Sales Revenue Performance in B2B Distributor of Automotive Aftermarket Product

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Abstract. The research analyses the sales revenue performance indicated by pricing, order acceptance, and scheduling of PT RB. This research is conducted based on data of PT RB Automotive Aftermarket with the biggest distributor, PT FJM, with total of 80 data provided by the company. The data of this research which consists of available and active material parts from 2012 to 2016 are qualified to be tested after meeting the classical assumptions tests for testing the multiple linear regression with least square equation model. Hypothesis testing using t-test and f-test for testing the level of significance value of 5%. The result shows that pricing, order acceptance, and scheduling delivery have significant influence toward sales revenue partially as well as simultaneously. The contribution of pricing, order acceptance, and scheduling on sales revenue is 66.6% while the remaining 33.4% distribution is affected by other factors which are not included in this research. The recommendations for PT. RB are they need to implement strategy for pricing suitable for distributors and transparency of price. It is also important to persuade distributors the benefit of scheduling delivery. For future researchers need to explore more of other factors contribute to sales revenue.

Keywords— pricing, order acceptance, scheduling delivery, sales revenue, and automotive aftermarket

INTRODUCTION

In 2017, the sales of passenger cars globally hit 78.6 million of vehicles. Along with China, the United States is considered among the largest automobile markets worldwide, both in terms of production and sales. About 6.9 million passenger cars were sold to U.S. customers in 2016 and a total of four million cars were produced in the same year. Regarding the revenue, Toyota, Volkswagen and Daimler are in the top rank of major automobile makers in 2016, while the automotive supplier industry was dominated by Bosch, Continental, Denso, and Magna [1]. In 2014, the ranking of the world’s largest automotive suppliers was dominated by European and Asian manufacturers.

Automotive industry becomes one of the important sectors in Indonesia because many worldwide automakers established a factory to expand the capacity of production in Indonesia. Indonesia is the second largest automotive
manufacturer in South East Asia and ASEAN region [2]. In 2020, Gabungan Industri Kendaraan Bermotor Indonesia (GAIKINDO) predicted that the growth of automotive revenue will be 2 million units and will increase to 3 million units in 2025 overlap Thailand’s position as the biggest automotive industry in ASEAN region.

**PROBLEM IDENTIFICATION**

![Growth of Total Order Quantity 2012-2016 of PT RB](a)

![Growth of Total Sales Revenue 2012-2016 in PT RB](b)

**FIGURE 1.** Growth of Total Order Quantity 2012-2016 of PT RB (a) and Growth of total sales revenue 2012-2016 (b).

As per 2012 to 2016, due to inflation that occurred every year, the increasing production and operation costs impacted the profit margin. As a result, company needs to set a higher price for every parts compared to the previous year and offered to distributors. The consequence is the growth of order quantity was significantly decreased from previous years as in Fig. 1(a). As 2013-2014, company suffered from negative growth accordingly around 70% distributors could not afford to purchase products. Although in 2014-2015 the company recovered from additional margin 40%, but in 2015-2016 around 45% company had to face a problem with the decrease of order quantity growth.

On the other hand, the pricing strategy PT RB used is value-based pricing, while competitors used cost-based pricing. Liozu and Hinterhuber studied that value-based pricing has positive influence on firm performance, especially correlated with profitability, while competition-based pricing or cost-based pricing has negative influence on firm performance [3]. If company had already implemented value-based pricing but the result was not as good as expected, it means the company needs more effort on delivering the values as much as distributors deserved to receive after-purchase.

Most of the distributors ordered parts less than the previous year orders. Although some of distributors have the capability for increasing their order in 2015 and 2016, but they still could not make a comeback as well as in 2012 to 2013. Some of them even had an overdue as they failed to sell the product to end user because the price was getting higher and end user could not afford it. As the domino effect, they had to pay to company in the following year. Because of that situation, they became trapped in their bad cash flow and does not had enough cash to purchase new order. Reflecting the data in Fig. 1(b), it affects a lot on growth of total sales revenue in 2012-2016. From 2012 to 2015, the sales revenue decreases with the biggest loss happened in 2014 to 2015 with total of 60% negative growth of sales revenue.

To achieve the target of sales revenue, sales representatives have to catch up with distributor to get the order and considering the due date distributor asked for the goods to be shipped, they have to make decision whether to accept or reject the order in a short time. In reality, several end-users already placed an order and waiting for the availability of the stocks in distributor warehouse and distributors combined all the end-user’s orders into one PO and requires the
company to accept the order, regardless that the upcoming stock is later than the due delivery date required. Or, the distributors will lose the purchases from end-users and company will lose chances to increase sales revenue.

On the other hand, only several distributors agreed to implement scheduling delivery because of their limited warehouse, the others only accept shipment that fulfill their PO (purchase order) agreement because they are not willing to split one PO into several invoices. System-wise, one delivery notes or one-time shipment directly creates one invoice. It means if there is partial delivery based on schedule; system will create separate invoices for one PO. From distributors’ point of view, it will be problematic in terms of administration. If the sales representatives accept all the order without considering distributors’ delivery date, and distributors requires one-time shipment with the same quantity as in PO (quotation), both sales and planners will have to wait for upcoming stocks and there are plenty of cases occurred where the upcoming stocks arrive later than due delivery date. Supported by Volling and Spengler, customers have a target lead time and are unhappy with late delivery [4]. Therefore, researcher would like to analyze the significant influence of pricing, order acceptance, and scheduling delivery toward sales revenue in PT RB.

SCOPE AND LIMITATION

This study is strictly focused on the influence of pricing, order acceptance, and scheduling delivery toward sales revenue. Due to various divisions in PT RB, this research only focused on Automotive division and only discussed about relationship of B2B with distributors. Researcher uses Hole-Type Nozzle as the material parts being analyzed because it was actively sold from 2012 to 2016 and is the highest sales revenue in 2016. Total of 80 samples data represent the transaction between supplier (PT RB) and distributor (PT FJM) as it is the biggest distributor PT RB has in 2016.

LITERATURE REVIEW

In this competitive environment, pricing strategy is required to facilitate customer value creation, structure price decisions, and to earn profit [5]. Pricing strategy has to be managed to achieve profitable performance in a business [6]. A pricing strategy decision has objective to help to achieve the target of financial performance. To optimize profit, revenue, or unit sales, company needs to set an optimal price [7].

Value-based pricing (known as image-based pricing) occurred when the company uses prices to indicate market value or associates price with the preferred value position in the point of view of the customers [8]. The aim of value-based pricing is to strengthen the overall positioning strategy, for example, premium pricing to pursue or maintain a luxury image [9].

In the companies’ point of view, especially in their production process, order acceptance is a crucial decision, because order acceptance is the joint decision to decide which orders are acknowledged to be processed and how to schedule the product to customers’ warehouse [10]. Order acceptance (OA) aims to reduce the weighted sum of the maximum lead time of inquiry orders and the total cost or expense of rejecting and delivering orders [11]. Furthermore, order acceptance has the ability to increase the revenue and profit, decreasing the cost and improving the due date reliability. OA in practice, however, is often an experienced based procedure that is grounded between sales and operations [10].

Achieving compliance with initial lead time promised will increase automaker costs. The two stages process can be tuned to alter the trade-off, involving (1) immediate lead time promise and (2) subsequent batch allocation to production plan [4], which later will result in scheduled delivery based on production batch allocation (deliver which come first). Study shows scheduling delivery model with batch delivery is important to minimize the weighted sum of the maximum lead time of accepted orders and the total cost of rejecting and delivering orders [11]. Delivery can be scheduled to accommodates customer’s request for delivery of order lines at different times. Rather than waiting for the “full” quantity of the order to be completed, early order completion agreement can be used by distributor to ask the company to complete an inventory replenishment order with a predefined scheduling delivery quantity earlier.
Having a scheduling delivery at earlier delivery due date through an agreement helps to reduce the impact of uncertainties [12].

To maximize the revenue, the realization of revenue management in pricing strategies affecting the reference price could result in potential customer conflicts such as perceived unfairness, reduction in reference price, and perceived financial risk. Marketing team has the role to reduce these conflicts by setting a high published price, physical and non-physical rate fences, and bundling of services [13]. It is important to set and manage the right pricing to reduce short term conflicts and avoid long term conflicts which could damage the B2B relationship.

An order acceptance is basically concerned with deciding whether or not to accept an order received from the customer [14]. Used of the data on price and estimated delivery date, will help to lessen the duration of decision making and order acceptance could also support sales representative negotiation with customers [14]. If customers highly value supply chain services, the firm can achieve a higher per-product revenue or win larger market shares, and customers high perception on supply chain services will influence the utilization positively [15].

**RESEARCH GAPS**

The previous researches only conducted to analyze the influence of independent variable towards dependent variable partially. Previous researches regarding pricing mostly only for B2C and B2B retailer. Brennan, R., Canning, L., & McDowell, R in their book only researched regarding pricing between business to business retailers, specifically discussion in marketing field [9]. Liozu used surveys as data collection tool and gathered the response based on respondents in different functions (pricing, marketing, sales, general management) [3]. The results are data collected based on self-reports of recalled past action or of prospective or hypothetical action, not a real time action [15].

Jiang et al., studied an order acceptance and scheduling problem with batch delivery in supply chain consisting of a manufacturer and a customer (B2C) [11]. While, this research will discuss order acceptance and scheduling delivery in the relation that B2B distributor has the responsibility to fulfill the demands of end-user.

This research is conducted to answer all the gaps mentioned previously. Researcher analyzed the influence of pricing, order acceptance, and scheduling delivery toward sales revenue partially and if there are simultaneous significant between all independent variables toward dependent variable. The business relationship analyzed is B2B Company to distributor. The data used is provided by company, directly retrieved from the database.

![Theoretical Framework](FIGURE_2_Theoretical_Framework.png)
The research used quantitative method in conducting the research by using sample data provided by company and analyzed using statistical method. This research used purposive sampling method. In multivariate techniques like multiple regression analysis, the sample size should be at least ten times larger than the number of variables being considered [17]. The sample in this research is 80 transactions of Hole Type Nozzle product (product with highest sales revenue in 2016) and the sample of the transaction between supplier (PT RB) and distributor (PT FJM) as the biggest distributor PT RB has in 2016. The tools used in this research are Microsoft Excel 2013 and SPSS software version 21, for statistical data processing.

The researchers used multiple regression analysis technique to analyze the data. Multiple regressions analysis involves combining several predictor variables in a single regression equation. Multiple regressions are used to assess the effects of multiple predictor variables on the dependent measures. Formally, if the significant value is greater than 0.05, it means that the independent variable being measured does not have a significant influence toward the dependent variable.

Unstandardized coefficient is useful to compare each variable between the regressions. The important thing to be understood is unstandardized coefficients (β) can only be compared with other variables measured in the same units. T-test is used to evaluate of independent variable toward dependent variable partially. In this research, T-test will test the significance of constant from each independent variable, whether Pricing (X1), Order Acceptance (X2), and Scheduling Delivery (X3) really have partial significant influence toward Sales Revenue (Y). F-test is used to evaluate the influence of all independent variable towards dependent variable simultaneously. This method is used to measure if there is a significant influence independent (price, order acceptance, and scheduling delivery) toward dependent variable (sales revenue) simultaneously. Formally we can say that if the significant value is greater than 0.05, the null hypothesis should be accepted. Thus, this is general ways to evaluate influence of independent variables towards dependent variable simultaneously [18].

DATA ANALYSIS

In this research, the researchers used standardized coefficient, because variable X1 (Pricing) used “IDR” as measurement unit while X2 (Order Acceptance) used “unit”, X3 (Scheduling Delivery) used “delivery times” as measurement unit, and Y (Sales Revenue) used “unit”.

Multiple Regression Testing

<table>
<thead>
<tr>
<th>Coefficients*</th>
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<tr>
<td>Model</td>
<td>Unstandardized Coefficients</td>
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<td>(Constant)</td>
<td>-835.844</td>
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<td>Pricing_X1</td>
<td>38.378</td>
</tr>
<tr>
<td>Order_Acc_X2</td>
<td>133.348</td>
</tr>
<tr>
<td>Sched_Delivery_X3</td>
<td>115.110</td>
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</table>

a. Dependent Variable: Sales Revenue Y
Based on the calculation from SPSS as shown in the Table 1, the equation to conclude the research is as the following:

\[ Y = 0.443 \times X_1 + 0.239 \times X_2 + 0.360 \times X_3 \]

Where,

- \( Y \) = Sales revenue (unit)
- \( X_1 \) = Pricing (IDR, per 1000)
- \( X_2 \) = Order acceptance (unit)
- \( X_3 \) = Scheduling delivery (delivery times)

### Testing of Hypothesis

The researcher used T-test to find out whether the independent variables have partial significant influence towards dependent variable.

a) Pricing (X1)

Hypothesis 1: There is a significant influence of Pricing toward Sales Revenue in PT RB

From the test for variable X1 (Pricing), it shows a significant value of 0.000 (<0.05), which means the first hypothesis is accepted, that there is a significant influence of Pricing toward Sales Revenue.

b) Order Acceptance (X2)

Hypothesis 2: There is a significant influence of Order Acceptance Sales Revenue in PT RB

From the test for variable X2 (Order Acceptance), it shows a significant value of 0.030 (<0.05), which means the second hypothesis is accepted, that there is a significant influence of Order Acceptance toward Sales Revenue.

c) Scheduling Delivery (X3)

Hypothesis 3: There is a significant influence of Scheduling Delivery toward Sales Revenue in PT RB

From the test for variable X3 (Scheduling Delivery), it shows a significant value of 0.001 (<0.05), which means the third hypothesis is accepted, that there is a significant influence of Scheduling Delivery toward Sales Revenue.

The researcher used F-test or ANOVA in Table 2 to determine the influence of Pricing, Order Acceptance, and Scheduling Delivery toward Sales Revenue simultaneously.

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
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<td>Regression</td>
<td>32548435.419</td>
<td>3</td>
<td>10849478.473</td>
<td>50.422</td>
<td>.000b</td>
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<tr>
<td>Residual</td>
<td>16353159.581</td>
<td>76</td>
<td>215173.152</td>
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<tr>
<td>Total</td>
<td>48901595.000</td>
<td>79</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- a. Dependent Variable: Sales_Revenue_Y
- b. Predictors: (Constant), Sched_Delivery_X3, Pricing_X1, Order_Acc_X2

**TABLE 2 Result of F-test**
Hypothesis 4: There are significant influences of Pricing, Order Acceptance, and Scheduling Delivery toward Sales Revenue in PT RB.

The test for variable Pricing, Order Acceptance, and Scheduling Delivery shows a significant value of 0.000 (<0.05). The F-test result shows the independent variables are simultaneously influencing the dependent variable, meaning, the Pricing, Order Acceptance, and Scheduling Delivery have an influence towards Sales revenue simultaneously.

### TABLE 3 Result of Coefficient of Determination (R²)

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
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<tr>
<td>1</td>
<td>.816a</td>
<td>.666</td>
<td>.652</td>
<td>463.86760</td>
<td>2.240</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Sched_Delivery_X3, Pricing_X1, Order_Acc_X2
b. Dependent Variable: Sales_Revenue_Y

Contribution of independent variables based on Table 3, Pricing (X1), Order Acceptance (X2), Scheduling Delivery (X3) to the dependent variable: Sales Revenue (Y) is 66.6%. The rest of 33.4% distributed by other factors that is not included in this research.

**INTERPRETATION OF THE RESULT**

Based on the result in the previous sections, pricing has a significant influence towards sales revenue in PT RB, supported by Liozu, Hinterhuber, Liozu, and Hinterhuber [3] with specific pricing strategy: a value-based pricing. This result is also similar to the research conducted by Lai & Chan in the pricing strategy, it is important for the company to implement product promotion and product sales to maintains cooperative relationship between company and distributors, as the more value company fully delivered to distributors, the better result of company performance to generate sales revenue [19].

