Analysis of Organizational Performance through Environmental Uncertainty and Business Strategy: Case Study of Garuda Indonesia

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\textbf{ABSTRACT:} Organizational performance plays an important role as a measure of the success of an organization or company. To achieve this success, organizational performance is influenced by many factors, including environmental uncertainty and business strategy that has been implemented by the organization. The airline industry in Indonesia is in a high competitive condition and faces environmental uncertainty challenge with the gain of tight margin. The researches on the most suitable business strategy choice for airlines in the midst of environmental uncertainty condition in order to obtain organizational performance have not been many examined in Indonesia. This study aims to determine the effect of environmental uncertainty and business strategy on organizational performance of Garuda Indonesia. Based on the research finding, it was known that the environmental uncertainty could affect positively on business strategy that has been implemented by the organization, for strategy choices of cost leadership, focus orientation, or differentiation. But, it turned that only the differentiation strategy which was able to affect positively the organizational performance. The conclusion of test result referred that the Indonesian airline in the midst of a very dynamic environment was demanded to be able to offer a unique and different product and service from other competitors and deliver the higher value to the customers, so it could achieve a good organizational performance.

\textbf{KEYWORDS:} Environmental Uncertainty, Business Strategy, Organizational Performance

\section*{I. INTRODUCTION}

The airline industry in Indonesia is in a high competitive condition and faces environmental uncertainty challenge with the gain of tight margin. All international airlines are not only competing to offer competitive price, but they are also demanded to exert a massive efficiency from operational aspect. The airlines should arrange a good analysis about the organization, their competitors, market structure where the airlines operate, and competitive environmental condition, so they can operate effectively, maintain their market shares, and achieve company goals and targets (Kilinc, et al., 2012). Therefore, it is necessary for the airlines to define what strategies that must be implemented recently and in the future in a dynamic environment. The airline performance is measured by using two-stages process, the first step is measurement through resources (fuel, salary, and other factors) to keep the fleet size and plane fill rate, the next step is measurement through fleet size and fill rate to result profit (Zhu, 2011). The airlines implement different business strategies and reach different performance success.

A constant decision is made on route system and resources which keep moving in line with strategic decisions taken by the airline (Gikunda, et al., 2012). The airlines will strive implementing an optimal competitive strategy to get competitive advantage and win the heart of customers. The most frequently practice of competitive strategy by airlines to win the competition is pricebased strategies and product differentiation by route offered to the customers. The differentiation is defined as an organizational business strategy which offers product or service in different presentation or format, so the customers are willing to pay higher, and the steps to select differentiation business strategy are about the recommendation of product and service characteristics and its distribution technique, also the achievement of fundamental challenge which is apparently regarded as a great challenge for the organization (Sumannsarker & Islam, 2013).

Garuda Indonesia is faced to a competitive situation with low cost carrier either for domestic or international market. For the international market, Garuda Indonesia is challenged by the competitive condition of aviation industry, especially with middle east carrier which obtains waive fuel surcharge subsidy, thus, it turns the more competitive price and the more destination choice all over the world. Whereas, for the domestic market, the low cost carrier expansion of Lion Air as the main competitor...
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with a new fleet addition, various routes, and its expansion into premium market segment become a great pressure for Garuda Indonesia. Garuda Indonesia has been through a quite significant net profit decrease in the year period of 2013 and 2014, although in the next 2015 Garuda Indonesia has finally obtained the increase of net profit, but it then decreased again in the period of 2016 and 2017. The increase of net profit was then back again in 2018 and 2019, but in 2020 Garuda Indonesia experienced a quite significant decrease of net profit gain with this following detail:

Table 1. Yearly Net Profit of Garuda Indonesia in Period of 2010-2020

| Year | Profit (Loss) in USD |
|------|----------------------|
| 2010 | 39.858.340           |
| 2011 | 64.225.536           |
| 2012 | 110.842.573          |
| 2013 | 13.583.006           |
| 2014 | (371.974.942)        |
| 2015 | 77.974.161           |
| 2016 | 9.364.858            |
| 2017 | (213.389.678)        |
| 2018 | (110.231.730)        |
| 2019 | 122.829.459          |
| 2020 | (1.091.697.373)      |

