Antecedent Factor Model of Entrepreneurial Orientation in Improving Marketing Performance through Product Innovation and Value Co-Creation

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Abstract - This research analyzes marketing performance improvement models through product innovation and value co-creation toward food security during the covid-19 pandemic. The main problem is based on the low-performance level of MSMEs of culinary products in Banten. The SEM method uses a SmartPLS v. 3.0 application software to conduct analysis. The population is MSMEs culinary business actors in the area of Banten Province. The probability/random sampling technique will be applied with the cluster method, and the number to be analyzed is 90 respondents. The results showed that marketing orientation directly and significantly affects marketing performance. Furthermore, marketing orientation does not significantly impact marketing performance through product innovation. It significantly influences marketing performance on the alpha level of 10% through value co-creation and product innovation. Therefore, value co-creation has a crucial role in the relationship among variables in this research.

Keywords: - Entrepreneurial Orientation, Marketing Performance, Product Innovation, and Value Co-Creation, MSMEs sector

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1 Introduction

The increase of the MSMEs sector, especially the food industry, can increase a region's economy and competition. MSMEs have weaknesses as a family-owned businesses conducted using simple technology due to limited access to capital, [1]. The article [2] stated the best way to improve MSME performance is by enhancing three main dimensions of entrepreneurial orientation, namely innovative, proactive, and brave for risk-taking.

The increased number in the food industry is because the culinary business is considered adequately promising. Furthermore, food is a daily need, where the customers always consume and the business in this food industry sector does not require high investment in management, [3]. To face competitiveness in this food industry sector, the business owner should have uniqueness compared to the competing products. Being innovative is an attitude of an entrepreneur to get involved in the trial process of creating services or goods, [4].

An effort to innovate a product is believed to enhance marketing effectiveness, [5]. The marketing performance is marked by the profit, the improvement of sales, the scope expansion, and the increase in the number of customers. Currently, the needs and desires of consumers for food products are diverse. The company should be able to improve its marketing performance in facing tight competition in the food industry sector. As a result, it is expected to fulfill the consumers' needs and desires.

The problems encountered by MSMEs in Banten, especially in the city and the regency of Serang, the city of Cilegon, and the regency of Pandeglang, are the low quality of human resources, distribution, marketing, the ability of the managerial and entrepreneurship, the limitation of capital and financial access, processing technology and product fair value.

The BPS (CSA, Central Statistics Agency) of Banten found that the growth and the contribution of culinary MSMEs to the GRDP (Gross Regional Domestic Product) of the Province in every Regency/City experienced a fluctuation. Meanwhile, in 2014, 2015, and 2016, the
contribution number was 2.46%, 2.35%, and 2.39%. It remained stagnant in 2017 and declined to 2.38% in 2018. The fluctuation and the stagnation indicated that the business actors of culinary MSMEs experienced a yearly increase, which was not followed by their contribution to the GRDP (Gross Regional Domestic Product). It was also analyzed as the cause of the instability of the marketing performance of each culinary MSMEs, [6].

Furthermore, the study in [6] emphasized that this phenomenon agrees with the market condition that experiences changes and the dynamic affects the customer's taste and preferences. It requires innovation that can complement and develop a product to keep life sustainability and the company's profit. According to [7], product innovation also can improve marketing performance. The bigger the intensity of competition, the more pronounced the connection between product innovation and marketing effectiveness.

However, this research differs from the above, where product innovation has not been able to encourage marketing performance improvement. The article in, [8] stated that effectiveness is not much impacted by product placement, and according to, [9] innovation has a positive effect and improves marketing performance in the long term. Therefore, researchers are interested in placing entreprenurial orientation variables as triggers to stimulate innovation and value co-creation to improve marketing performance. Based on this reason, this research is worth performing as a development of an empirical model from the previous results.

This research aims to acknowledge and analyze the direct impact of entrepreneurial orientation in improving marketing performance and the indirect variable through value co-creation and product innovation in enhancing the effectiveness of MSMEs in the sector of local culinary specialties in Banten.

