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Social Media Engagement: A Comparative Study of E-Wallets in Indonesia

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A B S T R A C T

This study aims to determine: (1) to find out the comparison of the level of engagement between photos and Videos posts on e-wallet on Instagram accounts based on likes and comments, (2) to find out the average likes and comments on photo and video posts on Instagram accounts e-wallet, (3) Knowing which one is better than the three Instagram accounts. Population on this study using all post on the Instagram OVO, ShopeePay, and GoPay account. Total sample on this study is 1177 post foto and 169 post video, The sampling technique used nonprobability sampling. Analysis data using IBM SPSS Statistic version 21, this study uses Kruskal Wallis analysis techniques. The results of the study show that: there are differences in the level of engagement between photos and videos posts on OVO, ShopeePay, and GoPay Instagram accounts

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INTRODUCTION

Social media has become very powerful. this makes it easier to obtain information. The development of information technology that is present in today's society makes it easier to get information. Information choices are based on the preferences of each individual. Information is even faster as facts emerge. All parts of the world are now exposed to social media. Data published by datareportal shows that by April 2024, there will be five billion social media users.

Marketers must be able to utilize social media. They can use social media as an effective promotional medium. Engagement is an important variable of marketing on social media. Companies in marketing on social media certainly build good engagement with customers and it is important to have a deep and meaningful relationship and to be sustainable Rohadian and Amir (2019). Companies can build good engagement, then customers will have a good experience with a brand.

Various studies have shown the importance of customer engagement. Customer engagement can improve service, and build brand trust and brand loyalty. So, Sparks, King, dan Wang (2012). So, Sparks, King, and Wang (2014) reveal that customer engagement has emerged in marketing literature as a strong important concept. The emergence of social media platforms triggered a paradigm shift in online consumer behavior, changing the way consumers interact with each other with a brand (Dolan, Conduit, Bentham, Fahy, Goodman 2019).. Interactive properties of social media have transformed consumers who were once passive observers of content, into active participants who create large amounts of content through their online conversations, interactions, and behaviors (Malthouse et al. 2013; Dolan et al., 2019).

Research conducted by Sabate dan Mirabent (2014) on Facebook social media states that photo posts are very significant in increasing the brand seen from likes and comments, while video posts increase brand popularity when viewed only from likes. Sabate dan Mirabent (2014) said that post photo images are stronger than videos in achieving customer engagement. Another thing to consider before interacting with customers or followers on social media is the type of content to be posted, research conducted by Sabate and Mirabent (2014) on Facebook social media states that photo posts are very significant in increasing the brand seen from likes and comments, while video posts increase brand popularity when viewed only from likes, Sabate and Mirabent. (2014) said that post photo images are stronger than videos in achieving customer engagement.

Various social media phenomena, as well as research that has been done, this research will look further into social media engagement in e wallets. This research will look at three e-wallets Gopay, Shoopeepay, and Ovo. All three are e-wallets that are often used in Indonesia. Kuganathan & Wikramanayake (2014) e-wallet is a transaction service operated under financial regulation and carried out through smartphone or mobile device applications, the presence of e-wallets in Indonesia makes it easier for people to use e-wallets.

LITERATURE REVIEW

Kotler and Keller (2016: 582) define social media marketing as an engaging activity and program designed to directly and indirectly connect with customers or prospects, leading to increased awareness, improved brand image, and higher sales of products and services. According to Parsons, Zeisser, and Waitman (Coviello, Milley, and Marcolin (2001: 25)), digital marketing allows companies to effectively communicate with consumers and exchange information, and the integration of social media marketing is instrumental in bridging the gap between companies and consumers. Heidris and Struggles (2009) propose that digital marketing encompasses the use of online platforms such as the web, smartphones, and social media to promote products and capture the interest of potential consumers.sales of products and services. According to Parsons, Zeisser, & Waitman (in (Coviello, Milley, and Marcolin (2001: 25)) say that digital marketing allows companies to communicate with consumers and exchange information, the presence of social media marketing is useful for connecting companies and consumers. Heidris and Struggles (2009) suggest that digital marketing is the development of companies that do online marketing through the web, smartphones, and social media, with the aim of marketing or promoting a product to attract the attention of potential consumers.

