

INNOVATION STRATEGY IMPLEMENTATION IN STEEL MANUFACTURING COMPANY

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ABSTRACT

The development of the building materials manufacturing industry is experiencing a slowdown that is consistent with the drop in national economic growth rate. Particularly true in the steel-making industry which is impacted by the rapid flow of supplies from abroad making the climate increasingly fierce and competition become red ocean. This study aims to understand the company's current business model, as well as external conditions and market scanning, and then find the right steps in formulating relevant strategies to bring company into the blue ocean. There are some tools which can be used such as Business Model Canvas, then continued with the Mapping Analyzes of Four Main Areas. Next is the depiction of the Strategy Canvas and The Four Actions Framework. Finally closed by describing a new business model into a new BMC.

This research analyzes use descriptive qualitative method, accompanied with collecting data through interviews, participant observation and documents study. The study was conducted in a steel manufacturing company PT. A at Surabaya in the period October 2015 to March 2016. Validity and reliability are performed by using triangulation of data sources, and triangulation of methods.

The study concluded there are several aspects that need to be changed. There are eliminated, reduced, enhanced, and even created, in order to change the company's strategy canvas moving away from bloody competition towards blue ocean that made the competition irrelevant.

Keywords: innovation, business model, strategy canvas, business model canvas.

INTRODUCTION

Just as on PT. A which is a zinc-aluminum coated steel manufacturing company also affected both in terms of sales volume and margins earned. The needs of zinc and aluminum coated steel in the designation of the construction world is one type of material that is widely used. As with other basic materials namely cement. Demand for coated steel are not only met by domestic suppliers, but also from abroad.

Annual sales data from PT. A showed an upward trend, but it only happens through fiscal year 2012-2013, which reached the peak tonnage that managed to record sales of 3,946 tonnes. But after that there was a crisis in which the sales trend continues to decline in the next fiscal year that is 3341 tonnes and 2966 tonnes in the next two years as shown in Figure 1.

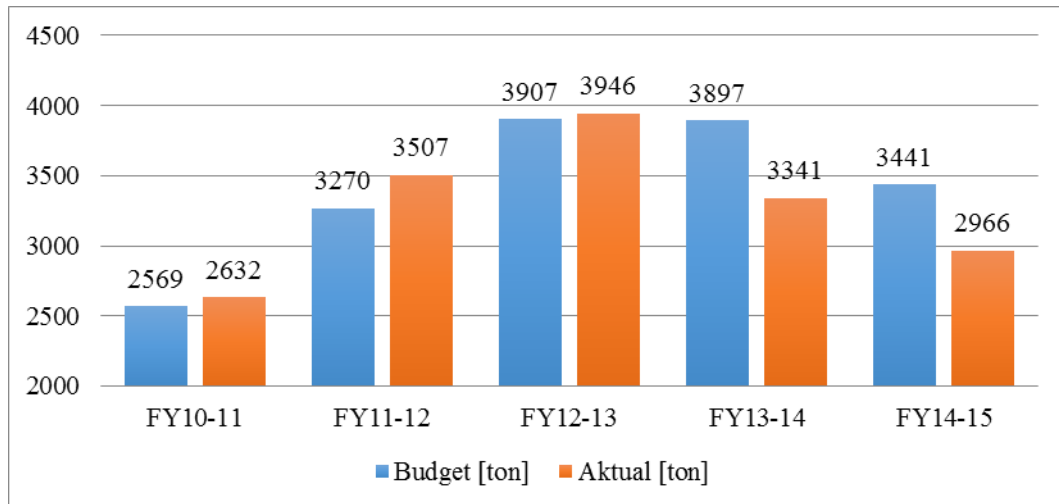


Figure 1. Yearly Sales Volume

The next thing that is interesting is that not all similar competitor in this area experienced a decrease in sales volume as shown in Table 1.