Source: Financial Report of Garuda Indonesia, 2010-2020

The ups and downs of airline performance is also determined by managerial decision in each working area, either the branch office or head office in order to reach performance according to the targets expected by the organization. The structural management executives have duty to determine business strategy on which step that should be taken to gain profitability and improve the performance based on each working area. The condition which is occurred in Garuda Indonesia shows that the determination of business strategy can be also performed by regional leader. The researches on the best strategy choice for full service airline or low cost carrier airline become a need for the business executors in airline industry. The research on the most appropriate business strategy choice for the aviation industry in the middle of environmental uncertainty condition that can determine the organizational performance has not been conducted in detail in Indonesia. This research is also expected to answer the need of international business community which is in the business condition with a full of uncertainty.

II. THEORETICAL FRAMEWORK

Environmental Uncertainty

The airline industry goes through environmental uncertainty challenge with a slightly thin margin gain. On the business condition with full of competition, the customer can decide each product that they will choose based on several considerations as customer perception on value for money, reasonable price, and benefit or advantage they receive from the product. The environmental uncertainties (market uncertainty, technology uncertainty, and competitive uncertainty) and business strategies affect the organizational performance in hospitality industry (Köseoğlu et al., 2013). On the other hand, the environmental uncertainty can affect negatively to organizational performance which the good corporate governance weakens the effect of environmental uncertainty on organizational performance (Erina Sudaryanti, 2020). The other research has tested the effect of environmental uncertainty on the relation between external integration and organizational performance at SMEs in Malaysia by identifying the implication of demand uncertainty, technological uncertainty, and competitive threats (Chin, et al., 2014).

Business Strategy

The fundamental aim from strategy use is to reach strategic competitiveness and above-average returns. The business level strategy is a set of commitment and integrated and coordinated action used by the organization to reach competitive advantage by exploring the core competency (Hitt, et al., 2009). The aim of business level strategy is to create difference between organizational position and other competitors, which the organization must determine having different performance or only
different performance activity. The strategy should concern on two points, to decide where the business will be run and how to achieve that purpose, so it needs a competitive strategy for the maintenance (Tanwar, 2013).

A number of researches have formulated generic strategy typologies to identify the business level strategies which might be widely used by many business sectors. There are two generic strategy typologies that are mostly used: Porter’s typology which includes cost leadership, differentiation, and focus orientation, and Miles & Snow’s typology which identifies prospector, analyser, defender, and reactor approaches (Köseoglu et al., 2013). The implementation of differentiation strategy is aimed to increase the higher organizational performance than low-cost strategy and focus strategy according to a previous research on the significance of Porter’s Generic Strategies use in 113 companies in Kosovo which have been operated in a competitive environment (Islami, et al., 2020). The relation between focus strategy and marketing and linking capabilities, and between differentiation strategy and technology capabilities, also between cost leadership strategy and management capabilities, in which the combination between low-cost and differentiation strategy can improve the organizational performance through a strong management and technology capabilities (Parnell, 2011).

Organizational Performance
The airline applies different strategy to optimize the organizational performance. The research on hospitality industry has shown that the environmental uncertainty and business strategy can affect organizational performance (Köseoglu et al., 2013). Meanwhile, the other previous research found that the differentiation strategy (Porter’s typology) is a significant business strategy which can affect the customer satisfaction in hotel industry in China (Lo, 2012). The use of Miles & Snow’s typology in a previous research conducted at tourism agency in Turkey has found the difference of financial or non-financial performance based on strategic orientation and the most excellent prospectors approach than the other (Avci, et al., 2011). The Miles & Snow’s strategy typology is a unique typology, since it observes an organization completely and as an integrated system on the dynamic interaction to its environment (Gnjidić, 2014). The innovation performance and differentiation strategy can affect the relation between entrepreneurial orientation and organizational performance (Zehir, et al., 2015).

