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## **The Direct and Indirect Effect of Exchange to Build Customer Loyalty in Social Network Sites.**

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The Internet has enabled people to connect to each other, regardless of time and space. This lead to a new phenomena, known as *social networking* through social network sites such Facebook, and Friendster. In social network sites members find new kinds of exchange, which is information exchange. Membership in many social network sites are free, which means that everyone is free to join or leave it. In that case social network providers must ensure that members keep using their site.

Exchange has been known as subject matter in marketing. Exchange will lead to customer loyalty through value creation. This paper will show that exchange has direct impact to loyalty. The community based theory has been shown that if community members keep exchange activity, they will loyal to the community. The author will focus on friendship based communities such as Facebook.

Keywords: Exchange, Value, Community, Social Network Site

The internet was found after World War 2, around 1950 ([www.livinginternet.com](http://www.livinginternet.com)), and since then its use has grown rapidly. The booming of internet supported by the development in information technology such as computer, broadband technology. Basically internet design to connect two or more computers in the distance. During 1950 the size of computer was relatively big and very expensive, so only institution could buy a computer. With the development in computer technology, it becomes smaller and affordable. In 1980 has been known as the era of personal computer, where computer become personal and available for almost everybody. Today, computer becomes part of our life and carries around everyday.

Since computer becomes individualized, internet today is not only connecting all computers in the world, but also connects people who use those computers. At those times, there were networks between computer user, or known as social networks. This social networks provided by the social network services such as Friendster and facebook. Members in this two social network exchange information among them and share experience together.

Exchange has been known as subject matter in Marketing (Bagozzi, 1975, 1979; Hunt, 1976). Recently the definition of Marketing in AMA (American marketing association has explicitly mention exchange as a subject matter of Marketing (AMA, 2007). The scope of exchange in Marketing has broadened to not only exchange of good and service but covering exchange of idea, event, experience and information.

Internet has lead to other kind of exchange which is information exchange. Information as intangible resource has become valuable resource, and members in social network exchange information among them. Exchange will lead to value and loyalty to the website.

Today, there are more then 650 social network sites in the world ( Stern, 2006), but no one knows exactly the number. The aggregate data shows that the number of social network user is growing rapidly (comscore.com). Some of these sites geographically segmented, though they not intend to be.

In Asia, during 2007 there are two largest social network sites which are Friendster and Facebook. In 2008 the number of unique visitor of Friendster is 33 million per month, far away from Facebook unique visitor which is only 21 millions per month (comscore media metrix, 2008). During the study, Facebook and Friendster still fight to be the top sites in Indonesia. Both of them know to have loyal member, and high traffic rank.

Many literature in marketing explain the path to build loyalty is came from value that customer perceive. This value is result of exchange resources (Bagozzi, 1975; Kotler & Keller, 2007; Houston & Gassenheimer, 1987) . In this point of view the information exchange will increase the perceived value and then they will loyal to the sites. The more intense the information exchanges the higher perceived value of member. The higher perceived value will cause member become loyal to the sites.

Exchange creates loyalty not only through value, but also by directly increasing loyalty. This argumentation comes from brand community literature. In many brand community literature exchange can be happened within members in the community (Muniz & O'Guinn, 2001; Algesheimer, Dholakia, & Herrmann, 2005). Exchange can directly increase community membership duration, community recommendation

behavior, community participation behavior (Algesheimer *et al.*, 2005). This mean that exchange can directly increase loyalty.

The aim of this study is to test and analyze the direct and indirect effect of exchange to loyalty. Exchange has indirect effect to loyalty by building value to the customer. The second objective of this study is to analyze which effect has the greatest impact to loyalty, direct or the indirect effect.

### **Theoretical Background**

The direct and indirect effect of exchange to loyalty has come from two stream of different literature background. The indirect effect came from customer value and customer research stream and direct effect explanation came from brand community literatures. As a subject matter of marketing, exchange resources has been known as the factor that creates value (Bagozzi, 1975; Kotler & Keller, 2007; Houston & Gassenheimer, 1987). Though many social science discuss about exchange, but none of them place exchange as a subject matter. Marketing scholar has adopted exchange as subject matter of Marketing (AMA, 2007).