Table 1. Competitor's Sales Growth

Company	2013-2014 [tonnes]	2014-2015 [tonnes]	Growth [%]
PT. A	3,341	2,966	-11%
PT. CBM	1,148	1,420	24%
PT. UMW	685	952	39%
PT. AS	956	1,329	39%
PT. UM	983	1,079	10%
PT. MM	1,011	617	-39%
PT. KKR	2,028	897	-56%

If the views of performance data for the last two fiscal year FY13-14 to FY14-15, which is based on primary data drawn from the data PT. B which is the holding company of PT. A, who also be the sole supplier for one of these types of comparing products, featuring tonnage sales of the seven companies that are closest competitor PT. A one another. As seen that PT. A decreased 11%, and followed by PT. UM and PT. KKR declined quite a lot. But on the other hand, there are four other companies that have been increasing even as the figure is quite good, which up to 39%. Obviously this is very exciting to be examined in more depth. What are the key success factors in the competitors in attempt to increase the number of sales, as well as what are the factors that contributed to the decline in the number of sales of other companies.

Seeing these phenomenas that occur at the top, it can describe the possibility that the company was in the red ocean of competition. A book called Blue Ocean Strategy by Kim and Mauborgne (2005) describes some characteristics of a red ocean, namely: (1) competing in a market space that already exists, (2) fighting to win the competition, (3) exploit the demand, (4) choosing between the value or cost or also called the value-cost trade-offs, and (5) integrate the entire system of activities of the company to conduct a strategic choice of differentiation or low cost. In the conditions of that a company should start switching to a more spacious room, which can move more freely move and not crowded as competing until the bleeding, but to a still blue ocean.

The characteristics of the strategy blue ocean are: (1) creating an uncontested market space, (2) make the competition irrelevant, (3) create and capture new demand, (4) breaking the exchange of value-costs, (5) integrate overall system of corporate activities in pursuit of differentiation

and low cost. Moreover added by Porter (1998), that the company can be competitive with how to navigate and find a new path and to better compete in the industry and bring it to the market which is a form of innovation that is most essential.

LITERATURE REVIEW

Business Model Canvas

According to Osterwalder and Pigneur (2010), a business model describes the rationale of how an organization creates, delivers, and captures value. The business model is like the blueprints of a strategy adopted by the organizational structure, processes and systems.

Therefore, it needs a framework called Business Model Canvas (BMC), which is a quick tool of a picture of a business model that was created and written by Osterwalder and Pigneur (2010) in his book.

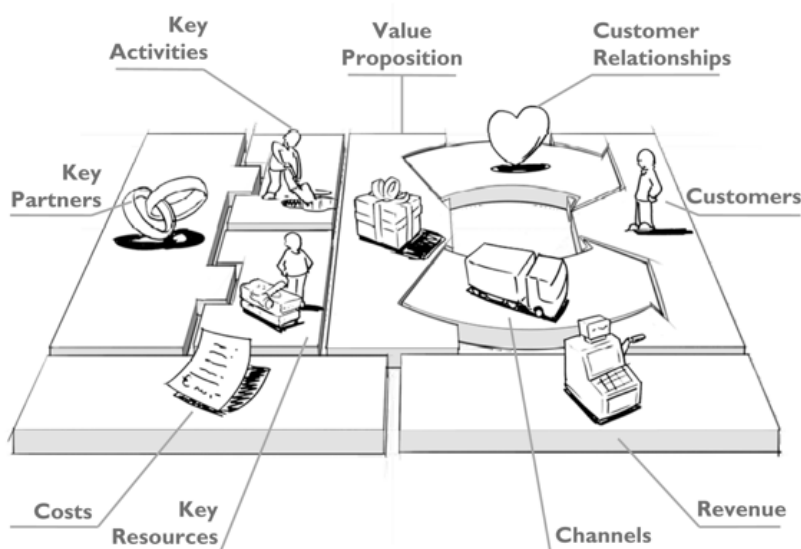


Figure 2. Business Model Canvas

There are nine aspect components in BMC, which includes Customer Segments, Value propositions, Channels, Customer Relationships, Revenue Streams, Key Resources, Key Activities, Key Partnerships, Cost Structure.

Four Main Points Mapping

Innovation begins with the process of exploitation, both external and internal. Innovation is the new ideas were successfully exploited, including the creation of something new, or a combination of desires and needs of customers (Alamsjah et al., 2010). Meanwhile, in a process of creation of innovation there are three levels: (1) incremental innovations (small changes based on the knowledge and capabilities), (2) modular innovations (changes more than just the simply development of products), (3) radical innovations or changes to take advantage of opportunities that are not thought of before that can influence the manufacturing process, sales, and so forth (Andriopoulos and Dawson, 2011).

