Marketing Strategy Using Collaboration of Information Technology and Market Place

Y H Putra¹, I D Sumitra², D A Wahab³
Faculty of Postgraduate Program, Universitas Komputer Indonesia, Indonesia
E-mail: yeffry.handoko@unikom.ac.id

Abstract. The research goal is firstly finding good strategy for online marketing using social media and market place and the second is to find dominant variables which drive consumer to purchase product from online marketing. This study uses descriptive analysis method. Social Media is one of powerful tool for marketing the product but the nature of social media is a chatting media or open publish news. Only people who are connecting as a member of friend of social media can get the information and sometimes abundantly information can cover and lose the important information. On the other side, market place familiar as virtual shop which is small business can make many virtual shops with many offering products. However, marketplace need tools to direct people to it. One virtual shop has to compete globally to hundreds virtual shop in marketing and promoting the shop and its product. The result show in the online marketing strategy there are found three dominant variables found in this research. They are a) becoming liker b) automatic broadcast message by twitter which is scheduled based on target activity and c) direct message including communication to user om Instagram. From the result can be concluded that the repetitive of ads using twitter give more better strategy in online purchasing.

1. Introduction

There are many channels to market and sell product, the conventional channel by mean advertising, door to door are still the common channel that still be used. However, the online market is more cheap and powerful [1]. The point of marketing is people has to be interacted firstly and they can be persuading to hear or read about the benefit when the bought the item. The interaction without seeing face to face something makes new consumer easier when they reject without worry hurting the seller. [2]. The time and the area of marketing item in market place such as tokopedia, e-bay, Lazada, Shoppee is the new benefit offered by market place or virtual place [3]. E-bay as the first market place give consumer to negotiate and interact with the buyer around the world. The price is decided by participated of other consumer and the result is best price they can get [4]. People can be new entrepreneur without think how to make real company, the virtual companies appear more fast than physical companies. [5]. The other benefit from market place that people can find recommendation, finding more variance of price with same item [6].

Social media and market place growth separately, however they each other are can support the marketing and campaign process of the company [7]. Although not many companies intensively doing this, they do not realize that managing campaign in social media can give intangible profit when they also involved in market place. The marketing channel using online marketing without in market place it obsolete, company can offer competitive benefit when they also involved in marketing place and the same time offer comparing value against with their competitor products. The problem is how to manage the marketing so there is proper consumer can be reached, the time of demanding can be suit and the capability to buy is ready.
The purpose of this research is firstly finding good strategy for online marketing using social media and market place and the second is to find dominant variables which drive consumer to purchase product from online marketing.

2. Research Methodology

The trend topics of this internet era is the interconnectivity between individuals has expanded more than the first internet era. Consumer and seller can be easily negotiated in e-bay, people can give comment, suggestion, critic directly in Instagram. Something happened in abroad can easily informed by Facebook. [8]. Social interaction is become new habit in internet community [9], sharing become first habit founded in many social media [10]. Consumer has been convinced to buy something in market place after reading some testimony for other consumer who has bought the same item [11]. Internet citizen are making many community which arise from liker or hater in the contrary [12][13]. Community in internet determine the new market target when company campaign its product. Online community governs by company can make great opportunity to develop customer relationship program and the trust can be achieved simultaneously [14]. Company right now has making market plan by create community or enter the existence community. In this case company has to learn the power of social media [15]. Although social media itself not intended to sell something but in community, people can share many information what he like or dislike [16]. When the same interest has built, it is easy to offer product, somehow people not border about the detail of content information, they just can receive information easily or buy something easily when her idol or her celebrity give testimony that they trust the product [16].

3. Result and Discussion

In this paper, it will be done two goal, first is to find good strategy of online marketing and the second is to find the dominant variables which contributed strongly in gain purchasing in online marketing

In this research proposed 3 strategy of online marketing using social media and market place, they are:

a. Advertise product in market place by putting its link address into social media without making group discussion. The content is put in several time using automatic managing social media such as @hootsuite. This method almost done without human interfere.
b. Making group discussion in social media about product and also give the link address in market place.
c. Using marketing ambassador in social media to promote product and link to market place.

In strategy A, the market target is finding randomly just arranged by preschedule. In strategy B, marketing target is built by firstly building community. And in the strategy C, market target is also follower of market ambassador or celebrity. Three strategies can be seen in Figure 1.
3.1. Data Collection

The experiment is done about 12 months with indicator of achievement are: amount of visitor, amount of purchase. The item to be seller is three variants of chocolate cookies made by local homemade industry. The social media chosen in this experience is Twitter and the Instagram, the market place is shoppee.

