Impact of Online to Offline (O2O) Commerce Service Quality and Brand Image on Customer Satisfaction and Repeat Purchase Intention

Andrianto Widjaja¹, Yosua Giovanni W.²

¹Post graduate Director at Labora School of Management, Jakarta, Indonesia
²Alumnus of Postgraduate Degree on Management of Labora School of Management, Jakarta, Indonesia

Abstract—Nowadays, e-commerce has been dominating trade business. Even O2O (online to offline) approach has lately been developed, which enables online order service while pick up can be made offline. The purpose of this research is to discover and analyse if there is any impact of O2O commerce service quality and brand image on customer satisfaction and repeat purchase intention of O2O commerce customers as provided by www.Mataharimall.com. In order to reach the purpose of this research, a research method was developed along with relevant hypotheses, which were analysed using path analysis technique. Data collection was conducted using research instrument in the form of questionnaire, which contains all research variables and indicators. Selected respondents are customers with shopping experience using O2O commerce facility. Sample was taken using purposive sampling technique. Result of hypotheses testing indicated that all hypotheses are accepted.

Keywords—Service Quality, Brand Image, Customer Satisfaction, Purchase Intention.

I. INTRODUCTION

Digital market development, commonly known as e-commerce, grows rapidly in Indonesia. Internet users increased from 72.8 million users in 2013 to 102.8 million users in 2016 (www.kominfo.go.id). There were 8.7 million customers who shopped online in 2016, with transaction amount of USD 4.89 billion (www.obsessionnews.com). In the early 1970, e-commerce application was only used by big companies. E-commerce application includes purchase, sale, transfer, product exchange, and information service process through computer network, including internet (Turban et al, 2015). With the advancing technology, e-commerce is used not only for B2B (business to business) but also for B2C (business to customer) purposes. Then it is not surprising when Choudhury (2015) stated that online sale portion increased at 80% globally in 2015.

Recently, Online to Offline (O2O) approach is also developed, which combines the strength of online and offline business. According to www.investopedia.com, this concept is a business strategy that entices potential customers to visit the physical store. O2O commerce enables online order and offline pick up of goods (Yingseng Du & Youchun Tang, 2014). A research by Zhang (2015) concluded that O2O service is highly accepted by customers as they tend to be interested to make a purchase when they are able to directly see and experience the desired goods. Improving the quality of a service will usually bring impact on the increase of customer satisfaction (Rust & Zahorik, 1996). On the other hand, increased service quality will encourage customers to purchase, and even repeat purchase the relevant products (Ahlen & Rehn, 2013).

The development of O2O-commerce in Indonesia is indicated by the launch of www.Mataharimall.com in 2015. Customers who shop on this website are able to make online purchase and pick up the purchased goods in 138 Matahari Department Stores across Indonesia, or in the designated electronic locker, such as PopBox and Post Office (www.Mataharimall.com). The concept of O2O service also attracts purchase intention of customers who do not have clear place of domicile, or customers who are not able to receive delivery of purchased items. Besides, O2O service also provides solutions for return of goods in the event that the purchased items do not match the order. Opportunity to visit the physical store brings a distinct enticement for customers, moreover when special service or promotions are also provided. Meanwhile, purchase transaction, specifically repeat purchase transaction, is also affected by positive brand image (Andreani et al, 2012). Strong brand image will build customer loyalty to the products sold online and offline (Kotler & Keller, 2007).

Based on the above background, researchers are interested to further discover the relationship between O2O-commerce Service Quality, Brand Image and Customer Satisfaction variables and Repeat Purchase Intention variables. The purpose of the research is to discover and analyse if there is any impact of O2O-
commerce Service Quality and Brand Image on Customer Satisfaction and the impact on the Repeat Purchase Intention from the customers.

II. LITERATURE REVIEW

2.1 Repeat Purchase Intention.
Purchase intention can be defined as the willingness to own a product, which can be a goods or service. This willingness may arise from the customers themselves as an impact from observation and learning process over relevant product. Purchase intention arises when a customer is influenced by the quality of certain products or brand image of the product. Durianto (2013) explained that purchase intention is related to customer plan to buy certain product at certain time. Research by Ahlen & Rehn (2013) concluded that service quality will encourage costumers to make a purchase. Research by Andreani et al (2012) found out that repeat purchase is highly affected by positive brand image. Meanwhile, research by Mehmood et al (2015) emphasized that Service Quality, Brand Image and Customer Satisfaction directly affect Purchase Intention. It is also believed that upon customer satisfaction, Repurchase Intention will arise (Vinartha, 2015; Akhtar, 2010).

2.2 O2O-Commerce Service Quality.

On the other hand, other researches prove that high service quality of a product will stimulate purchase intention and repeat purchase intention, such as researches by: Andreani et al (2012); Aptaguna & Pitaloka (2016); Astuti (2013), Laksita & Prihandini (2012) dalam Resti & Soesanto (2016); Sidharta (2008); Mehmood et al (2015); Soltani et al (2016); and Arslan & Zaman (2014).

2.3 Brand Image.
Brand Image is a description of customer association to and trust in a certain brand. Brand Image is the observation and trust that are tightly held by customers, as reflected in customers association or memory (Tjiptono, 2015). Research by Atmaja (2011) and Andreassen et al (1998) found out that company image affects customer satisfaction. Other researches also resulted in similar conclusion, i.e. Brand Image directly and positively affect customer satisfaction Kumowal et al (2016), Chi Chuan Wu et al (2011), Ehsan Malik et al (2012) and Rizan et al (2015). On the other hand, strong brand image makes customers loyal and eventually encourages repeat purchase intention (Andreani et al, 2012). Other researches in various industries also support the above statement (e.g. researches by Mehmood et al (2015), Soltani et al (2016), Arslan & Zaman (2014) and Ren Fang Chao et al (2015)).

2.4 Customer Satisfaction.
Customers are satisfied when they get the performance by which their needs, desire and expectation are met. This experience results in satisfaction (Lovelock & Wirtz, 2011). This satisfaction will build loyalty, which ultimately brings about repeat purchase. A number of researches confirm that customer satisfaction also results in customer loyalty (Wong & Sohal (2003) in Resti & Soesanto (2016), Sondakh (2014), Atmaja (2011) and Ren Fang Chao et al (2015)). Griffin (in Hurriyati, 2005) explained that one of the characteristics of loyal customers is regular purchase. Several other researches firmly prove that customer satisfaction brings significant effect to repeat purchase intention (Resti & Soesanto (2016), Hidayat (2009), Budi & Sihombing (2010) in Resti & Soesanto (2016), Wen et al, (2011), Akhtar (2010) and Mehmood (2015)).

2.5 Conceptual Framework
In order to attain the purpose of this research, a research model is developed by using exogenous variables, i.e O2O-commerce Service Quality and Brand Image. Meanwhile, Customer Satisfaction and Repeat Purchase Intention variables are used as the endogenous variables. Customer Satisfaction also serves as the intervening variable. Meanwhile, variables used in this research are defined operationally as follows:

a. O2O-Commerce Service Quality variable (X1) is the quality of service provided by MatarhariMall.com in order to satisfy its customers by providing or delivering service beyond customers expectation (Tjiptono, 2012). This research uses dimensions based on theory by Zeithaml, Berry and Parasuraman (in Tjiptono, 2012), namely:

1. Tangibles, refers to real proof of care and attention given by service provider to customers. Indicator for Tangibles dimension
2. **Reliability**, refers to ability of the company to perform the promised service on a timely manner. Indicator for Reliability dimension is the ability of mataharimall.com to provide service accurately and promptly.

3. **Responsiveness**, refers to ability of the company to provide service promptly and responsively. Indicator for this dimension is employees’ responsiveness in servicing the customers, employees’ promptness in servicing the customers and handling the customer complaints.

4. **Assurance**, refers to employee’s knowledge and behaviour in building customers trust and confidence when using the offered service. The indicator is related to customers trust on the company, such as company reputation, achievement, etc.

5. **Empathy**, refers to ability of the company to provide individualized attention to customers, which includes sensitivity to customers needs. Indicator for this dimension is represented through access or convenience in using the offered service.

b. **Brand Image variable (X2)** refers to customers’ perception of a certain brand based on their memory with regard to the product of relevant brand as a result of their experience with the product of the brand (Durianto et al, 2004). This research uses several dimensions based on the theory by Biel (2009), namely:

1. **Corporate Image**, refers to a group of association as perceived by customers over a company that produces certain goods or service. The indicator can be in the form of company popularity and credibility.

2. **User Image**, refers to a group of association as perceived by customers over the users of certain goods or service. The indicator can be in the form of social status of these users.