The exploitation process is not separated from understanding the business models that exist today. Business models designed and executed in a specific environment. Develop a good understanding of the organization's business environment helps companies get the business model stronger and more competitive. Continuous environmental scanning is more important than ever because (1) the economic landscape is increasingly complex (eg business model networks), (2) the higher the uncertainty (eg technological innovation), and (3) damage severe market (eg economic turmoil , the proportion of new value destructive). By understanding the

changes in the environment to help companies adapt more effectively to shifting external forces. Understanding the external environment as a kind of "design space", as a context to adapt the business model by considering a number of trigger design.

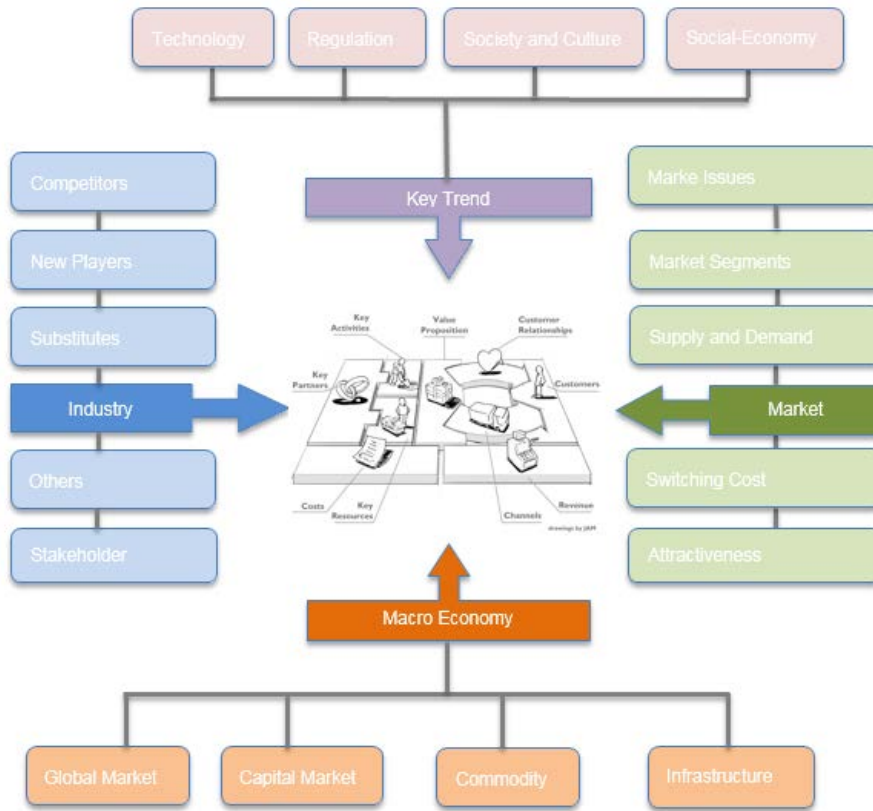


Figure 3. Four Main Points Mapping

Strategy Canvas

There is a work tool more well known strategy canvas, as it was first introduced by Kim and Mauborgne (2005). The strategy canvas is a diagnosis action framework to build a good blue ocean strategy. Canvas strategy has two functions. First, it summarizes the current situation in the known market space. This allows us to understand where the competition is currently being shed, to understand what factors are being used as competition in products, services, and delivery, and to understand what the consumer obtained from existing competitive offerings in the market. All information is summarized in graphical form. The horizontal axis represents a range of factors were used as competition and investment by the industry. The vertical axis obtained summarizes the level of supply buyers in all major factors of the competition. High score indicates a company offers more to consumers, while indicating the company is to invest more in these factors. In the case of price, a higher score indicates a higher price.

Four Actions Framework and Scheme E-R-R-C

By Kim and Mauborgne (2005) also described the next action steps to reconstruct buyer value elements to create a new value curve, which is called the four actions framework. Then the next step is to encourage companies to not only ask four questions in the four actions framework, but also acting on all four questions was to create a new value curve.