Subsequently, it is expected to benefit academics in enriching their knowledge to develop product innovation, value co-creation, and entrepreneurial orientation to participate in the intense business competition. The government also needs to notify the MSMEs industry and provide society entrepreneurship training. There is fluctuating volatility in the performance of culinary products of the MSMEs, especially in four regions of the regency and the described research gap. This study is concerned with the different methods to build an empirical model in explaining the improvement of the performance of MSMEs through product innovation and value co-creation.

2 Theoretical Review

2.1 Entrepreneurial Orientation
The entrepreneurial approach strives to be first in product innovation in the market, which requires taking risks and being aggressive to beat the competition. In the view of [10], as cited in [11], entrepreneurship will show the standard of a certain behavior, which is reflected in the strategic philosophy of effective management practice. The Corporate Entrepreneurship model found by [12] stated that five dimensions of corporate entrepreneurship influence the company's performance, namely freedom, innovation, courage for risk-taking, proactive, and aggressiveness to compete. This model shows that the aspect of a company will influence the link between entrepreneurial orientation and performance.

2.2 Product Innovation
Innovation can bear meaning as an implementation of new concepts for goods, procedures, or other parts of a business operation. The process of commercializing ideas into variables is the focus of innovation. Meanwhile, innovation is derived into new goods, manufacturing processes, exploitation of supply sources, markets, and business management approaches [13]. According to [14], product innovation can be derived into line expansion and relatively and completely new products. As reported in [15], it is related to a desire to act creatively and differently to solve problems and meet ends. This solution is gained from a new process or product and service. Risk-taking is the willingness to accept setbacks following a decision. In contrast, being proactive is related to implementing a new service needed to anticipate opportunity.

2.3 Value Co-Creation
According to [16], the creation process involving suppliers and consumers generates propositions by determining the value of products and services consumed. The superior value proposition relative to the client objectives should generate co-creation and benefit opportunities. As a result of controlling value generation creation and exchange, a business is able to achieve maximum revenue and profit. Furthermore, [17] stated that the value creation process could be understood through social
structure and system expressed through norms, values, and ethical standards. This is guided by the acceptance of an interaction or relationship, which implies the exchange and cross-value creation process. Value co-creation occurs during the interaction process between the company and the customers [18,19]. The actors and the receivers conduct this activity in a mutually integrated network with the means of a takeover source for a win-win solution [20, 18,19]. According to the study of [21], customers' engagement in product support activities improved by the belief to gain benefits in attracting value co-creation activity. Furthermore, the authors in [22] stated that customers are active players in value co-creation, and further study is needed to identify important factors behind the development of behavior towards value co-creation.

2.4 Marketing Performance
Performance reflects the success rate of an effort performed by an individual, a group, an organization, or a company. It was described by, [23] as the result of the actions taken by the owner or manager in operating the business. Furthermore, the authors in, [24] defined performance as a success measurement in achieving the company's goal. According to, [25] the concept can indeed reflect a variety of functional management in the company. It can also be reflected on human resources, production, marketing, and financial performance. As stated in, [26] performance is the most important component in achieving the desired goal. Its integrated parts are financial, operational, and employee performance.

2.5 Development of Hypotheses
Previous research showed that value co-creation and product innovation directly and positively impact company performance. This research has antecedent variables, where exogenous entrepreneurial orientation functions as the main supporter of product innovation and marketing performance, as shown in the following figure.

2.6 Effect of Entrepreneurial Orientation on Marketing Performance
According to the authors of [27], combining an entrepreneurial mindset, the capacity to foresee environment dynamics, and access to finance resources significantly impact marketing effectiveness. Furthermore, the authors in [28] showed that entrepreneurial orientation contributes to the high achievement of marketing performance. Moreover the study in [29] reported that the entrepreneurial approach positively influences firm performance. According to, [30] orientation has a positive impact on marketing performance, which has a favorable correlation with marketing orientation as stated by, [31]. Hypothesis 1 was obtained from the description above as:

Hypothesis 1: The performance of marketing improves with entrepreneurial inclination.

2.7 Effect of Entrepreneurial Orientation on Product Innovation
According to, [32], products can be categorized into three dimensions, namely for the customers, company, and unique new products. Innovation is a condition attached to an entrepreneurial domain, hence a company's ability to successfully introduce a new product should be considered. The main focus, particularly for MSMEs, is on adapting to change perceptions through entrepreneurship and the success of product innovation. Hypothesis 2 was obtained from the description above as:

Hypothesis 2: The higher the entrepreneurial orientation, the better the product innovation.

2.8 Effect of Product Innovation on Marketing Performance
According to, [33], there is a strong correlation between new product development and successful advertising. Similarly, [34], and, [35], stated that
the relationship between product innovation and marketing performance is crucial.

Hypothesis 3 was obtained from the description above as:
Hypothesis 3: The higher the level of product innovation, the higher the marketing performance.

2.9 Effect of Product Innovation on Value Co-Creation
According to [36], value co-creation is based on the company’s and consumers' viewpoints, and both parties provide resources through design co-mechanism, co-development, or co-distribution. Research performed by, [37], [38], [39] found that product innovation is an instrument for value creation. Hypothesis 4 was obtained from the description above as:
Hypothesis 4: The more product innovation, the greater the co-creation value.

2.10 Effect of Value Co-Creation on Marketing Performance
According to [40], value co-creation can influence producer performance and service providers, and also mediates the association between relational competence and marketing performance. Furthermore, the authors in [41] concluded that the Co-creation of value is a coalition of various economic players with the capability of reconfiguration and integration to generate mutual value. The research findings of [42], [43], [44] showed a positive and significant effect on the emphasis of strategy towards company performance.
Hypothesis 5 was obtained from the description above as:
Hypothesis 5: The higher the value of co-creation, the higher the marketing performance.

3 Methodology
This study examines the link between entrepreneurial orientation as the independent variable, product innovation and value co-creation as the intervening factors, and marketing performance as the dependent variable. This research's characteristic is causality, which seeks an explanation in the form of a cause-effect relationship among several concepts or variables, [45].

3.1 Population and Samples
The population is culinary MSMEs actors in the Province of Banten region, and random sampling was conducted using cluster. The number of the prospectively analyzed samples is 90 respondents.

3.2 Data Analysis Techniques
Data analysis is conducted with Structural Equation Model (SEM) using PLS (Partial Least Square), and it includes the outer model test as a measurement for the validity and reliability. The inner model serves as a measurement used for feasibility test, and the hypothesis test with the prediction model.

4 Data Analysis
The first analysis is an instrument test by observing the outer model to assess the instrument's validity and reliability. According to the data analysis output, a result is gained, as seen below. According to the output shown in Figure 2, the result of each construct had a good validity convergence because there is no loading factor of each variable below 0.5. All loading factor values have been above 0.5, and model has been feasible for further analysis. Furthermore, the validity convergence test can also be seen from the Average Variance Extracted (AVE) value. To meet a good validity convergence, the AVE value should be > 0.5. As for the data analysis output result, the validity test can be seen below after observing the AVE value on each construct. The output results in Table 1 show that the AVE of each variable is adequately high. Since the values are above 0.5, the convergent validity of each construct has exceeded the requirements.

After performing a validity test, the next stage is to perform a reliability analysis to prove the consistency, and instrument accuracy in measuring variables. Reliability variables in PLS can also be measured by observing Cronbach's alpha and composite reliability values at > 0.6 and > 0.70.

The output in Table 1 can be observed in the menu, since the construct reliability of each variable is adequately high and beyond the requirements. It is seen from composite variable value > 0.70, and Cronbach's alpha is > 0.6, above
the required. Therefore, it can be concluded that all
data analysis instruments are declared reliable and
have met the reliability test.

Subsequently, the model inner test can be
observed from a determination coefficient value
(R-square) that shows the contribution of
exogenous variables endogenous value. This model
can then be assessed by observing R-square at each
endogenous latent variable. In this research, there
are three variables influenced by the exogenous,
namely product innovation, value co-creation, and
marketing performance as seen below.

