to recognize or recall a brand that is part of product category [12]. So, brand awareness is the strength of brand in the customer memory to remember a brand well.

Brand awareness consists of four elements, i.e. top of mind, brand recall, brand recognition, and brand unaware [13]. First element called as Top of mind, which is the brand which mentioned for the first time by the customer or the first brand which appears in the mind of the customer. Second, brand recall is based on someone request to recall a brand without assistance, because customers do not need help to bring up the brand. Third, brand recognize is the minimal level of brand awareness, and the last is unaware of brand, which is the lowest level of brand awareness where customers are not aware of a brand.

Based on literature review above, the framework of this research consist of social media (Youtube, Facebook, Instagram and Twitter) as the independent variable (X), which are Youtube (X1), Facebook (X2), Instagram (X3), and Twitter (X4) and brand awareness as the dependent variable (Y).

3. Methodology

This research proposes quantitative methodology by using questionnaire to collect primary data. The sample use all the people in Indonesia by using purposive sampling method with error 6,2%, so the data consisted of 250 respondents.

The methodology in this research conduct with multiple regression analysis by using software SPSS 25. The data used have been validated by using Alpha Cronbach [14], normality test use Kolgomorov Smirnov, multicollinearity use tolerance > 0,1 or VIF < 10,
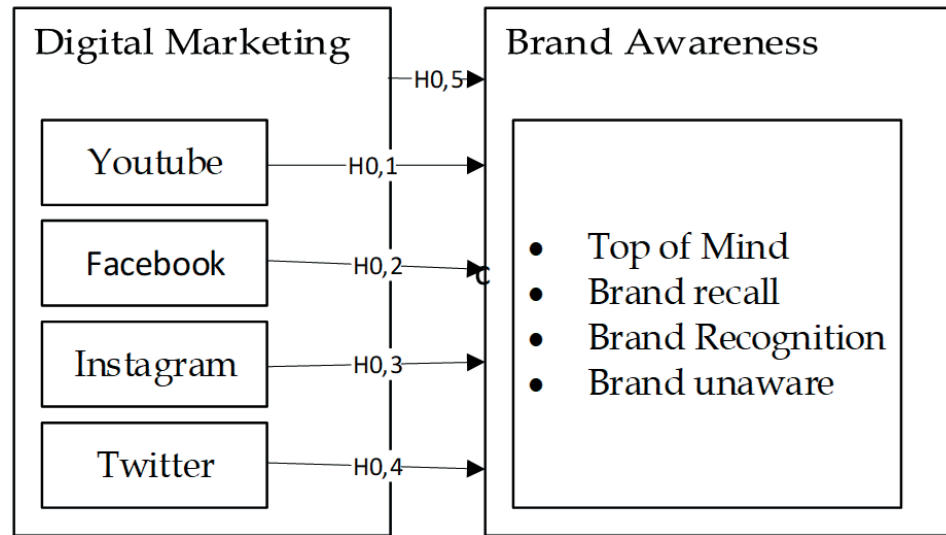
Figure 1: Theoretical Framework.

heteroscedasticity use coefficients significance > 0,05 and auto correlation use Durbin Watson [15].

T test used to conduct partial hypothesis and F test for simultaneous hypothesis. Lastly, finding coefficient value to show other influence which can't determine in this research [14] [16].

Hypothesis are conducted in this research consist of:

1. $H_{0.1}$: Youtube has no significant effect on brand awareness

2. $H_{0.2}$: Facebook has no significant effect on brand awareness

3. $H_{0.3}$: Instagram has no significant effect on brand awareness

4. $H_{0.4}$: Twitter has no significant effect on brand awareness

5. $H_{0.5}$: Digital marketing has no significant effect on brand awareness
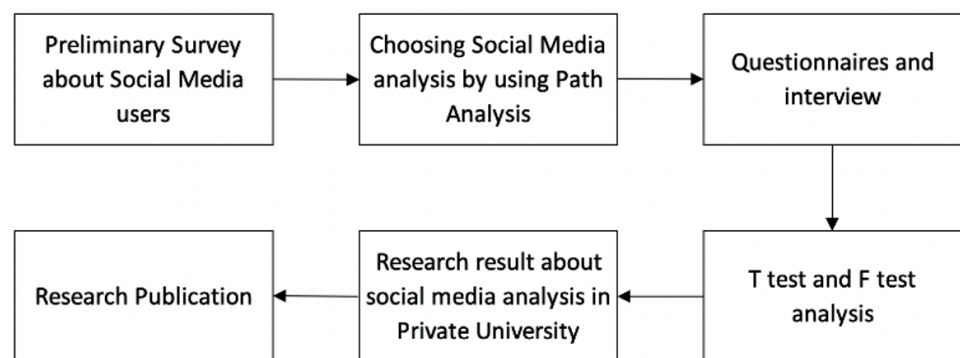

Figure 2: Research Design.