3. **Product Image**, refers to a group of association as perceived by customers over certain goods or service. The indicators include product attribute and the benefits for customers.

c. **Customer Satisfaction variable (Y1)** refers to a condition where customers need, desire and expectation are met, which result in repeat purchase or continuous loyalty (Band, 1991). In this research, indicator Y1 is based on the theory by Irawan (2004) as follows: (1) Product Quality, (2) Price, (3) Service Quality, (4) Emotional Factor and (5) Cost and Convenience.

d. **Repeat Purchase Intention variable (Y2)** refers to the intention or interest to repurchase certain goods or service, which arises when customers are influenced by the quality of the relevant product (Howard, 1994). In this research, indicator Y2 is based on the concept provided by Hasan (2013) as follows:

1. Transactional intent, refers to the tendency to buy the product.

2. Referential intent, refers to the tendency to give reference to other people.

3. Preferential intent, refers to the behaviour of an individual who has main preference of a product, which can only be substituted when something happen to the preference product.

4. Exploratory intent, refers to the intention that describes individual behaviour to search for information on the desired product to affirm positive features of the same product.

Based on the above literature study, the following hypothesis can be developed:

- **H1**: It is assumed that O2O-Commerce Service Quality directly affects Customer Satisfaction.
- **H2**: It is assumed that Brand Image directly affects Customer Satisfaction.
- **H3**: It is assumed that O2O-Commerce Service Quality directly affects Repeat Buy Intention.
- **H4**: It is assumed that O2O-Commerce Service Quality indirectly affects Repeat Buy Intention through Customer Satisfaction.
- **H5**: It is assumed that Brand Image directly affects Repeat Purchase Intention.
- **H6**: It is assumed that Brand Image indirectly affects Repeat Buy Intention through Customer Satisfaction.
- **H7**: It is assumed that Customer Satisfaction directly affects Repeat Purchase Intention.

![Fig.1: Research Model](https://www.ijaems.com)
III. RESEARCH METHOD

This research is a descriptive-associative research, which will analyse causal relationship between exogenous variables and endogenous variables. Direct and indirect influence between O2O-Commerce Service Quality and Brand Image variable will be tested against Customer Satisfaction variables, as well as the impact on Repeat Purchase Intention variable.

The population of this research is the customers who make use of O2O service facility offered at www.MatahariMall.com. Research samples are taken from 70 people using purposive sampling technique. Meanwhile, sample criteria are limited to the customers who have made purchase at www.MatahariMall.com using O2O-commerce facility, both by using pick-up facility at mataharimall counters and at the e-locker. Data collection was conducted from the beginning of February to the end of March 2007. Respondents were asked to complete research instrument in the form of questionnaires that were distributed online.

These data were tested for the quality through validity and reliability testing. When validity and reliability requirements were met, testing was conducted on a number of assumptions, such as Linearity, Normality and Multicollinearity testing. Data analysis was conducted using Path Analysis technique to attain the purpose of the research. According to Solimun (2010), Path Analysis stages begin with developing a research model based on the selected concept and theory. From the developed model (Figure 2.1), the following structural equation was developed:

\[ Y1 = \beta_{111}X1 + \beta_{112}X2 + \epsilon1 \]
\[ Y2 = \beta_{211}X1 + \beta_{212}X2 + \beta_{2y1}Y1 + \epsilon2, \]

where \( \beta \) represents path coefficient between variables.

In the next stage, Correlation coefficient and Path coefficient were calculated. Path coefficient indicated the strength of exogenous variables influence on the endogenous variables. In addition, hypothesis testing was also conducted to find out if there was any direct or indirect effect of O2O-Commerce Service Quality and Brand Image on Customer Satisfaction and Repeat Purchase Intention.

IV. RESULT

4.1 Result of Hypothesis Testing

Hypothesis testing was conducted using Regression Weight (loading factor) based on the significance of the probability score (P), i.e. where cut-off value of \( p < 0.05 \) was considered significant. Result of the regression weight testing is provided in the below table:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Effects</th>
<th>Count</th>
<th>Total Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1 → Y1</td>
<td>Direct</td>
<td>0.241</td>
<td>0.241</td>
</tr>
<tr>
<td>X2 → Y1</td>
<td>Direct</td>
<td>0.284</td>
<td>0.284</td>
</tr>
<tr>
<td>X1 → Y2</td>
<td>Direct</td>
<td>0.274</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Indirect</td>
<td>0.060</td>
<td>0.334</td>
</tr>
<tr>
<td>X2 → Y2</td>
<td>Direct</td>
<td>0.239</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Indirect</td>
<td>0.071</td>
<td>0.310</td>
</tr>
<tr>
<td>Y1 → Y2</td>
<td>Direct</td>
<td>0.249</td>
<td>0.249</td>
</tr>
</tbody>
</table>

