The Green Food Supply Chain: Factors Affecting Food Distributor's Sustainability Through Positive WOM

Mohammad Annas\textsuperscript{a}, Humairoh\textsuperscript{b,*}
\textsuperscript{a}Universitas Multimedia Nusantara, Indonesia
\textsuperscript{b}Universitas Muhammadiyah Tangerang, Indonesia
* Corresponding author e-mail: maira_mamay@umt.ac.id

A R T I C L E   I N F O

DOI: 10.32832/jm-uika.v14i2.11651

Article history:
Received: 17 Februari 2023
Accepted: 23 Mei 2023
Available online: 5 Juni 2023

Keywords:
Green Logistics;
Sustainability Distributions;
Positive WOM.

A B S T R A C T

The research intended to uncover factors affecting customers using and repeating their orders and transactions with logistics companies in five major logistics hubs in Indonesia. The quality of the food delivered, the service provided, and perceived value significantly impact logistics user satisfaction and bring them back in future transactions. Word of Mouth construct took place as a trigger and supported the fact that it pushed the customers to come back again and take the same logistics service. The result showed that logistics customer satisfaction has a positive influence on positive word of mouth, where the P value was < 0.05 so that when consumers satisfied with their experience in using the services of a logistics company, it increased consumers in recommending friends or relatives to take the same services. Positive word of mouth positively influenced repurchase intention, where the P value was <0.05, so when consumers recommended friends or relatives to use logistics services, it increased repurchase intention.

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1. INTRODUCTION

The creative economy in Indonesia experienced an expansion greater than the national rate in 2020, at 4.16%, which was higher than the 3.84% national rate (Santoso & Fianto, 2022). Food and beverages, fashion, and handicrafts are the top three sectors in the creative industry that produce the largest Gross Domestic Product. As the demand for businesses in the culinary field has grown, culinary entrepreneurs must employ innovative tactics to keep up with the competition. Statistics show that the culinary sector generates 36.81% of the entire creative economy in Indonesia and 2.51% of its entire GDP in 2020. Indonesia ranks fourth in the world in terms of population size, right after China, India, and the United States (Badan Pusat Statistik, 2021). Its population continues to rise by an average of four million people yearly. In 2020, Indonesia's creative industry's growth rate was 4.16%, surpassing the national growth rate of 3.84% (Kementrian Perindustrian, 2021). The foremost three sectors in the creative economy, namely culinary, fashion, and crafts, created the highest GDP. Businesses in the culinary field are particularly competitive, so each culinary entrepreneur must develop creative ideas and plans to succeed.

As Indonesia's economic situation improves, middle-class consumers are also growing. This group of people averages between US$4 and US$25 per day (Australia Goverment, 2018). This influx of middle-class consumers began as the country's GDP per capita reached $3200 per year (Badan Pusat Statistik, 2021). This rise in the number of middle-class consumers will bring about a surge in their spending power since it is linked to each individual's increased purchasing capacity. This increased purchasing power is not just for secondary or tertiary needs such as education, tourism, recreation, cars, motorbikes, cellular phones, and so on, but also the power to purchase goods. As Indonesia's economy is improving, its middle-class consumers will also increase in numbers. This specific group has an average daily expenditure between US$4 and US$25 (Word Economic Forum, 2021).

With the background provided, a few factors indicate that the food industry is still a lucrative sector and is especially appealing to entrepreneurs (Sharma & Gandhi, 2016). Food industry with environmental friendly supply chain became an integrated chain of operations that should be really considered by food supply chain logistics companies (Miao et al., 2022). The supply chain itself determined the quality of goods delivered such as food, medicine and natural resources. At this stage, the quality on how the service been delivered became issues that logistics companies put in serious and careful handling. On the other hand, one of the main aspects is the rise of the middle class, which increases individuals' buying power and allows businesses to sustain themselves. Moreover, when it comes to the culinary industry, different factors can influence the customers' intention to purchase again (Y. Xu et al., 2023). These elements include customer satisfaction and word of mouth. Customer satisfaction is a measurement of the overall level of joy or contentment the customers feel due to the service's capability to meet their desires, expectations, and needs (Tong, 2022).

