Effect of partnership between producer and distributor toward partnership satisfaction (Case: Hydroponic marketing in Depok, West Java)

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Abstract. A small farmer needs more effort to sell their crop to consumers, they needed distributor to market their products, this is called a partnership relationship which is essentially a collaborative process. The farmers act as suppliers needed by partner companies. Meanwhile, the distributor helps in marketing products to the consumers. The case study in this research is a hydroponic business in Depok which is still difficult to reach its consumer market. The purpose of this study was to determine an effect satisfaction of partnership between hydroponic farmer and distributor in Depok. This research was conducted through descriptive research with a quantitative approach. Data collected was carried out by interviews and questionnaires. The data analysis tool uses a Likert Scale and the data processing was carried out using Structural Equation Modelling – Partial Least Square (SEM-PLS) to determine effect of 3 independent variables: partnership sustainability (X1); collaboration sustainability (X2); commitment sustainability (X3), to 1 dependent variable: partnership satisfaction (Y). Data collection in this study was carried using nonprobability sampling technique with the saturated sample/census method because each element of the population is relatively small, due number of samples was 21 respondents who works as an employee in the company. Results showed all independent variable had a significant effect to dependent variable. This result can be explained that both partnership and collaboration allow farmer to sell harvest product more easily with a good price, while also supplier could achieve supply demand in market.

1 Introduction

Hydroponic system in cultivation of plant is developing prospectively considering the existence of several factors, for instance the increasing market demand for vegetables with certain quality, unfavorable environmental or climate conditions, competition for land use, and soil degradation problem [1]. All those conditions mentioned above

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Encourage hydroponic system arises as a solution in fruit and vegetable cultivation with more advantages than conventional farming system.

Jafar Hafsah explained that business partnership refers to business cooperation between small-scale business (including farmer and fishermen) with medium or large-scale business by taking principles of mutual need, mutually reinforcing, and mutual benefit in account [2]. This statement is in line with Constitution No.9/1995 about Small Business chapter 8 subsection 1. In developing this partnership, the medium or big-scale business owner got a moral responsibility in guiding small-scale business owner as their partner, so that the small-scale business can become liable partners to achieve mutual prosperity.

According to Table 1, there were a difference in income before and after CV Hidroponikita Tani Mandiri establishing partnership with UD Jaya Sari in 2018. The income continues to increase significantly every year, starting in 2018.

<table>
<thead>
<tr>
<th>Period</th>
<th>Annual income</th>
<th>% Increase from the previous year</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>Rp 16,704,000</td>
<td>-</td>
</tr>
<tr>
<td>2018</td>
<td>Rp 21,126,100</td>
<td>26.47%</td>
</tr>
<tr>
<td>2019</td>
<td>Rp 29,460,000</td>
<td>39.45%</td>
</tr>
<tr>
<td>2020</td>
<td>Rp 46,446,132</td>
<td>57.66%</td>
</tr>
</tbody>
</table>

Source: Company Data, 2021 (processed).

2 Research methodology

The data used in this study consisted of primary data and secondary data sourced from internal and external companies. Primary data obtained through interviews with companies by using a list of questions or questionnaires.

In this study, the exogenous variables are: the partnership sustainability (X1), the cooperation sustainability (X2) and the commitment sustainability (X3). For the dependent variable or endogenous variable, it is a variable that is influenced or that becomes the result, because of the independent variable. In this study, the dependent variable is partner satisfaction (Y).

2.1 Hypothesis

The model hypothesis in the form of a structural causal relationship can be tested using the variance-based SEM method, namely Partial Least Square (PLS). So that the basis of the hypotheses that is proposed and requires testing its truth are:

- H0: Partnership sustainability does not directly affect the partnership satisfaction between Producer with Distributor
- H1: Partnership sustainability has a direct effect on partnership satisfaction between Producer with Distributor
• H0: Cooperation sustainability has no direct effect on partner satisfaction between Producer with Distributor
H1: Cooperation sustainability has a direct effect on partner satisfaction between Producer with Distributor
• H0: Cooperation sustainability does not have a direct effect on partnership satisfaction through the partnership sustainability between Producer with Distributor
H1: Cooperation sustainability has a direct effect on partnership satisfaction through the partnership sustainability between Producer with Distributor
• H0: Commitment sustainability does not have a direct effect on partner satisfaction between Producer with Distributor
H1: Commitment sustainability has a direct effect on partner satisfaction between Producer with Distributor
• H0: Commitment sustainability does not have a direct effect on partnership satisfaction through the partnership sustainability between Producer with Distributor
H1: Commitment sustainability has a direct effect on partnership satisfaction through the partnership sustainability between Producer with Distributor

3 Result and discussion

The results of the coefficient of determination or variance test (R-Square) are listed in the table 2 below. The coefficient of determination test uses the Bootstrapping method which aims to minimize the problem of abnormal research data. The results of the R-Square value from data processing using SmartPLS 3.