Regarding order acceptance and scheduling delivery, each of them has a significant influence towards sales revenue. These results are the same as Jiang et al., that studied an order acceptance and scheduling with batch delivery will minimize the weighted sum of the maximum lead time of inquiry orders and the total cost of delivering orders [11]. Distributors will rely on these advantages: stock will come earlier continuously to fulfill end users’ orders, and the total cost of delivering orders will be beneficial for company. For order acceptance, the results in this research, and supported by Man et al., shows that sales capability is truly needed to maximize order acceptance and to minimize error and rejection in processing the orders [20]. The results of relationship between scheduling delivery and sales revenue shows similar results as research conducted by Volling & Spengler, the promised lead time of products arrival by the trade off with implementation of scheduling delivery will decrease company cost and customer will be satisfied because the promised lead time has been fulfilled [10].

F-test result shows pricing, order acceptance, and scheduling delivery have simultaneous significant influence towards sales revenue in PT RB. Contribution of independent variables, pricing, order acceptance, and scheduling delivery, on dependent variable, sales revenue is 66.6%. The rest of 33.4% distribute by other factors that is not included in this research. This research is the first in analyzing the influence of pricing, order acceptance, and scheduling delivery towards sales revenue in PT RB.
There is a significant influence on pricing towards sales revenue in PT. RB. It means good or bad pricing strategy set for distributors affects sales revenue directly. Therefore, it is important to develop and maintain a good pricing strategy for distributor to maximize sales revenue. Besides that, a significant influence on order acceptance towards sales revenue in PT RB due to more inquiry orders from distributors meet the company capability to process the orders, the more sales revenue will be earned by company. Also, there is a significant influence on scheduling delivery towards sales revenue in PT RB. It means distributors are more satisfied when the parts were delivered partially to their warehouse as soon as the stock arrived. In conclusion, pricing, order acceptance, and scheduling delivery have simultaneous significant influence toward sales revenue in PT RB. By maximizing the pricing strategy, the number of order acceptance, and the delivery times of scheduling delivery, the sales revenue will be maximized.

RECOMMENDATIONS AND FUTURE PLANNING

In marketing and sales team, a transparency of increasing price is recommended. Distributors are willing to buy more expensive items as long as there is explanation about allocation of proceed for distributors to fully understand, especially for company which implemented value-based pricing strategy. Therefore, both marketing and other departments which have increasing costs annually needs to work together in setting the price and informing the sales representatives so they can fully understand and ready to inform distributors without any miscommunication or misinterpretation.

Besides that, introducing a Distributors Achievement in marketing and sales team. Offer a special trade agreement for distributors in order to attract them to open order and to motivate them to sell the parts to end user. If they successfully achieve turnover (calculated by parts delivered to distributors’ warehouse); they will get incentive or discount to be claimed in the future (with the limited period of time).

Implementation of scheduling delivery also recommended. Sales representatives should start to persuade distributors to agree with the implementation of scheduling delivery. This research could be basic information for sales representatives to share the advantages of scheduling delivery. Regarding administrative reason could be supported by matching the data of invoices issued by company and purchase data issued by distributors.

On the other hand, sales representatives need to update the information regarding lead time of production to order planner team and from logistic team regarding the lead time for parts to arrive at destination, so they can inform the distributors before deciding to open order. Sales representatives should also work together with order planner team to discuss about scheduling delivery so they can inform the distributors about the estimated arrival date to prepare their warehouse beforehand.

For future research, there are many independent variables besides pricing, order acceptance, and scheduling delivery need to be identify and possibly to have correlation and influence towards sales revenue. Future researcher could also identify the relationship of these variables discussed in this research for OES (Original Equipment Supplier), because this sub-division is also under Automotive Aftermarket in B2B with manufacture. This research can be the basic knowledge to explore more about the influence of pricing, order acceptance, and scheduling delivery toward sales revenue.

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REFERENCES