According to Table 3, the R-square value of the
product innovation, marketing performance, and
co-creation variables are 0.694, 0.811, and 0.747,
respectively. The above assessment proves that this
research model has met the requirements and the
goodness of fit to be used for further analysis
because every dependent variable has an R-square
value bigger than 0.1. Furthermore, the output
shows that the contribution of marketing
orientation, value co-creation, and product
innovation variables towards value change
variation of marketing performance is 81.1%. The
remaining 18.9% is affected by other external
variables.

The next stage is testing hypotheses to figure
out the impact of independent variables on
dependent partially in a structural or regression
model. The result of the hypothesis assessment can
be seen in Table 4.

According to the above output, entrepreneurial
orientation positively impacts marketing
performance. This is shown by the parameter
coefficient of 0.537, the T-statistic value of 2.155,
bigger than the T-table 5% (1.96) alpha, and the P-
value is 0.034, smaller than 0.05. Therefore,
hypothesis 1 (H1) is accepted: entrepreneurial
orientation positively and significantly affects
marketing performance.

Entrepreneurial orientation positively impacts
product innovation, shown by the parameter
coefficient of 0.833. Based on the data processing
(path coefficient), the T-statistic value for the
impact of business orientation on innovative
products obtained 24.541, bigger than the T-table of 5% (1.96) alpha, whose P-value is 0.000, smaller than 0.05. Therefore, hypothesis 2 (H2) is accepted: Product innovation is positively and significantly affected by an entrepreneurial orientation.

Subsequently, product innovation has a
negative impact on marketing performance, shown
by the parameter coefficient of -0.165, T-statistic
value of 1.666, smaller than the T-table of 5%
(1.96) alpha, whose P-value is 0.099, bigger than
0.05. Therefore, hypothesis 3 (H3) is rejected,
product innovation has a negative but insignificant
impact on marketing performance.

Product innovation influences value co-
creation positively, as shown by the parameter
coefficient of 0.864, T-statistic value of 33.619,
bigger than the T-table of 5% (1.96) alpha, whose
P-value is 0.000, smaller than 0.05. Therefore,
hypothesis 4 (H4) is accepted, Product innovation
positively and substantially impacts value co-
creation.

The effect of value co-creation on marketing
performance is positive, shown by the parameter
coefficient of 0.521, T-statistic value of 2.041,
bigger than the T-table of 5% (1.96) alpha, whose
P-value is 0.044, smaller than 0.05. Therefore,
hypothesis 5 (H5) is accepted, Co-creation of value
has a good and significant impact on marketing
performance.

Mediation tests are performed to determine
when product innovation and value co-creation
variables play a role as intervening variables in
affecting the relationship between entrepreneurial
orientation on marketing performance.
Fig. 2: Loading Factor Value of Empirical Measurement Model  
*Source: Developed for this research*

Table 1. Average Variance Extracted (AVE) of Measurement Model  
*Source: Developed for this research*

<table>
<thead>
<tr>
<th>Product Innovation</th>
<th>Cronbach’s Alpha</th>
<th>rho_A</th>
<th>Composite Reliability</th>
<th>Average Variance Extracted (AVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing Performance</td>
<td>0.958</td>
<td>0.958</td>
<td>0.973</td>
<td>0.922</td>
</tr>
<tr>
<td>Entrepreneurial Orientation</td>
<td>0.968</td>
<td>0.968</td>
<td>0.979</td>
<td>0.939</td>
</tr>
<tr>
<td>Value Co-Creation</td>
<td>0.912</td>
<td>0.914</td>
<td>0.945</td>
<td>0.851</td>
</tr>
</tbody>
</table>

Table 2. Discriminant Validity Value of Measurement Model  
*Source: Developed for this research*