Based on the explanation above, the researchers then propose these following hypotheses:

**H1A**: Environmental Uncertainty – Market Uncertainty affect positively on Business Strategy – Cost Leadership  
**H1B**: Environmental Uncertainty – Market Uncertainty affect positively on Business Strategy – Focus Orientation  
**H1C**: Environmental Uncertainty – Market Uncertainty affect positively on Business Strategy – Differentiation  
**H1D**: Environmental Uncertainty – Technological Uncertainty affect positively on Business Strategy – Cost Leadership  
**H1E**: Environmental Uncertainty – Technological Uncertainty affect positively on Business Strategy – Focus Orientation  
**H1F**: Environmental Uncertainty – Technological Uncertainty affect positively on Business Strategy – Differentiation  
**H1G**: Environmental Uncertainty – Competitive Uncertainty affect positively on Business Strategy – Cost Leadership  
**H1H**: Environmental Uncertainty – Competitive Uncertainty affect positively on Business Strategy – Focus Orientation  
**H1I**: Environmental Uncertainty – Competitive Uncertainty affect positively on Business Strategy – Differentiation  
**H2A**: Business Strategy – Cost Leadership affect positively on Organizational Performance  
**H2B**: Business Strategy – Focus Orientation affect positively on Organizational Performance  
**H2C**: Business Strategy – Differentiation affect positively on Organizational Performance

The conceptual framework in this research is illustrated below:

![Conceptual Framework](image-url)
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III. RESEARCH METHODS
This research was aimed to examine the effects of environmental uncertainty and business strategy to the organizational performance with a case study in state-owned enterprise, PT Garuda Indonesia. The analysis unit in this research used organizational analysis unit, in which the individual respondent observation unit were manager and senior manager of Garuda Indonesia. The selection of manager and senior manager was based on the condition that the manager has been highly involved in the implementation of organizational business strategy to overcome environmental uncertainty. This research explained the respondent perception on an interrelation between environmental uncertainty, business strategy, and performance.

This research was conducted by inviting managers and senior managers in all units of Garuda Indonesia with the total targets of 138 people, which those populations were willing to fill the questionnaire completely. The detail calculation of sample target has been explained on the previous sub-chapter. Based on the target, the total respondents who have filled online questionnaire completely were about 51 respondents.

The instrument in this research was entirely in the form of questionnaire, which has been adopted and modified necessarily from scientific articles based on the previous researches which were relevant to this recent research. Each questionnaire instrument in this research was made similarly by using 5 Likert scales referring to the original questionnaire source articles. The measurement scale for business strategy, environmental uncertainty, and organizational performance variables used Likert scales 1-5 (1: highly disagree, 2: disagree, 3: neutral, 4: agree, and 5: highly agree) (Köseoglu et al., 2013). The questionnaire item for the reverse variable of environmental uncertainty, score 0 was given for the response “highly agree” and score 5 for response “highly disagree”. The respondent profiling in the questionnaire helped more detailed analysis on questionnaire result. Some questions of respondent profiling were also given in this research covering to these aspects” (1) gender, (2) age, (3) educational background, (4) work period at Garuda Indonesia, and (5) years of service at Garuda Indonesia.

After the questionnaire has been compiled, the next step was data collection. The questionnaire was designed online in order to ease the questionnaire design or completeness through its features, so it prevented the questionnaire to be saved when some questions have not answered yet, it was aimed to avoid missing data during data processing. The invitation and explanation of questionnaire answer was informed via intra-Garuda Indonesia email to the respondents. The data processing exerted SmartPLS program in 3.2.9 version with an analysis orientation on prediction direction.

IV. RESULTS AND DISCUSSION
The descriptive analysis result of respondents referred that the majority of respondents were male managers (80.4%) and majority of age was between 45 - < 55 years old (49.0%). The majority of respondents have bachelor educational background (58.8%) and work period about >10 years (58.8%). Next, the research result showed that the sample proportion with years of service between 1 - <5 years more than the sample proportion with a period of occupying another structural position (47.1%).