Engagement according to (Wilbur Schramm, Roberts and Chicago London, 1954) can simply be interpreted as interactional communication, where the key to interactional communication is the response or feedback to a particular message or content. Jason Falls (2012) suggests that engagement is communicating well enough that the audience pays attention, which in Indonesian is engagement is good communication, where the audience pays attention. According to McGurk (2014) in Santoso (2017) engagement is an interaction between two or more people on brands on social media. Rohadian and Amir (2019) say that building engagement on social media is very important for companies to be sustainable, and build good communication with consumers.

Hoffman (2010: 44) states that engagement indicators on social media can be seen from various kinds, such as the number of followers, number of comments, number of likes, and number of application downloads. Laurence Dessart (2015) formulate 7 sub-dimensions of customer engagement including Enjoyment, Enthusiasm, Attention, Absorption, Sharing, Learning, Endorsing. Social media engagement aims to increase the value of a company or social media account, by having several to build engagement such as the number of followers, likes, and views, this can create consumer trust in the company. There is a mesurement social media egagement, thast call engagement rate (ER). Andre (2022) Engagement rate (ER) is a basic metric used in social media marketing to measure the performance of content on social media platforms, especially on Instagram and Facebook. Engagemment rate can be used to determine the needs of the audience based on the number of audience interactions with some content. On Instagram, the factors that affect engagement rate are likes and comments. In calculating the engagement rate, an Instagram account must change its account to a professional account, after which the Instagram account can see the interaction of the audience on its account. The measurement in this study uses

Andre more, because it looks at likes, comments and we add shares. This is compared to three e wallets in Indonesia. Thus developing the following hypothesis:
H1 = There is a difference in the level of engagement between photo posts on OVO, ShopeePay, and GoPay e-wallet accounts.
H2 = There is a difference in the level of engagement between video posts on OVO, ShopeePay, and GoPay e-wallet accounts.

METHODOLOGY

This type of research is ex post facto, according to Sekaran (2013: 7) ex post facto is a study conducted to examine an event that occurred and then look back to find out what factors caused the event (Madi, 2018; Kerlinger 1986). The subjects in this study are photo and video posts from the OVO (ovo_id), ShopeePay (shopeepay_id), and GoPay (gopayindonesia) Instagram accounts. The object of this research is to see the types of posts on Instagram including photo and video posts, and also the level of engagement seen from comments and likes. The population in this study is the total number of posts on the OVO, ShopeePay, and GoPay Instagram accounts. In this study, researchers collected posts from January 2022 to August 2022, totaling 1,346 posts. This study uses the Kruskal wallis approach to test the hypothesis that there is a difference.
The Kruskal walis formula is as follows:

$$H = \left[\frac{12}{n(n+1)} \sum_{j=1}^{k} \frac{R_j^2}{n_j} \right] - 3(n+1)$$

RESULT

This study examines the comparative analysis of the level of engagement between photo and video posts on Instagram OVO, ShopeePay, and GoPay e-wallet accounts. Likes and comments that can measure the level of engagement.

Table 1. *Post* photo and Video

E-Wallet	Instagram Account	Total Post		Percentage	
		photo	Video	photo	Video
OVO	ovo_id	488	86	41%	51%
ShopeePay	shopeepay_id	460	41	39%	24%
GoPay	gopayindonesia	229	42	19%	25%
Total		1177	169	100%	100%

We can see that the total number of photo posts is 1177 while the number of video posts is only 169 where the number of photo posts is more than the number of video posts, we can also see that the number of photo posts and video

posts of OVO Instagram accounts is more than ShopeePay and GoPay Instagram accounts.

Descriptive Statistics Post Photo

We calculated the minimum, maximum, mean and standard deviation of likes and comments on photo posts for each account studied.

Table 2. Descriptive Statistic Post Photo OVO

Post Photo OVO	N	Minimum	Maximum	Mean	Std. Deviation
Likes	488	155.00	4470.00	408.7172	320.34615
Comments	488	3.00	1700.00	103.3648	131.28267
Valid N	488				

The statistical description for OVO photo posts shows that from a sample size (N) of 488 the smallest number of likes is 155, and the largest number of likes is 4470, the smallest number of comments is 3, and the largest number of comments is 1700 while the average likes is 408.7172 with a standard deviation of 320.34615, and the average comments is 103.3648 with a standard deviation of 131.28267.