<table>
<thead>
<tr>
<th>Variable</th>
<th>R-Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partnership sustainability (X1)</td>
<td>0.760</td>
</tr>
<tr>
<td>Partnership satisfaction (Y)</td>
<td>0.650</td>
</tr>
</tbody>
</table>

Table 2. Coefficient of determination test results.

Source : SmartPLS 3 Data Processing.

The R-Square table above is used to see the effect of the variables of partnership sustainability, cooperation sustainability and commitment sustainability on partnership satisfaction. Based on the table above, it shows that the partnership sustainability (X2), the commitment sustainability (X3) and partnership satisfaction (Y) affect the partnership sustainability (X1) by 76% and it can be said that the influence of all exogenous constructs X2, X3 and Y on X1 is strong. Meanwhile, the partnership sustainability (X1), the cooperation sustainability (X2) and the commitment sustainability (X3) affect partnership satisfaction (Y) by 65% and it can be said that the influence of all constructs X1, X2 and X3 on Y is strong. Figure 1 showed the results of the Inner Model research model.
3.1 The effect of partnership sustainability on partnership satisfaction between producer and distributor

Table 3 presented the results of the effect of variable X1 towards variable Y, processed using SmartPLS 3.

Table 3. Effect of variable X1 on variable Y.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Original sample (O)</th>
<th>Standard deviation (STDEV)</th>
<th>T statistics (O/STDEV)</th>
<th>P-Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>(X1) → (Y)</td>
<td>-0.729</td>
<td>0.354</td>
<td>2.060</td>
<td>0.040</td>
</tr>
</tbody>
</table>

**Indicator**

- Comfortable and trusting to do partnership (X1.1)
  - Your company feels comfortable and trusts to have a partnership with a partner company (Distributor) so that it opens up opportunities for long-term partnerships
  - The t-statistic value shows a number of 7.077 which means that there was a significant influence on the X1.1 indicator

- Desire to continue to do partnerships in the future (X1.4)
  - Your company wants to continue to partner with Distributor in the future
  - The t-statistic value shows a number of 33.098 which means that there was a significant influence on the X1.4 indicator

![Diagram of partnership sustainability model](image-url)
The results of testing the first hypothesis show that Partnership Sustainability (X1) proves a significant direct effect but has a negative path coefficient (-0.729) on Partnership Satisfaction (Y), so the first hypothesis is accepted. The results of the hypothesis testing on this variable are 2.060 for the t-statistics and 0.040 for the p-values which indicates H0 is rejected and H1 is accepted because the conditions are met where the t-statistics > 1.96 with p-value <0.05. Partnerships sustainability that has positive results and a significant effect on partnership satisfaction means that partnerships that
continue for a certain period of time between two business parties affect partner satisfaction.

The direct effect shows that the cooperation sustainability (X2) proves a significant influence and has a positive path coefficient result on partnership satisfaction (Y) so that the second hypothesis is accepted. The results of the hypothesis testing on this variable are 2.131 for t-statistics and 0.034 for p-values which indicates H0 is rejected and H1 is accepted because the conditions are met where t-statistics > 1.96 with p-value < 0.05. Cooperation sustainability that has positive results and has a significant effect on partner satisfaction means that good cooperation between the two business parties makes them enthusiastic to achieve the common goal of sustainable cooperation which can provide a sense of satisfaction from partnering.

The indirect effect showed that the cooperation sustainability (X2) does not prove a significant influence and has a negative path coefficient (-0.396) on partnership satisfaction (Y) so that the third hypothesis is rejected. The results of the hypothesis testing on this variable are 1.609 for t-statistics and 0.108 for p-values which indicates H0 is accepted and H1 is rejected because the conditions are met where t-statistics > 1.96 with p-value < 0.05. Indirectly, cooperation sustainability (X2) has no effect on partnership satisfaction (Y) through partnership sustainability (X1). If not through the partnership sustainability, then the cooperation sustainability will still affect the partnership satisfaction. Without going through the partnership sustainability, the collaboration between Producer and Distributor directly affects the partnership satisfaction between the two.