Table 2. Respondent’s Descriptive Profile

| Characteristic       | Frequency | Percentage |
|----------------------|-----------|------------|
| Gender               |           |            |
| Male                 | 41        | 80.4%      |
| Female               | 10        | 19.6%      |
| Total                | 51        | 100.0%     |
| Age                  |           |            |
| 25 - <35 Years       | 19        | 37.3%      |
| 35 - <45 Years       | 7         | 13.7%      |
| 45 - <55 Years       | 25        | 49.0%      |
| Total                | 51        | 100.0%     |
| Educational Degree   |           |            |
| Diploma              | 5         | 9.8%       |
| S1                   | 30        | 58.8%      |
| S2                   | 16        | 31.4%      |
| Total                | 51        | 100.0%     |
| Work Period          |           |            |
| >10 Years            | 30        | 58.8%      |
| 1 - <5 Years         | 8         | 15.7%      |
| 5 - <10 Years        | 13        | 25.5%      |
| Total                | 51        | 100.0%     |
The outer model was used to evaluate the relation between indicators and construct in order to ensure that the research indicators were valid. Three aspects have been evaluated in this process were composite reliability (CR), average variance extracted (AVE), and factor loadings (Hair, et al., 2014).

Average Variance Extracted (AVE), Outer Loading, and Composite Reliability (CR) were used to measure discriminant and convergent validity also reliability test. Based on the table 3, AVE value for Business Strategy – Cost Leadership variable, Business Strategy – Differentiation variable, and Business Strategy – Focus Orientation variable have the higher value than the acceptable level, 0.5. While, CR value for the indicators to measure Business Strategy construct (Cost Leadership, Focus Orientation, and Differentiation) was gratifying about >0.70, which it was indicated a good internal consistency.

Determinant Coefficient (R2) was used to measure predictive accuracy from the proposed model, which in this research, R2 value on the table 3 has score between 0.306 – 0.522 which referred that the independent variable was a predictor of dependent variable. But, considering that the R2 value <0.5, the independent variable has a relatively weak impact on the dependent variable (Hair, et al., 2014).

Table 3. AVE, Composite Reliability, and R-Square Value

| Composite                       | AVE  | Reliability | R Square |
|---------------------------------|------|-------------|----------|
| BS - Cost Leadership            | 0.578| 0.806       | 0.314    |
| BS - Differentiation            | 0.544| 0.857       | 0.522    |
| BS - Focus Orientation          | 0.602| 0.778       | 0.306    |
| EU - Competitive Uncertainty    | 0.388| 0.693       | 0.000    |
| EU - Market Uncertainty         | 0.324| 0.413       | 0.000    |
| EU - Technological Uncertainty  | 0.438| 0.656       | 0.000    |
| Organizational Performance      | 0.432| 0.669       | 0.410    |

The research indicators were stated as valid if it has loading factor more than 0,5 of the construct. On the table 4, the loading factors on almost all indicators were valid and have fulfilled convergent validity, except some indicators on environmental uncertainty (Competitive, Market & Tech Uncertainty).

Table 4. Outer Loading Indicator

| BS1 | BS10 | BS11 | BS12 | BS13 | BS14 | BS15 | BS16 | BS2 | BS3 | BS4 |
|-----|------|------|------|------|------|------|------|-----|-----|-----|
| 0.813 | 0.736 | 0.853 | 0.777 | 0.773 | 0.798 | 0.551 | 0.631 | 0.839 | 0.889 | 0.626 |
The path coefficients were used to reflect a relation between the hypothesized construct in this model by using bootstrapping (Hair, et al., 2011). The hypothesis test was performed to identify t-statistic value >1.96, thus, the effect among variables was significant. Moreover, the analysis result on table 5 referred that from 12 hypotheses that have been proposed in this research, 4 hypotheses were supported.