In the food industry, customer service is one of the main elements offered. Scholars believe that the three reasons people return to a casual dining establishment are food quality, service, and atmosphere (Bhatnagar et al., 2019). Food quality is the most vital element that every cul-
inary business needs to consider regarding the services they offer. It is the foundation for the services provided to customers, as if the food at a restaurant is not of good quality, and it will have a considerable impact on customer contentment in the long run, which could affect the continuity of the business (Rogala & Wawak, 2021). Food quality is an essential element of overall restaurant service quality and is assumed to have a significant connection with customer satisfaction and loyalty. Customer satisfaction is critical for a business. Customers will be pleased if the services provided accommodate their desires and offer more advantages to them (Matla & Xaba, 2020). It is believed that if the quality of service given to customers is improved, it will result in higher customer satisfaction. This implies that service quality is an imperative element that affects the success of an organization, especially in the service industry, such as fast food restaurants (Song et al., 2019). Customers expect the product they have bought to provide the benefits they desire and the price they have paid to be commensurate with the product/service they have bought. If the customer's requirements are met, they will be content with the items/services of the company (Leung et al., 2017). Thus, it is thought that if the perceived value is high, customer satisfaction will also be increased. This suggests that service quality and perceived value are the major factors that affect customer satisfaction (Mitra Debnath, 2019).

The authors believe that customers will be pleased if they are supplied with high-quality service. This means that service excellence is an important determinant of customers' contentment and will immediately affect the organization's success, particularly in the service sector, such as fast food restaurants (Busari et al., 2017). Customers anticipate that the goods they purchase will bring them gratification following their expectations. As well as, the benefits should be equivalent to the cost paid for the product or service. If customers' wants are fulfilled, they will be pleased with the products and services of the company. Thus, the authors think that if the perceived value is high, customer satisfaction will also be increased (A. Xu et al., 2022). This suggests that service quality and perceived value are the most important elements affecting customer satisfaction.

It is clear that if customers receive good service level, they will be satisfied. The authors hypothesize that the better the service quality given to the customers, the more likely they will be satisfied (Carrete et al., 2012). This notion shows that the quality of the service is an essential element in the firm's success, particularly for businesses in the service industry, such as fast-food restaurants (Padilla-Lozano & Collazzo, 2022). Each consumer desires that the product they buy will provide them with the advantages they expect, as well as be in line with the price they have paid. If the consumer's expectations are met, they will be pleased with the company's products and services (Hu et al., 2022). As a result, the authors hypothesize that customer satisfaction will also increase if the perceived value is high. This statement implies that service quality and perceived value are the most influential elements determining customer satisfaction.

When customers are pleased with a product or service they have used, they are likely to repurchase it and even recommend it to others. This is known as repurchase intention. Positive word of mouth is significantly affected by customer satisfaction (Tooranloo et al., 2018). There is a positive correlation between customer satisfaction, customer loyalty, and word of mouth. This often encourages customers to tell their friends and family about the company's
services (Chugani et al., 2017).

If a person has a positive experience with a logistics company's product or service, they will likely purchase it again (Peng et al., 2022). This repurchase intention is due to their satisfaction with the product or service. People are likely to share their good experiences with people they know through direct communication or digital media like social networks (Leung et al., 2017). Customer satisfaction is a powerful factor that influences customers to tell others about the company, which is referred to as word of mouth. There is a connection between customer satisfaction, company loyalty, and positive word of mouth. This is what encourages them to encourage their family and friends to join in (Darling & Cunningham, 2022).

Customers who have a great experience with a product or service a business provides are likely to buy it again (Huang et al., 2021). Repurchase intention refers to the tendency of someone to purchase the same product multiple times (Jansson, 2022). Furthermore, when someone is content with a product or service, they are likely to share their positive experience with others through direct and indirect means of communication, such as online platforms and social media (Haddud & Khare, 2020). Customer satisfaction is a major factor that affects positive word of mouth (Akcura et al., 2019). There is a positive correlation between customer loyalty and satisfaction and word of mouth about a company. Additionally, satisfied customers are likely to suggest their friends and family to buy from the company (Lambert & Goh, 2021).

**Research Framework**

This research originates from previous research conducted by Qin (Qin & Prybutok, 2009). Therefore, the model used in this study was modified and adjusted to accommodate another construct to be included.