Based on the above table, it can be explained that:

1. O2O-Commerce Service Quality (X1) has direct and significant effect on customer satisfaction (Y1), with a probability score of 0.031.
2. Brand Image (X2) has direct and significant effect on customer satisfaction (Y1), with a probability score of 0.011.
3. O2O-Commerce Service Quality (X1) has direct and significant effect on customer repeat purchase intention (Y2), with a probability score of 0.010.
4. Brand Image (X2) has direct and significant effect on customer repeat purchase intention (Y2), with a probability score of 0.027.
5. Customer Satisfaction (Y1) has direct and significant effect on customer repeat purchase intention (Y2), with a probability score of 0.026.

4.2 Direct and Indirect Effects.

By using Path Analysis technique, direct and indirect effect between research variables can be found out. Below are the summary of standardized direct effect, indirect effect and total effect between the endogenous and exogenous variables.

Table 4.2: Standardized Direct, Indirect and Total Effects.
a. O2O-commerce service quality variable (X1) has direct effect on customer satisfaction (Y1) with a score of 0.241.
b. Brand Image variable (X1) has direct effect on customer satisfaction (Y1) with a score of 0.284.
c. O2O-commerce service quality (X1) has direct effect on repeat purchase intention (Y2) with a score of 0.274 and indirect effect with a score of 0.060, which amount to total score of 0.334.
d. Brand Image variable (X2) has direct effect on repeat purchase intention (Y2) with a score of 0.239 and indirect effect with a score of 0.071, which amount to total score of 0.310.
e. Customer Satisfaction variable (Y1) has direct effect on repeat purchase intention (Y2) with a score of 0.249.

In addition, it was also found out that O2O-commerce service quality (X1) and Brand Image (X2) contribute to customer satisfaction (Y1) at only 13.9%. Meanwhile, O2O-commerce service quality variable (X1), brand image (X2) and customer satisfaction (Y1) contribute to repeat purchase intention (Y2) at 26.1%.

4.3 Discussion

a. Effect of O2O-commerce service quality (X1) on customer satisfaction (Y1)

Based on the result of path analysis, it was found that O2O-commerce service quality has positive and significant effect on customer satisfaction variable (Y1), which means higher O2O-commerce service quality provided by mataharimall.com will increase customer satisfaction. The Probability score (P) is 0.031 < 0.05, by which the first hypothesis is accepted. O2O-commerce service quality variable has direct effect on customer satisfaction (Y1) with a score of 0.241.

Result of this research is in line with the previous researches that proved how service quality has significant effect on customer satisfaction. Some of these researches are researches by Sondakh (2014), Kumowal et al (2016), Chi Chuan Wu et al (2011) and Ehsan Malik et al (2012). It is believed that service quality holds an important role in bringing customer satisfaction. With a good service quality, customer will get pleasing shopping experience. Rust and Zahorik (1996) stated that increase of service quality will lead to increase of quality and will result in customer satisfaction. Result of the research indicates that mataharimall.com has provided best service for its customers, despite the fact that some customers think that they were not properly served. Therefore, it is the duty of mataharimall.com management to keep on increasing its service quality to improve customer satisfaction, which will eventually lead to sale increase.

b. Effect of brand image (X2) on customer satisfaction (Y1)

Result of hypothesis testing indicated that brand image variable (X2) has positive and significant effect on customer satisfaction variable (Y1), with a score of 0.284. This means the better brand image acquired by mataharimall.com will result in higher customer satisfaction. The Probability score (P) is 0.011 < 0.05, by which the second hypothesis, i.e. which states that brand image has direct effect on customer satisfaction, is accepted.

Result of this research is in line with a number of previous researches by Atmaja (2011), Andreassen et al (1998) and Rizan et al (2015). According to Durianto et al (2004), brand image refers to brand associations that correlate to each other and develop a connection in customers mind. This means that strong brand image is important, as it may change the way of thinking and loyalty of the customers to certain product or service in terms of market mechanism that accommodates online and offline method. With its brand image, mataharimall.com will be the ultimate choice of the customers when purchasing a product.

c. Effect of O2O-commerce service quality (X1) on repeat purchase intention (Y2)

Result of hypothesis testing indicated that O2O-commerce service quality has positive and significant effect on repeat purchase intention (Y2), which means higher O2O-commerce service quality provided by mataharimall.com will increase repeat purchase intention of the customers. The Probability score (P) is 0.010 < 0.05, by which the third hypothesis is accepted. O2O-commerce service quality variable has direct effect on repeat purchase intention with a score of 0.274.