3.2 The effect of commitment sustainability on partnership satisfaction between producer and distributor

Table 4 presented the results of the effect of variable X3 towards variable Y, processed using SmartPLS 3. The direct effect showed that the commitment sustainability (X3) proves a significant influence and has a positive path coefficient result on partnership satisfaction (Y), so the fourth hypothesis is accepted. The results of the hypothesis testing on this variable are 4.133 for t-statistics and 0.000 for p-values, which indicates H0 is rejected and H1 is accepted because the conditions are met where t-statistics > 1.96 with p-value < 0.05. Commitment sustainability that has positive results and have a significant effect on partnership satisfaction.
Table 4. Effect of variable X3 on variable Y.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Original sample (O)</th>
<th>Standard deviation (STDEV)</th>
<th>T statistics (O/STDEV)</th>
<th>P-Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>(X3) → (Y)</td>
<td>1,041</td>
<td>0,252</td>
<td>4,133</td>
<td>0,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Statement form</th>
<th>Result</th>
<th>Effect towards variable Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust (X3.3)</td>
<td>Your company trusts CV Hidroponikita Tani Mandiri and is interested in building long-term relationships</td>
<td>The t-statistic value shows a number of 12,283, which means that there was a significant influence on the X3.3 indicator</td>
<td></td>
</tr>
<tr>
<td>Fulfill a promise (X3.4)</td>
<td>Partner companies (Distributor) always fulfill their promises to your company</td>
<td>The t-statistic value shows a number of 10,357 which means that there was a significant influence on the X3.4 indicator</td>
<td>The t-statistic value shows a number of 4.133 which means that there was a significant effect</td>
</tr>
<tr>
<td>Changing partners causes losses (X3.5)</td>
<td>Switching to another partner will make your company also lose a good partner and relationship so far</td>
<td>The t-statistic value shows a number of 8.370 which means that there was a significant effect on the X3.5 indicator</td>
<td></td>
</tr>
<tr>
<td>Deserves loyalty (X3.6)</td>
<td>Partner (Distributor) deserves the loyalty of your company</td>
<td>The t-statistic value shows a number of 8.166 which means that there was a significant influence on the X3.6 indicator</td>
<td></td>
</tr>
</tbody>
</table>

Source: SmartPLS 3 Data Processing.

The indirect effect (Table 5) showed that the commitment sustainability (X3) does not prove a significant effect and has a negative path coefficient on partnership satisfaction (Y) so that the **fifth hypothesis is rejected**. The results of the hypothesis testing on this variable are 1.574 for t-statistics and 0.116 for p-values, which indicates **H0s is accepted** and **H1s is rejected** because the conditions are met where t-statistics > 1.96 with p-value <0.05. Indirectly, commitment sustainability (X3) has no effect on partnership satisfaction (Y) through partnership sustainability (X1). If not through the partnership sustainability, then the commitment sustainability will still affect the partnership satisfaction. This happens because there is no partnership agreement between the two parties that is mutually binding and there is a contract in it. The basis of the commitment made by both parties in this business is a sense of trust. The commitment made by Producer and Distributor just feels comfortable and trusts without any sense of binding between them so that it has become a partnership satisfaction for their business.
Table 5. Effect of variable X3 on variable Y through variable X1.

<table>
<thead>
<tr>
<th>(X3)→(X1)→(Y)</th>
<th>Original sample</th>
<th>Sample mean</th>
<th>Standard deviation (STDEV)</th>
<th>T statistics (O/STDEV)</th>
<th>P-Values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-0,328</td>
<td>-0,350</td>
<td>0,209</td>
<td>1,574</td>
<td>0,116</td>
</tr>
</tbody>
</table>

Source: SmartPLS 3 Data Processing.

4 Conclusion

Based on the results obtained after processing and analyzing the data that has been collected, this study shows several results, as follows: (1) Partnership Sustainability variable has a significant direct effect on Partnership Satisfaction between Producer with Distributor; (2) Cooperation Sustainability has a significant direct effect on Partnership Satisfaction between Producer with Consumer and indirectly significant through the Partnership Sustainability on Partnership Satisfaction between Producer with Distributor; and (3) The variable of Commitment Sustainability has a significant direct effect on Partnership Satisfaction between Producer with Distributor and indirectly significant through the Commitment Sustainability to Partnership Satisfaction between Producer with Distributor.

References

2. M. Hafsa, Kemitraan usaha konsepsi dan strategi (Pustaka Sinar Harapan, Jakarta, 2000)