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ABSTRACT

The purpose of this study was to determine the satisfaction of defense industries consumers, using the variables E - Service Quality, E - Supply Chain Management and E - Customer Relationship Management. The method used is descriptive quantitative research with a sample of 250 defense industries respondents. Data analysis using Structural Equation Modeling (SEM) with data processing tools SmartPLS 3.3.3. The results of the research show that simultaneously E - Service Quality, E - Supply Chain Management, and E - CRM have a significant effect on defense industries consumer satisfaction. It can be said that simultaneously E - Service Quality, E - Supply Chain Management, and E - CRM have a significant effect on customer satisfaction.

Keywords: E – Supply Chain Management; E – CRM, Defense industries; E – Service Quality; Consumer Satisfaction; defense industries

INTRODUCTION

The defense industry of a country is closely related to the economic development of a country. The defense industry referred to here is an industry oriented to the production of tools for defense needs, which include the main weapon system (defense equipment) equipment, whether it is light weapons, heavy weapons, or combat vehicles, vehicles to support defense activities, as well as their maintenance and repairs. As a developing country that is constantly struggling with issues regarding education, health, poverty, and meeting the daily basic needs of its citizens, the issue of defense industry development has received less attention. Whereas the defense industry can also play a role in national development and the global economy. In addition to its function of supporting the national security system, such as monitoring a country's air traffic or preventing illegal fishing, the defense industry is also able to encourage economic growth. This is understandable considering that the more advanced the defense industry will automatically open up new jobs, encourage the growth of other industries because it has many multiple linkages from upstream to downstream, encourage the acceleration of technological progress, and reduce the amount of budget that is usually spent on importing various defense equipment from abroad. country. In the field of defense capability development, a strong defense industry is reflected in
the availability of guaranteed supplies of defense equipment and defense facilities in a sustainable manner. The availability of such supplies is also an absolute prerequisite for certainty and flexibility in formulating long-term plans for the development of defense capabilities, thereby minimizing concerns over political and economic factors, such as embargoes or restrictions.

According to Haudi, et al. (2021) E-commerce as one of the largest markets in Southeast Asia, it is not surprising that many large e-commerce companies entered Indonesia with various innovations to dominate the Indonesian market. According to Aditi et al. (2021); Ardyan et al. (2018) With the new normal in Indonesia, it currently affects spending activities in the Q2 and Q3 periods in 2020. Based on the data collected, it is stated in the 2020 trimester. The increase in defense industries visitors is based on consumer or customer satisfaction provided by the defense industries. In addition, this is also based on the fact that consumers are changing their lifestyles and relying on e-commerce to fulfill their lives.

According to Dhanalakshmi et al. (2020); Das, & Hassan (2021); Dragomirov, N. (2020) customer or consumer satisfaction is a level of a person's feelings which states the results of the comparison of the services or products he receives with what he expects. Therefore, to meet consumer satisfaction, there are several important factors to meet the satisfaction of these consumers. One of them is E-Service Quality. The measured aspect of E-Service Quality or known as Online Service Quality is the degree to which a website or marketplace application can facilitate effectively and efficiently to make purchases, delivery and sales of both products and services. According to Das & Hassan (2021); Dragomirov, N. (2020); Haudi, et al. (2021)

According to Huda et al. (2021); Hwihanus et al. (2022) Besides E – Service Quality, the marketplace can also improve with Online Delivery Service Quality or E – Supply Chain Management. According to Huda et al. (2021); Hwihanus et al. (2022); Purwanto et al. (2021) E – Supply Chain Management here is what is meant by consumer confidence in the delivery process that can be more effective and efficient. Consumer satisfaction can also be seen from the E - Customer Relationship Management or E - CRM factor. In this case, E-CRM is where a marketplace application provides information and serves consumers or customers according to the characteristics and consumer interests of the marketplace application. According to Purwanto et al. (2020); Purba et al. (2021); Pramono et al. (2021) the results obtained are using the Customer Satisfaction Index method that the defense industries application provides satisfaction to its customers. Furthermore, research with the theme of e - Supply Chain Management, on customer satisfaction researched by Huda et al. (2021); Hwihanus et al. (2022); Pramono et al. (2021). with the results they get, namely e-Supply Chain Management has a positive and significant effect on customer satisfaction variables.

