

MEASURING SMM EFFECTIVENESS AND COMPARING CUSTOMER ENGAGEMENT ON FACEBOOK AND INSTAGRAM: THE CASE STUDY OF NGOPI UK IN BIRMINGHAM

Maghfira Ramadhanty* and Prawira Fajarindra Belgiawan

School of Business and Management, Institut Teknologi Bandung, Indonesia

*Email: maghfira.ramadhanty@sbm-itb.ac.id

Abstract. *Social media has become a very important part of our daily life and ever since internet gets more and more easily accessible, it indirectly also expands the benefits of social media, which includes the offering of new marketing tools for businesses. As a newly established business, Ngopi UK, which is the first Indonesian coffee shop to be built in the United Kingdom, aims to implement a marketing strategy that can make them gain a large amount of profit with as minimal effort as possible. They determine to know the performances of their current social media marketing (SMM) platforms, which are Facebook and Instagram, whether or not they have been effective in raising sales and which one of them is more effective in engaging customers. We collect two types of data directly from Ngopi UK, consisting of sales reports and social media metrics. The result shows that Ngopi UK's social media marketing has significantly impacted their sales. Furthermore, Instagram is proven to be more engaging than Facebook. Based on this result, it is recommended for new coffee shops like Ngopi UK to utilize social media marketing as their marketing tool, especially Instagram as their main platform.*

Keywords: *Customer Engagement; Facebook; Instagram; Social Media Marketing*

INTRODUCTION

Nowadays, social media has been a significantly important part of our daily lives, that we become increasingly dependent on them. The development of technologies, specifically the internet, has not only offered platforms for online social interactions (Gruzd, Wellman, & Takhteyev, 2011) but also opportunities for businesses to sell and market their brands. Social media is considered to be very beneficial for businesses, due to its ability to increase brand recognition (de Vries, Gensler, & Leeflang, 2012), enhance word-of-mouth (WOM) communication (Chen, Fay, & Wang, 2011), and increase sales (Agnihotri, Kothandaraman, Kashyap, & Singh, 2012). In short, social media has changed the expectation towards communications, as well as transformed traditional marketing methods for marketers. Currently, two of the most popular social media are Facebook and Instagram. Both of them generate metrics and information that are useful for companies to attract and persuade more consumers (Mata, Polanco, & Tusev, 2017), while also develop the right marketing strategy for their market.

As an example, Starbucks, which is one of the most popular American coffee shops in the world, is among the companies in the coffee industry to use social media marketing (Schultz, 2013). Since Starbucks opened its first branch in Indonesia in 2012 (Starbucks, 2019), they have been actively reaching out to their customers on social media platforms, such as Facebook, Instagram, and Twitter (Jaya, 2013). The reason why Starbucks's social media marketing can be considered as a success is that nowadays, drinking coffee is seen as a social activity (Huff, 2014). Furthermore, he argued that coffee-drinking habits and experiences are widely posted and promoted through social media. Therefore, any marketing activity done by Starbucks can be recognized and receive responses immediately, since their customers already actively participate in the social media phenomenon over coffee. Although social media has been said to provide many opportunities for marketers to interact and engage with their customers, not all companies have been sure of which channel is the most suitable for them. This could be a crucial problem for recently-

established Indonesian coffee shops, such as Ngopi UK, which is a newly established Indonesian coffee shop, locally in Birmingham and nationally in the UK. They started to focus on utilizing social media marketing (SMM) in October 2018, despite having launched both of their platforms, which are Facebook and Instagram, way before that month. Therefore, they want to acknowledge whether or not their decision in implementing SMM platforms have already been effective in raising sales and which of these two platforms is more effective in engaging customers. Customer engagement can increase brand loyalty, in which it plays an important role in generating a repeated purchase, and thus, contributes to increasing sales volume eventually (Malik et al., 2013; So et al., 2014;).