In exchange literature there are two different paradigm, marginalism and institutionalism (Pandya & Dholakia, 1992; Pawitra, 2009). Marginalism based on three assumptions (Weintraub, 2002) which are: (1) Human always rational in their decision, (2) People maximize utility and institution maximize profit, (3) People act based on symmetric information. According to marginalist, all marketing exchange should based on these assumptions.

The assumption of marginalist has limited the scope of exchange in marketing. Each actor in the exchange should maximize their utility and the result is value. Because everyone receives value, they committed to the relationship. Critics has been given to this paradigm, that if marketing can only explain limited phenomena if it use this paradigm (Pandya & Dholakia, 1992). Though receive many critics, this paradigm has many follower, because it simplify assumption (Pandya & Dholakia, 1992). Since human has free willing, there is no institution role in their decision. Institution cannot persuade or provoke consumer to buy something.

In the opposite side there is institutionalist with their paradigm that human is not perfectly rational, so they not always maximize their utilities. Humans are part of institution (family, public institution, private institution, and government), hence the decision making can be and usually influence by institution. In institutionalism there are three type of exchange which are market exchange, redistributive exchange, and reciprocal exchange (Pandya & Dholakia, 1992). Market exchange, is described using marginalism assumptions. Redistributive exchange is exchange within institution with sharing as main mechanism. Reciprocal exchange is exchange between institution.

In institutionalism human not always maximize their utilities. Sometimes exchange happened with more intangible value, or even and expected value that can be acquired in the future. As example, a father give his son good education because he expected in the future his son will be a success person and respect the parents.

Exchange in this study is using institutionalism paradigm especially the redistributive exchange. Member in social network sites like Friendster and Facebook exchange information each other within institution (Friendster & Facebook). The mechanism is sharing, where all member share information (including experience and photo) to other members. Social network services (Friendster & Facebook) will

encourage members to sent information or share experience to others, this mean that there are institution influence in decision making.

The direct effect of exchange came from community literature, wich originally came from sociology. (Algesheimer et al., 2005, Muniz & O'Guinn, 2001). In sociology, social organization can be divided into society and community based on the type of social relationship (Ferdinand, 1887; Macionis, 2006). Social relationship in society are more contractual and people join based on self interest. Community in other way, is a social organization with more brotherhood/friendship social relationship. People join community based on more social interest.

In community members does exchange activity, or known as C2C exchange (Muniz & O'Guinn, 2001). Members could share something tangible (product, book, photo) and intangible items (information, knowledge). This kind of exchange will make members keep their relation with others in the community. The more intensive exchange they made, the more they make contact to other members in the community, thus exchange will lead to loyalty.

The raise of internet has made new space for people to interact each other called cyberspace. This lead a new type of community that we known as virtual community (Rheingold, 1991). Wellman & Gulia (1999) has gave a comprehensive analysis about virtual community, and they conclude that virtual community is a community. Marketer concern about what we called brand community, which consumers organize in more friendship relationship around one brand (Muniz & O'Guinn, 2001). Using this perspective we can argue that Facebook and Friendster is a brand community. Members organized around brand and they make information exchange that keeps them as community member.

### **Hypothesis**

This study has three hypotheses, two hypotheses for indirect effect of exchange to loyalty, and one direct effect hypothesis. The explanation of this hypothesis will be elaborate in the paragraph below.

One of the prerequisite of exchange in marketing is each party in the exchange has valuable offering for other party. Successful exchange should lead all party to be better of condition (Houston & Gassenheimer, 1987). This mean exchange will cause customer received value. In virtual community, information exchange between member will make member perceived value of being a member in those community (Gruen, 2005). With those argument the first hypotheses is:

#### **H1: Exchange will have positive impact on membership value.**

Value (value) is the subordination of the customer objectives (Sirdeshmukh, Singh, Sabol, 2002), so the value will direct customer action, that is loyalty. Customers will only keep the exchange with institutions that provide the maximum value (Kotler, 2000). The study of Xia et al., (2007) showed that the higher the perceived benefits of the more bersar willingness to always share in an online community, thus more loyal. From this argumentation, the second hypotheses is:

#### **H2: Membership Value will have positive impact on Member Loyalty.**

Exchange of information between members will make members have a sense of being one community and also have obligation to exchange information. Gruen et al. (2006, 2007) argued that each member of the community will feel a moral obligation to continue building relationships, and exchange information with one another. As

information has become public property in a community, then members have a strong moral obligation to share information (Wasko & Faraj, 2000). Moral consciousness to the obligations as part of this community that will encourage members to remain in those communities (Muniz & O'Guinn, 2001). From these argumentation, the third hypotheses is:

**H3: Exchange will have direct positive impact on loyalty.**

The unit of analysis in this study were members of social networking sites Friendster and Facebook. The target population of this study is a member of Friendster and Facebook in Indonesia, here we only take members from Indonesia's backbone server. The characteristics of this population is:

1. Having an account on Friendster and or Facebook
2. Derived from a server in Indonesia
3. Have at least 20 friends in the closest circle.
4. To log in at least one time in a week
5. Activity at least half an hour at one time login

Given the membership site which is free, then there is the possibility of someone involved in the two communities, but usually does not allow for active involvement in both the site at the same time. This is because of the limited resources of time, that it's almost impossible to devote all his time on the two communities as well. If the respondent is found so, the respondent must choose one preferred communities with more frequent interaction intensity.

The sampling technique used in this study were non probability sampling technique, where the probability of each individual to be elected as sample member is unknown. The sampling technique used from this category is a variant of snowball sampling, which called respondents driven sampling (RDS). Researchers will perform sample selection using owned Facebook and Friendster account as a start point. From this account, researcher will choose well known friend in the network. The friends were then asked to choose a willingness to give / distribute questionnaires to other friends.

Information exchange activities operationalized as the activities of interaction among members of a community that acts as a source of information for other members to deepen and expand friendship (Gruen et al., 2006.2007).

Membership value operationalized as a tradeoff between the benefits of the sacrifice given by (Sirdeshmukh, Singh, Sabol, 2002), which is also used in social social networking sites.

Member Loyalty refers to the loyalty of members of social community social networking site (Lin, 2008). Loyalty is shown either in attitude or behavior that supports the survival of communities (Dick & Basu, 1994). Members loyalty operationalized as positive attitude and behaviors that support to always participate in community social social networking site Friendster and Facebook (Algesheimer et al., 2005; Lin, 2008; Dick & Basu, 1994).

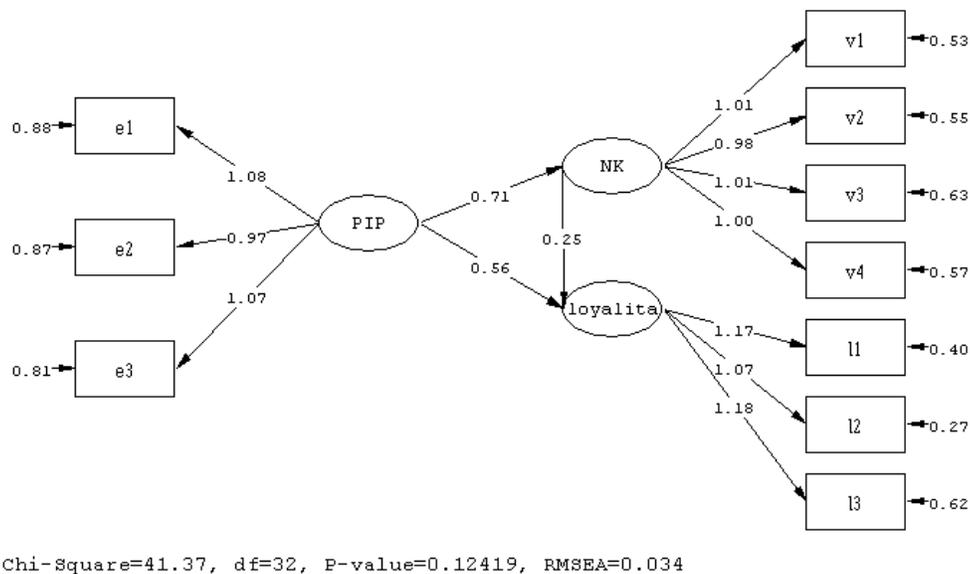
Data analysis will use Structural Equation Modeling (SEM) for the first hypothesis until the third, with quantitative analysis. The validity will be tested by confirmatory factor analysis and reliability while the variance extracted by the construct will be tested for reliability. Sample sizes will meet the criteria of SEM that is five times

the number of indicators. The sample size required for SEM analysis is at least 5 times the number of indicators (Hair, Black, Babin, Anderson, Tatham, 2007). In this study, the total indicator is 30, so that the minimum sample size required is 150. This is both a requirement for minimum number approaches the maximum likelihood technique.