3.2. Research Model for online marketing using social media and market place

The interconnectivity of consumers through social media such as communities, reviews or recommendations is likely to establish trust in e-commerce. In SNSs, the social interaction of consumers helps their peers to develop or reject trust in a provider. Consumer socialisation occurs through social media directly by social interactions among consumers, and indirectly by supporting product involvement [17]. The social relationship of consumers generated through social media significantly affects the perceived trust of consumers [18]. The interactions on these platforms generate social support. Social support generated through social media therefore influences trust [19]. In addition, more positive comments, feedback and higher ratings lead to a higher level of trust in a vendor [20]. Reviews are perceived to be useful, and affect attitude and intention to buy in consumers through the impression created about a product or service [21].

The model of online market strategy is made by the logic inference for online purchasing that can be shown in Figure 2.
Figure 2. Developed model for online marketing using social media and marketplace

The research variables for developed model are derived from the logic nature of online purchasing. And so the variables used in this research can be found in Table 1

| Latent Variables                  | Type               | Measurable Variables                  | Type         |
|-----------------------------------|--------------------|---------------------------------------|--------------|
| Making community in Instagram     | Exogenous Variable | 1. Become liker                        | Independent  |
|                                   |                    | 2. Group Discussion                   | Manifest     |
|                                   |                    | 3. Child Group Discussion              | Variables (x)|
| Repetitive broadcast in twitter   | Exogenous Variable | 4. Schedule in randomize               | Independent  |
|                                   |                    | 5. Schedule based on target activity   | Manifest     |
|                                   |                    | 6. Schedule by frequently comment      | Variables (x)|
| Direct or private message         | Exogenous Variable | 7. Asking question from Instagram      | Independent  |
|                                   |                    | 8. Direct Buyer                       | Manifest     |
| Offering in Market Place          | Exogenous Variable |                                       | Variables (x)|
| Become buyer                      | Endogenous Variable| 1. Buyer for the first time            | Dependent    |
|                                   |                    | 2. Repetitive buyer                   | Manifest     |

3.3. Structural Equation Model and Hypotheses

Domain of online purchasing model then represented by Structural Equation Modelling (SEM). SEM itself is contained by two model i.e. measuring model and the structural model. The measuring model identifies the latent variables and the observable variables. The structural model defines the causal model of latent variables. Analysis with SEM has two stages there are Confirmatory Factor Analysis and Structural model [22]. Those variables from table 1 are used for Confirmatory Factor Analysis help by statistical tools. We use JASP. Open source of statistical tools run on MacOS. Structural Equation Modelling of this research according to table 1 can be drawn as shown in Figure 3 and the Structural Equation Model is:

\[
\begin{bmatrix}
\eta_1 \\
\eta_2 \\
\end{bmatrix} = \begin{bmatrix}
0 & 0 \\
\beta_{12} & 0 \\
\end{bmatrix} \begin{bmatrix}
\eta_1 \\
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\end{bmatrix} + \begin{bmatrix}
\gamma_{11} & \gamma_{12} & 0 \\
0 & \gamma_{22} & \gamma_{23} \\
\end{bmatrix} \begin{bmatrix}
\xi_1 \\
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\end{bmatrix} + \begin{bmatrix}
\phi_1 \\
\phi_2 \\
\end{bmatrix}
\]

so the structural equation is
According to Khan the social media can support to create social community in the internet and information can be share within this community. The community provides each social member to interact in social bound. People can share information or sell something in social community, the strong of the social bound will made the easier to sell something. Figure 3, So the research hypotheses are:

H1: The social community create in social media can provide channel marketing by mean of Direct Message Service which private question and answer between consumer and seller

H2: The social community can support trust in market Place.

Contrary to social community built by interaction among the member. Twitter is broadcast type of social media, there is also question and answer in every twit message, however the message can be repeated more and more with the same content in the goal of reaching target marketing. Repeated twit message can be arranging by twitter manager program like @hootsuit.com which offer preschedule message with about 200 message per month for free version. So according to this the research hypotheses are:

H3: Broadcast of repetitive message using twitter can provide consumer to do contact to seller by mean of direct message

H4: Broadcast of repetitive message using twitter can direct consumer to the link of product located in market place.

3.4. Instrument Development

Primary data is obtained from purchasing data, twitter data, and Instagram Data. The requirement data for this research is obtained by doing business intelligent to primary data. Each data is mapped into Likert scale using sing converting rule. Converting rule is a logical rule, developed as set of experiences and common knowledges to obtain the appropriate research variables as can be shown Table 2.
Table 2. Converting table from database