4. Analysis and Finding

4.1. Respondents Characteristics

Based on distributed questionnaires, the respondents in this research consists of women 57% or dominate than men 43% (Fig.3(a)). It means that women more aware to education than men. This result in line with Widyawati [17] who describe that women as the influencer and a role to build family.

For the age distribution (Fig.3(b)), it shows that 97% of respondents in the 18 until 25 years old, and 6% less than 18 years old. This result indicates that the productive age for a person who want to continue their study in the university.
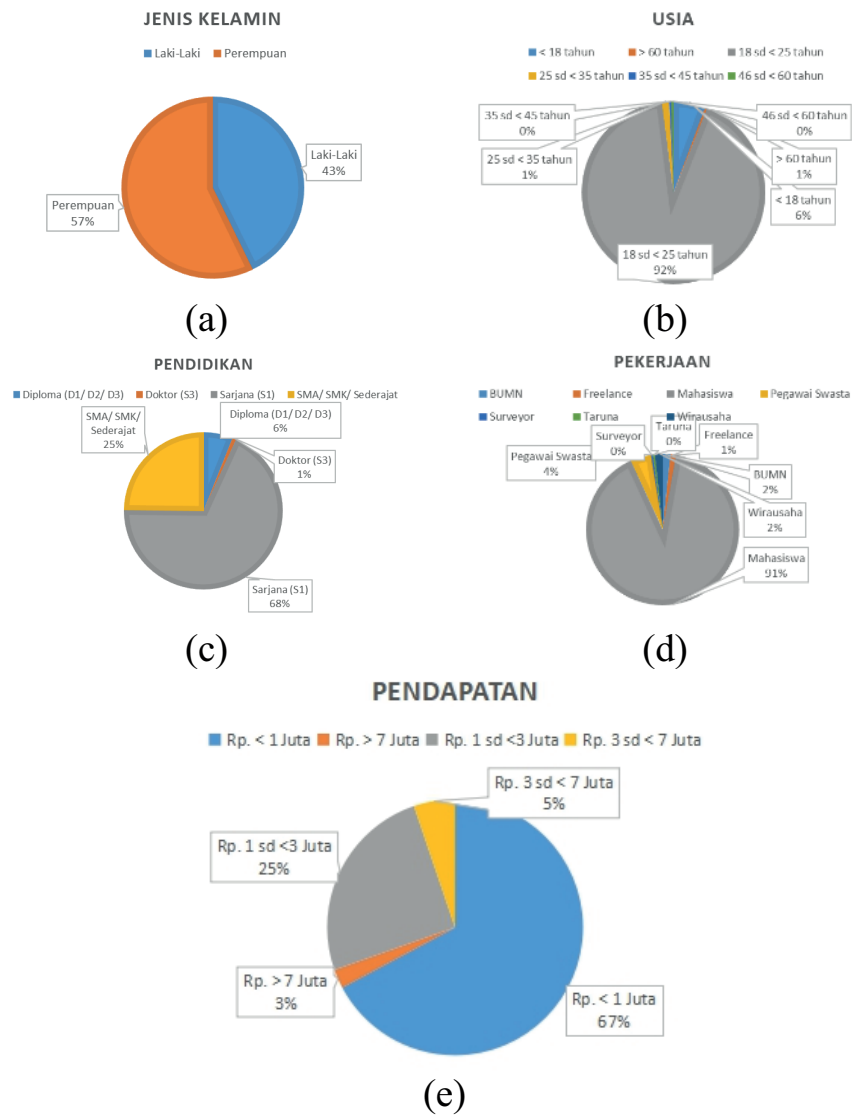

(a)

(b)

(c)

(d)

(e)

Figure 3: Respondents Distribution.

For the education distribution (Fig.3(c)), 68% bachelor degree, 25% senior high school/senior vocational school, and 6% diploma. It indicates that higher education as the basic need for the productive ages to get better education.

For the job distribution (Fig.3(d)), 91% college students, 4% private employee, 2% entrepreneur, then other consists of cadets and surveyor. It indicates that the respondents excited to get higher education.

For the income distribution (Fig,3(e)), 67% respondents have income less than Rp. 1.000.000, 25% have income Rp. 1.000.000 to Rp. 3.000.000. This income distribution in line with student college as the highest respondents.

Lastly, for the information distribution, 38% respondents get information about university by using media online such as social media and web, 10.8% education exhibition, and 3.6% family and co-workers.

4.2. Classic Assumption Test Analysis

This analysis used to ensure that the data are normal and no multicollinearity and not heteroscedasticity data. Furthermore, we do not auto correlation testing because this research does not use data trend.

1. Normality Testing

Figure 4(a) and 4(b) show that the data in this research is normal distribution. It means that the data in this research appropriate to be used.
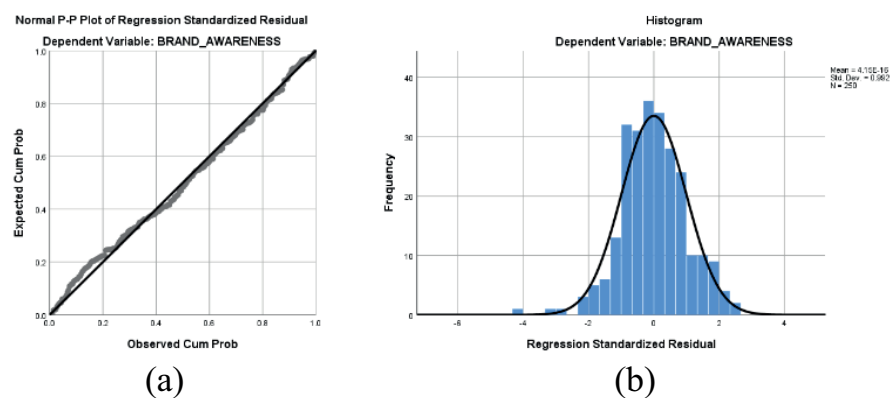

Figure 4: Respondents Distribution.

According to Kolgomorov Smirnov Testing on Table 1, it shows that the distribution is normal (Zscore < Ztable) with 1.96, where Zscore for Youtube 0.031, Instagram 0.19, Twitter 0.02, then Facebook and Brand Awareness 0.00.

		YOUTUBE	FACEBOOK	INSTAGRAM	TWITTER	BRAND AWARENESS
N		250	250	250	250	250
Normal Parameters[a,b]	Mean	3.3956	2.8108	3.7053	3.1149	3.3046
	Std. Deviation	.69434	.79270	.79639	.92532	.73864
Most Extreme Differences	Absolute	.060	.082	.063	.075	.105
	Positive	.060	.082	.052	.067	.105
	Negative	-.044	-.075	-.063	-.075	-.075
Test Statistic		.060	.082	.063	.075	.105
Asymp. Sig. (2-tailed)		.031[c]	.000[c]	.019[c]	.002[c]	.000[c]

Figure 5: Kolgomorov Smirnov Test.

2. Multicollinearity Testing

Multicollinearity testing used to find the value of correlation between independent variable. From the table 2 show that there is no multicollinearity between independent variable with tolerance score > 0.1 or VIF score < 10.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	Collinearity Statistics	
		B	Std. Error	Beta	Tolerance	VIF
1	(Constant)	1,892	0,229			
	YOUTUBE	-0,129	0,087	-0,121	0,473	2,115
	FACEBOOK	0,219	0,061	0,235	0,734	1,363
	INSTAGRAM	0,117	0,073	0,126	0,503	1,987
	TWITTER	0,257	0,053	0,322	0,721	1,387

a. Dependent Variable: BRAND_AWARENESS

Figure 6: Multicollinearity Test.

According to the table, it also shows that the tolerance score for Youtube, Facebook, Instagram and Twitter more than 0.1. Meanwhile, the VIF score can be defined that there is no correlation between dependent variables and independent variables (VIF score < 10).

3. Heteroscedasticity Testing

This testing purpose to know data heterogenous and to define data distribution pattern.