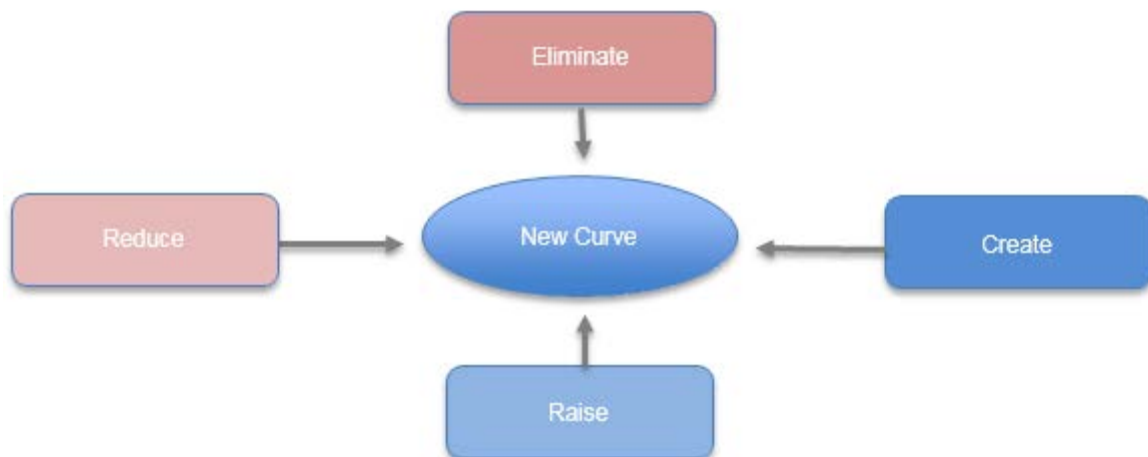


Figure 4. Four Actions Framework

RESEARCH METHODS

In this study the authors chose the type of descriptive and qualitative research methodologies by way of inductive approach to find answers to questions of this research problem formulation. Or also called a model case study.

Model case studies according to Creswell (1998) is a model that emphasizes the exploration of a system that is bounded (bounded system), along with in-depth data mining that involves a variety of resources that are rich in context. Added by Bungin (2011) that the qualitative descriptive format is generally carried on research in the form of case studies.

According to Creswell (1998) there are eight reasons to use the type of qualitative methodology, in which the first reason is to answer the question "how" and "what", and where this is in line with what the author said in the formulation of the problem of this research. According Moleong (2005), qualitative research is research that aims to understand the phenomenon of what is experienced by the subject of research in a specific context in which the natural holistically and by way of description. It was also mentioned by Bungin (2011) that the incorporation of qualitative descriptive format is theorizing the most widely used in qualitative research. Next is the approach by way of inductive. Thus, the descriptive qualitative method with inductive approach can be used in research that require more study to find the facts and then examined for general conclusions can be drawn.

Data Types and Sources

According Sugiyono (2014), the data source can be divided into two primary and secondary. The following data sources were used in this study:

1. Primary

The primary data source is a source that directly provide data to data collectors. Primary sources used include interviews with company leaders, the head of the marketing department, production, and also the customers. It also made observations in the field and collect data in the form of notes on the situation and events in the field.

2. Secondary

A secondary source is a source that does not directly provide data to data collectors, for example through the document. A secondary source is obtained from the record sales

reports, performance reports to the ministry. In addition, it is used also book study literature related to this research.

Data Collecting

In qualitative research known several methods of data collection are commonly used. According Herdiansyah (2010) some of these methods include interviews, observation, documentation and other studies, but this time the author uses three methods already mentioned.

1. Semi-structured interviews

According to Stewart and Cash (2008) definition of the interview is a conversation because of an exchange or sharing of roles, responsibilities, feelings, beliefs, motivation, and information, interactive occurring more than one person. In general interviews in qualitative research interviews or more of three forms, namely structured interviews, semi-structured, and unstructured (Herdiansyah, 2010). However, the authors chose semi-structured interview method in which more appropriate where it has set up an open question but there are limitations which answers more free themes put forward by the subject does not come out all the context of discussion. Is flexible yet controlled.