| Activity                                      | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|-----------------------------------------------|-------------------|----------|---------|-------|----------------|
| Making community in Instagram                | Become liker      | 0 <20%   | 20-40%  | 40-60%| >60%           |
| Group Discussion                              | 0 <20%            | 20-40%   | 40-60%  |       |                |
| Child Group Discussion                        | 0 <20%            | 20-40%   | 40-60%  |       |                |
| Repetitive Broadcast in twitter               | Schedule in randomize | 0 <20% | 20-40% | 40-60%| >60%           |
| Schedule based on target activity             | 0 <20%            | 20-40%   | 40-60%  |       |                |
| Schedule by frequently comment               | 0 <20%            | 20-40%   | 30-50%  |       | >60%           |
| Direct or private message                    | Asking question from Instagram | 0 <20 | 20-30 | 30-50| >50            |
| Offering in Market Place                     | Direct Buyer      | 0 <20%   | 20-30   | 30-50 | >50            |
| Drop shipper                                 | 0 <20%            | 20-30    | 30-50   |       | >50            |
| Become buyer                                 | Buyer for the first time | 0 <10 | 30-Oct | 30-40| >40            |
| Repetitive buyer                             | 0 <10             | 30-Oct   | 30-40   |       | >40            |

There will be two performance will be discussed, they are the achievement of the target and the human interfere in line purchasing

3.5. Achievement of the target market

From the data are obtained the amount of visitor and purchasing like shown at the target as shown in Table 3. It can be concluded that the communication to user with DM (Direct Message) and using marketing ambassador to promote product is more effective when followed by direct message or contact. People in Indonesia is still need communication directly. The existence of marketing ambassador has the greater achievement in market place however the direct message to human is give best result.
Table 3. The amount of visitor and purchase

| Method | Amount of visitor | Number of purchase from Market Place | Direct Message |
|--------|------------------|-------------------------------------|----------------|
| A      | 428              | 58                                  | 67             |
| B      | 256              | 30                                  | 20             |
| C      | 690              | 42                                  | 90             |

3.6. Human Interfere in Line Purchasing

Method B and C using human interaction by mean of making group discussion (method B) and marketing ambassador (method C). As we can see in Table 3 intensive discussion in method B has less effect in number of purchasing comparing to brand ambassador using in method C. In Method A, with almost not using Human Interfere only by broadcast ads in several times (about 200 times a month) the number of purchase by direct contact is more greater. To test interaction between latent variables can be found from the square correlational matrix as follow in Table 4. From Table 4 there are not found correlated variables which mean all the variable are independent and ensuring the research’s discriminant validity.

The variables estimation can be found using SEM. From table 4, Variable X5 followed by X1 and X7 are the dominant variables which are become liker, schedule based on target activity and direct message by Instagram. So to have good strategy in online marketing using social media and market place, the variable to be concerned are:

a. how to make visitor become a liker not a hater
b. if twitter is used as repetitive broadcast message, we should know what is the best time for the target market to see twitter. For example the lunch time is good time to make target market for employer, or in the afternoon is suitable for targeting to housewives as market target and so on.
### Table 4. Correlation Matrix from exogenous variables (xi)

|   | x1  | x2  | x3  | x4  | x5  | x6  | x7  | x8  |
|---|-----|-----|-----|-----|-----|-----|-----|-----|
| x |     |     |     |     |     |     |     | x8 |
| 1 |     |     |     |     |     |     |     |     |
| 2 | 0.22|     |     |     |     |     |     |     |
| 3 | 0.49| 0.56|     |     |     |     |     |     |
| 4 | 0.40| 0.57| 0.62|     |     |     |     |     |
| 5 | 0.29| 0.21| 0.24| 0.20|     |     |     |     |
| 6 | 0.02| 0.00| 0.01| 0.00| 0.03|     |     |     |
| 7 | 0.29| 0.21| 0.24| 0.20| 1.00| 0.03|     |     |
| 8 | 0.28| 0.08| 0.15| 0.09| 0.26| 0.04| 0.26|     |

3.7 Structural Model obtained from the research

The result of SEM Analysis can be seen in Figure 4. The validity of the research model is assessed by the structural paths and $R^2$s.

![Figure 4. Result model using SEM Analysis](image)

The estimated latent variables are positive and there are three biggest variables refer to dominant variable, i.e. become liker, schedule based on target activity and direct message by Instagram. From the correlation value, the result indicated that direct message by the Instagram has been less effect in increasing consumer to be buyer than offering in market place. The community in Instagram encourages consumer to make direct message such as consultation or just simple question-asking then going straight to market place. The repetitive broadcast in twitter give
great result to convey customer to market place and less to human interaction in direct message. The correlation for Hypothesis H2 and H4 are negative, so those hypothesis are rejected. It mean making community in Instagram does not convey consumer to go to market place. And by making repetitive broadcast ads using twitter does not make consumer to do action of consulting or asking more information about product by direct message.

4. Conclusion

From the result can be concluded that The repetitive of ads using twitter give more better strategy in online purchasing. Although from the model founded that the usage of human less needed in following the purchasing line, however human interaction in discussion group, marketing ambassador and direct contact has still contribution in purchasing online products. For online marketing strategy there are found three dominant variables a) becoming liker b) automatic broadcast message with schedule based on target activity and c) direct message including communication with user on Instagram. Although Direct message via the Instagram has been less effect in increasing consumer to be buyer than offering in market place.

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References

[1] Lu, Y., Zhao, L., Wang, B., "From virtual community members to c2c e-commerce buyers: trust in virtual communities and its effect on consumers' purchase intention," Electronic Commerce Research & Applications, vol. 9, no. 4, pp. 346-360, 2010.
[2] Gruzd, A.; Wellman, B., "Imagining Twitter as an imagined community," American Behavioral Scientist, vol. 55, no. 10, pp. 1294-1318., 2011.
[3] Malik, F., A., Asif, M., Wali, S., "Role of Social Media on Consumer Preferences," City University Research Journal, vol. 6, no. 2, pp. 256-268, 2016.
[4] Mueller, J., Hutter, K., Fueller, J., Matzler, K., "Virtual worlds as knowledge management platform - a practice-perspective," Information Systems Journal, vol. 12, no. 6, pp. 479-501, 2011.
[5] H. P. Lu and K. L. Hsiao, "The influence of extro/introversion on the intention to pay for social networking sites.," Information & Management, vol. 47, no. 3, pp. 150-157, 2010.
[6] Yadav, M., Rahman, Z., "Social media marketing: literature review and future research directions," International Journal of Business Information Systems, vol. 25, no. 2, pp. 213-221, 2017.
[7] Heinonen, K., "Consumer activity in social media: Managerial approaches to consumers' social media behavior," Journal of Consumer Behaviour, vol. 10, no. 6, pp. 356-364, 2011.
[8] Fuller, J., Mühlbacher, H., Matzler, K., Jawecki, G., " Consumer empowerment through internet-based co-creation," Journal of Management Information Systems, vol. 26, no. 3, pp. 71-102, 2009.
[9] Khan, M.F., Jan, A., "Social Media and Social Media Marketing: A Literature Review," IOSR Journal of Business and Management, vol. 17, no. 11, pp. 12-15, 2015.
[10] Chen, J., Xu, H. Whinston, A.B., "Moderated online communities and quality of user-generated content," Journal of Management Information Systems, vol. 28, no. 2, pp. 237-268, 2011.
[11] Fue, Z., Li, H., Wenyu, D., "Social factors in user perceptions and responses to advertising in online social networking communities.," Journal of Interactive Advertising, vol. 10, no. 1, pp. 1-13, 2009.
[12] Lancaster, G., Massingham, L., Ozuem, W., "Digital Marketing," in Essentials of Marketing
[113] Rowley, J., "Understanding digital content marketing," *Journal of Marketing Management*, vol. 24, no. 5, pp. 517-540, 2008.

[114] Liang, T.-P., Ho, Y.-T., Li, Y.-W., Turban, E., "What drives social commerce: the role of social support and relationship quality," *International Journal of Electronic Commerce*, vol. 16, no. 2, pp. 69-90, 2011.

[115] Lorenzo, C., Constantinides, E., Geurts, P., Gómez, M., "Impact of web experience on e-consumer responses," in *E-commerce and Web Technologies*, Berlin, Springer, 2007, pp. 191-200.

[116] Chen, Y., Fay, S., Wang, Q., "The role of marketing in social media: how online consumer reviews evolve," *Journal of Interactive Marketing*, vol. 25, no. 2, pp. 85-94, 2011.

[117] Wang, X., Yu, C., Wei, Y., "Social media peer communication and impacts on purchase intentions: a consumer socialization framework.,” *Journal of Interactive Marketing*, vol. 26, no. 4, pp. 198-208, 2012.

[118] Pan, L.-Y., Chiou, J. S., "How much can you trust online information? Cues for perceived trustworthiness of consumer-generated online information," *Journal of Interactive Marketing*, vol. 25, no. 2, pp. 67-74, 2011.

[119] Weisberg, J., Te’eni, D., Arman, L., "Past purchase and intention to purchase in e-commerce: the mediation of social presence and trust," *Internet Research*, vol. 21, no. 1, pp. 82-96, 2011.

[120] Ba, S., Pavlou, P.A., "Evidence of the effect of trust building technology in electronic markets: price premiums and buyer behavior," *MIS Quarterly*, vol. 26, no. 3, pp. 243-268, 2002.

[121] Purnawirawan, N., De Pelsmacher, P., Dens, N., "Balance and sequence in online reviews: how perceived usefulness affects attitudes and intentions," *Journal of Interactive Marketing*, vol. 26, no. 4, pp. 224-255, 2012.

[122] Konecny, D., "An Empirical Test of Model Measuring Corporate Reputation from the Perspective of the Local Community," in *Corporate Reputation of T-System Slovakia*, Albourq, MSC International Marketing, 2014, p. 190.