Based on Fig.5 above show the data distribution both in horizontal axis area, and also in positive and negative vertical area. The figure shows the data is homogeneous.
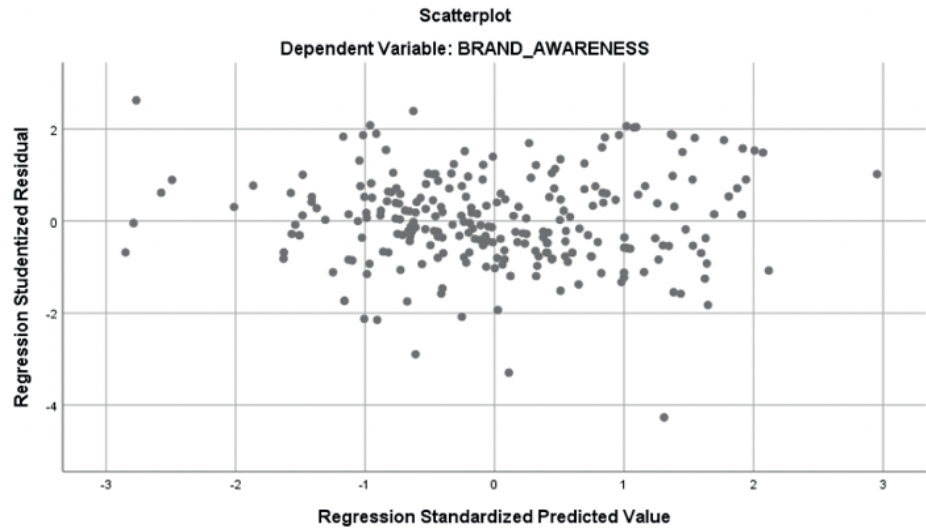
Figure 7: Scatterplot Heteroscedasticity.

4.3. Correlation (r) Analysis

Correlation analysis serves to show correlation between indicators or variables with the research object. This research use *Pearson Product Moment* method which showed in Fig.6.
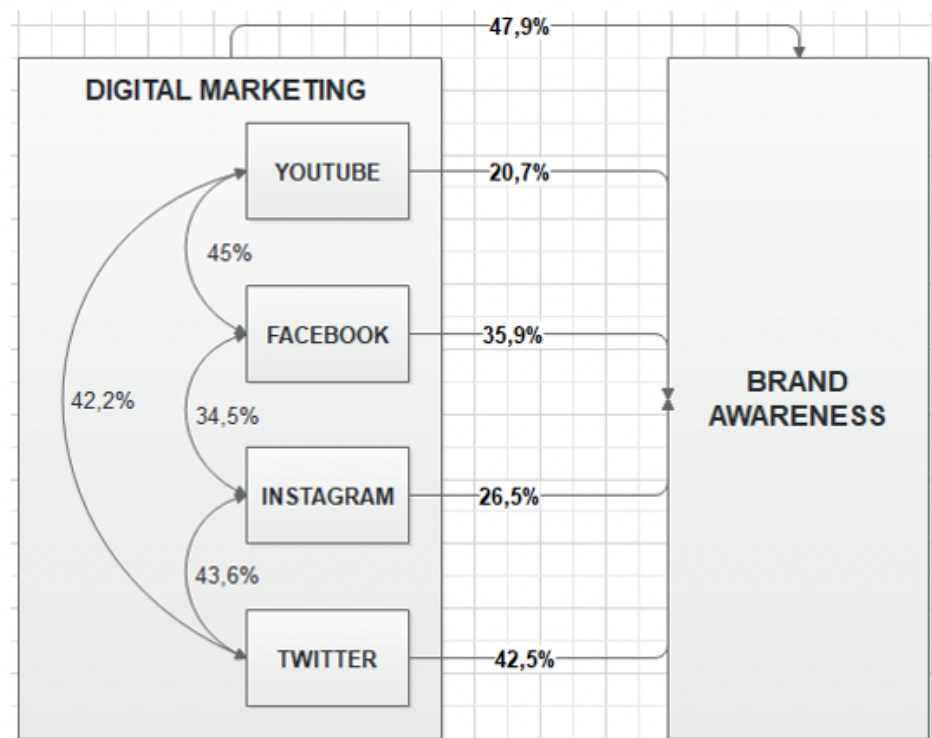

Figure 8: Correlation Diagram.

The figure above show that Digital Marketing variable have correlation 47,9% with Brand Awareness, which the highest correlation is in the sub variable Twitter 42.5% and the lowest one is Youtube 20.7%. In result, university must focus to develop better brand awareness effectively by maximizing social media such as Twitter and Facebook.

4.4. Determination Coefficient Analysis (R)

Determination coefficient analysis propose to measure the ability of independent variable to explain the variance of other variable, or to know influencing between variable or sub independent variable to dependent variable.

