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Research Article

Customers' Social Interaction and Social Connectedness Process on Social Media Marketing in Hospital: A Cross-Sectional Study

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Abstract

Hospitals use social media marketing on Facebook, Instagram, and YouTube to build customer awareness and engagement. The hospital's social media engagement strategy needs to be evaluated to inform future marketing efforts. This study aims to analyze the process of social interaction and customer social connectedness in social media marketing. This study is an observational analytic that analyzes the level of effectiveness of the use of social media YouTube, Instagram, and Facebook on the standard process of social interaction and social connectedness quantitatively at Muhammadiyah Probolinggo Maternal and Children's Hospital 2024. The results of this analysis show a relationship between the number of content and the number of like responses and positive comments on Instagram media, as well as the relationship between the number of content and like responses on YouTube. The types of content that generate the most social interaction are Instagram educational content, entertainment content on YouTube and Instagram entertainment content. In the social connectedness process, there was no significant correlation between social media engagement initiatives and social connectedness, which could be due to the internal friendship-suggestion algorithm used by the social media platform. Instagram is the most effective platform for establishing social connectedness and customer interaction. YouTube has the potential as a visual education channel, but a strategy is needed to encourage user engagement. Facebook needs to evaluate new content or approaches to stay relevant to its community of followers.

Keywords: social media engagement initiative, social interaction, social connectedness

INTRODUCTION

The dissemination of health-related information has been completely transformed by the emergence of contemporary technologies like the internet and mobile phones. Effective communication with a variety of audiences is made possible by their accessibility ¹. Our everyday lives now revolve around technological innovation, which has helped to revolutionize the healthcare industry's operations and business. In addition to experiencing a new era of healthcare with a patient-centric culture, patients will now have more options and be better educated. Healthcare, both individual and institutional, is becoming defined by digital transformation ².

Information on social media is real time and has a significant impact on society. Therefore, social media is considered more efficient, cheaper, and on target ³. Electronic communication plays a crucial role in influencing consumer attitudes and intentions. The development of standard communication technology has resulted in a lot of *platform* Social and Electronic ⁴. This social media marketing aims to create and deliver timely and valuable content based on customer needs, rather than promoting products ⁵.

Better business performance is linked to customer involvement. As a result, businesses make "conscious efforts to motivate, empower, and measure customer contributions to the marketing function" in an attempt to increase customer involvement ⁶. Social media marketing activities and *Customer Experience* can collectively engage in marketing on social networking sites. These two constructions are interrelated because rationally all of the company's marketing activities on social media and/or the customer's perceived experience will influence the customer's response and engage in their analysis process before the purchase stage. Together, these two items can build customer relationships that contribute to the achievement of the company's marketing goals ⁷.

Interactivity has been identified as an integrated part of online communication and can build strong relationships with stakeholders ⁴. Such connectedness is empowered by various social networking sites such as Facebook, Twitter, YouTube, and Instagram, which allow social networks to be built out of shared interests and values. On the other hand, customers are increasingly empowered by social media and control the marketing communication process, and they become creators, collaborators, and commentators message. Theory *Customer Engagement* emphasizing the role of input from

the company, namely *Social Media Engagement Initiatives* (social media engagement initiatives) and customers namely *Social Media Behaviors* (social media behavior), as well as the importance of interactivity and connectedness (*Social Interaction & Social Connectedness*) that are different in producing good marketing results⁸.

This study aims to analyze the process of social interaction and customer social connectedness in social media marketing in a hospital.

METHODOLOGY

Types of research

This paper is an observational analytical paper that analyzes the use of social media, Youtube, Instagram, and Facebook in the standard process of *social interaction* and *social connectedness* quantitatively

Population and sample

The sample in this study uses the number of social media accesses within 1 month at a single center- Muhammadiyah Probolinggo Maternal and Children's Hospital 2024

Data retrieval

The parameters observed at the level of *social connectedness* will use an indicator of an increase in the number of social media followers. Meanwhile, the *social interaction process* will use an indicator of the number of reactions like and comment. Comments are divided into positive and negative comments which are classified by 3 people with marketing qualifications. Engagement initiatives by hospitals use the type and amount of content posted on social media. Content types are divided into 4 categories, namely education, information, promotion, and entertainment.

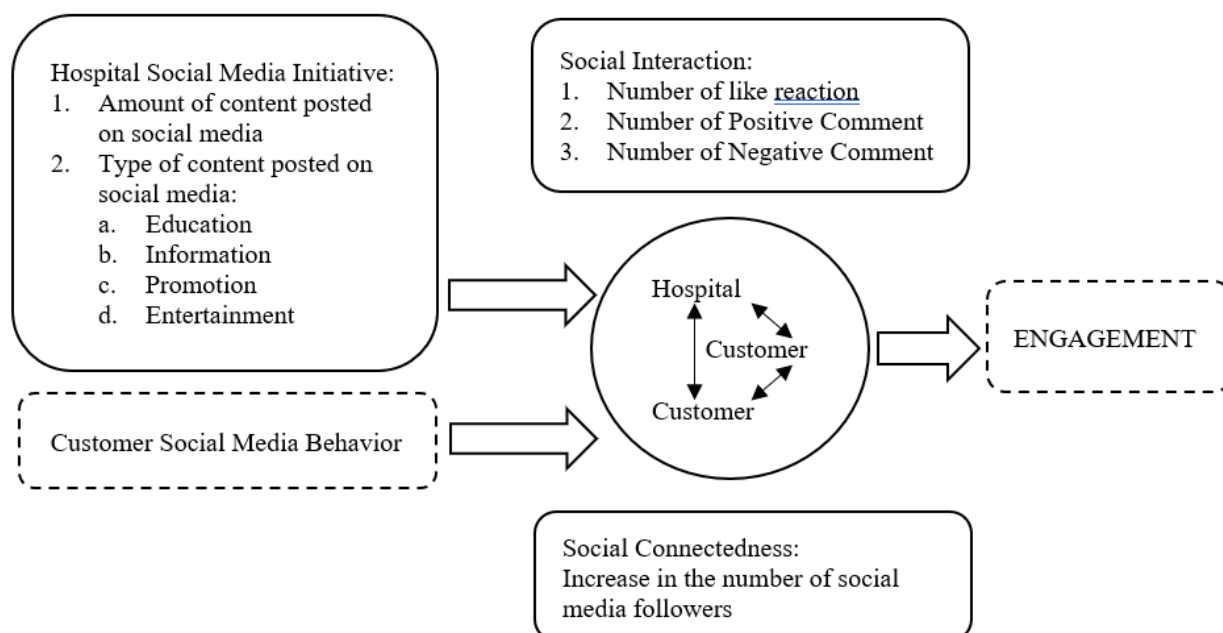


Figure 1: Research Framework

Data analysis

The data were analyzed by Pearson correlation. The data is said to have a significant relationship if $p < 0.05$ with a 95% confidence interval. The data was analyzed with SPSS application.

RESULTS

Explain the results of the research in the form of problem-solving analyzed using relevant theories. The

results of the study also revealed the findings of the research. Discussion is accompanied by logical arguments by linking the results of research with theory, the results of other studies.

The description of the data from the results of observations on the social media activities in the hospital from January to December 2024, we display in the form of the following table:

Table 1: Distribution of the Number of Social Media Content Marketing

Social Media	month												total
	1	2	3	4	5	6	7	8	9	10	11	12	
Youtube	0	0	0	0	0	2	0	0	0	2	1	1	6
Posted on Instagram	2	3	6	8	4	11	5	1	1	8	6	3	58
Posted on Facebook	0	0	0	0	0	0	0	0	0	0	0	0	0

From the table 1, it is known that the most active social media in posting content is Instagram, which is done 2-11 times every month and a total of 58 times for 1 year.

Then Youtube 0-2 times per month and a total of 6 times in 1 year. Meanwhile, Facebook had no posts during January – December 2024.

Table 2: Distribution of Social Media Content Types

Social Media	Education	Information	Promotion	Entertainment	TOTAL
YouTube	2	1	2	1	6
Posted on Instagram	8	35	7	8	58
Posted on Facebook	0	0	0	0	0

The most number of posts was in the form of informational content on Instagram media as many as 35 contents, then educational content 8, Entertainment 8 and Promotion 7. On Facebook media there were no

posts during January – December 2024, while on Youtube media only posted 2 educational content, 2 promotions, 1 information and 1 entertainment.

Table 3: Comparison of the Number of Social Media Content

Social Media		month												total
		1	2	3	4	5	6	7	8	9	10	11	12	
Youtube	Post/content	0	0	0	0	0	2	0	0	0	2	1	1	6
	Like	0	0	0	0	0	77	0	0	0	18	3	50	148
	Positive Comments	0	0	0	0	0	0	0	0	0	0	0	3	3
	Negative Comments	0	0	0	0	0	0	0	0	0	0	0	0	0
Posted on Instagram	Post/content	2	3	6	8	4	11	5	1	1	8	6	3	58
	Like	6	44	122	180	122	774	106	107	17	267	53	356	2154
	Positive Comments	0	4	0	4	2	76	2	2	0	14	1	37	142
	Negative Comments	0	0	0	0	0	0	0	0	0	0	0	0	0
Posted on Facebook	Post/content	0	0	0	0	0	0	0	0	0	0	0	0	0
	Like	0	0	0	0	0	0	0	0	0	0	0	0	0
	Positive Comments	0	0	0	0	0	0	0	0	0	0	0	0	0
	Negative Comments	0	0	0	0	0	0	0	0	0	0	0	0	0

From Table 3, we can see that there is always a correlation between the number of content (posts) and the number of likes on social media Youtube and Instagram. For example, in June on YouTube media there were 2 posts and 77 likes, while in July – September there were no posts and no likes either. Then in October there were 2 posts on YouTube followed by 18 likes. The interaction of comments shows that the existence of

posts is not always followed by a comparable number of comments, both on social media Youtube and Instagram. There was no interaction of negative comments during the January-November 2024 period. On Facebook social media where there are no posts or engagement initiatives, we can see that there is no social interaction from customers.

Table 4: Comparison of the Number of Social Media Content

Social Media		month												total
		1	2	3	4	5	6	7	8	9	10	11	12	
Youtube	Post/content	0	0	0	0	0	2	0	0	0	2	1	1	r = -0.191 Sig = 0.552
	Follower	0	2	0	0	0	0	49	1	0	0	0	5	
Posted on Instagram	Post/content	2	3	6	8	4	11	5	1	1	8	6	3	r = 0.109 Sig = 0.736
	Follower	50	30	50	100	100	50	50	50	100	100	100	91	
Posted on Facebook	Post/content	0	0	0	0	0	0	0	0	0	0	0	0	NA
	Follower	20	30	50	9	41	20	30	25	25	25	25	34	

From table 4, it shows that there is an increase in the number of *followers* every month on Instagram social media which is not correlated with the amount of content. Likewise on Youtube media there was an increase in the number of followers in February, July and August, but it did not correlate with the amount of

content. Meanwhile, on Facebook social media, there is an increase in the number of followers every month even though there are no engagement initiatives and social interaction activities. This condition may be caused by the existence of an internal friend suggestion algorithm carried out by the Facebook platform.