This study is conducted using two kinds of data, which are Ngopi UK's sales report for the period of July to December 2018 and social media key metrics from Facebook and Instagram from November to December 2018. The sales report is divided into two groups, in which each of them equally consists of three months. The first group is before the SMM is implemented and the second one is after it has been utilized. On the other hand, to measure customer engagement, the key metrics are collected only during those two months because Ngopi UK has only started equally posting content on both platforms since the 1st of November 2018. Furthermore, the author is only given access to Ngopi UK's data for the year 2018, hence explaining why this study does not cover

the months in 2019. Although there have been previous studies about SMM and customer engagement, it is still limited to find the ones that connect them with a coffee shop case study, especially one that is located in the United Kingdom and from the company's point of view. This study intends to contribute to guiding new coffee shops like Ngopi UK, to find out the effectiveness of social media as a marketing tool and recognize which one is more customer engaging, between Facebook and Instagram.

LITERATURE REVIEW

According to Yasmin et al., (2015), digital marketing is a type of marketing that uses digital channels to promote products and/or services, advertising, search engine marketing, social media marketing, and mobile phones. It can be divided into two main categories, which are internet marketing (e.g. social media marketing) and non-internet marketing.

Chaffey and Smith (2017) argued that social media is a digital media that enhances users' sharing, participation, and interaction. It is available in numerous types of forms, such as application, video blogs, social blogs, and podcasts.

As social media is being used more widely than ever, firms and organizations begin to participate in the trend and use it as communication tools for advertisement and marketing activities, which is referred to as Social Media Marketing (SMM). Many marketers considered SMM as the root of the sales funnel (Spagnola, 2019). According to Lindsey-Mullikin and Borin (2017), social media marketing contributes to driving sales. In addition, Andzulis, Panagopoulos, and Rapp (2012) also argued that sales are one of the most significantly and positively impacted aspects by the presence of SMM.

In terms of customer engagement, Ángeles Oviedo-García et al., (2014) argued that customer engagement integrates connection established between buyers and sellers and any possible relationship between potential and existing clients; non-clients; sellers; and society in general. Furthermore, they conducted a study to present an extensive metric for customer engagement in a social networking site, specifically Facebook, using a conceptual approach. They formulated three equations to measure customer engagement, which is as below:

1. The ratio of interest,
2. The ratio of effective interest, and
3. Engagement on Social Media.

Meanwhile, Baird (2018) argued that follower growth rate is essential to identify the performance of social media, in terms of how engaging their contents are to attract new followers. In this research, we will conduct the study using the formulas proposed by Ángeles Oviedo-García, et al. (2014) and followers growth rate formula proposed by Baird (2018).

METHODOLOGY

The type of data used for the research is primary data, using a quantitative approach, and collected directly from Ngopi UK. Ngopi UK's sales report data is obtained from Eposnow, which is a cloud-based platform that reports sales, revenues, and other transactions. This data covers from July to December 2018. Meanwhile, Facebook Insight, Hypeauditor, and Iconosquare are used to report key metrics to measure customer engagement in the period of November to December 2018.

To measure the effectiveness of SMM, an independent t-test is conducted by using SPSS. The two groups that are being tested are July to September 2018 (Group 1) and October to December 2018 (Group 2), or in other words, the before and after SMM is being implemented. The result obtained from the independent t-test can show whether or not there is a significant difference in Ngopi UK's sales after using SMM.

As to measure the customer engagement effectiveness, the comparison between the results from key metrics generated by both channels is done. Furthermore, three formulas proposed by Ángeles Oviedo-García, et al., (2014) are used to calculate the customer engagement, which are:

1. **The Ratio of Interest** *Ratio of Interest*
$$\text{Ratio of interest} = \frac{\text{likes} + \text{comments} + \text{shares} + \text{other clicks}}{\text{number of posts}} \quad \text{Eq. 1}$$
2. **The Ratio of Effective Interest**
$$\text{Ratio of effective interest} = \frac{(\text{likes} + \text{comments} + \text{shares} + \text{other clicks})}{\text{number of posts}} \quad \text{Eq. 2}$$

$$\text{Ratio of effective interest} = \frac{\text{number of posts}}{\text{average impressions}}$$
3. **Engagement on Social Media**

$$\text{Engagement on Social Media} = \frac{\frac{(\text{likes} + \text{comments} + \text{shares} + \text{other clicks})}{\text{number of posts}}}{\frac{\text{average impressions}}{\text{average reach}}} \quad \text{Eq. 3}$$