<table>
<thead>
<tr>
<th>Product Innovation</th>
<th>Marketing Performance</th>
<th>Entrepreneurial Orientation</th>
<th>Value Co-Creation</th>
</tr>
</thead>
<tbody>
<tr>
<td>PI_1</td>
<td>0.909</td>
<td>0.647</td>
<td>0.729</td>
</tr>
<tr>
<td>PI_2</td>
<td>0.910</td>
<td>0.680</td>
<td>0.803</td>
</tr>
<tr>
<td>PI_3</td>
<td>0.869</td>
<td>0.640</td>
<td>0.702</td>
</tr>
<tr>
<td>MP_1</td>
<td>0.762</td>
<td>0.949</td>
<td>0.869</td>
</tr>
<tr>
<td>MP_2</td>
<td>0.652</td>
<td>0.964</td>
<td>0.836</td>
</tr>
<tr>
<td>MP_3</td>
<td>0.692</td>
<td>0.968</td>
<td>0.843</td>
</tr>
<tr>
<td>EO_1</td>
<td>0.784</td>
<td>0.880</td>
<td>0.970</td>
</tr>
<tr>
<td>EO_2</td>
<td>0.790</td>
<td>0.845</td>
<td>0.963</td>
</tr>
<tr>
<td>EO_3</td>
<td>0.846</td>
<td>0.846</td>
<td>0.973</td>
</tr>
<tr>
<td>VCC_1</td>
<td>0.792</td>
<td>0.789</td>
<td>0.827</td>
</tr>
<tr>
<td>VCC_2</td>
<td>0.805</td>
<td>0.755</td>
<td>0.802</td>
</tr>
<tr>
<td>VCC_3</td>
<td>0.795</td>
<td>0.881</td>
<td>0.944</td>
</tr>
</tbody>
</table>
According to the data processing result, as seen in Table 5, four relationships indirectly affect the variables in this model.

Test of Mediation 1 is the entrepreneurial orientation effect on marketing performance through product innovation, which does not mediate entrepreneurial orientation's effect. This can be shown by the T-statistic result of 1.644, smaller than the T-table of 5% (1.96) alpha, whose P-value is 0.104, bigger than 0.05. Test of Mediation 2 is product innovation's effect on marketing performance through value co-creation. The result is value co-creation mediates product innovation's effect on marketing performance. This can be shown by the T-statistic result of 2.002, smaller than the T-table of 5% (1.96) alpha, whose P-value is 0.048, smaller than 0.05. Test of Mediation 3 is the entrepreneurial orientation effect on marketing performance through product innovation and value co-creation. These variables mediate entrepreneurial orientation's effect on marketing performance with an alpha rate of 10%. This can be shown by the T-statistic result of 1.937, smaller than the T-table of 5% (1.96) alpha but bigger than 10% (1.74) alpha, whose P-value is 0.057 bigger than 0.1 for the 10% alpha. Test of Mediation 4 is entrepreneurial orientation effect on value co-creation through product innovation. The result is that product innovation mediates the entrepreneurial orientation on value co-creation. This can be shown by the T-statistic result of 15.166, bigger than the T-table of 5% (1.96) alpha, whose P-value is 0.000 smaller than 0.05.
5 Result and Discussion

5.1 Result of Hypothesis Assessment

5.1.1 Hypothesis 1: Entrepreneurial Orientation Effect on Marketing Performance
Data analysis shows that the entrepreneurial approach favors and significantly influences marketing performance. It implies that the entrepreneurial orientation of the Banten culinary specialties MSMEs increases with the marketing performance. This result is under the hypothesis proposed and supports the previous research performed by [15], stating that entrepreneurial orientation positively influences marketing performance. Based on the answer to the open question in the variable, improving marketing performance can be conducted by always keeping the tendency to act autonomously, having a desire for innovation, and taking risks.

5.1.2 Hypothesis 2: Effect of Entrepreneurial Orientation on Product Innovation
The result of data processing shows that entrepreneurial orientation has a positive and significant effect on product innovation. It indicates that the entrepreneurial orientation of the Banten culinary specialties MSMEs increases with the product innovation. This result is under the hypothesis proposed and supports the previous research performed by [32], affirming that entrepreneurial orientation is engaged in improving product innovation. Based on the answer to the open question, improving product innovation can be conducted by always keeping the tendency to act autonomously, having a desire for innovation, and taking risks.

5.1.3 Hypothesis 3: Effect of Product Innovation on Marketing Performance
The data analysis indicates that product innovation has a negative but negligible effect on marketing performance. Specifically for Banten culinary specialties MSMEs, the design, product variation, and quality did not affect the marketing performance. This can happen because the actors do not have specialties from their region's culture, taste, or market area. Consequently, there is no frontal competition, and there is the existence of a "business lot" and decrease in quality.