Table 3. Descriptive Statistics Post Photo ShopeePay

Post Photo ShopeePay	N	Minimum	Maximum	Mean	Std. Deviation
Likes	460	319.00	3208.00	628.5978	215.76785
Comments	460	13.00	704.00	61.3717	60.78161
Valid N	460				

Statistical description for ShopeePay photo posts, in table V.3 shows that of the total sample (N) 460 the smallest number of likes is 319, the largest number of likes is 3208, with an average value of 628.5978 with a standard deviation of 215.76785, while the smallest number of comments is 13, the largest number of comments is 704 with an average value of 61.3717 with a standard deviation of 60.7816.

Table 4. Descriptive Statistics Post Photo Gopay

Post Foto GoPay	N	Minimum	Maximum	Mean	Std. Deviation
Likes	229	124.00	47594.00	1012.5197	4039.73224
Comments	228	1.00	579.00	47.2588	67.72430
Valid N	228				

Descriptive statistics of GoPay photo posts, from the table shows the number of samples (N) 229, the smallest number of likes is 124, the largest number of likes is 47594, with an average of 1012.5197 with a standard deviation of 4039.73224, while the smallest number of comments is 1, the largest number of comments is 579, with an average of 47.2588 and a standard deviation of 67.72430.

Descriptive Statistics Post Video

We look at the descriptive statistics of video posts on the accounts studied to see the minimum, maximum, mean, and standard deviation values.

Table 5. Descriptive Statistics Post Video OVO

Post Video OVO	N	Minimum	Maximum	Mean	Std. Deviation
Likes	86	110.00	81601.00	1798.9070	8857.66.811
Comments	86	16.00	1861.00	111.0581	211.05975
Valid N	86				

Statistical description of OVO video posts, with a sample size (N) of 86 the smallest number of likes for OVO video posts is 110, and the largest number of likes is 81601, with an average value of 1798.9070 and a standard deviation of 8857.66811, the smallest number of comments is 16, the largest number of likes is 1861 with an average of 111.0581 and a standard deviation of 211.05975.

Table 6. Descriptive Statistics Post Video ShopeePay

Post Video ShopeePay	N	Minimum	Maximum	Mean	Std. Deviation
Likes	41	352.00	1537.00	656.5366	228.76944
Comments	41	19.00	163.00	52.7073	28.28979
Valid N	41				

Statistical description table of ShopeePay video posts with a sample size (N) of 41, the smallest number of likes is 352, the largest number of likes is 1537 with an average value of 656.5366 and a standard deviation of 228.76944, the smallest number of comments is 19, the largest number of comments is 163 with an average value of 52.7073 and a standard deviation of 28.28979.

Table 7. Descriptive Statistics Post Video GoPay

Post Video GoPay	N	Minimum	Maximum	Mean	Std. Deviation
Likes	42	106.00	9643.00	1629.2381	2223.50479
Comments	42	.00	312.00	52.1429	68.31047
Valid N	42				

Statistical description of GoPay video posts with a sample size (N) of 42 the smallest number of likes on video posts is 106, the largest number of likes on video posts is 9643 with an average value of 1629.2381 and a standard deviation of 2223.50479.

Kruskal Wallis Test

This study will use the Kruskal Wallis test to answer all the hypotheses that have been made, the Kruskal Wallis test in this study because it is based on data that is not normally distributed.

Table 8. Kruskal Wallis Test Post Photo

	Likes	Comments
Chi-Square	341.626	145.998
df	2	2
Asymp. Sig.	.000	.000

In the Kruskal Wallis test results for OVO, ShopeePay, and GoPay photo posts in table V.10 shows that the Sig value <0.05, which means that the decision taken is that there is a comparison of the level of engagement between photo posts on OVO, ShopeePay, and GoPay e-wallet accounts or Ha is accepted Ho is rejected.

Looking deeper, the Kruskal Wallis test only sees whether there is a difference or not, with the advanced test we can see the difference in each variable likes and comments whether the level of difference is significant or not.