Resource persons who will be interviewed six people which of the company's internal area is general manager of eastern Indonesia (GM). The next guest speaker is on the side of the company's customers include the directors of the company distributor PT. X (DX), and also distributor CV. Y (DY), where the two companies have been registered as official distributor of PT. A for more than 10 years, plus other customers. As explained earlier, if one distribution channel that is owned by PT. A is a distributor, so we can say that the distributor is a part of the company's customer PT. A.

2. Participant observer

According Bungin (2011) there are three types of observations include participant observation, observation is not structured, and unstructured observation group. In this study used participatory observation as data collection is done through direct observation, is the object of observation in daily activities.

3. Study documentation

The study documentation is one of the methods of qualitative data collection by viewing or analyzing the documents created by the subject himself or others on the subject (Herdiansyah, 2010). The types of documents that can be examined in this study the official documents both from internal and external such as newspapers, magazines, and so on (Moleong, 2005).

Research Instruments

Resource persons who will be interviewed six people which of the company's internal area is general manager of eastern Indonesia (GM). The next guest speaker is both the director of the distributor company PT. X (DX), and also distributor CV. Y (DY), and three other customers of the company's different customers. (DA, DB, DC).

Table 2. Interview Guide About Company's Current Condition

No	Questions	Interviewees
1	How is today's consumer segmentation?	GM
2	What products/services does company offer?	GM
3	How does company reach its consumer?	GM
4	What kind of relationship has been built with consumer?	GM
5	What are the sources of income of the company?	GM
6	What resources are owned by the company?	GM
7	What is the key activities of the company?	GM
8	Who are the partners?	GM
9	How is the cost structure?	GM

Table 3. Interview Guide About Strength of The Market

No	Questions	Interviewees
1	What important issues affecting the customer landscape? What is shifting? Where the market is heading?	DX, DY, DA, DB, DC
2	Which segment is the most important? Where is the biggest potential growth? Which segments are declining?	DX, DY, DA, DB, DC
3	What does consumer need? What are unsatisfied consumer's need? What does consumer really want to finish? Where are the declines and inclines laying?	DX, DY, DA, DB, DC
4	What makes a customer is tied to a company and its offer? What does it cost to prevent customer from being switched to a competitor? Is it easy for costumer to find a substitution offer? How important the brand is for customer?	DX, DY, DA, DB, DC
5	What really make customers want to pay? Where is the biggest margin can be achieved?	DX, DY, DA, DB, DC

Table 4. Interview Guide About Strength of The Industry

No	Questions	Interviewees
1	Who are the competitors? Who are the dominants in our sectors? What are their strengths and weaknesses? Which segments are they focusing on? How is their company's cost structure?	DX, DY, DA, DB, DC

	How big are their impacts to our revenue streams, margin?	
2	Who are the new comers? How do they differ? What are their competitivenesses? What obstacles do they face? What are the value propositions? Which customer segments are they focusing on?	DX, DY, DA, DB, DC
3	How are their cost compared to our cost?	DX, DY, DA, DB, DC
4	Who are the key players in our value chain? How dependent is our model business to other key players?	DX, DY, DA, DB, DC
5	Which stakeholder could affect our business model? How big is the impact?	DX, DY, DA, DB, DC

Table 5. Interview Guide About Key Trends

No	Questions	Interviewees
1	What are the technology trends that are strong inside and outside of our market? Which technologies are showing important opportunities or destructive threats? Which new technologies are possibly absorbed by the market?	DX, DY, DA, DB, DC
2	Which trend of regulations are affecting the market? Which regulations are affecting our business model?	DX, DY, DA, DB, DC
3	What kind of shifting cultures or social values that affect our business model?	DX, DY, DA, DB, DC
4	How is main demograhpy trend?	DX, DY, DA, DB, DC

Table 6. Interview Guide About Strategy Canvas and Scheme E-R-R-C

No	Questions	Interviewees
1	Which factors of competitiveness are being compared amongst suppliers?	DX, DY, DA, DB, DC
2	What are the score for each factors mentioned in question number 1?	DX, DY, DA, DB, DC

Limitations

Based on the literature review Research singer Yang was appointed hearts are Many kinds of analysis What can be done and if done Become Too Broad Blanket. Then in the hearts Research singer given Limitations ie NOT reviewing several studies Field Mapping Analysis The hearts are four in the Top Field Covering Macroeconomic strength.