The results of the research gap, it can be concluded that the difference from previous studies with this study is the variable being studied. The variables in this study are E - Service Quality, and E - Supply Chain Management and add the variable E - CRM. And Multiple Linear Regression as the method used and the object of this research. Based on the phenomena that occur and research gaps that have been investigated by other researchers. So, the specific objective of this research is to prove how influential E-Service Quality, E-Supply Chain Management, and E-CRM have partially or simultaneously impact on Customer Satisfaction.

METHOD

There are three independent variables that the researcher uses, namely E - Service Quality (X2), E - Supply Chain Management (X1), and E - CRM (X3) with the dependent variable or the dependent variable being Consumer Satisfaction (Y). In this research, surveys are used because this type of research is where the sample itself is taken from one population and a questionnaire is used as a tool in collecting data. The approach of this research is a quantitative research
approach. The sampling method determines non-probability sampling with quota sampling as a technique of taking a sample of 250 respondents of defense industries. In the current research instrument, 24 questions are used to be given and answered by respondents with a total of 250 respondents, the researcher uses a Likert measurement scale which includes [1] Strongly Disagree, [2] Disagree, [3] Neutral, [4], Agree, [5] Strongly Agree.

The hypothesis of this research is:
H1: E – Supply Chain Management has a positive effect on customer satisfaction
H2: E – Service Quality has a positive effect on customer satisfaction
H3: E – CRM has a positive effect on customer satisfaction

RESULT AND DISCUSSION

The tests carried out in the analysis of variance based SEM have two stages, namely the outer model and the inner model test. The explanation of the test is as follows:

Test Outer Model

The convergent validity test on the outer model aims to determine whether the indicators with latent variables are valid, with a validity value above 0.70 (Purwanto et al., 2021).
Figure 2. Convergent Testing

Figure 2 shows that the validity value of each indicator is above 0.7, so all research indicators are declared valid. In the outer model test in addition to convergent validity, there is also a validity reliability test, namely a test that aims to determine the reliability of indicators in measuring the variables, while the variables are said to be valid if they have an AVE value above 0.5 and a Cronbach Alpha value above 0.7 (Purwanto et al., 2021), the following is a discriminant validity test in this study:

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cronbach's Alpha</th>
<th>Composite Reliability</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>E – Supply Chain Management</td>
<td>0.748</td>
<td>0.854</td>
<td>0.662</td>
</tr>
<tr>
<td>E – Service Quality</td>
<td>0.723</td>
<td>0.868</td>
<td>0.634</td>
</tr>
<tr>
<td>E- CRM</td>
<td>0.799</td>
<td>0.813</td>
<td>0.621</td>
</tr>
<tr>
<td>Customer Satisfaction</td>
<td>0.736</td>
<td>0.824</td>
<td>0.634</td>
</tr>
</tbody>
</table>

Table 1 shows that all Cronbach alpha and average variance extracted values exceed the minimum limit so that all variables are declared valid.
**Inner model test**

The inner model test contains an explanation of the R-Square, while the R-square value in this study is as follows:

<table>
<thead>
<tr>
<th>Dependent variables</th>
<th>R Square</th>
<th>R Square Adjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer satisfaction</td>
<td>0.911</td>
<td>0.905</td>
</tr>
</tbody>
</table>

From the R square table it can be concluded that 91.1% Customer satisfaction is influenced by E – Supply Chain Management, E – Service Quality, E – CRM while the remaining 8.9% is influenced by other variables outside the study. In addition to reliability in the inner model test, there is also a hypothesis test, while the hypothesis testing in this study is as follows:

**Table 2**

<table>
<thead>
<tr>
<th>Correlation</th>
<th>Original Sample (O)</th>
<th>P Values</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>E – Supply Chain Management → Customer Satisfaction</td>
<td>0.464</td>
<td>0.002</td>
<td>Supported</td>
</tr>
<tr>
<td>E – Service Quality → Customer Satisfaction</td>
<td>0.721</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>E – CRM → Customer Satisfaction</td>
<td>0.434</td>
<td>0.001</td>
<td>Supported</td>
</tr>
</tbody>
</table>

**Figure 3. Hypotheses Testing**
Effect Sizes Evaluation

According to Hair (2017) explains that the guidelines for assessing $f^2$ are that values of 0.02 (= small), 0.15 (= moderate), and 0.35 (= large), respectively, represent small, medium, and large effects. (Hair et al. 2020).