This result contradicts the hypothesis proposed and is also against the previous research performed by [5], [33], [34], [35], [46], showing that product innovation has a positive and significant effect on marketing performance. However, it supported the previous research of [8], stating that product innovation does not have a significant effect on marketing performance, as well as the research of [9] asserting that the variable has a positive effect in the long term.

This research interprets product innovation on marketing performance from several existing indicators. Design, product variants, and quality do not directly affect marketing performance positively and significantly. As a result, the actors of Banten culinary specialties MSMEs feel that product innovation does not automatically improve marketing performance. This is confirmed by the respondent's answers to the open questions, where several elements in the above product innovation indicator do not affect the improvement of their marketing performance.

5.1.4 Hypothesis 4: Effect of Product Innovation on Value Co-creation
The result of hypothesis testing shows that product innovation has a positive and significant effect on value co-creation. It means that increased the product innovation can significantly improve value co-creation.

This is under the previously proposed hypothesis, and it supports the previous research performed by [47], [48], [38], confirming that the product innovation increases with value co-creation. This is based on the answer to the open question, where in the product innovation variable, improving value co-creation can be performed by keeping productive relationships with the customers, engaging in development, and keeping the attachment between the consumers and the producers.

5.1.5 Hypothesis 5: Effect of Value Co-creation on Marketing Performance
The result of hypothesis testing shows that value co-creation has a positive and significant effect on marketing performance. It means that increased value co-creation can improve the marketing performance.

This is under the proposed hypothesis and supports the previous research performed by [38], [44], stating that value creation ability affects marketing performance in a company.

This result is also confirmed based on the answer to the open question, where value co-
creation can improve marketing performance, through a productive relationship between the producers and the consumers.

5.2 Result of Mediation Assessment
Mediation 1 is the entrepreneurial orientation effect on marketing performance through product innovation. It means the product innovation factor is not a mediator for improving marketing performance. However, performance can be directly improved by entrepreneurial orientation without this variable. Mediation 2 is product innovation's effect on marketing performance through value co-creation. It means that the factor can become a mediator for improving marketing performance using partial mediation. This is because product innovation cannot directly improve performance in the absence of value co-creation.

Mediation 3 is the entrepreneurial orientation effect on marketing performance through product innovation and value co-creation. The result is that the variables mediate the effect of entrepreneurial orientation. It means that the factors can become mediators for the improvement of performance. Therefore, marketing performance can be directly improved by entrepreneurial orientation without product innovation and value co-creation. Mediation 4 is the entrepreneurial orientation effect on value co-creation through product innovation. The result is product innovation mediates entrepreneurial orientation effect on value co-creation. It means the product innovation factor can become a mediator for the improvement of value co-creation.

6 Conclusion
According to the data analysis, it can be concluded that hypotheses 1, 2, 4, and 5 are accepted, while hypothesis 3 is rejected. According to the result and mediation assessment, the actors of Banten culinary specialty MSMEs should keep improving their entrepreneurial orientation to improve marketing performance without performing product innovation or value co-creation. This is because without these variables, entrepreneurial orientation can directly improve marketing performance. The improvement of marketing performance through product innovation cannot be directly performed without value co-creation. Consequently, value co-creation is by keeping a productive relationship with the customers, involving in development, and keeping the correlation between consumers and producers to improve the marketing performance of the actors. The results show that the placement of product innovation variables cannot mediate entrepreneurial orientation on the marketing performance of MSMEs culinary products. For future research, the placement of intervening variables that can mediate the relationship might need to be developed to boost marketing performance. The possibility of moderation variable placement that can potentially strengthen the entrepreneur orientation variable effect on performance should also be considered to improve marketing productivity for the MSMEs actors of Banten's specialty culinary.

References:


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- Lutfi Lutfi carried out the introduction, data analysis, and conclusion.
- Hayati Nupus was responsible for the theoretical review and methodology.

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Conflict of Interest
The authors have no conflict of interest to declare.

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