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THE EFFECT OF ONLINE COMMUNITIES AND ONLINE ADVERTISEMENT TOWARDS THE PURCHASE INTENTION OF HEALTHCARE PRODUCT: CASE STUDY OF GEA MEDICAL

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Abstract

Social media has become an inseparable part of consumption as it allows direct interactions, not only between consumers but also between business and consumers. As one of the highest social media users in the world, a deep understanding of Indonesian consumers in this context will help businesses to expand their market. On the other hand, healthcare is one of the growing industries.

This study is determined to find how the online community and online advertisement affect consumers' intention to purchase healthcare goods. This study examines GEA Medical as a case as it rolls in the B2B market and tries to seize an opportunity in B2C. Handling a health care supply business in Indonesia, GEA Medical currently only uses Instagram to conduct its online advertising to attract its B2C consumer. A survey was conducted with 400 respondents that fulfilled the criteria, was analyzed to investigate these factors. The proposed model was then analyzed using Descriptive Analysis and Multilinear Regression Analysis.

The finding shows that both online community and online advertisement positively affects purchase intention, with online advertisement has a higher significant contribution. It also indicates that the hedonic factor from online advertisement and interpersonal trust factor from the online community is the top priority factors that need to be highlighted by companies overall. Furthermore, this study would encourage GEA Medical to produce truthful Instagram promotion content and with no exaggeration with the suitable online community as the medium.

Keywords: Online Community, Online Advertisement, Purchase Intention, Consumer Behaviour, Healthcare Business, Social Media.

1. Introduction

Almost every daily activity is supported by the usage of the internet, with examples such as student education, communication, money management, cashless transactions, especially business promotions, shopping, and online communities (Sharma, 2016). Recent data show that the number of active social media users in January 2019 is 3.48 billion, which saw an increase of 366 million (9%) users compared to January 2018. A study in 2019 stated the number of online shoppers in 2019 reached 1.92 billion and is predicted to reach 2.14 billion as per 2021. The expected total revenue of the worldwide online transactions is around $4.48 trillion in 2021, doubling from the total revenue in 2017 with 1.66 billion online shoppers that is $2.3 trillion.
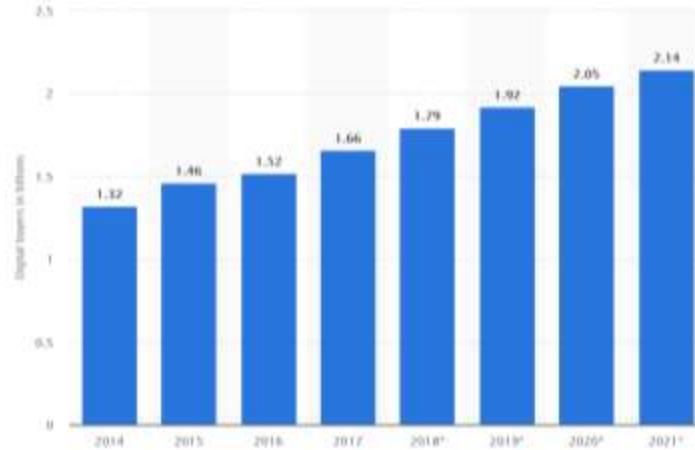
Figure 1: Number of digital buyers worldwide from 2014 to 2021 (in billions) (Amin *et al.*, 2019)

In Indonesia, the number of online shoppers reached 35.5 million as per 2019, with social media to be seen as the favourable media for the people (Clement, 2020). Adding to its number, internet users with active social media users is 150 million (56% of the total population) (Kemp, 2019). Instagram is one of the most popular form of social media in Indonesia, with total active users of 22 million (Indika and Jovita, 2017). Every year, the number of online buyers in Indonesia shows rapid growth, with the findings shown in 2013, there were already 4.6 million buyers, then grows into 5.9 million in 2014 (Suhud and Herstanti, 2017). These numbers show that there is a high potential for online advertising to reach Indonesian online shoppers.

Figure 2: Number of Online Shoppers in Indonesia (Clement, 2020)

In social media, specific to Instagram, many online communities can be found, as it has been a worldwide phenomenon. Indonesians themselves like to be in a community. Referring to Hofstede's Dimensions of National Culture, s Indonesia ranks with a score that is relatively low in the "Individualism" sector. This shows Indonesians as collectivist people, that more likely need to satisfy the preferable condition by the society and community where they belong (Hofstede, 2020). With examples of online communities being Freeletics and Indorunners from Indonesia (Gumilar, Zulfan and Kusmayadi, 2018), this can be seen as an opportunity by healthcare businesses, especially GEA Medical, to expand their market.

2. Research Problem

The use of social media for businesses to promote their products and/or services has already been a common practice, however there is a limited understanding about how to use this tool effectively with online communities. As such, it can be seen from the case of GEA Medical that they want to expand their business from only rolling in the B2B market to also seize the B2C

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market with the use of Instagram as their promotional media for online advertisements. An engagement rate is considered as the benchmark of whether their advertisements have reached and fit the desired target market. GEA Medical still has an average engagement rate, with only 1.14%. According to Mee (2019), this shows an average engagement rate as it falls in the range 1% to 3.5%. Adding to this data, GEA Medical's largest competitor, Omron Health Care, has 14.52% engagement rate which is considered as very high. GEA Medical is interested in reaching members of online communities as their target market. Thus, the identification of factors that could affect members of online communities to purchase GEA Medical's products with the right attributes of online advertisement is needed.

3. Theoretical Foundations

Balakrishnan et al. (2014) stated that the purchase intention of a product and/or service is affected by the online community of the consumers. One of the studies in Indonesia regarding online communities and purchase intention has stated that the members of the community discussion with one another about products or services. They also promote items and/or services and give recommendations to one another, thus setting-off the intention to purchase (Prayugo, 2018). A particular study regarding the online community on Instagram stated that the members do promote several places and resulting in the increase of the intention to buy the foods presented at the Instagram page (Makhin, 2016). Among the five key factors of online communities in the study done by Sharma et al. (2014), Perceived Enjoyment, System Trust, Interpersonal Trust, and System Trust are believed in this study to be the factors contributing to member's activities in online communities.

Advertisers nowadays are claimed to be keen on implementing social media as an online marketing tool into their marketing programs for advertising to drive digital engagement, with the example being Adidas that began to focus their marketing efforts by using mainly digital also social channels (Voorveld et al., 2018). While Balakrishnan et al. (2014) stated that online advertising works quite fast with the fact that when the user starts the online advertising, the result will be very soon established. This is effective with neither a long start-up process or even a waiting period, especially social media marketing medium that they claimed to be an important tool of marketing to reach the consumers that are younger generations. Balakrishnan et al. (2014) also believed that purchase intention is also affected by the online advertisement that the business has. Khong, Jerome, and Shan in 2010 also stated that online advertising does generate a significant influence on the attitude towards the brand as well as the intention to purchase (Kong, Jerome and Shan, 2010)

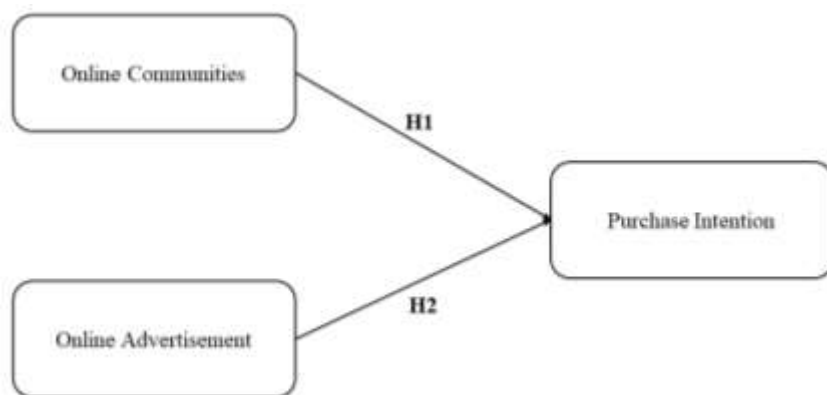Based on these findings, a research model is developed for this study

Figure 3: Conceptual Model

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Hypothesis:

H1: Online Communities has a positive impact on online purchase intention.

H2: Online Advertisement has a positive impact on online purchase intention.

4. Methodology

This study is categorized into a quantitative study, with the survey method used to gather the data. The data was collected from the people of Bandung, Indonesia with ages 20 – 49 years old, who at least joined an online sports or health community. Data were collected by conducting a Web-based survey from the fourth week of March 2020 for seven weeks. The population in this study is unknown, thus using the Cochran Formula Approach as the sampling technique used to determine the required sample for this study, which is at least 385 respondents. The first section of the questionnaire involved a screening question to ensure that respondents had joined at least an online sports or health community, with the age of 20 – 49 years old. Then, the qualified respondents are given the questionnaire and their responses were recorded. Demographic details such as their age, gender, job, and income were also recorded. The questionnaire was using the 6- point Likert scale to prevent neutral answers, with 1= strongly disagree, 2= disagree, 3= slightly disagree, 4= slightly agree, 5= Agree, and 6= strongly agree. This study used SPSS for conducting the tests for the analysis of Descriptive Analysis and Multilinear Regression Analysis.

5. Data Analysis

5.1 Respondent Analysis

Based on the 400 respondents gathered, 59% were male while 41% were female. The respondents are mainly between 20 and 29 years old, with the majority's occupation being college students with 53%, followed by private or state employee with 32%. The respondents' income per month varies with mostly under IDR 5,000,000 with 59%, followed by IDR 5,000,000 – IDR 10,000,000 by 32%. From the responses, it was shown that 67% of respondents using Instagram only as their social networking media, followed by Instagram and Facebook users with 13%, then Instagram and Twitter with 11%, last with 9% there is Instagram, Twitter, and Facebook. Thus, 100% of respondents are using Instagram as their main social networking media, which means, Instagram is the most used social networking media used by the respondents.

The majority of respondents spent a lot of time on their social media and belongs to at least one online community. Findings show that 54% of respondents are using their social media more than 3 hours per day, while 38% spend between 1 to 3 hours a day, with the rest of it just spend less than 1 hour. Meanwhile, 66% of the respondents are following 1 to 2 communities on Instagram, while 24% are a part of 3 to 4 sport or health community on Instagram, followed by 6% are following 5 to 6 communities, and 3% are participating in 7 to 8 communities. The lowest 1% is being a part of 9 to 10 sport or health communities on Instagram.

Respondents were also asked to mention their sport or health communities that they followed on Instagram. The main results are led by @indorunnersbdg community with 54 respondents, followed by @triathlonbuddies with 29 respondents, @infia_health with 22 respondents, @badmintalk_com with 18 respondents, @bastardbdg with 17 respondents, and @basketballhighlights_id with 16 respondents.

The responses also show that 47% of the respondents engage in their sport or health communities on Instagram once a day, then 29% engages once in 2 to 4 days, followed by 13% who engage more than once a day, and last, the respondents engage once in between 5 to 7 days with 6% and once in more than a week with 5%.

The main engagements of the respondents can be seen from the responses. Almost half of the respondents only gives likes on their sport or health community on Instagram with 40.75%. While 17.75% give like and save the contents posted in their community, followed by 13.25% that like, share a post, and save the contents, then 10.75% only like and share the posts that their community shared.

The finding shows the average of respondents enjoy participating in an online community with score 4.567 out of 6, trust the system of an online community which would act for their best interest and committed with score 4.514 out of 6, and with an average score of 4.138 out of 6 is the interpersonal trust in the online community in which the average of their trusting the users in the same community with them. While for the online advertisement, the finding shows that the average of respondents is finding online advertisement informative to explain the benefit of the product with the score 4.693 out of 6 which quite high. The respondents also find online advertisement could satisfy their needs of enjoyment and amusement with a score of 4.564 out of 6. The lowest score for online advertisement is the respondents find the online advertisement truthful which did not create misled and not exaggerating with score 4.186 out of 6.

5.1 Multilinear Regression Analysis

The Multilinear Regression (MLR) Analysis is a statistical technique that uses two or more independent variables in predicting the outcome and relationship with a dependent variable. In this research, there are two independent variables which are Online Communities and Online Advertising, whilst the dependent variable is the effect which is the consumer behavior in purchase intention. The data gathered have fulfilled the normality test that consists of the normality test, linearity test, homoscedasticity test, and the autocorrelation test (see for details, Ghozali, 2011)

The model with its factors was analyzed through conducting the R Square test, F-Test, then followed by T-Test, and finally R Pearson Test as the part of the MLR. The result shows that the model was statistically significant (R^2 = 0.747), with the independent variables that could simultaneously affect the purchase intention as the dependent variable as tested on the F-Test and T-Test results that can be seen on *Table 2* and *Table 4*

Table 1: ANOVA Table of F-Test

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	130.629	2	65.315	586.450	.000[a]
	Residual	44.215	397	.111		
	Total	174.844	399			

a. Predictors: (Constant), Online Advertisement, Online Community
b. Dependent Variable: Purchase Intention

Table 2: Result of F-Test

	Purchase Intention		
	Sig.	Rule of Thumb	Simultaneously Affect
Online Community	0.000	<0.05	Yes
Online Advertisement			

Table 3: Coefficient Table of T-Test

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.364	.123		2.972	.003
	Online Community	.177	.035	.173	5.082	.000
	Online Advertisement	.706	.032	.739	21.783	.000

a. Dependent Variable: Purchase Intention

Table 4: Result of T-Test

	Purchase Intention		
	Sig.	Rule of Thumb	Hypothesis
Online Community (H1)	0.000	<0.05	Accepted
Online Advertisement (H2)	0.000	<0.05	Accepted

The test result also shows that each of the independent variables, which include online community and online advertisements an itdoes have a positive correlation. The correlation shows that online community has a strong correlation while online advertisement has a very strong correlation towards the purchase intention, as can be seen in *Table 5*.

Table 5: Result of R Pearson Test of Online Community and Online Advertisement Towards Purchase Intention

	Purchase Intention				
	P-Value	Rule of Thumb	Correlated	R Pearson Score	Correlation
Online Community	0.000	<0.05	Yes	0.667	Strong Correlation
Online Advertisement	0.000	<0.05	Yes	0.855	Very Strong Correlation

A further in-depth test was done to see how each factor of the result of the independent variable is ranked based on the significance. Based on the result in *Table 6* and *Table 7*, the rank of significance is shown, with interpersonal trust from online community and hedonic from online advertisement.

Table 6: Result of R Pearson Test of Online Community Towards Purchase Intention

Sub Variable	Indicator	Item	R Pearson Score	Rank of Significance
Perceived Enjoyment	Enjoyable	PE1	0.557	3
	Pleasure	PE2		
	Playful	PE3		
System Trust	Interest	ST1	0.581	2
	Truthful	ST2		
	Commitment	ST3		
	Sincere	ST4		
Interpersonal Trust	Hoard	IT1	0.593	1
	Fulfillment	IT2		
	Manners	IT3		
	Believable	IT4		

Table 7: Result of R Pearson Test of Online Community Towards Purchase Intention

Sub Variable	Indicator	Item	R Pearson Score	Rank of Significance
In formativeness	Favorable	INF1	0.756	2
	Sufficient	INF2		
	Source	INF3		
	Timely	INF4		
Hedonic	Accessible	HED1	0.787	1
	Amusing	HED2		
	Enjoyable	HED3		
	Preference	HED4		
Credibility	Truthful	CRE1	0.746	3
	Reference	CRE2		
	Modest	CRE3		
	Guidance	CRE4		

A gap analysis is also done by using the weighted scoring method based on the R Pearson test results (see for details, Center for Chemical Process Safety, 2010). This is done to compare GEA Medical's current performance with the aspired performance from the respondents. Findings showed that there was a gap but is not high, as shown in *Table 9* below.

Table 8: Result of Weighted Scoring of Online Advertising

Item	Weighted Score	GEA'S Current Performance	Ideal Condition	GEA'S Performance Weighted Score	Ideal Condition Weighted Score
INF	0.330275	4.3475	4.693125	1.435872	1.550023
HED	0.343818	4.155	4.56375	1.428565	1.569101
CRE	0.325907	4.0575	4.185625	1.322366	1.364122

Table 9: Result of Gap Analysis of Online Advertising

Item	Gap (Current Performance – Ideal Condition)	Gap in Percentage	Rank of The Gap
INF	-0.11415	-7.3645%	2
HED	-0.14054	-8.95645%	1
CRE	-0.04176	-3.06107%	3

Conclusion

This study is determined to find how online community and online advertisement affect consumers' intention to purchase healthcare goods, in this case with GEA Medical. Based on the hypothesis stated in *Figure 3*, both hypotheses are accepted which means the independent variables have positive impacts on the dependent variable. Thus, findings show that online community and online advertisement have positively affected purchase intention. That means that online community and online advertisement factors have an impact on generating the urge of the consumers to have the intention to buy products.

Based on the findings, it is also found that online advertisement has a higher relation with purchase intention. This indicates that nowadays, consumers have shifted into attracted to online advertisement that could enhance their intention to purchase. This study is aligned with previous study done by Balakrishnan et al. (2014) that online community and online advertisement have positive impacts on purchase intention. However, on the previous study state that online community has bigger effect which is not aligned with this study. That happened because the previous study done by taking respondents in the same university which has high involvement in communities.

There are three attributes that are important to highlight and enhance by the company that tries to market their product in social media, especially Instagram, which is sorted by the rank of priorities which could be seen in *Table 7*. The rank of priorities consists of Hedonic, which means the message needs to be more descriptive and amusing so the advertisement could catch the attention of the consumers, followed by Informativeness which means that the online advertisement needs to generate the product recognition so the consumers would aware of how competing product differ. Last, the credibility attributes which means that the online advertisement needs to create a perception of consumers in which the brand is truthful and believable. Therefore, GEA Medical should focus to approach the online community that has high interpersonal trust and has a great system trust, while also needs to see which of the members that seem to enjoy by becoming a part of the community.

This study is limited to the people of Bandung that may have different characteristics compared to the people from other cities, thus the result may vary if done in other countries. For the future study, the other variable might need to be considered for the study.

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Appendixes

The appendixes should immediately follow the references.