Table 9. Comparation Post Foto Likes

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig	Adj.Sig.
GoPay-OVO	16.072	27.227	.590	.555	1.000
GoPay-ShopeePay	386.061	27.490	14.043	.000	.000
OVO-ShopeePay	-369.989	22.089	-16.750	.000	.000

The difference from the Kruskal Wallis further test where we can see the location of the difference between likes on the three Instagram accounts, we can see that GoPay-ShopeePay, OVO-ShopeePay have a Sig value <0.05 where there is a significant difference in engagement likes on post photos, while GoPay-OVO shows a Sig value. > 0.05 meaning that there is no difference in engagement

Table 10. Comparation Post Foto Comments

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig	Adj.Sig.
GoPay-ShopeePay	215.116	27.489	7.825	.000	.000
GoPay-OVO	328.763	27.226	12.075	.000	.000
ShopeePay-OVO	113.647	22.088	5.145	.000	.000

The table shows a pairwise comparison in the comments section of the photo post, from the figure above we can see that the difference in each account shows a Sig value <0.05 which indicates that there is a significant difference in the three accounts in the engagement comments on the photo post.

Kruskal Wallis Test Post Video

Table 11. Kruskal Wallis Test Post Video

	Likes	Comments
Chi-Square	6.214	16.808
Df	2	2
Asymp. Sig.	.045	.000

The results of the Kruskal Wallis post video test in table V.13 show that the Sig value. <0.05 in the likes and comments table, so this decision rejects Ha is accepted and Ho is rejected, which means that there is a difference in the level of engagement between video posts on OVO, ShopeePay, and GoPay Instagram accounts.

Table 12. Comparation Post Video *Likes*

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig	Adj.Sig.
OVO-GoPay	-2.539	9.211	-276	.783	1.000
OVO-ShopeePay	-22.586	9.286	-2.432	.015	.045
GoPay-ShopeePay	20.047	10.742	1.866	.062	.186

In the table above we can see that the difference in the level of engagement of post video likes on OVO-GoPay and GoPay-ShopeePay Instagram accounts shows no significant difference because the Sig value> 0.05, but at the level of engagement of post video likes on the OVO-ShopeePay Instagram account shows a Sig value <0.05 which means there is a difference in the level of engagement on video posts.

Table 13. Comparation Post Video Comments

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig	Adj.Sig.
GoPay-ShopeePay	22.473	10.741	2.092	.036	.109
GoPay-OVO	37.642	9.210	4.087	.000	.000
ShopeePay-OVO	15.169	9.285	1.643	.102	.307

In the table above we can see that the difference in the level of engagement of post video comments on GoPay-ShopeePay and ShopeePay-OVO Instagram accounts shows no difference because the Sig value> 0.05, while the difference in the level of engagement of post video comments on GoPay-OVO accounts is a significant difference because the Sig value < 0.05.

Furthermore, we can see which order is better on the three Instagram accounts based on the mean rank in the Kruskal Wallis test, in this test we can see which is the highest and lowest mean rank on each variable likes and comments on photo and video posts.

Table 14. Mean Rank Post Photo

	Instagram Account	N	Mean Rank
Likes	OVO	488	447.53
	ShopeePay	460	817.52
	GoPay	229	431.45
	Total	1177	
Comments	OVO	488	696.38
	ShopeePay	460	582.73
	GoPay	228	369.23
	Total	1176	

From the results of the mean rank post photo table, we can see that the mean rank of the ShopeePay Instagram account is higher than the GoPay and OVO Instagram accounts with a ShopeePay mean rank value of 817.52 in the likes variable category, while the mean rank in the smallest likes variable category is GoPay with a value of 431.45, then in the comments variable category the highest mean rank is on the OVO Instagram account with a value of 696.38 and the smallest mean rank is on the GoPay Instagram account with a value of 369.23.

Table 15. Mean Rank Post Video

	Instagram Account	N	Mean Rank
Likes	OVO	86	78,89
	ShopeePay	41	101,48
	GoPay	42	81,43
	Total	169	
Comments	OVO	86	98,03
	ShopeePay	41	82,87
	GoPay	42	60,39
	Total	169	

In the table is a table of mean rank post photos, from the table we can see that in the variable likes post video the highest mean rank is on the ShopeePay Instagram account with a value of 101.48 and the lowest mean rank is on the OVO Instagram account with a value of 78.89, in the variable comments the highest mean rank is on the OVO Instagram account with a value of 98.03 and the smallest mean rank is on the GoPay Instagram account with a value of 60.39.

DISCUSSION

From the results of the Kruskal Wallis test on photo posts on OVO, ShopeePay, and GoPay accounts, it shows that there are differences in the level of engagement. the results show that there are also differences in terms of likes, and comments. This shows that the three e-wallets have different strategies in addressing photo posts. Ovo has the most posts when compared to shopeepay and Gopay. Only, Shopeepay is higher when viewed in terms of likes compared to Gopay, and OVO. Incontrast, OVO comments are highest compared to shopeepay, and gopay.