**Hypothesis**

H1 : Food quality positively affects customer satisfaction

H2 : Service Quality positively affects Customer Satisfaction

H3 : Perceived value positively affects Customer Satisfaction

H4 : Customer Satisfaction positively affects Repurchase Intention

H5 : Customer Satisfaction positively affects Word of Mouth

H6 : Word of Mouth positively influences Repurchase Intention
2. RESEARCH METHODS

The data were collected from seven major ports in Indonesia which providing distributions, warehousing and transportation services, as well as the administrative and legal related documents. Interview sessions and structured questionnaire were used to collect primary data from 211 respondents who engaged and use the service of those seven ports, 15 selected logistics companies were included. The data were collected and validated during peak season in December 2022. Structural equation model is a statistical version used to give an explanation for more than one variables' relationships.

Theories and fashions within the social and behavioral sciences are normally formulated the usage of theoretical ideas or constructs that can not be measured or located without delay, giving upward thrust to two primary problems related to making clinical conclusions, specifically the trouble of measurement and the problem of causal relationships between variables. The structural model describes the relationships among latent variables. The mixture of the latent variables and the related observed variables is illustrated by
using a path diagram or the path diagram on the combination of the latent variables and the related found variables are defined by way of the path diagram or the path diagram in figure 3 under:

**Figure 3. Path Diagram**

Source: Research Data, 2022

The initial step of the suitable take a look at is designed to evaluate the overall stage of becoming or "Goodness of fit" (GoF) most of the statistics and the model. No single statistical test can demonstrate the model's predictive capability when assessing the GoF of an SEM as a whole. rather, experts have provided multiple GoF measurements that can be used together or in collection. these combined metrics can be used to evaluate the model's fit from three factors of view: ordinary match, comparative match of the authentic model, and parsimony of the model. primarily based in this, the present GoF was divided into 3 categories: absolute fit measure, incremental fit measure, and parsimony fit measure. the following page has a table of fit measures. evaluate. The initial phase of the fit test is used to decide the overall degree of fit or GoF between the facts and the model. No single statistical test can as it should be illustrate the model's predictive power, so researchers have established several GoF measures that can be combined or applied. these combined measures are applied to evaluate the in shape of the model from 3 various perspectives: general fit, the base model's comparative fit, and the model's parsimony.
3. RESULTS & DISCUSSION

As previously stated that the respondents were clients or users who use the services of at least 15 logistics companies engaged in seven major port of Indonesia. Those logistics companies were claimed on practicing the green methods of supply chain which integrated with the kind of goods distributed, environmental-friendly goods such as food, medicine and natural resources. All values of standardized loading factor ≥ 0.5, AVE of all variables have values ≥ 0.5, and CR of all variables have values ≥ 0.7. Therefore it can be concluded that all indicators of each variable are valid and reliable.

The next step is to analyze the results of the absolute measurement model as shown in Table 1 below. The smaller the chi-square value, the better, and the value of p ≥ 0.05. Based on Table 1, the chi-square value is 1754.605 with P = 0.00. So that it can be said that the level of suitability of this study is a poor fit. A good GFI value is 0.80 ≤ GFI ≤ 0.90, which can be said to be a marginal fit, or GFI ≥ 0.90, which is a good fit. From Table 1 results, it can be seen that the GFI value is 0.773. So that it can be said that the level of suitability of this study is a poor fit. A good RMSEA value is 0.08 ≤ RMSEA ≤ 0.10, which can be said to be a marginal fit, or RMSEA ≤ 0.08, which is a good fit.

The data processing results show that the RMSEA value is 0.091 so it can be said that the level of suitability of this study is marginal fit. The smaller the ECVI value and close to the ECVI for Saturated Model, the better the ECVI value. The result of data processing ECVI value in the model is 9.125, the Saturated model is 7.530, and the Independence model is 37.835. This shows the level of fit of this study is a good fit.
A good TLI value is $0.80 \leq 0.90$, which can be said to be a marginal fit or $\text{TLI} \geq 0.90$, which is a good fit. From the results above, it was found that the TLI value was 0.845, so it can be said that the level of compatibility of this study was a marginal fit. A good NFI score is a good NFI score of $0.80 \leq 0.90$, which can be said to be a marginal fit, or an $\text{NFI} \geq 0.90$, which is a good fit. From the results above, it was found that the NFI value was 0.892, so it can be said that the level of compatibility of this study was a poor fit. A good RFI value is a good RFI value of $0.80 \leq 0.90$, which can be said to be a marginal fit or $\text{RFI} \geq 0.90$, which is a
good fit. From the results above, it was found that the RFI value was 0.767, so it can be said that the level of compatibility of this study was a poor fit. A good IFI score is a good IFI score of \(0.80 \leq 0.90\), which can be said to be a marginal fit, or an IFI \(\geq 0.90\), which is a good fit. From the results above, it was found that the IFI value was 0.821, so it can be said that the level of compatibility of this study was a marginal fit. A good CFI value is a good CFI value of \(0.80 \leq 0.90\), which can be said to be a marginal fit, or CFI \(\geq 0.90\), which is a good fit. From the results above, it was found that the CFI value was 0.877, so it can be said that the level of compatibility of this study was a marginal fit.

Table 3. Parsimonious Measurement Model Result

<table>
<thead>
<tr>
<th>GoF</th>
<th>Fitness Target</th>
<th>Est Result</th>
<th>Fitness Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Values</td>
<td>Description</td>
<td>2.835</td>
<td>Good Fit</td>
</tr>
<tr>
<td>Parsimonious Fit Measurement</td>
<td>CMIN/DF &lt; 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PGFI</td>
<td>PGFI (\geq 0.50)</td>
<td>0.7</td>
<td>Good Fit</td>
</tr>
<tr>
<td>PNFI</td>
<td>The higher the value the better</td>
<td>0.817</td>
<td>Good Fit</td>
</tr>
<tr>
<td>AIC</td>
<td>A small value and close to the AIC</td>
<td>D = 1985.805</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Saturated value</td>
<td>S = 1427.000</td>
<td>Good Fit</td>
</tr>
<tr>
<td></td>
<td>I = 7827.631</td>
<td>I = 7827.631</td>
<td>Good Fit</td>
</tr>
</tbody>
</table>

Source: Research Data (2022)

The ratio between Chi-Square divided by the degree of freedom. The recommended value is \(< 5\). From the results above, the Normed Chi-Square value is 2.835, so it can be said that the level of compatibility of this study is a good fit. A good PGFI value is PGFI \(\geq 0.50\). From the results above, it was found that the PGFI Value was 0.70, so it can be said that the level of compatibility of this study was a good fit. A good PNFI score is the higher the value, the better. From the results above, it was found that the PNFI Value was 0.817, so it can be said that the level of compatibility of this study was a good fit. The smaller the AIC value and close to the AIC for Saturated Model, the better the AIC Value. The results above found that the AIC value in the model was 1985.805, the Saturated Model was 1427.000, and the Independence Model was 7827.631. So it can be said that this study's level of fit is good. Based totally on Tables 1, 2, and 3, it can be seen that 5 GoF measurements display a good fit, 4 GoF measurements are marginal fit, and 4 GoF measures are a terrible fit. Consequently it may be concluded that the overall fit of this study's model is ideal. The structural version evaluation relates to the coefficients or parameters that show the impact of the connection among latent variables on different latent variables. The following is a desk of regression weights from the outcomes of structural version research.
From the table above, the hypothesis obtained is as follows:

**Structural Model Analysis Result:**

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path</th>
<th>Std. Coef</th>
<th>P</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Food Quality --&gt; Customer Satisfaction</td>
<td>+0.371</td>
<td>***</td>
<td>Data Supporting Hypothesis</td>
</tr>
<tr>
<td>H2</td>
<td>Service Quality --&gt; Customer Satisfaction</td>
<td>+0.357</td>
<td>***</td>
<td>Data Supporting Hypothesis</td>
</tr>
<tr>
<td>H3</td>
<td>Perceived Value --&gt; Customer Satisfaction</td>
<td>+0.487</td>
<td>***</td>
<td>Data Supporting Hypothesis</td>
</tr>
<tr>
<td>H4</td>
<td>Customer Satisfaction --&gt; Repurchase Intention</td>
<td>+0.389, 0.007</td>
<td>***</td>
<td>Data Supporting Hypothesis</td>
</tr>
<tr>
<td>H5</td>
<td>Customer Satisfaction --&gt; WOM</td>
<td>+0.932</td>
<td>***</td>
<td>Data Supporting Hypothesis</td>
</tr>
<tr>
<td>H6</td>
<td>WOM --&gt; Repurchase Intention</td>
<td>+0.745</td>
<td>***</td>
<td>Data Supporting Hypothesis</td>
</tr>
</tbody>
</table>