Model Summary^b			
Model	R	R Square	Adjusted R Square
1	.479^a	0,229	0,217
a. Predictors: (Constant), TWITTER, FACEBOOK, INSTAGRAM, YOUTUBE			
b. Dependent Variable: BRAND_AWARENESS			

Figure 9: Determination Coefficient.

Table 3 show score of R square determination in this research 0.2296. It shows that brand awareness influenced by Digital Marketing variable 22.96%. Meanwhile, 77,04% influenced by other variables which do not researched in article. However, Partial Determination Coefficient conduct to show the impact between independent sub variable and its dependent variable[17].

Kd x Zero Order x 100%

VARIABEL	BETA	ZERO ORDER	PENGARUH PARSIAL	PENGARUH SIMULTAN	TERHADAP
YOUTUBE	-0,121	0,207	-2,50%		*BRAND AWARENESS*
FACEBOOK	0,235	0,359	8,44%		*BRAND AWARENESS*
INSTAGRAM	0,126	0,265	3,34%	22,96%	*BRAND AWARENESS*
TWITTER	0,322	0,425	13,69%		*BRAND AWARENESS*

Figure 10: Partial Determination Coefficient.

According to Tabel 4 above, it can be showed in this figure.

Fig. 7 explain that Twitter and Facebook have big impact to optimize the digital marketing of a university which showed on the determination coefficient score 13.69% and 8.44%.
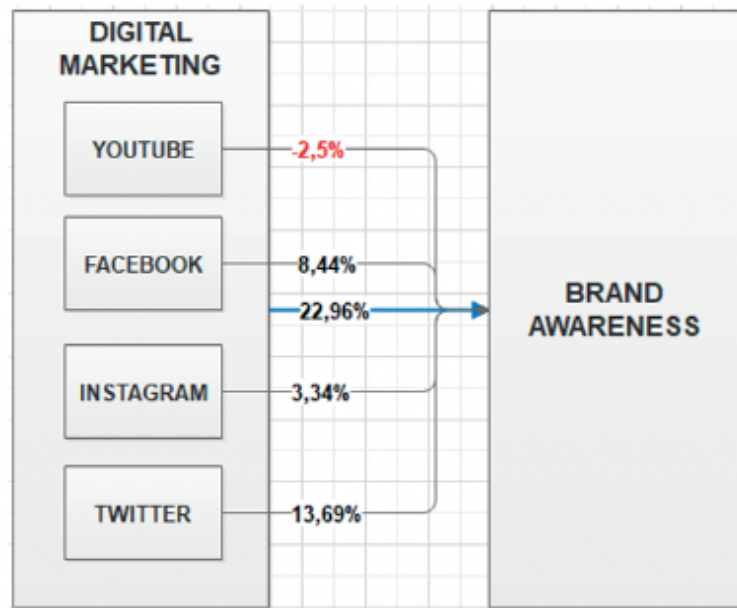
Figure 11: Coefficient Determinant.

Twitter is one of social media which used by millennial (18-29 years old) and many of them are educated and have bachelor degree. Meanwhile, Facebook is one of social media which used by old people (> 50 years old) who will send their children to university. Therefore, university can optimize Twitter and Facebook to make the university brand awareness better.

4.5. Path Analysis

Data analysis used in this research is path analysis which aim to get point of view about correlation between variable or sub variable and other variables. Table 5 explain about linier coefficient by SPSS 25.

From the result, it can be showed on the equation:

$Y = 1.892 - 0.129 X_1 + 0.219 X_2 + 0.117 X_3 + 0.257 X_4 + e$

TABLE 1

Y	=	Brand Awareness	X_3	=	Instagram
X_1	=	Youtube	X_4	=	Twitter
X_2	=	Facebook			

The equation above explain that:

1. Constanta (a) 7.058 mean if X_1, X_2, X_3, and X_4 0 (zero), then Y 7.058.

Coefficients[a]					
Model	Unstandardized Coefficients		Standardized Coefficients	Collinearity Statistics	
	B	Std. Error	Beta	Tolerance	VIF
1 (Constant)	1,892	0,229			
YOUTUBE	-0,129	0,087	-0,121	0,473	2,115
FACEBOOK	0,219	0,061	0,235	0,734	1,363
INSTAGRAM	0,117	0,073	0,126	0,503	1,987
TWITTER	0,257	0,053	0,322	0,721	1,387
a. Dependent Variable: BRAND_AWARENESS					

Figure 12: Linier Coefficient.

2. Coefficient X_1 -0.129 mean if others independent variable is fixed and X_1 increase 1%, then Y will decrease 0.190.

3. Coefficient X_2 0.219 mean if others independent variable is fixed and X_2 increase 1%, then Y will decrease 0.219.

4. Coefficient X_3 0.257 mean if others independent variable is fixed and X_3 increase 1%, then Y will decrease 0.257.

4.6. Hypothesis Testing T test

The partial test (t-test) used to test the influencing of every independent variable through dependent variable. By using SPSS, the result show in the table 6 below.

According to the table, it can be concluded that Youtube (0.138) and Instagram (0.112) do not have influence to university brand awareness because the significance value more than 0.05. Meanwhile, Facebook (0.000) and Twitter (0.000) have influence to university brand awareness.

4.7. Hypothesis Testing F test

The partial F test used to test the influencing of every independent variable through dependent variable. By using ANOVA statistic test in SPSS, the result show in the table 7 below.

According to the table, it can be concluded that Digital Marketing influence to Brand Awareness for a university with the significance value less than 0.05.

Coefficients^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1,892	0,229		8,259	0,000
YOUTUBE	-0,129	0,087	-0,121	-1,487	0,138
FACEBOOK	0,219	0,061	0,235	3,592	0,000
INSTAGRAM	0,117	0,073	0,126	1,596	0,112
TWITTER	0,257	0,053	0,322	4,880	0,000

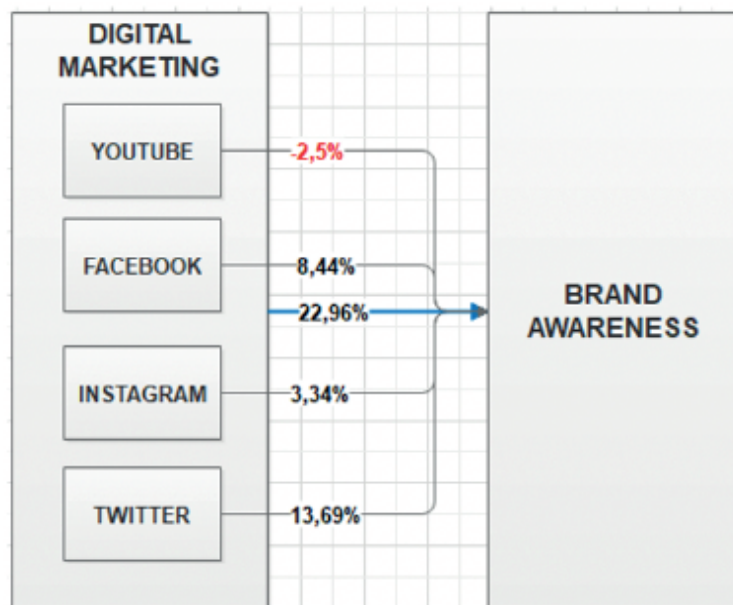a. Dependent Variable: BRAND_AWARENESS

Figure 13: T Test.

Figure 14: ANOVA.

5. Conclusion

This research aims to describe marketing phenomenon by using digital marketing with social media in the university brand awareness. By using 250 respondents, this research generates measurement sample finding by Bernoulli method.

The characteristic of social media users such as Youtube, Facebook, Instagram and Twitter in this research consist of 57% women, 92% between 18-25 years old, and 68% bachelor degree.

The parents or student candidate get information about university from online social media or university website 43.2%. Meanwhile, they also get information from education exhibition, family, co-worker, and neighbors.

The finding in this research is showed on correlation analysis digital marketing variable to brand awareness 47.9%. Meanwhile, the partial correlation in sub variable Twitter (42.5%), Facebook (35.9%), Instagram (26.5) and Youtube (20.7%). These findings based on simultaneous coefficient determination analysis of digital marketing variable influence to university brand awareness 22.96%. Furthermore, 77.04% influenced by other variable which do not conduct in this research. However, partial coefficient determination obtained from Twitter and Facebook which have the highest score between others sub variable, i.e. 13.69% and 8.44%, vice versa. On the other hand, Instagram 3.34% and Youtube does not influence anything or have negative influence -2.5%. In conclusion, these results in line with T test on Instagram and Youtube variable that they do not have influence to brand awareness with value of significancy >0.05. F test by using ANOVA show that digital marketing variable influence to brand awareness.

Research suggestion can be conduct by using other social media such as LinkedIn, Pinterest, Snapchat, etc, with bigger sample and wider research area.

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