CHAPTER 2
THEORETICAL FOUNDATION

2.1 Internet in Indonesia

Internet is one of the community networks that have been known in Indonesia since the early 1990s. This network has passion of cooperation and support among the performers. Recently, the situation is different in Indonesia; it seems that the developing of commercial is increasing in some activities especially for traders who work online [55].

Year	Users	Population	% Pen.	GDP p.c.*
2000	2,000,000	206,264,595	1%	$570
2007	20,000,000	224,481,720	8.90%	$1,916
2008	25,000,000	237,512,355	10.50%	$2,238
2009	30,000,000	240,271,522	12.50%	$2,329
2010	30,000,000	242,968,342	12.30%	$2,858

Figure 1. Development of Internet in Indonesia
Source: http://www.internetworldstats.com/asia/id.htm

2.2 E-Commerce

E-Commerce stands for Electric Commerce which means buying and selling products or services over electronic systems for computer network. It can also be used for marketing, delivering, servicing and paying for product or services online. In other word, the function of E-commerce is to do online transaction to trade product or service through the internet [5]. E-commerce can be divided into B2B (business to business),

B2C (business to customer), C2C (customer to customer) and C2B (customer to business) [6].

2.2.1 B2B E-Commerce

B2B e-commerce is business activities for instance supply, inventory, procurement, and product development across the business, which primarily focused on commercial activities between business organizations that used the telecommunications network to link each other [7]. B2B e-commerce in business operations is defined as between the organization and its partners through the use of the online technologies including the internet [8]. Information technology has an important and major role to facilitate the interaction between organizational customers and suppliers, as an electronic connection between the members of the supply chain, provided by e-commerce leads to good relations between business partners [9].

The management of e-enable procurement and supply chain networks, communication, sales and marketing, distributions, and financial systems between business partners will be better if there are improvements in B2B e-commerce [10]. The main benefit between the impacts of B2B e-commerce is the establishment of an effective network of new supply chain costs and more, which creates about 90% of all e-commerce by the value and size [11]. Hence, the organization considers that B2B e-commerce need to improve their performance and profitability [12]. B2B e-commerce allows companies to take their activities in the wider region and provides an involvement by the supplier in their new product development activities, which leads to an increase in productivity [9, 13, 14].

2.2.2 B2C E-Commerce

B2C e-commerce is a business activity which the internet connection is the intermediaries of a transaction between a business and consumer which focused mainly on commercial activities [15]. B2C e-commerce, also referred as e-tailing, can be defined as the online retail transactions between a company and individual shoppers [5]. Consumers prefer online transactions rather than improved traditional methods, because the Internet provides more information with less transaction costs [16]. The factors that motivate customers about online shopping can be listed as, a wider selection, greater access to information, and competitive prices [17].

The main factor affecting the B2C e-commerce in order to reduce transaction costs can be defined as, product digitizability, product complexity and sensitivity, tangible product or industry structural characteristics such as customer dispersion or thinness of the market [18]. Web site is one of the most important factors in B2C e-commerce and in this context, usability and design attitudes such as download content, navigation, delay, interactivity, responsiveness, information quality, service quality, system use, playfulness and system design quality can be considered as the crucial factors affecting user satisfaction [19, 20].

2.2.3 C2C E-Commerce

C2C e-commerce is a business activity in which the telecommunications network used as a mediator of the customers [7]. C2C e-commerce can be defined as e-commerce system that serves as intermediaries of transactions between individuals or small businesses [21]. Via C2C e-commerce, customers from different countries can interact each other, so the markets of developing countries can be accessed around the world, leading to political structures, economic and social impact of the affected countries [22].

C2C e-commerce is not being categorized in a formal way because the lack of data that support the C2C e-commerce [21]. However, C2C e-commerce can be categorized by the purity, which is "to analyze the number of foreign players in addition to buyers and sellers who need to be involved in the transaction". Another categorization would be the location of the C2C e-commerce. In this category, the difference lies in how the transaction if both parties meet physically or not. The last category is how the price set, whether they have been fixed before, or the auction must be done [23].

2.2.3.1 Types of C2C E-Commerce

C2C e-commerce systems and models can be categorized in several ways and currently the segmentation is not officially formed [21]. Analyzing how many foreign players in addition to the buyer and seller must be involved in the transaction in one way to classify the models according to their “purity” level [23]. Other criteria of classification can be the location between the buyers and sellers, because the level of closeness also has some important role when dealing with both confidence and challenges of monetary transaction [23].

Price is another categorization, whether the price is fixed or by auction. More or less there are a number of fixed price models where the price of an item determined in advance by the seller. On the other hand, there are also a number of variations on the model-auction in which buyers compete openly for goods or services for sale. Even with the model of "fixed-price", no one can prevent re-negotiate the price of going after buyers and sellers who engage in bilateral communication. In this case, almost all C2C commerce model based on the flexible price [23].

As there is no generally accepted standard classification method for types of C2C commerce, Figure 2 lists the classifications mentioned above along with some example cases of each model.

Classification method	Categories & examples cases	
Proximity	Buyer and seller far apart	Buyer and seller can meet face-to-face
	An individual in Finland buys an item in eBay auction from Canada	Buying a car from an individual after finding a classified advertisement in Craigslist
Price	Fixed	Flexible
	Classifieds advertisement with a set price	Auction such as eBay or Huuto.net
Number of outside players	None	Many
	Buying an item from a friend after a face-to-face discussion	Using search (e.g. Google) to find an item for sale (e.g. in eBay), bidding for it and paying with a credit card (e.g. through PayPal)

Figure 2. Different ways of classifying C2C e-commerce
Source: Makelainen, S.I. (2006). From B2C to C2C e-commerce. Retrieved from http://www.groundswell.fi/sim/academic/(sim)%20From%20B2C%20to%20C2C%20e-commerce.pdf

2.3 Consumer Decision Process

Traditionally, consumer investigators almost reach the decision making process from a rational perspective. They see consumers as being cognitive (i.e., problem-solving). This is shown in the stage model of a normal buying process that usually happen (often called *the consumer information processing model*) showed in Figure 3.

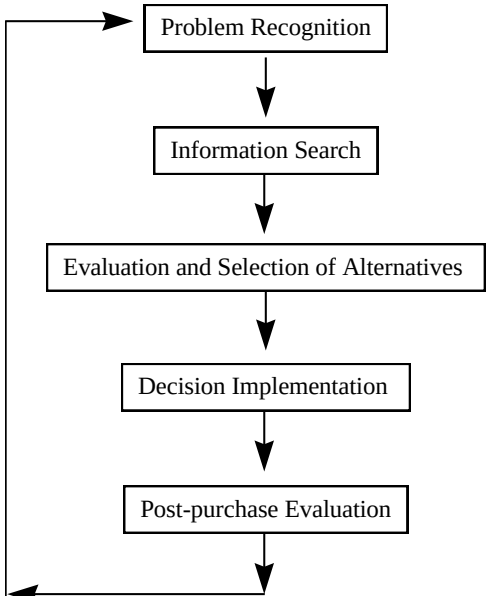

Figure 3. Consumer Decision Process Model
Source: Matsuno, K. (2003). Note on Consumer Decision Making Processes. Retrieved from http://www.infolizer.com/f61a3cultya1b21ab2sona15ed4u/Consumer-decision-making-process.html

In this model, the consumer goes through five stages: problem recognition, information search, evaluation and selection of alternatives, decision implementation, and post-purchase evaluation.

Problem Recognition

In this information processing model, the consumer buying process starts when the buyer recognizes a problem or need [67].

Information Search

When a consumer finds a problem, he/she tends to search for more information [67].

Evaluation and Selection of Alternatives

There is not a simple evaluation process that can be done by all consumers or by one consumer when they want to buy something from a competitive brand. Usually, they buy products they need or products that they like. They think of the evaluation process as being cognitively, driven and rational. The consumers want to buy products to satisfy

their needs or products that will bring benefits for them. For this reason, consumer sees each product as a *bundle of attributes.* That is why the differences among the need, benefits, and attributes are very important [67].

Decision Implementation

To buy something, a consumer needs to decide the specific item from a certain brands and the outlet where he/she wants to buy it. There are three ways to do this: 1) simultaneously; 2) item first, outlet second; or 3) outlet first, item second. Usually, consumers use the the first way [67].

Post-purchase Evaluation

Post-purchase evaluation processes depend on the type of the decision-making process made earlier. Directly relevant here is the level of *purchase involvement* of the consumer. Purchase involvement is a term which means "the level of interest in the purchase" and it determines how the consumer looks for the information before buying something. Although purchase involvement is viewed as a continuum (from low to high), it is useful to consider two extreme cases here. If someone buys a product from a certain brand because of a habit, then it is called as *habitual purchase* [67].

2.4 Kaskus

Kaskus.us has a three-month global Alexa [24] traffic rank of 240. Compared with all internet users, the site's users are disproportionately Asian, and they tend to be men earning less than $30,000 who browse from home and school and have more children. Search engines refer roughly 14% of visits to the site. The site's content places it in the "Papan Pesan" category of sites. Kaskus visitors view an average of 22.4 unique pages per day [24]. From 2010 until 2011, Kaskus has 75% growth in registered users, 60% growth in page views, now 850 million / month, 120% growth in visits, now 60 million, 105% growth in mobile visits, now 3,8 million, up until today Kaskus has 3,034,416 registered members [53].

Figure 3. Kaskus Audience Demographic Graph
Source: http://www.alexa.com/

Figure 3 shows the audience demographic of *Kaskus.us*. Based on internet averages, *Kaskus.us* is visited more frequently by **males** who are in the age range **18-24**, have **children** and browse this site from **home**. The green bars indicate that over-representation of the segment and the red bars indicate that under-representation of the segment in the specified category.

Figure 4. Kaskus Daily Pageviews per User
Source: http://www.alexa.com/

On figure 4 shows that *Kaskus.us* on average has a page view of 19.6 page views per user

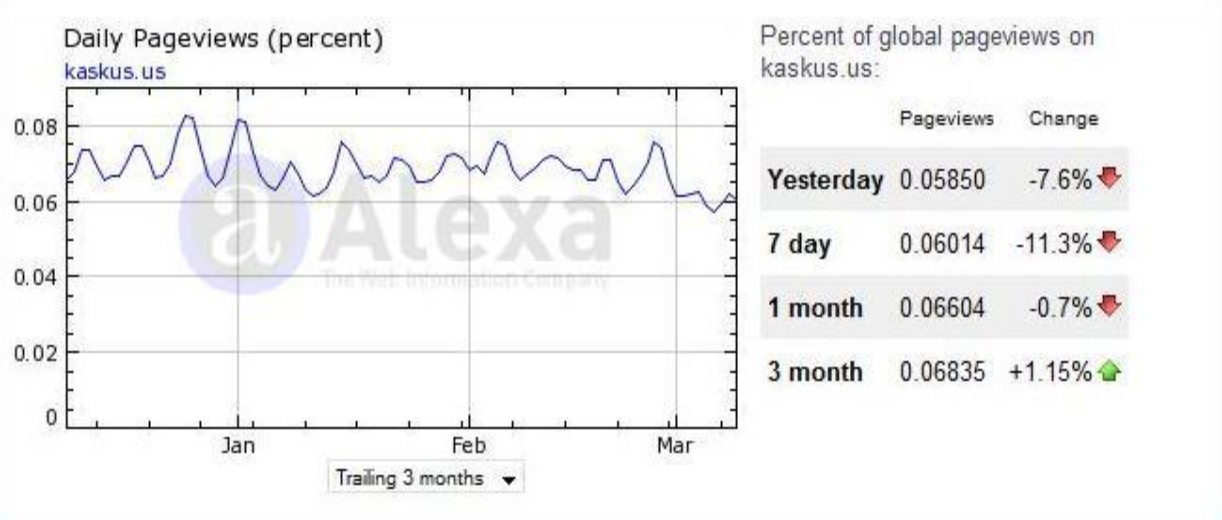

Figure 5. Kaskus Daily Pageviews (percent)
Source: http://www.alexa.com/

In percentage, figure 5 shows that *Kaskus.us* has 0.0585% page views in daily.

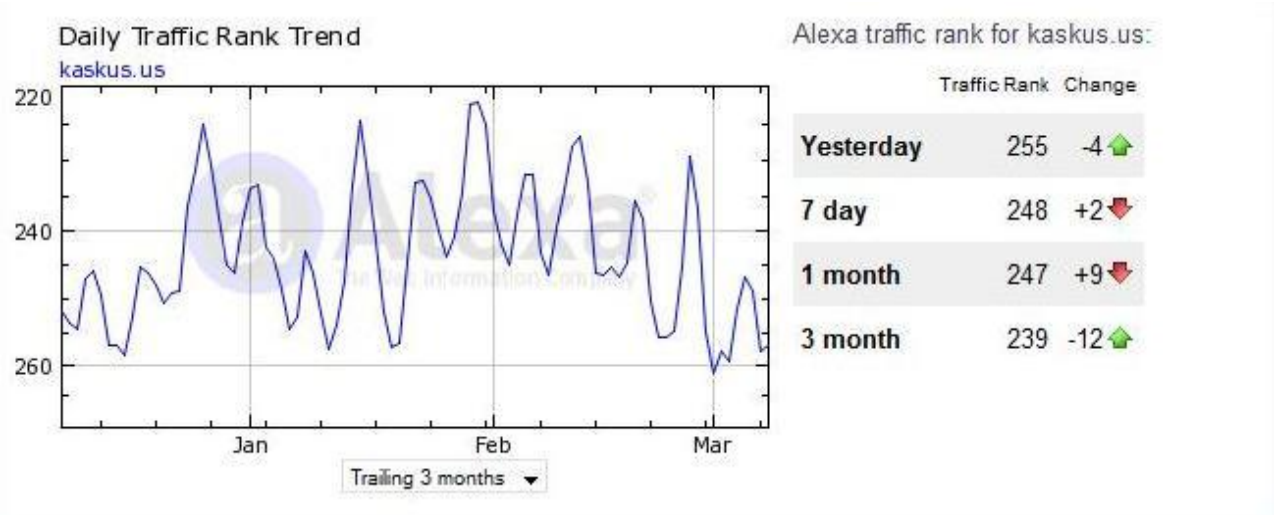

Figure 6. Kaskus Daily Traffic Rank Trend
Source: http://www.alexa.com/

The Kaskus.us daily traffic rank trends are shown in figure 6 which currently ranked 255 in the world. Most of the user which is 93.9% are come from Indonesia,

0.8% from United States of America, 0.7% from Japan, 0.5% from Malaysia and the rest which is 4% are come from the other countries [24].

2.4.1 Forum Jual Beli Kaskus

Kaskus make an online marketplace called Forum Jual Beli Kaskus. This is the C2C online shopping that made by Kaskus. Below is the demographic data from Forum Jual Beli Kaskus:

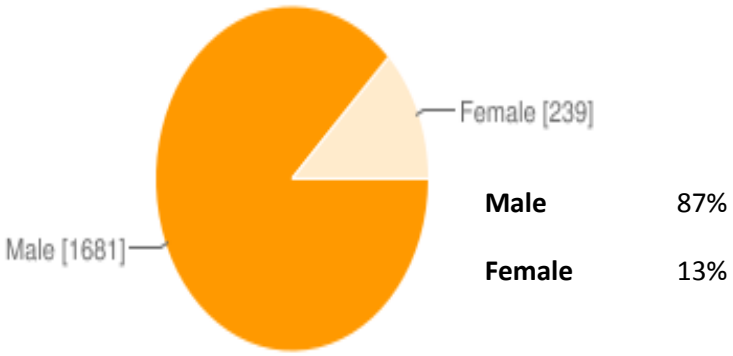

Figure 7. FJB Kaskus Gender User Pie Chart
Source: Kaskus Representatives

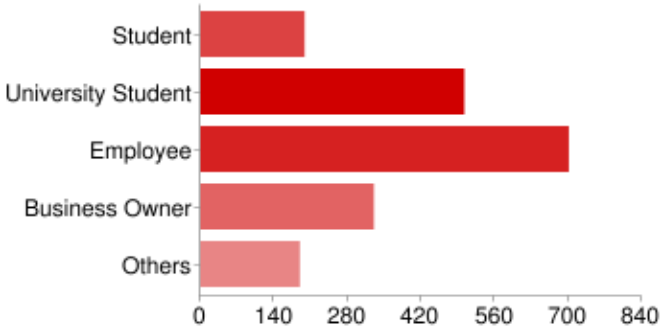

Figure 8. FJB Kaskus User Occupation
Source: Kaskus Representatives

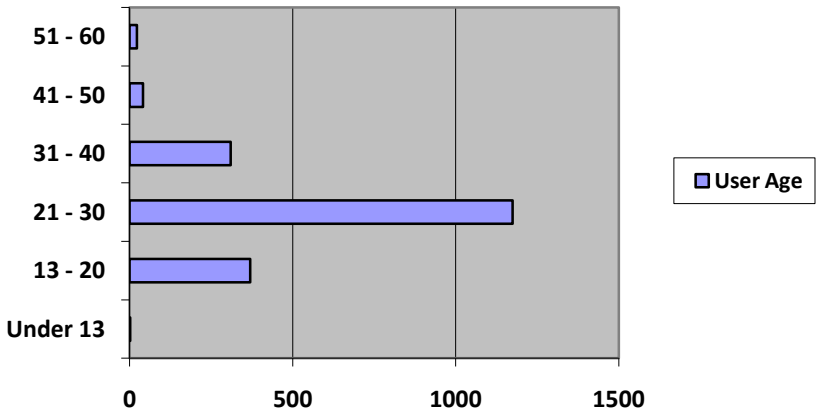

Figure 9. FJB Kaskus User Age
Source: Kaskus Representatives

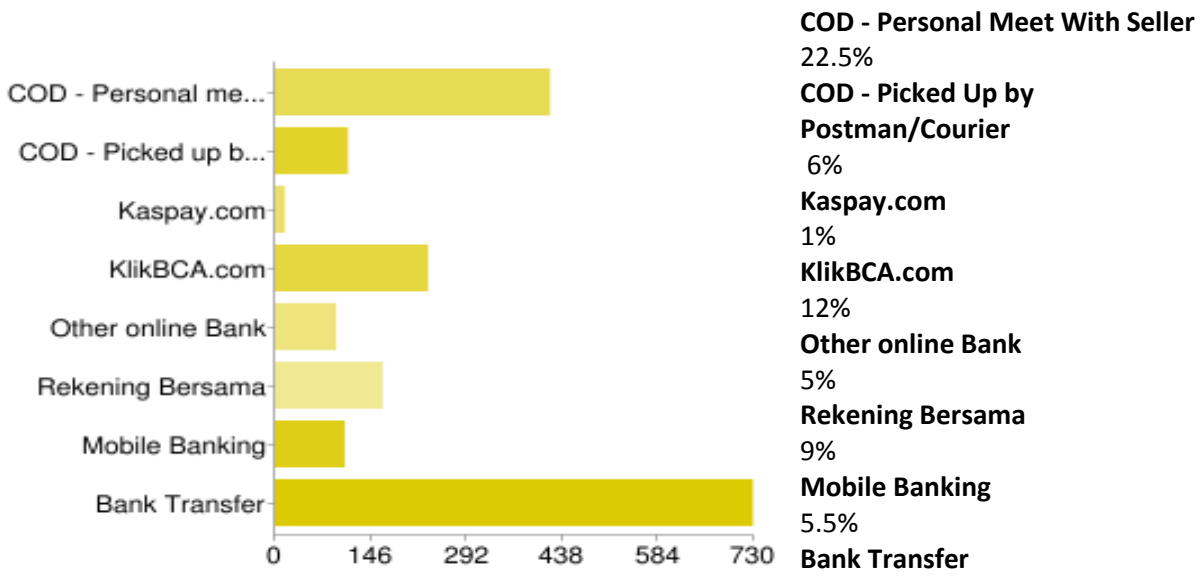

Figure 10. FJB Kaskus Payment Method
Source: Kaskus Representatives

2.5 eBay

EBay started back in September 1995 by computer programmer Pierre Omidyar from Iran. He started on his personal website. eBay originally called AuctionWeb and hosted on the same server as the page Omidyar about the ebola virus. As interest grows, AuctionWeb began taking over Pierre's Web site. It later became www.eBay.com, abbreviation of Echo Bay Technology Group, Omidyar's consulting firm name. Site tale that began as a way to Omidyar's wife to sell Pez dispensers (or Beanie Babies) is fabricated by the marketing manager to trigger media interest in the early days of the site.

EBay experimenting with various online payment technologies in order to protect users from fraud. In 1999, the company purchased and renamed Billpoint eBay Payments, only to watch the pale in comparison with the payment application was originally built for the Palm handheld is known as PayPal [25]. EBay.com is ranked #24 in the world according to the three-month Alexa traffic rankings. Visitors to this site view an average of 18.5 unique pages per day. The site has attained a traffic rank of 9 among users in the US, where we estimate that 66% of its audience is located. EBay.com is based in the US, and the fraction of visits to it referred by search engines is about 9% [24]. With more than 94 million active users globally, eBay is the world's largest online marketplace, where practically anyone can buy and sell practically anything. Founded in 1995, eBay connects a diverse and passionate community of individual buyers and sellers, as well as small businesses. Their collective impact on e-commerce is staggering: In 2010, the total worth of goods sold on eBay was $62 billion -- more than $2,000 *every second.* Until today eBay has 137,715,672 registered member [4].

Figure 11. eBay Audience Demographic Graph
Source: http://www.alexa.com/

Figure 11 shows the audience demographic of *eBay.com*. Based on internet averages, eBay.com is visited more frequently by users who received **some college** education and browse this site from **home**. The green bars indicate that over-representation of the segment and the red bars indicate that under-representation of the segment in the specified category.

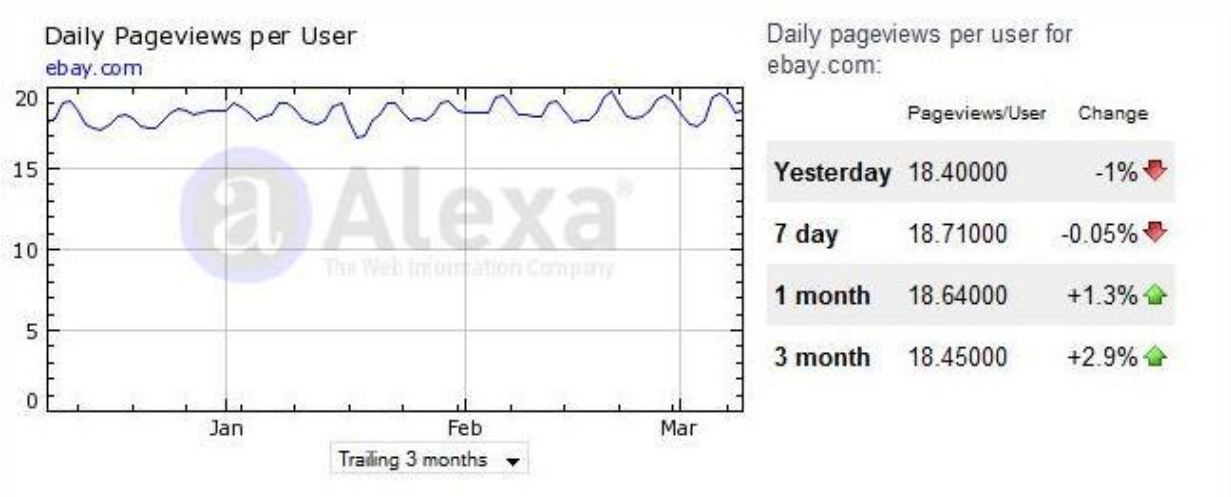

Figure 12. eBay Pageviews per User
Source: http://www.alexa.com/

On figure 12 shows that *eBay.com* on average has a page view of 18.4 page views per user.

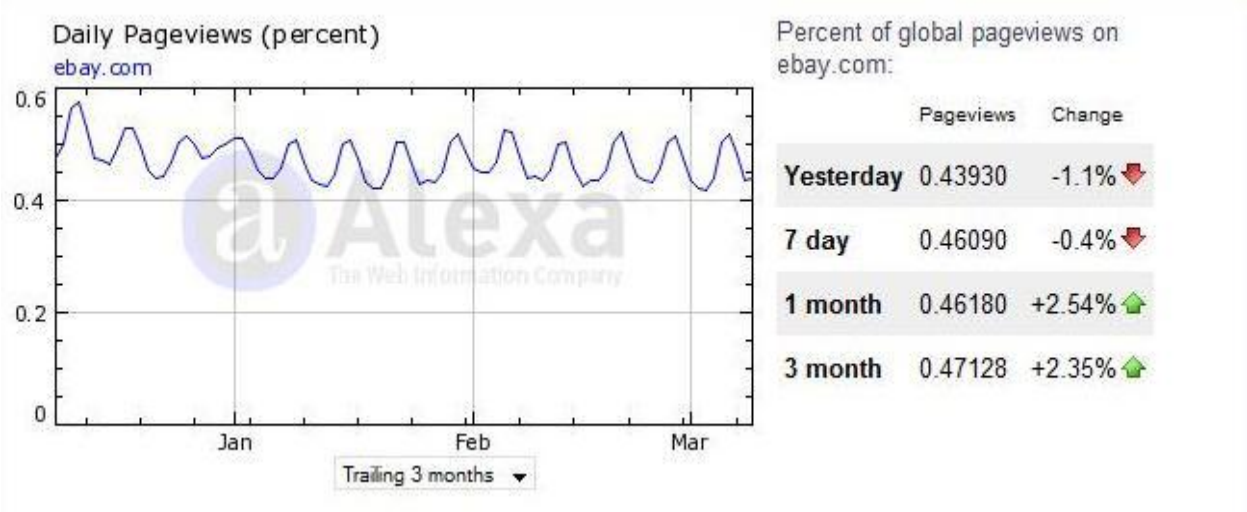

Figure 13. eBay Daily Pageviews (percent)
Source: http://www.alexa.com/

In percentage, figure 13 shows that *eBay.com* has 0.4394% page views in daily.

Figure 14. eBay Daily Traffic Rank Trend
Source: http://www.alexa.com/

The eBay.com daily traffic rank trends are shown in figure 14 which currently ranked 26 in the world. Most of the user which is 66% comes from United States of America, 2.2% from Canada, 2.2% from United Kingdom, 2.2% from Russia and the rest which is 27.4% are come from the other countries [24].

2.6 Bukalapak.com

Bukalapak.com is ranked #51,709 in the world according to the three-month Alexa traffic rankings. The site's visitors view an average of 6.8 unique pages per day. Compared with all internet users, the site appeals more to users who are low-income; its visitors also tend to consist of men between the ages of 25 and 45 who have more children and have no postgraduate education. About 28% of visits to Bukalapak.com are bounces (one page view only). Search engines refer roughly 16% of visits to the site [24]. Currently, total page views Bukalapak.com already exceeds 46 million and counting. The number of daily page view ranged from 15,000 to 20,000. User Demographics visitors Bukalapak.com especially bicycle hobbyist, approximately 70% of entry items are resold at Bukalapak.com bike stuff and currently the registered member are 77,682 users [54].

Figure 15. Bukalapak Audience Graph
Source: http://www.alexa.com/

Figure 15 shows the audience demographic of *Bukalapak.com*. Based on internet averages, Bukalapak.com is visited more frequently by **males** who are in the age range **25-34**, have **children**, have **no college** education and browse this site from **home**. The green bars indicate that over-representation of the segment and the red bars indicate that under-representation of the segment in the specified category.

Figure 16. Bukalapak Daily Pageviews per User
Source: http://www.alexa.com/

On figure 16 shows that *Bukalapak.com* on average has a page view of 6.2 page views per user.

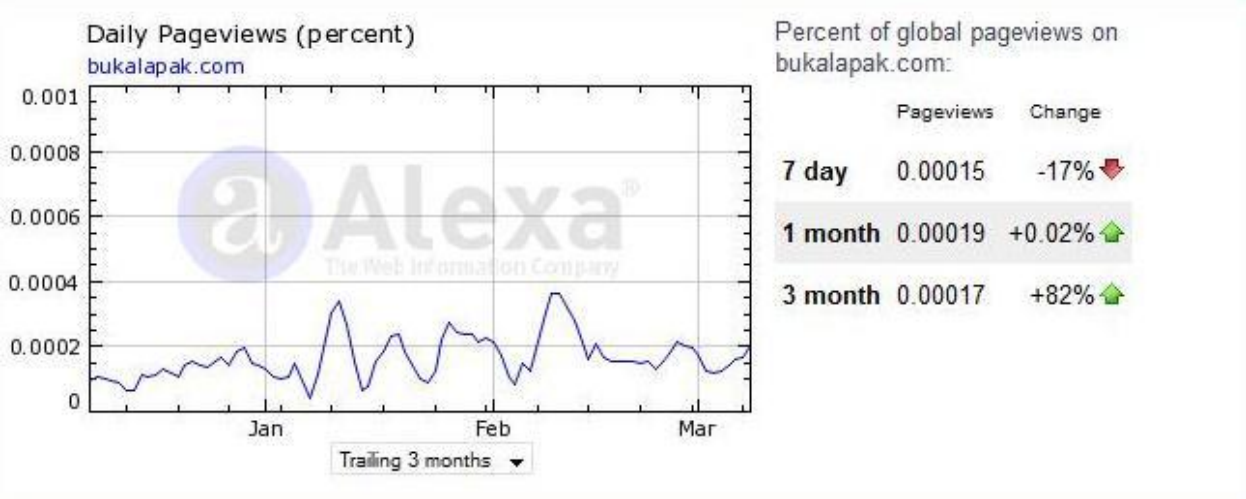

Figure 17. Bukalapak Daily Pageviews (percent)
Source: http://www.alexa.com/

In percentage, figure 17 shows that *eBay.com* has 0.00015% page views in daily.

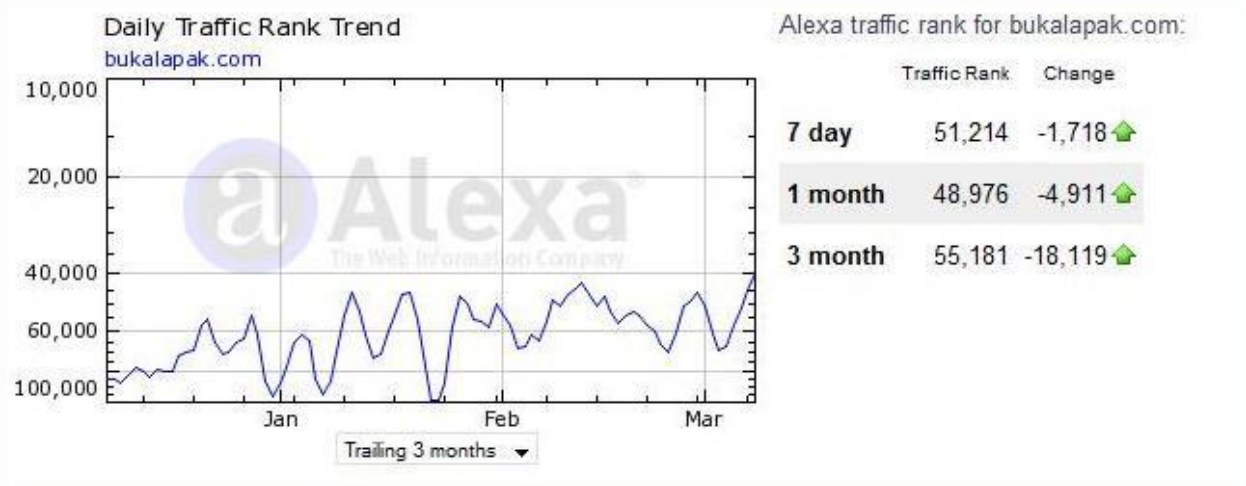

Figure 18. Bukalapak Daily Traffic Rank Trend
Source: http://www.alexa.com/

The Bukalapak.com daily traffic rank trends are shown in figure 18 which currently ranked 26 in the world. Most of the user which is 97.9% comes from Indonesia and the rest which is 2.1% are come from the other countries [24].

2.7 Theoretical Framework

2.7.1 TAM

Technology Acceptance Model (TAM) was originally developed by Davis to give an explanation of the determinants of computer acceptance. He was giving an explanation about the users' behavior in various end-user computing technologies and user populations are theoretically justified [26]. Fishbein & Ajzen (1975) developed TAM, a general behavioral model which is an application of the Theory of Reasoned Action (TRA) [26]. To adapt TRA to form a specific IS adoption model, TAM, introduced two technology- related antecedents: 'perceived usefulness' (PU) and 'perceived ease of use' (PEU).

• Perceived usefulness, which has been defined as a user's subjective point of view of the computer's ability to increase job performance when completing a task, and

• Perceived ease-of-use, which is a person's subjective point of view of the effortlessness of a computer system, which affects the perceived usefulness of having an indirect effect on a user's technology acceptance.

Several studies have tried to add or evaluate the TAM model and its enticement and usefulness has been supported over 40 TAM studies and found the main support for the core model [27]. TAM is a predictive model which is powerful to serve to different categories of technology. The study found that some investigators have focused on the general application of TAM to a various technologies and settings. For example, TAM has been proved to be useful in understanding adoption of hand-held devices, e-commerce sites, and entertainment oriented IS [28, 29, 30].

Acceptance Model (TAM) is a methodology to measure attitude of the technology users in many domains, especially in the financial domain. TAM has also proposed and applied some variations to measure the user attitudes about several IT-based services. An extensive body of subsequent research has confirmed the benefits of TAM and its various extensions and revisions as a tool to investigate and predict the user acceptance of information technology [31].

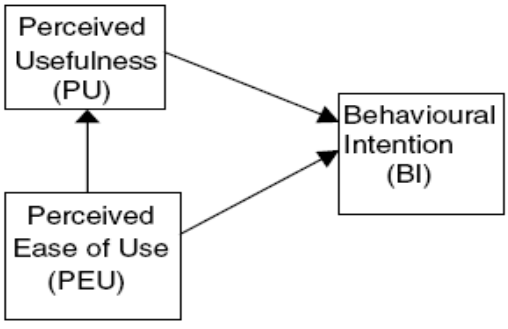

Figure 19. TAM Davis (1989) [26]
Source: Davis, Fred D.. (1989). Perceived Usefulness, Perceived Ease Of Use, And User Accep. MIS Quarterly, 13(3), 319. Retrieved March 30, 2011, from ABI/INFORM Global. (Document ID: 616987).

2.7.2 Adapted TAM Model

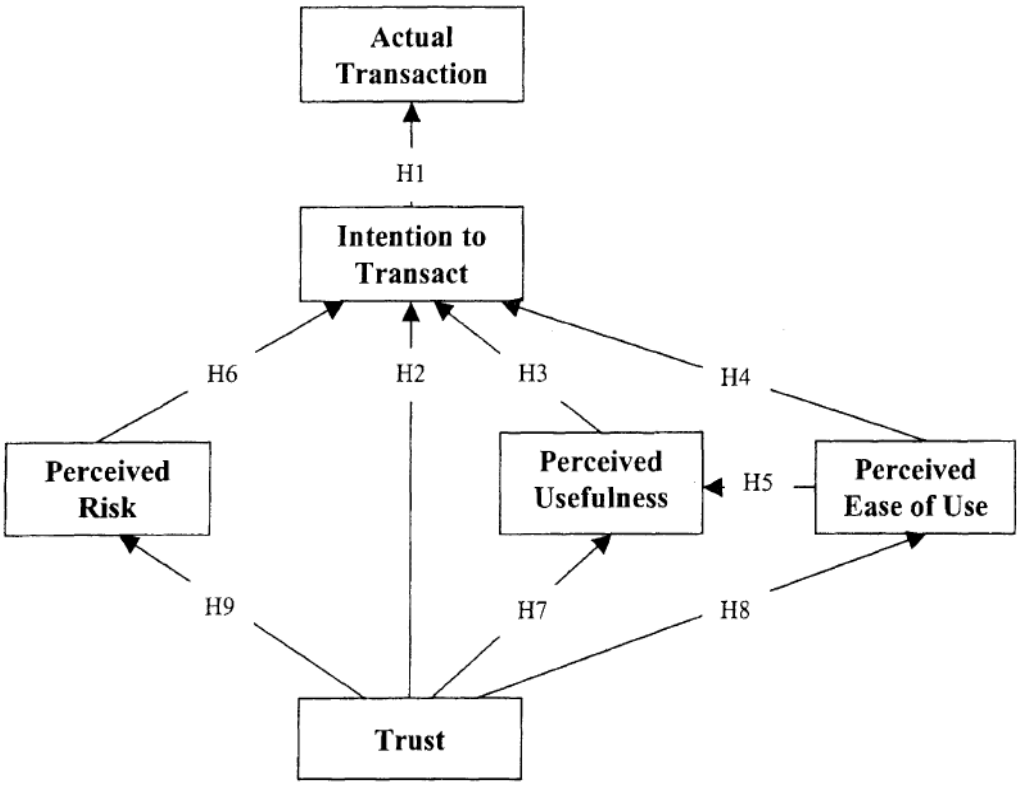

Figure 20. E-Commerce Acceptance Model
Source: Pavlou, P.A. and Fygenson, M. (2006), "Understanding and predicting electronic commerce adoption: an extension of the theory of planned behavior", MIS Quarterly, Vol. 30 No. 1, pp. 115-43.

TAM can be adapted to different topics. Figure 20 shows the e-commerce acceptance model. The main construct to establish the consumer acceptance of e-commerce is the dependant variables of the intention to do transaction and the actual transaction behavior. TAM variables are the key drivers of e-commerce acceptance. Under the aegis of TRA, the proposed model integrates additional key drivers of e-commerce acceptance, such as trust and perceived risk. Four key drivers will be explained here and their relationship with the transaction intentions and acceptance of e-commerce is given. The practical utility of considering TAM stems from the fact that e-commerce is heavily technology-driven. Trust and perceived risk are considered because

of the uncertainty of the e-commerce environment. By placing these variables in the TRA structure and precisely describing their interrelationships, it will justify the integration of the e-commerce key drivers into a coherent and penurious research model [36].

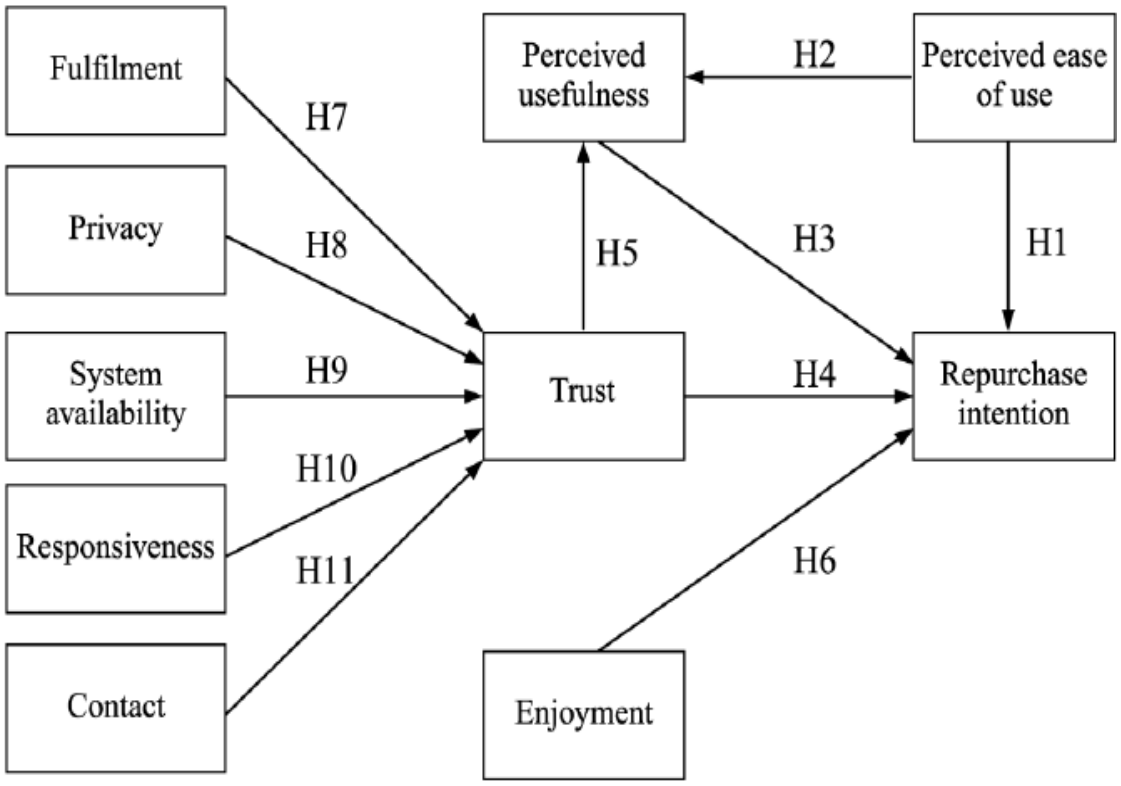

Figure 21. Original Framework Model

Figure 21 is the original framework model that will be adapted to this thesis is showing another adapted TAM. The dependent variable – repurchase intention is the main construct to see the customers' repurchase behavior. Repurchase intention itself means that an individual will continually purchase some products from a website or a store. It is believed that TAM is the key of repurchase intention in online shopping. Firstly, TAM only focused on the adoption or use of a new IT in the workplace. Then, the model mix it with additional variables that are important to maintain the buyer-seller relationship, such as trust and the dimensions of e-service quality [57].

The TAM stems contain variables that are important to behavioral intention. In online shopping, trust is needed between the seller and the buyer because of the uncertainty and the difference of information. Enjoyment needs to be considered because it will be a big mistake if the aspects of satisfaction for the consumers has not considered [32]. These are several original hypotheses from the original framework model:

H1: Perceived ease of use is positively related to repurchase intention.

H3: Perceived usefulness is positively related to repurchase intention.