Modeling strategy used in this study is a model development strategy, which is a strategy that proved that the model developed in this study could explain the phenomenon of exchange of information in the virtual community. There are two approaches in the analysis by SEM, which is the approach one step and two-step approach (Wijanto, 2008). This study used a two-step approach / two Steps approach (Anderson & Gerbing, 1988; Wijanto 2008).

### Result

Total Responden of this study were 256, which consist of 115 male and 141 female. Most of the age range between 18-24, and have high school education or more. 115 respondents (45,3%) access the website almost everyday (5 days per week). This shows that the respondents quite often interact with each other. Measurement model fit the test results showed that the indicator of information exchange has good validity. All loading factor are above 0,7. Construct reliability is 0,79, and variance extracted is 0,56. Membership value and loyalty also showed good validity result. Construct reliability for membership value is 0,87 and variance extracted is 0,63. Loyalty has construct reliability of 0,9 and variance extracted 0,75. Result of Structural model showed at the picture below.



The result showed that the model has good fit. The p value of chi square test is above 0,05, which mean the model fit the data. All fit measurement shows good result (GFI: 0,97; RMR:0,05; NFI:0,99; RFI:0,98; CMIN/DF: 1,29). There is no modification indices need to fix the model.

The result showed that all three hypotheses are accepted, since all the result show t-value above critical ratio (1,96). Exchange has significant direct and indirect effect to loyalty. Information exchange in friendship activities significantly affect the loyalty of members. The higher activity of the exchange of information, the higher the loyalty of members. This result is different from Gruen et al., (2006) on online trust-based Communities. Gruen et al., (2006) result shows that exchange has no significant effect on loyalty. Fundamental explanation of the differences in the findings of this study is a different research context. In Gruen et al., (2006), research conducted in communities that discuss a product (software). Personal relationship based on same interest of a product, not friendship.

The more often a member of Friendster and facebook to exchange information, There will be stronger awareness sense as part of community, the greater desire to exchange information, so that members will maintain its membership in the community, willing to expand friendship, and invite others to join.

The Effect of information exchange activity on the perceived the value of membership is significant. The higher activity of the information exchange, the greater the perception of the perceived value of membership. Customers will perceived a value if the benefits exceed the sacrifice given. This value is result from the activities conducted in those communities, namely the exchange of information, because through the exchange of value, all parties will be better.

The results showed that the direct effect of the exchange of loyalty was higher than its indirect effects. Direct effects of the information exchange to the loyalty is at 0.74, while the indirect effect through the membership value is 0.18. This shows that the increased activity of the exchange of information can lead directly to the members always wanted to visit the social networking website, and invite others to join

### **Conclusion & Implications**

From the results it can be concluded that the exchange may affect significantly to loyalty. This influence can occur directly, or indirectly through the establishment of the membership value. In the context of social networking sites, loyalty can be enhanced directly by encouraging members to exchange information such as messages, photos or comments.

This study provides answers to three hypotheses, namely that exchange has significant effect on the value of membership. Membership value has significant effect on loyalty, and exchange of information has significant effect to the loyalty of the membership.

This research has practical implications that site administrators should encourage members to exchange information with other members. In this respect Facebook is superior to Friendster with facilities that enable members to send and share information. Freedom of information exchange would have to pay attention to the privacy factor, because the exchange of information that can improve the loyalty only occur if the information was not hurt or offend other members.

From the theoretical side, this research gives the implication that the development of the theory of the loyalty formation should also consider the direct effect of the exchange. In the context of internet marketing where information is often exchanged, then the exchange can directly lead to loyalty. This is understandable, because to be able to exchange information, then someone should visit the site and interact with others

through the site. Thus the site that can encourage members to provide information that interesting for other people will have high traffic, and automatically has member/visitor loyalty members. The dominant paradigm is currently looking at loyalty is formed through the value, but this result shows in internet marketing there is a stronger direct influence to the loyalty from exchange.

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