From the Table 5 above it was shown that all the constructs affecting the user’ repurchase intention, strengthened by their word of mouth. The logistics companies were not only could maintain the goods (foods, medicine etc) in an excellent condition when delivered and distributed but also could be relied in term of the quality of service and perceiving their value. Those constructs significantly affecting the level of satisfaction of the users and intended to do the business again – repurchasing. In testing the hypothesis, the results show that H1, H2, H3, H4, H5, and H6 can be accepted if the P value in the Regression Weights table is <0.05.

H1: Food Quality has a positive effect on Customer Satisfaction. Because the P value <0.05, the data in this study significantly support the statement that food quality has a positive effect on customer satisfaction.

H2: Service Quality has a positive effect on Customer Satisfaction. Because the P value <0.05, the data in this study significantly support the statement that Service Quality has a positive impact on Customer Satisfaction.

H3: Perceived Value has a positive effect on Customer Satisfaction. Because the P value > 0.05, the data in this study significantly support the statement that Perceived Value has a positive impact on Customer Satisfaction.
H4: Customer Satisfaction has a positive effect on Repurchase Intention. Because the P value > 0.05, it is significant that the data in this study do not support the statement that Customer Satisfaction has a positive effect on Repurchase Intention.

H5: Customer satisfaction has a positive effect on positive word of mouth. Because the P value <0.05, the data in this study significantly support the statement that Customer Satisfaction has a positive impact on positive Word of Mouth.

H6: Positive Word of Mouth has a positive effect on Repurchase Intention. Because the P value <0.05, the data in this study significantly supports the statement that positive word of mouth has a positive effect on repurchase intention.

4. CONCLUSION & SUGGESTION

It was obviously clear and valid that the users and clients of those logistics companies were seeking the best service providers in particular the companies who implementing the environmental-friendly logistics operations, including the goods they distributed. In fact the positive and constructive word of mouth were strengthened the intention to have repeating business and repurchase. Based on an analysis using Structural Equation Modeling on the influence of Food Quality, Service Quality, Perceived Value, Customer Satisfaction, Positive Word of Mouth, and Repurchase Intention, the following conclusions can be drawn: Food Quality has a positive influence on Customer Satisfaction, where the SEM test results show a P value of 0.000. Because the P value is <0.05, when the food delivered is of good quality, it will increase consumer satisfaction. Service Quality positively influences Customer Satisfaction, where the SEM test results show a P value of 0.000. Because the value of P < 0.05, when the service (service) at a food distributor company is of good quality, it will increase consumer satisfaction. Perceived value positively influences Customer Satisfaction, where the SEM test results show a P value of 0.000. Because the value of P < 0.05, when the overall assessment of the benefits received by consumers who use logistics services is better than their sacrifices, it will increase consumer satisfaction. Customer Satisfaction positively influences Repurchase Intention, where the SEM test results show a P value of 0.007. Because the P value <0.05, when consumers are satisfied with their experience in using logistics services, it will increase repeated transactions in the future. Customer Satisfaction positively influences Positive Word of Mouth, where the SEM test results show a P value of 0.000. Because the Value of P < 0.05, when consumers are satisfied with their experience in using the services of a logistics company, it will increase consumers in recommending friends or relatives to consume these services. Positive Word of Mouth positively influences Repurchase Intention, where the SEM test results show a P value of 0.000. Because the P value <0.05, it will increase repurchase intention when consumers recommend friends or relatives to use logistics services. The rest of companies who have not implementing the green-way and methods as part of their contributions on preserving the environmental operations should starting consider another eco-friendly, environmental-friendly logistics operations as real strategy and sustainability-long term vision to be survive and earn customers’ trust, although the kind of business in this area were categorized as a heavy industry.
REFERENCES