Ovo's photo engagement is superior compared to the other two e-wallets. their posts are more effective in photos. Shopeepay, and Gopay have less effective. Their photo posts are more focused on increasing consumer engagement by looking at likes.

Similar to photo posts, video posts also have differences between the three e-wallets. Shopeepay is still the highest egagement, when viewed in terms of likes. on the other hand, in terms of comments OVO is still the highest compared to the other two e-wallets.

OVO and Shopeepay seem to have more effective engagement, while gopay is still not very effective when compared to these two. They do not provide a level of closeness with consumers on Instagram. this indication appears by looking at the likes and comments that are still inferior when compared to Shopeepay, and OVO. in contrast to Shopeepay, which sees a higher level of likes. while OVO emphasizes more on comments.

CONCLUSION AND RECOMMENDATION

Conclusion

Based on the results of data analysis with the Kruskal Wallis Test, the conclusions obtained on the results of data analysis are as follows:

1. In the post photo variable, the largest mean likes value is on the GoPay Instagram account, and the largest mean comments value is on the OVO Instagram account.
2. On the video post variable, the largest mean value of likes and comments is on the OVO Instagram account
3. The Kruskal Wallis test results prove that there is a comparison of the level of engagement on photo and video posts on OVO, ShopeePay, and GoPay Instagram accounts based on likes and comments.
4. From the results of the Kruskal Wallis further test, it shows a comparison on each sample of OVO, ShopeePay, and GoPay Instagram accounts. In the variable post photo likes shows that GoPay-ShopeePay has a significant comparison, while GoPay-OVO has no comparison, and in the variable post photo comments shows that there is a significant comparison in all three accounts.
5. The Kruskall Wallis test results on the post video likes variable show that the OVO-GoPay and GoPay-ShopeePay Instagram accounts have no difference, and the OVO-ShopeePay Instagram account has a significant comparison, in the post video comments variable the results show that

GoPay-ShopeePay and ShopeePay OVO have no significant comparison, but the GoPay-OVO Instagram account has a difference.

6. The results of the Kruskal Wallis Test can also show differences based on mean rank, in the variable post photo likes show that likes with the highest mean rank value are on ShopeePay Instagram accounts, while in the variable category post photo comments the highest mean rank is on OVO Instagram accounts.
7. The results of the Kruskal Wallis Test further show the difference in mean rank on the post video likes variable, the results of the analysis show that the largest mean rank on the post video variable is on the ShopeePay Instagram account, while in the post video comments variable category the highest mean rank value is on OVO.

Recommendations

Based on the results of data analysis, the researcher provides the following suggestions:

1. To OVO, ShopeePay, and GoPay

For the Instagram accounts studied by the researcher, it is suggested that they create more interesting content to increase the level of engagement and foster a level of consumer confidence and offer more attractive promos, from the number of posts it can be said that OVO and ShopeePay are diligent in uploading posts compared to GoPay, the researcher's suggestion for GoPay is to be even more active in creating interesting content on its Instagram account so that promo and event information can be seen by many consumers, the attachment will also show the date of each post made by the three Instagram accounts, researchers also suggest that GoPay can make posts like other competitors. OVO and ShopePay so far, researchers have seen these two Instagram accounts consistently post, present promos, and events to increase engagement, researchers also suggest that GoPay must be more consistent so as not to be rivaled by other e-wallets.

2. For future researchers

For future researchers, it is hoped that the title of this research will become a bridge for further researchers to develop this research to make it more interesting and better, such as adding other hypotheses, examining other Instagram accounts, examining the level of engagement on other social media such as Tiktok, Youtube, Twitter, and other social media with different methods. And also researchers hope that there will be developments in further research such as:

a. Researching other social media such as Tiktok, Tweeter, and Facebook
b. Examining the comparison of engagement of social media accounts that have not been studied such as Shopee, Tokopedia, Dana, LinkAja, and others.
c. Adding other variables found on Instagram to make further research more interesting such as Reels, Carraousel, Instagram Story.
d. If possible, future researchers can ask permission from the account owner managed by the account admin to see indicators and variables that go deeper such as impression, post insight, interaction, profile visit, reach.

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