In addition, based on the path analysis approach, variable X1 may also indirectly affect variable Y2, i.e. through customer satisfaction variable (Y1). As previously stated, the first hypothesis is accepted. Similarly, customer satisfaction variable (Y1) has positive and significant effect on repeat purchase intention variable (Y2), by which the seventh hypothesis is accepted. It can be concluded that O2O-commerce service quality has direct and indirect effect on repeat purchase intention. Therefore, the fourth hypothesis is also accepted. Meanwhile, the indirect effect has a score of 0.060, which amounts to total score of 0.334.

Result of this research is in line with previous research by Aptagina and Pitaloka (2016), in which service quality variable has significant effect on repeat purchase intention variable. The higher the service quality provided by a product will encourage higher purchase intention, and even repeat purchase intention. The above statement

d. Effect of brand image (X2) on repeat purchase intention (Y2)
Result of hypothesis testing also indicated that brand image variable (X2) has positive and significant effect on repeat purchase intention (Y2), which means the better brand image acquired by mataharimall.com will increase repeat purchase intention of the customers. The Probability score (P) is 0.027 < 0.05, by which the fifth hypothesis, i.e. which states that brand image has direct effect on customer satisfaction, is accepted. Brand image variable has direct effect on repeat purchase intention with a score of 0.239.
Based on the path analysis approach, it can be traced that variable X2 may indirectly affect variable Y2, i.e. through customer satisfaction variable. As previously stated, the second hypothesis is accepted. Similarly, customer satisfaction variable (Y1) has positive and significant effect on repeat purchase intention variable (Y2), by which the seventh hypothesis is accepted. It can be concluded that brand image has direct and indirect effect on repeat purchase intention. Therefore, the sixth hypothesis is also accepted. Whereas, the score of the indirect effect is 0.071, which resulted in total score of effect of brand image on repeat purchase intention score of 0.310.
Result of this research is also supported by several other researches, such as research by Resti & Soesanto (2016), Hidayat (2009), Wen et al (2011) and Akhtar (2010).
Result of the survey suggested that most of the respondents, i.e. 50%, stated that they were satisfied with MatahariMall, by which it is expected that they will suggest MatahariMall to their closest relatives or acquaintances.

V. CONCLUSION
Based on the result of data analysis, it can be concluded that all hypotheses are accepted. O2O-Commerce Service Quality and Brand Image respectively has direct, positive and significant effect on Customer Satisfaction. It was also proven that Customer Satisfaction has direct, positive and significant effect on Repeat Purchase Intention of the customers. Result of data analysis also proved that O2O-Commerce Service Quality has direct and indirect effect on Repeat Purchase Intention. Similarly, it can be concluded that Brand Image has direct and indirect effect on Repeat Purchase Intention. The above indirect effect resulted from Customer Satisfaction variable.

REFERENCES


[31] Turban, Efriam., King, David., Lee, Kyu Jae., dan 
Turban, Deborah. (2015). Electronic Commerce: A 
Managerial and Sociial Networks Perspectives. 8th 
Edition.

Pemulihan Layanan Terhadap Kepuasan yang di 
Moderasi Gender, serta Dampak terhadap Niat 
Menginal Kembali dan WOM (Studi Pada 
Program Pascasarjana Magister Manajemen. 
Universitas Udayana. Denpasar.

Integrated Model for CustomerOnline Repurchase 

[34] Wu, Chi-Chuan., Shu-Hsien Liao, Yin-Ju Chen, and 
and Price Fairness Impact on the Customer 
Satisfaction and Loyalty. Proceedings of the 2011 
IEEE IEEM, p: 1160-1164.

World Wide Web: 
http://www.mckinsey.com/business-
functions/marketing-and-sales/our-insights/behind-
chinas-runaway-online-to-offline-commerce

[36] Pemerintah Harus Buat Aturan E-Commerce. 24 
Maret 16. 
www.obsessionnews.com/hukum/pemerintah-harus-
buat-aturan-e-commerce. 
https://www.investopedia.com/.

[37] www.kominfo.go.id.

[38] www.mataharimall.com