Table 5: Comparison of Social Media Content Types

Social Media	Content Type	Number of Posts	Like		Positive comments		Negative comments	
			Sum	Average	Sum	Average	Sum	Average
YouTube	Education	2	14	7	0	0	0	0
	Information	1	50	50	3	3	0	0
	Promotion	2	7	4	0	0	0	0
	Entertainment	1	77	77	0	0	0	0
Posted on Instagram	Education	8	636	80	110	14	0	0
	Information	35	793	23	2	0	0	0
	Promotion	7	290	41	14	2	0	0
	Entertainment	8	435	54	16	2	0	0
Posted on Facebook	Education	0	0	0	0	0	0	0
	Information	0	0	0	0	0	0	0
	Promotion	0	0	0	0	0	0	0
	Entertainment	0	0	0	0	0	0	0

From table 5, we see that on Youtube social media, the average interaction of likes is given the most to entertainment post content as much as 77, followed by information 50, education 7 and promotion 4. There was no interaction of positive and negative comments. On Instagram social media, the average interaction with the most likes on educational post content was 80, followed by entertainment content 54, promotion 41, and information 23. The average positive comment reaction to Instagram media posts was the most in educational content 14, followed by promotional content 2 and entertainment 2. There was no interaction of negative comments on Instagram social media. On Facebook social

media, there are no engagement initiatives and social interactions.

In the digital era, social media is the main means of interaction between health service institutions and the community. This study analyzes how the process of social interaction and social connectivity of customers (followers, patients, or the general public) is formed through the YouTube, Instagram, and Facebook platforms of Muhammadiyah Probolinggo Maternal and Children's Hospital 2024. The relationship is shown in the following table:

Table 6: The Relationship of the Number of Social Media Posts

Correlations		YouTube			Posted on Instagram			Posted on Facebook		
		Like	Positive comments	Negative comments	Like	Positive comments	Negative comments	Like	Positive comments	Negative comments
Number of Posts	Pearson Correlation (r)	0,767**	0,197	.a	0,699*	0,570	.a	.a	.a	.a
	Sig. (2-tailed)	0,004	0,539		0,011	0,053				
	N	12	12	12	12	12	12	12	12	12

** = Correlation is significant at the 0.01 level (2-tailed).

* = Correlation is significant at the 0.05 level (2-tailed).

a = Cannot be computed because at least one of the variables is constant.

From table 6 above, it is known that the relationship between the number of posts and likes on Youtube media has $r = 0.767$ and $\text{Sig} = 0.004$ (significant at the level of 0.01), which means that there is a very statistically significant correlation between the number of posts and the number of likes. These findings support previous research by Kite et al (2016) and Muntinga et al. (2011). There was no significant relationship between the number of posts to positive comments with values of $r = 0.197$ and $\text{Sig} = 0.534$. Meanwhile, the relationship between the number of posts and negative comments cannot be calculated (labeled "a") because one of the variables is constant (not varied), for example all values are zero or the same.

In Instagram media, there was a strong and significant positive correlation between the number of posts to the response to likes with $r = 0.699$ and $\text{Sig} = 0.011$. The more posts, the more likes you receive. In the relationship between the number of posts and positive comments, the value of $r = 0.570$, $\text{Sig} = 0.053$, which shows that there is a strong and significant positive correlation, so that the number of posts is directly proportional to the positive comments. While the correlation between the number of posts against negative comments cannot be calculated ("a"), it is likely due to a constant variable.

On Facebook, there is no correlation that can be analyzed between the number of posts, likes, and comments. This can be due to the lack of activity in the *engagement initiative*, the lack of user activity or the lack of data variety (engagement is very low or even non-existent). This is because one of the variables (the possible number of comments/likes) is constant (i.e., all zeros).

DISCUSSION

The analysis showed a strong correlation among the number of posts, the number of likes, and positive comments, indicating high connectivity and engagement. This indicates that the hospital audience tends to be more active in responding to entertainment and educational content on Instagram. This is in line with research Muntinga et al. (2011), who mentioned social media interaction *fire*-Consumers are motivated primarily by entertainment and informative content. Instagram can be used as the focus of content strategy, because an increase in the number of posts is associated with increased engagement (likes and positive comments) ⁹. Social interaction on YouTube was limited, showing only a strong correlation between the number of posts and the number of likes, but no significant correlation with positive comments. This indicates that even though video content is getting attention, two-way communication through comments is not optimal. This can be an opportunity to reinforce the call to interaction in the video description or at the closing of the content.

Social content strategy refers to "the creation and distribution of educational and/or engaging content in a variety of formats to attract and/or retain customers. As such, this social media marketing aims to create and deliver timely and valuable content based on customer needs, rather than promoting products" ⁵. Entertainment is a type of activity that causes the audience to maintain concentration and interest. The goal is to make the

audience feel happy and interested or to relieve the pressure by offering a temporary escape from reality and letting them forget about their worries. The users of the social network are looking for fun, relaxation and spending time every time they use the site. Entertainment on social media is an important component that induces positive emotions, improves participatory behavior, and generates the intention to keep using. Many studies have shown that attractive icons, colors, images, themes and animations are some of the components of a graphic presentation that enhance entertainment and provide satisfaction ⁴,

A company's social media engagement initiative is an initiative to motivate and engage customers so that they can make a voluntary contribution in return. Companies use social media to improve *Brand Awareness*, generate online traffic, and stimulate sales for the purpose of monitoring and analyzing customer activity. A customer's social media usage motivation refers to the various incentives that encourage people to choose and use certain social media. Social media interactions *fire*-Consumers who are motivated primarily by entertainment, information, remuneration, personal identity, social interaction, and empowerment ⁹.

The use of social media by customers results in different behavioral manifestations, ranging from passive (e.g. observing) to active (e.g. co-creation). This customer's social media behavior can be either positive (like, share) or negative (creating negative content), depending on the customer's attitude and the information process. Social media allows companies to gain some valuable information about what potential customers are interested in and how they behave in a social environment. For example, we can view comments to see what people think about our business directly or see comments directed at companies. Companies can divide content into lists by topic and see what types of content customers are most interested in, and then generate more of those types of content ¹⁰. Social interaction in the context of social media is quite complex, as it represents a multi-directional and interconnected flow of information, rather than a purely monologue from a company ⁸.

Previous studies support the influence of social media marketing on *Customer Engagement*. Research Kite et al (2016), suggests that video posts attract the largest amount of user engagement, although analysis of sub datasets suggests that this may be a reflection of Facebook's algorithm, which regulates what is and isn't shown in users' news feeds and appears to select videos over other types of posts. Posts that display positive emotional appeal or provide factual information attract higher levels of user engagement, while conventional marketing elements, such as sponsorship and the use of authorized persons, generally do not support user engagement, with the exception of posts that include celebrities or sportspeople (See *et al.*, 2016). Research by Yusa et al (2020), shows that there is a relationship between social media marketing and *Consumer Response & Brand Awareness*. Untari & Fajariana (2018), in their study on the use of Instagram social media as a batik marketing strategy, found an increase in batik sales from

70 fabrics per month to 200-500 fabrics per month³. While research Paramitha et al (2021)) indicates that *Brand Experience* increase consumer motivation to participate, socialize, and feel the benefits of others involved in *Brand Page*, regardless of the individual's tendency to socialize *Online*¹².

This paper has not taken into account the heterogeneity of social media behavior from proactive and passive customers, our suggestion for future writing of this variable could be the theme of the writing. To avoid constant variables and to make the analysis more meaningful, more or more varied data is needed to increase the strength of the analysis.

CONCLUSION

There is a strong and significant correlation between *engagement* initiatives and like-type social interactions on Instagram and YouTube media. In addition, there is also a strong and significant correlation between *engagement initiatives* and like-type social interactions on Instagram media. The type of content that generates the most social interaction is Instagram educational content, followed by entertainment content on Youtube and Instagram entertainment content. Meanwhile, in the interpretation of the social connection process, there was no significant correlation between social media engagement initiatives and the growth in the number of followers. Instagram here is the most effective platform for establishing social connections and customer interaction. YouTube has the potential to be a visual education channel, but it needs a strategy to encourage user engagement. Facebook needs to evaluate new content or approaches to stay relevant to its community of followers.

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