<table>
<thead>
<tr>
<th>Construct</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>E – Supply Chain Management</td>
<td>0.21</td>
</tr>
<tr>
<td>E – Service Quality</td>
<td>0.28</td>
</tr>
<tr>
<td>E-CRM</td>
<td>0.25</td>
</tr>
<tr>
<td>Customer Satisfaction</td>
<td>0.24</td>
</tr>
</tbody>
</table>

For the E – Supply Chain Management variable, the $f^2$ value of 0.21 represents a large effect, for the E – Service Quality variable, the $f^2$ value of 0.28 represents a large effect, for the Brand equity variable, the $f^2$ value of 0.25 represents a large effect, for the E-CRM variable, the $f^2$ value of 0.24 represents a large effect, for the Customer Satisfaction variable, the $f^2$ value of 0.27 represents a large effect.

Q² Evaluation

Q² value is greater than 0 indicates that the model has predictive relevance for certain endogenous constructs. Conversely, values of 0 and below indicate a lack of predictive relevance (Hair et al. 2017).

<table>
<thead>
<tr>
<th>Construct</th>
<th>Q²</th>
</tr>
</thead>
<tbody>
<tr>
<td>E – Supply Chain Management</td>
<td>0.521</td>
</tr>
<tr>
<td>E – Service Quality</td>
<td>0.544</td>
</tr>
<tr>
<td>E-CRM</td>
<td>0.543</td>
</tr>
<tr>
<td>Customer Satisfaction</td>
<td>0.546</td>
</tr>
</tbody>
</table>

The value of Q² for the E – Supply Chain Management variable is 0.521 > 0.000, meaning that this variable has predictive relevance. The Q² value of the E – Service Quality variable is 0.544 > 0.000, meaning that this variable has predictive relevance. The Q² value of the E-CRM variable is 0.543 > 0.000, meaning that this variable has predictive relevance. The Q² value of the Customer Satisfaction variable is 0.546 > 0.000, meaning that this variable has predictive relevance. From the value of the hypothesis testing table, it is known that all hypotheses in the study are accepted because they have a p-value below 0.05.

H1: E – Supply Chain Management has a significant effect on customer satisfaction

Based on the results of the SEM analysis, it was found that the p value was 0.002 <0.050, so it was concluded that E – Supply Chain Management had a positive and significant effect on customer satisfaction. These results are in line with the results of research from According to Saleem et al. (2015); Susanty et al. (2015); Seo et al. (2020) that E – Supply Chain Management
has a significant effect on customer satisfaction and according to Rudyanto et al. (2021); Sanny et al. (2020); Sharma et al. (2019); Saleem et al. (2015) which resulted in the finding that E – Supply Chain Management has a significant effect on customer satisfaction

H2: E – Service Quality has a positive effect on customer satisfaction

Based on the results of the SEM analysis, it was found that the p value was 0.002 <0.050 so it was concluded that E – Service Quality had a positive and significant effect on customer satisfaction. These results are in line with the results of research from Menurut Menurut Aditi et al. (2021);Ardyan et al. (2018);Arrigo et al. (2018);Dhanalakshmi et al. (2020);Das & Hassan, (2021) that E – Service Quality has a significant effect on customer satisfaction and according to Dragomirov, N. (2020);Haudi, et al. (2021) which resulted in the finding that E – Service Quality has a significant effect on customer satisfaction

H3: E – CRM has a positive effect on customer satisfaction

Based on the results of the SEM analysis, it was found that the p value was 0.002 <0.050 so it was concluded that E – CRM had a positive and significant effect on customer satisfaction. These results are in line with the results of research from According to Menurut Huda et al. (2021);Hwihanus et al. (2022);Purwanto et al. (2021) that E – CRM has a significant effect on customer satisfaction and according to urwanto et al. (2020);;Purba et al. (2021);Pramono et al. (2021) which resulted in the finding that E – CRM has a significant effect on customer satisfaction.

CONCLUSION

Based on the analysis of research data, it is concluded that E-Service Quality, E-Supply Chain Management, E-CRM have an effect on consumer satisfaction, so the quality of information services on the Marketplace needs to be improved by providing satisfactory services for consumers regarding delivery of goods and product information on the Marketplace. It is hoped that future research can examine other variables more deeply that affect consumer satisfaction not only in terms of E-Service Quality, E-Supply Chain Managements, E-CRM.

REFERENCES


Reference:


