

Analysis of Consumer Confidence on Mobile Commerce in Indonesia

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Abstract— *The rapid development of mobile-based information technology, can change an existing business process. Such as loss of distributors in a single chain of business processes. Mobile Commerce industry is getting a good condition to grow. With the decrease in Mobile communication costs, more and more people are using mobile computing devices that can connect to the Internet. There are several M-Commerce applications in Indonesia, namely Lazada, Tokopedia, Buka Lapak, Shopee and etc. The existence of these applications in Indonesia traders switches to online stores. This study takes three examples of M-Commerce applications in Indonesia with the top three criteria in terms of the best reviews and the highest number of reviews. The results of the sampling application are Lazada, Tokopedia and Buka Lapak. The process of collecting data taken will be analyzed to know about the level of consumer confidence in an M-Commerce application. This is evidenced by a collection of examples of online stores that exist in M-Commerce applications that inform ratings, discount information, and existing features. The results obtained from this research is, consumer confidence can be seen from the review feedback that exists in each - each M-Commerce. Many discounts and low prices have no effect on consumer buying interest in the online store. The researcher's suggestion is to reward the most traded buyers with points that can be redeemed for certain goods, discounted goods or subsidized postage.*

Keywords—*Mobile Commerce; business process; online stores; Industrial Information System*

I. INTRODUCTION

The rapid development of mobile-based information technology, can change an existing business process. Such as loss of distributors in a single chain of business processes. Sellers can directly communicate and handle to consumers. Sellers can also control stock and understand the trends that exist in society. The Mobile Commerce (M-Commerce) industry is getting good conditions for growth, and some new applications from Mobile Trade are emerging. With the decrease in Mobile communication costs, more and more people in many countries are moving using mobile computing devices that can connect to the Internet. These devices are widely applied to personal communication, website browsing, and scheduling, play a more important role in people's lives, and provide more commercial opportunities for Mobile Commerce development [1].

In Indonesia, many M-Commerce applications are superior and often used by the public, such as Lazada, Tokopedia, Buka Lapak, Shopee and so forth. M-Commerce has a different way of marketing strategy. With available M-Commerce applications in Indonesia, the sellers switch to online stores. In its application, the sellers can be found in some M-Commerce. In research Puspha P.V, examines the characteristics of buyers who make transactions with different mobile commerce. In his research, he observed a

real pattern of traction in customers using mobile commerce [2]. A research conducted by A. Hussain, measured the perceived usefulness of mobile commerce application performance in the aspect of effectiveness, efficiency and satisfaction to improve the receipt of the application and user loyalty or seller [3].

II. LITERATURE REVIEW

A. Mobile Commerce

Mobile Commerce is the development of E-commerce that utilizes the smartphone as the medium with the principle of mobility. Mobile commerce as a further development on the mobility side of e-commerce. As a trusted transaction service through mobile devices to exchange services and services both between consumers, merchants, and financial institutions. During a transaction or cash flow carried out by a mobile device, it will be categorized as mobile commerce [4]. Mobile commerce can also be interpreted as a platform where users can buy products using mobile devices connected via wireless data connections [5]. The difference between mobile shopping and mobile shopping is in customer's mobile shopping using a mobile device (mobile) while they're shopping online they can use mobile devices and stay like pc [6]. And so in order to increase or influence a customer's trust, M-Commerce application must provide a quality system, information, and service to promote user's comfort in purchasing [7][8]. M-Commerce becomes a new innovation in trading and also part of electronic commerce [9]. In the future, M-Commerce continues to grow in the market with the knowledge developed from longitudinal research on how people relate to M-Commerce from time to time can provide a significant advantage [10].

B. Customer Behavior

In a study conducted by T.Lei, writing that personalized service can influence the habits of customers in shopping through M-Commerce, some of the components that affect the Social Environment, Content Services, Interface Design [11]. Customer behavior and Feedback can be obtained through data sources, including structural and unstructured data. It is important to optimize user engagement and user attitudes toward products and services [12]. Consumer habits need to be analyzed with the aim of predicting and promoting products intelligently and in accordance with the target [13].

C. The Development of M-Commerce in Indonesia

There are four elements that influence the development of M-Commerce in Indonesia, namely Information Technology Infrastructure, M-Commerce Knowledge Level in Indonesia [14], Online Traction of Trustworthiness and Information Supply Limitation [15].

D. Determinants of Purchase's Continuance Intention

According to S. W. Chou, satisfaction factors, beliefs, learning, habits, and quality of product information examined from cellular services have been studied based on factors such as playfulness, perceived ease of use (EOU), attitudes, and subjective norms [16]. A study shows that purchasing intentions have been determined by three factors such as trust, flow and perceived usefulness [17]. According to C. Chang online purchases are considered as loyalty influenced by direct satisfaction and perceived value based on the context of web and mobile use [18]. Purchasing intentions as electronic loyalty influenced by flow, perceived ease of use, and perceived usefulness have been reviewed based on determinants such as system quality, information quality, service quality, perceived usefulness, perceived ease of use, perceived risk, and satisfaction perceived [19].

III. RESEARCH METHOD

Step in doing this research can be seen from figure 1, that is a flow of research process.

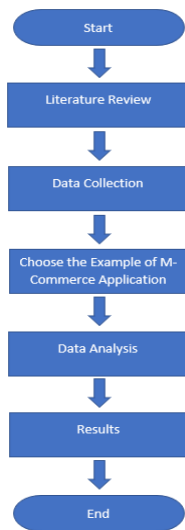


Fig. 1. Research Method

Researchers collected M-Commerce applications, from ten apps are taken rating and total reviewers. The data is taken three M-Commerce again. The criteria are the rating and the most total reviews. Rating rules taken from 4 - 5 scale, total reviews above 500,000 viewers [20]. Data was taken on March 12, 2018, with Play Store source.

The expected results of the research conducted is from the data obtained, researchers know the characteristics of sellers and buyers in online stores. In addition, researchers also want to see how big the level of confidence of buyers in online stores.

IV. DISCUSSION

A. Data retrieval

Table I shows those applications with high ratings are directly proportional to a large number of reviewers.

TABLE I. M-COMMERCE INDONESIA

M-Commerce	Reviews / Rating (1-5)	Total Reviewers
Lazada	4.3	1,323,186
Tokopedia	4.3	725,763
Shopee	4.2	460,449
Elevenia	4.1	96,166
Blibli	4.1	136,000
BukaLapak	4.4	539,072
Matahari Mall	3.9	38,454
Alfacart	3.8	9,110
Blanja.com	3.7	8,048
JD.Id	4.3	81,891
Bhinneka	3.1	77

B. Selecting a 3 M-Commerce as an Example

Data were taken on Monday, March 12, 2018, is sourced from existing data in the Play Store. The three (3) M-Commerce are selected to be studied they are Lazada, Tokopedia, and BukaLapak. Here is an explanation of the results of the observations obtained.

1) Lazada

- There are 2 language features (Indonesian & English)
- High rating
- Many Discounts
- Payment can be made periodically (installments).
- The stock is not displayed, but the maximum purchase limit is 5 pcs for all items.
- At the time of making the purchase will go through 3 processes namely the delivery process, payment process, and review process.
- In the sending process to enter data correctly if the contents of the "*" of the data must be filled, if it is advanced to the payment process ..
- On the payment process will make the selection of payment according to the options listed.
- For payment, there is a choice of pay where the payment is made when the courier to send the goods to the destination and the goods have come to the consumer who made the purchase of goods.
- The Review Process will display Details of the purchase and will proceed with order confirmation.

2) Tokopedia

- There are 2 language features (Indonesian & English)
- Payment can be made periodically (installments).
- The level of consumer confidence is higher, judging by the positive reviews.
- Stock not shown
- Product information shown is the number of sold, who saw the goods, insurance, dam Weight of goods.

- At a time of purchase will do login first. To do list login can enter through facebook, google, and Email.
- Purchase data must be filled correctly and accordingly
- Purchase data for address can directly connect to the maps application to get clarity of location for delivery of goods.

3) *BukaLapak*

- There is only one language.
- Offer many discounts
- Payment can be made periodically (installments).
- The displayed stock is visible
- Purchase Data (address and phone number) must be filled in correctly. Example: phone number must be filled Indonesian phone code. The address in the content must contain the word "Street, Jl." If it does not exist then the input in the user's content is considered invalid.

C. *Data Analysis*

Researchers took 30 online stores randomly on three (3) M-Commerce. Tabel II shows the strengths and weaknesses of each M-Commerce in Indonesia.

TABLE II. ONLINE SHOP LIST

No	Store Name	Application	Price	Discount	Rating
Needs of Women (Cosmetics, Shoes, Clothes, Bag)					
1	Pluvia Shoes (Flat Shoes Slip On Kanvas)	Lazada	90000	55%	77%
		Tokopedia	100000	-	98.68 %
		BukaLapak	100000	-	95%
2	Beauty Bonney(Nature Republic Aloe Vera Soothing Gel 92% 300MI)	Lazada	100000	14%	97%
		Tokopedia	85800	-	100%
		BukaLapak	85800	-	95%
3	Velopestore(Women's Trousers)	Lazada	82600	26%	70%
		Tokopedia	97200	-	99.19 %
		BukaLapak	100000	-	98%
4	Batik Er 25(Square Hijab)	Lazada	90500	30%	0%
		Tokopedia	88300	0%	100%
		BukaLapak	100000	45%	100%
5	Tokohita(Women's Kulot Pants)	Lazada	100000	-	37%
		Tokopedia	90000	-	100%
		Buka Lapak	90000	-	99.90 %
6	Sweet Honey (Rattan Bags)	Lazada	100000	-	0
		Tokopedia	100000	-	0
		Buka Lapak	90000	10%	100%
Baby Needs					
7	Indo Ultimate (Baby Carrier)	Lazada	94490	42%	83%
		Tokopedia	100000	-	92.11 %
		BukaLapak	97600	-	89%

No	Store Name	Application	Price	Discount	Rating
8	Faradisa Batik(Child Batik Clothes)	Lazada	100000	-	100%
		Tokopedia	100000	-	92.98 %
		BukaLapak	100000	-	97%
9	Kembarshop (Baby Gift Wrap)	Lazada	100000	54%	79%
		Tokopedia	84000	-	96.91 %
		BukaLapak	84000	-	100%
10	Lolibi (Baby Bottle)	Lazada	100000	20%	95%
		Tokopedia	99300	-	100%
		Buka Lapak	99300	-	97%
11	Bloombing Deal(Glass Bottle)	Lazada	100000	55%	89%
		Tokopedia	100000	-	100%
		Buka Lapak	100000	-	98%
12	BabyManiaShop(Apron Breastfeeding)	Lazada	100000	40%	90%
		Tokopedia	95500	-	99.46 %
		Buka Lapak	95500	-	95%
13	BabyKlik(Pijamas)	Lazada	91300	19%	91%
		Tokopedia	100000	-	98.61 %
		Buka Lapak	86780	5%	99%
Needs of Men (Bag, Wristwatch, Clothes)					
14	Raja OB(Sling Bag USB Port charger smart backpack B295)	Lazada	96400	66%	79%
		Tokopedia	100000	-	97.82 %
		BukaLapak	100000	-	95%
15	Resinda Fashion Store (Men's Pants)	Lazada	94100	50%	72%
		Tokopedia	100000	-	100%
		Buka Lapak	100000	-	90%
16	Rafflesia Outdoor (Purse and Bag)	Lazada	100000	-	71%
		Tokopedia	97100	-	72.73 %
		Buka lapak	100000	-	90%
17	Keyshima (Batik Shirt)	Lazada	100000	52%	53%
		Tokopedia	80900	-	100%
		Buka Lapak	90090	-	100%
18	Saver Store (Wristwatch)	Lazada	100000	20%	75%
		Tokopedia	66700	-	100%
		Buka Lapak	65000	-	96%
19	Nee Cloth (Shirt)	Lazada	100000	-	77%
		Tokopedia	100000	-	89.47 %
		Buka Lapak	100000	-	0%
20	Sumber Tas Grosir (Backpack)	Lazada	100000	46%	78%
		Tokopedia	100000	-	100%
		Buka Lapak	100000	-	100%
21	Redwingmitary (Backpack)	Lazada	100000	-	73%
		Tokopedia	50000	-	100%

No	Store Name	Application	Price	Discount	Rating
		<i>Buka Lapak</i>	48000	-	98%
22	Mutiar Alkes (Hot Water Bag)	<i>Lazada</i>	100000	42%	90%
		<i>Tokopedia</i>	75000	-	93,10 %
		<i>Buka Lapak</i>	75000	-	99%
Other Equipment					
23	TokoEELIC (Table Lamp Learning Architects RJ800)	<i>Lazada</i>	81700	58%	80%
		<i>Tokopedia</i>	95800	-	99,57 %
		<i>BukaLapak</i>	100000	-	98%
24	Modemku Mega Sarana(Mini ature Dewaruci Ship)	<i>Lazada</i>	89500	76%	81%
		<i>Tokopedia</i>	100000	-	97,96 %
		<i>BukaLapak</i>	100000	-	100%
25	Roemahsulap(A Magician)	<i>Lazada</i>	100000	-	75%
		<i>Tokopedia</i>	85700	-	92,98 %
		<i>BukaLapak</i>	89300	-	97%
26	Galeri Medika (Electric Massage Device)	<i>Lazada</i>	98700	-	92%
		<i>Tokopedia</i>	87100	-	95,40 %
		<i>Buka Lapak</i>	100000	-	96%
27	GlobalNetLive (Stick the Old Man)	<i>Lazada</i>	100000	32%	91%
		<i>Tokopedia</i>	86700	-	91,30 %
		<i>Buka Lapak</i>	82400	5%	100%
28	Innofoto(Wall Clock)	<i>Lazada</i>	95600	71%	83%
		<i>Tokopedia</i>	100000	-	95,79 %
		<i>Buka Lapak</i>	75000	-	97%
29	Alfaindo(Bo x Store)	<i>Lazada</i>	100000	33%	89%
		<i>Tokopedia</i>	95000	-	98,14 %
		<i>Buka Lapak</i>	95000	-	96%
30	OfficeExpress(Strappler Kangoro)	<i>Lazada</i>	62500	-	82%
		<i>Tokopedia</i>	100000	-	97,22 %
		<i>Buka Lapak</i>	99700	-	97%

V. RESULT

Researchers calculate the average price sold on each M-Commerce. Figure 2 shows the price average diagram of the online shop. The diagram shows that the highest price is Lazada rather than Tokopedia and Buka Lapak. TABLE II shows Lazada offers the most discounts, but the price after the discount is not much like the normal price of tokopedia and Buka Lapak.

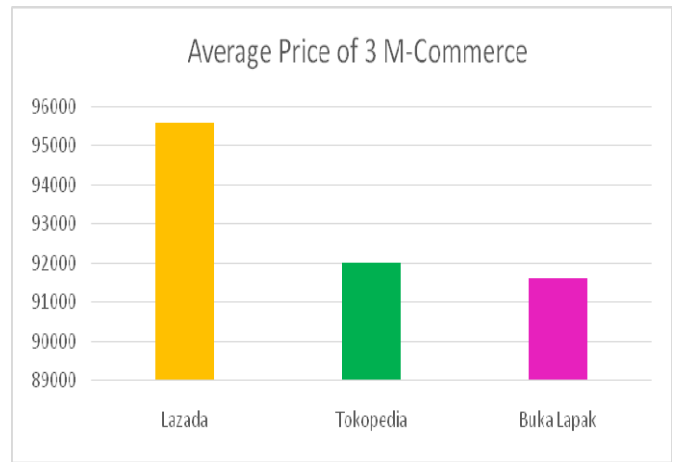


Fig. 2. Average Price of 3 M-Commerce

In addition, the average rating of each store on M-Commerce is also calculated. Tokopedia's results are superior among the other two (2)M-Commerce. Figure 6 shows that Tokopedia does not offer many discounts, but its rating is the highest. The strategies of the three existing M-Commerce examples can be studied further.

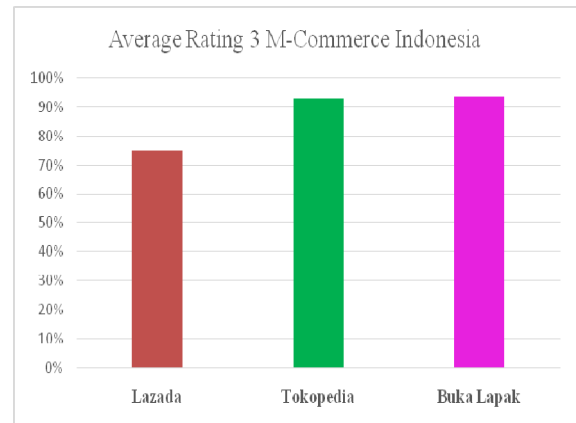


Fig. 3. Average Rating 3 M-Commerce Indonesia

A. Characteristics of Buyers and Sellers in Indonesia

On Research Prof. Shanti, says everyone's habits are different. In his research also mentioned the population of gender also affect the habit of shopping online[21]. In Indonesia, sellers easily offer their products on more than one M-Commerce app[22].

Table II shows that many sellers in Indonesia offer more products on more than one M-Commerce. At Lazada, many discounts are always there in every item sold, but it did not affect the rating obtained. Because of that, then buyers in Indonesia are also often moving around in buying a product in more than one M-Commerce. A trend in Indonesia many M-Commerce are competing to attract a lot of consumers, strategies that also do diverse. Trust one of the important strategies that need to be done.

VI. CONTRIBUTION AND IMPLICATION

Effective strategies can result in more customers, but greater costs. However, it can produce "goodwill" in the long run [23]. This research is seen if the marketing method by offering more discounts cannot attract more consumers. The

confidence of every store in M-Commerce is also one factor of the many interests of the buyers. Suggestions that can be given to researcher's M-Commerce especially in Indonesia is to add or adopt from the current trend developing. Suppose, M-Commerce application that tracking the most number of transactions on the consumer then provide points that can be exchanged with certain goods, discounts, or subsidized shipping cost. In terms of the seller, also awarded for sellers who sell the most goods and have the highest rating by giving "Highlight" the name of the store and its products on the main page. Other studies, also reinforce that the packaging of the information presented is also very influential on consumer interest to visit existing M-Commerce [24]. Consumer confidence can maintain long-term trading competition. Each M-Commerce must also have controls on the comments section of every item and store listed in M-Commerce. The comment section is one part that is first read and reviewed by every consumer who will buy a product [22]. Other research also needs to study the inhibiting effects of an M-Commerce business process. The goal is to see how much customers trust, and how many products are purchased and the number of transactions made by consumers[25].

The novelty found in the paper written is that there has never been a study comparing consumer confidence from M-Commerce in Indonesia. M-Commerce retrieval can be from the top three rating and viewers, namely Lazada, Tokopedia, and Buka Lapak with the acquisition of rating 4.3 with viewers 1,323,186 (Lazada), rating 4.3 with viewers 725,763 (Tokopedia), rating 4,4 with viewers 539,072 (Buka Lapak). Data samples taken were sellers who sold the same product in the three M-Commerce.

VII. CONCLUSION

From the results and discussions obtained, there are several conclusions that can be taken. The trust of an online store is crucial in the marketing strategy of an online business. In the above data, a good belief can be seen from the feedback review every M-Commerce. Examples of existing M-Commerce also show that many discount offers have no effect on the number of sales and good reviews from consumers. When viewed from the price, indicating that consumers are not affected by the low prices and discounts offered. Reasonable price and brand from M-Commerce Application are also considered by consumers before purchasing goods. In addition to having the right strategy, it is also necessary to know the inhibiting factors in doing the strategy. It can also add new ideas in strategies to conduct business processes from M-Commerce. Looking at M-Commerce in the future will continue to grow from time to time.

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