Table 5. Path Analysis & Hypothesis Result

| Hypothesis | Path                                      | Original Sample | T Statistic | Result       |
|------------|-------------------------------------------|-----------------|-------------|--------------|
| H1A        | EU - Market Uncertainty -> BS - Cost Leadership | 0.199           | 1.028       | Not supported |
| H1B        | EU - Market Uncertainty -> BS – Focus Orientation | 0.304           | 1.138       | Not supported |
| H1C        | EU - Market Uncertainty -> BS – Differentiation | 0.373           | 1.670       | Not supported |
| H1D        | EU - Tech. Uncertainty -> BS - Cost Leadership | 0.254           | 2.064       | Supported    |
| H1E        | EU - Tech. Uncertainty -> BS – Focus Orientation | 0.287           | 2.762       | Supported    |
| H1F        | EU - Tech. Uncertainty -> BS – Differentiation | 0.394           | 3.344       | Supported    |
The environmental uncertainties (Market Uncertainty, Technological Uncertainty, and Competitive Uncertainty) in business strategy at hospitality industry have been approved to affect organizational performance. (Köseoğlu et al., 2013). This research found a relation between focus strategy and marketing & linking capabilities, next a relation between differentiation strategy and technological capabilities, also a relation between cost leadership strategy and management capabilities, in which the combination between low-cost & differentiation strategy could improve the organizational performance through a strong management and technological capabilities (Parnell, 2011). The effects of environmental uncertainty on a relation between external integration and organizational performance were also examined in SMEs in Malaysia by identifying the implication of demand uncertainty, technological uncertainty, and competitive threats (Chin, et al., 2014). The result of hypothesis test indicated that the Environmental Uncertainty – Technological Uncertainty could affect positively on Business Strategy – Cost Leadership, Focus Orientation, Differentiation (H1D, H1E, and H1F were supported) which were in line with the theory in previous researches. The higher environmental uncertainty on technological change encountered by Garuda Indonesia, the higher needs of a good practice of business strategy for the organization either for cost leadership strategy, differentiation strategy, or focus strategy to keep maintained and win the competitive market, as it was happened at Garuda Indonesia. The result of hypothesis test also referred that the Business Strategy – Differentiation Strategy could affect Organizational Performance (H2C was supported). This research result has supported the previous research which has investigated the significance of Porter’s Generic Strategies use in 113 companies in Kosovo which were operating within a competitive environment. The previous researcher has found that the implementation of differentiation strategy could increase the greater organizational performance than low-cost strategy & focus strategy (Islami, et al., 2020). Another research in hospitality industry has found that the environmental uncertainty and business strategy were able to affect organizational performance (Köseoğlu et al., 2013). The other research has also investigated the relation between business strategy and performance which referred that the differentiation strategy (Porter’s typology) was a significant business strategy that could affect customer satisfaction within hospitality industry in China (Lo, 2012). The good organizational performance showed organizational competence to survive the position competitively with the other competitors and apply proper strategies continuously (Sekliuckiene & Hopeniene, 2011). In short, the research on the best strategy choice for full service airline or low cost carrier would be a need for business executors at aviation industry to realize a valuable performance and operational result. Garuda Indonesia was quite adaptive to the environmental change occurred and enable the organization practicing three Porter’s strategies: Cost Leadership, Differentiation, and Focus Orientation. The greater environmental uncertainty on technological change dealt by Garuda Indonesia, the greater needs of a good business strategy implementation for the organization either cost leadership strategy, differentiation strategy, or focus strategy. The efforts to achieve organizational goals in a complex environment and full of uncertainty where the managers were required to choose the best alternative which could improve the organizational performance with either a high or low profitability risk scale should consider which business strategy that would be practices or external factors such as business environmental uncertainty condition.

V. CONCLUSION

The environmental uncertainty and business strategy could affect positively on organizational performance, in which this research showed that the Environmental Uncertainty – Technological Uncertainty was approved to affect positively on Business Strategy – Cost Leadership, Business Strategy – Focus Orientation, or Business Strategy – Differentiation, but only the Business Strategy – Differentiation that was approved to affect positively on Organizational Performance. Garuda Indonesia as a full service airline in the midst of a tight competition, especially with low cost carrier which offered low price and provide a very thin margin risk would affect how Garuda Indonesia could determine the business strategy of organization to prefer Differentiation Strategy which was aimed to offer a unique and different product and service than the competitors, so it was able to deliver a competitive advantage for the organization. The implication of this research was expected to add literatures on the business strategy, particularly on aviation industry in Indonesia that have not been many examined scientifically and add insight of the needs to consider environmental uncertainty relating to technological change in the middle of a tight competitive condition among airlines and a complex regulation in...
aviation industry to decide the business strategy of organization into differentiation strategy to offer a unique and different product or service from the competitors, so the organization can achieve the better organizational performance. The suggestion for next researches that they can be conducted in various airlines in Indonesia, so the result can be a comparison between full service airline and low cost carrier to implement the best business strategy alternative for the organization or research development is a number of state-owned companies with similar environmental characteristics.

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