In addition, another method to measure the follower growth rate by both platforms. proposed by Baird (2018) is also used. The formula is as below:

$$\text{Follower Growth Rate} = \frac{\text{Number of followers gained in a period of time}}{\text{Previous number of followers}} \times 100 \quad \text{Eq. 4}$$

FINDINGS AND ARGUMENT

1. Independent T-Test Result

According to Table 1, it can be seen that there is a difference between two means, in which the means for sales from October to November 2018 is higher by 39,80 points than July to September 2018. Furthermore, since the p-value or sig. value in Table 2 equals to 0,02, which is lower than the alpha (0,05), it indicates the data to have different variance. Moving on to the "equal variance not assumed" row, referring to the sig(2-tailed) result, it is shown that the value is lower than the alpha again. In addition to that, the t-value (-3,809) is lower than the score of t table (1,972). The results from sig(2-tailed) and t value have shown that there has been a significant difference after SMM is being implemented. Moreover, since there is also an increase in means, it also shows that the sale has risen after Ngopi UK utilizes SMM as their marketing strategy.

Table 1 Group Statistics

Sales	N	Mean	Standard Deviation	Standard Error Mean
July-September 2018	92	69,57	54,06	5,64
October-November 2018	92	109,37	85,40	8,80

Table 2 Independent Sample Test

Result	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	99% Confidence Interval for the Difference	
								Lower	Upper
Equal Variance Assumed	5,18	0,02	-3,80	182	.00	-39,80	10,45	-60,42	-10,19
Equal Variance not Assumed			-3,80	154,91	.00	-39,80	10,45	-60,44	-19,16

This result is aligned with previous studies conducted by Thach, Lease, and Barton (2016) and Zakayo (2018) that also proved the existence of a positive and significant relationship between sales and SMM strategies. What drives these results is perhaps the nature of social media that gives an opportunity for businesses to interact with their customers. By having this interaction, businesses are able to develop credibility in a community (Rodriguez, Peterson, & Krishnan, 2012) and engagement is triggered. Since Ngopi UK has been consistently interacting and engaging with customers, as the impact, it creates a bigger chance to increase sales.

2. Metrics Result

From the calculation on all formulas using data in Table 3, it can be seen in Table 4 that Instagram always outperforms Facebook. These findings indicate that even after being calculated by different methods, Instagram consistently shows better result in terms of customer engagement, if compared to Facebook.

Table 3 Metrics Results from Facebook and Instagram

Source: Facebook Insight, Hypeauditor, Iconsuqare

Metrics	Facebook	Instagram
Total Likes	475	9199
Total Comments	25	372
Total Reach	15.705	39.000

Total Impressions	38.914	179.500
Total Interactions	500	9.571
Total Posts	183	183
Followers by 31 st of October 2018	93	301
Followers from 1 st of November to 31 st of December 2018	193	626
Total Followers	286	927

Table 4 Result from Metrics Calculation for Customer Engagement

Formula	Facebook	Instagram
Ratio of Interest	2,73224	52,3005
Ratio of Effective Interest	0,01285	0,05332
Engagement on Social Media	0,00015	0,00025
Follower Growth Rate	207,52	207,97

This result matches with previous studies conducted by Phua, et al. (2017) that proved Instagram outperformed Facebook in bridging social capital, which relates to weak and separated relationships between people that still give opportunities for exchanging information to take place (RD, 2000). This might occur because Instagram is considered to be a less private platform when compared to Facebook. Which means, interactions between fellow customers or customers with Ngopi UK might take place more conveniently through Instagram, especially when they do not know each other personally.

Other than that, Shen and Bissell (2013) argued that reciprocal interaction in social media may offer brands a better control for engagement, which leads to market developments. This implication is supported by the fact that Ngopi UK has more likes and comments from their Instagram. In addition to that, every comment and feedback left by customers are always replied by Ngopi UK. This means that Ngopi UK has tried to strengthen their communication with customers in the effort to engage with their community (Ireson, 2010).

Aside from that, Ngopi UK also has a more eye-catching and attractive layout on Instagram rather than Facebook. Leung, Bai, and Stahura (2013) argued that social media has to look interesting, attractive, and customer-centric to offer a maximum experience for its users. This statement goes in accordance with Ngopi UK's Instagram layout that features posts arranged in a particular way to look aesthetically pleasing. Meanwhile, Facebook page features different kinds of posts. Therefore, it is more difficult for marketers to design them as creatively as they do on Instagram.

CONCLUSIONS

From this study, it can be concluded that Social Media Marketing (SMM) has given a significant impact on sales in the case of Ngopi UK. Furthermore, ever since the implementation of SMM in Ngopi UK's marketing strategies, Ngopi UK has experienced an increase in sales. Aside from that, referring to the calculation of customer engagement formulas, it is proven that Instagram is a more engaging platform when compared to Facebook.

Based on the analysis conducted previously, the author would like to propose some recommendations for newly-established coffee shops. First, if coffee shops would like to consider using Ads on their social media, they can be more focused on allocating their budget on Instagram if they are under financial limitation. Next, it will be better if Facebook is still used as an additional marketing channel, instead of shutting down the business account. Coffee shops just need to improve their way of interacting with customers on Facebook.

Since this study specifically has only Ngopi UK's data as their case study, future research should investigate whether or not the same result is applied to other coffee shops, both in the UK and Indonesia. Furthermore, since this study analyzes results from data that only covers two months, future research might want to consider doing research with a longer period. Other than that, future researches can also add other methods that are more customer-centric, instead of from the company's point of view like this research, in order to receive a more comprehensive result.

REFERENCES

- Agnihotri, R., Kothandaraman, P., Kashyap, R., & Singh, R. (2012). Bringing 'social' into sales: the impact of salespeople's social media use on service behaviors and value creation. *Journal of Personal Selling & Sales Management*, 32(3), 333-348.
- Andzulis, J. ", Panagopoulos, N. G., & Rapp, A. (2012). A Review of Social Media and Implications for the Sales Process. *Journal of*

Personal Selling & Sales Management, 32(3), 305-316.

- Ángeles Oviedo-García, M., Muñoz-Expósito, M., Castellanos-Verdugo, M., & Sancho-Mejías, M. (2014). Metric proposal for customer engagement in Facebook. *Journal of Research in Interactive Marketing*, 8(4), 327-344.
- Baird, F. (2018, July 16). The 7 Best Instagram Analytics Tools (And Metrics You Need to Track). Retrieved March 19, 2019, from Hootsuite: <https://blog.hootsuite.com/instagram-analytics-tools-business/>
- Chaffey, D., & Smith, P. (2017). *Digital Marketing Excellence: Planning, Optimizing and Integrating Online Marketing 5th Edition* (Vol. 5). Abingdon: Routledge.
- Chen, Y., Fay, S., & Wang, Q. (2011). The role of marketing in social media: how online consumer reviews evolve. *Journal of Interactive Marketing*, 25(2), 85-94.
- de Vries, L., Gensler, S., & Leeftang, P. (2012). Popularity of brand posts on brand fan pages: an investigation of the effects of social media marketing. *Journal of Interactive Marketing*, 26(2), 83-91.
- Gruzd, A., Wellman, B., & Takhteyev, Y. (2011). Imagining Twitter as an imagined community. *American Behavioral Scientist*, 55(10), 1294-1318.
- Huff, T. (2014, August 23). How Starbucks Crushes It on Social Media. Retrieved June 27, 2019, from Social Media Today: <https://www.socialmediatoday.com/content/how-starbucks-crushes-it-social-media>
- Ireson, N. (2010). Over 2 million cars to be sold on social networks this year. Retrieved June 3, 2019, from http://www.thecarconnection.com/marty-blog/1047906_over-2-million-cars-to-be-sold-on-social-networks-this-year/
- Jaya, N. (2013). Starbucks® Celebrates the Opening of its First Train Station Store in Indonesia. Bringing the Starbucks® Experience to Gambir Station. Jakarta: Starbucks Indonesia.
- Leung, X. Y., Bai, B., & Stahura, K. A. (2013). The Marketing Effectiveness of Social Media in the Hotel Industry. *Journal of Hospitality & Tourism Research*, 39(2), 147-169.
- Lindsey-Mullikin, J., & Borin, N. (2017). Why strategy is key for successful social media sales. Elsevier, 60(4), 473-482.
- Malik, P. D., Ghafoor, M. M., Iqbal, H. k., Riaz, U., Hassan, N. u., Mustafa, M., & Shahbaz, S. (2013). Importance of Brand Awareness and Brand Loyalty in assessing Purchase Intentions of Consumer. *International Journal of Business and Social Science*, 4(5), 167-171.
- Mata, M. V., Polanco, N. C., & Tusev, A. (2017). Changes in media consumption and its impact in modern advertising: a case study of advertising strategies in Ecuador. *INNOVA Research Journal*, 2(6), 120-135.
- Phua, J., Jin, S., & Kim, J. (2017). Uses and gratifications of social networking sites for bridging and bonding social capital: A comparison of Facebook, Twitter, Instagram, and Snapchat. *Computers in Human Behavior*, 72, 115-122.
- RD, P., 2000. *Bowling alone: The collapse and revival of American community..* New York: Simon & Schuster.
- Rodriguez, M., Peterson, R. M., & Krishnan, V. (2012). Social Media's Influence on Business-to-Business Sales Performance. *Journal of Personal Selling & Sales Management*, 32(3), 365-378.
- Schoultz, M. (2013, June 15). Starbucks Marketing Makes Social Media A Difference Maker. Retrieved June 27, 2019, from Digital Park Marketing: [www.digitalsparkmarketing.com: http://www.digitalsparkmarketing.com/creative-marketing/social-media/starbucks-marketing/](http://www.digitalsparkmarketing.com/creative-marketing/social-media/starbucks-marketing/)
- Shen, B. & Bissell, K., 2013. Social Media, Social Me: A Content Analysis of Beauty Companies' Use of Facebook in Marketing and Branding. *Journal of Promotion Management*, 19(5), pp. 629-651.
- So, K. K., King, C., Sparks, B. A., & Wang, Y. (2014). The Role of Customer Engagement in Building Consumer Loyalty to Tourism Brands. *Journal of Travel Research*, 55(1), 64-78.
- Spagnola, B. A. (2019, January 30). *How Does Social Media Marketing Increase Sales?* Retrieved July 7, 2019, from Marketing Source: <https://www.marketingsource.com/post/how-does-social-media-marketing-increase-sales>
- Starbucks. (2019). Starbucks in Indonesia. Retrieved June 27, 2019, from Starbucks: <http://www.starbucks.co.id/about-us/our-heritage/starbucks-in-indonesia>
- Thach, L., Lease, T., & Barton, M. (2016). Exploring the impact of social media practices on wine sales in US wineries. *Journal of Direct, Data and Digital Marketing Practice*, 17(4), 272-283.
- Yasmin, A., Tasneem, S., & Fatema, K. (2015). Effectiveness of Digital Marketing in the Challenging Age: An Empirical Study. *International Journal of Management Science and Business Administration*, 1(5), 69-80.
- Zakayo, D. C. (2018). Social Media Marketing as a Competitive Strategy on Sales Performance in Small and Medium Enterprises in Nakuru Central Business District (CBD)- Kenya. *International Journal of Trend in Scientific Research and Development*, 2(4), 2901-2907.