Time and Place

The study was conducted within 6 months starting from October 2015 until March 2016, located in the city of Surabaya.

Validity and Reliability Tests

In the reliability and validity of scientific research into an absolute thing that must be achieved. Neuman (2000) in Herdiansyah (2010) defines reliability is the consistency that has the same results when repeated or recur in conditions that are very similar or identical. While in the same book, validitas interpreted as honesty, and authenticity.

To achieve this, then in Moleong (2005) built the validity of testing techniques that examination technique. According Herdiansyah (2010) triangulation is the use of two or more sources to get the whole picture of a phenomenon to be studied. Mechanical inspection chosen in this study is the triangulation of data sources and triangulation methods.

Triangulation of data sources is to compare the current state and perspective of someone with different opinions and views of others. The data sources were interviewed and observed several people as customers of the various stages of the type of companies based distribution channel to the end user, the company employees subject to several levels kesenioritasan. Triangulation method is to check the similarity of the results obtained from a variety of data collection methods such as interviews, observation, and documentation.

FINDINGS

Analysis of Business Model Canvas and Four Main Points Mapping

PT. A is a company which is manufacturing steel products ready for the purposes of the construction industry which has been established in Indonesia since 1973. It is a subsidiary of the group company based in Australia. PT. A is one of the pioneers in this field who is now widely known Indonesian society. There are nine components to be analyzed are: (1) customer segments, (2) value propositions, (3) channels, (4) customer relationships, (5) revenue streams, (6) key resources, (7) of key activities, (8) key partnerships, and (9) cost structure.

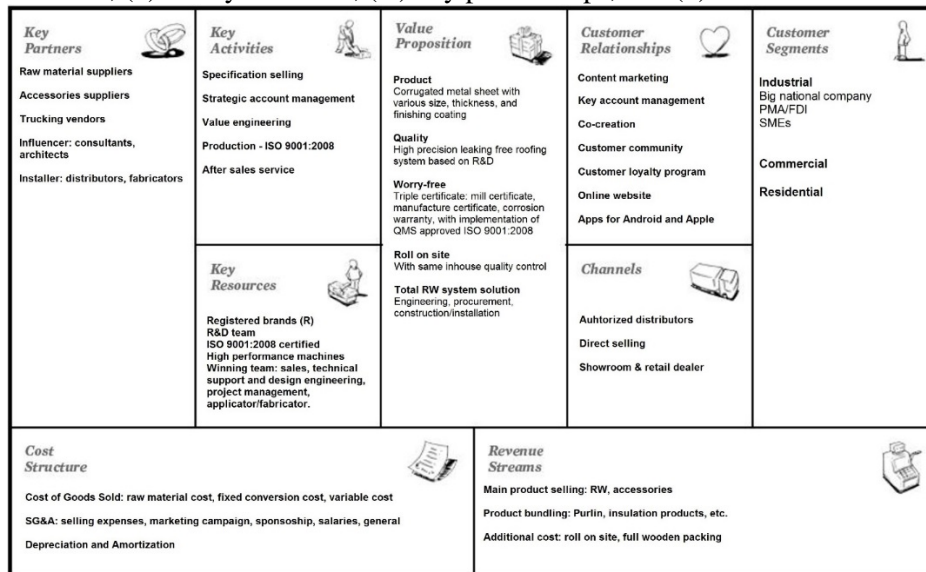


Figure 5. BMC of PT. A

Based on interviews, observation and documentation, it can be seen what are the strengths, weaknesses, opportunities and threats for the company. These points, among others:

1. Strengths
 - a. High precision profiles
 - b. Quality management system ISO 9001:2008
 - c. Awareness level 4 (DuPont Bradley Curve)
 - d. Value engineering
 - e. Wide product variances

- f. Business-to-business networking
- g. Customer relationship management
- 2. Weaknesses
 - a. Not having high-rib profile
 - b. Not having stainless steel product
 - c. Dependent to third factor in term of installation services
 - d. Low capacity of roll on site
 - e. Financing inflexibility
 - f. High cost vendors
- 3. Opportunities
 - a. High-rib market growth 95%
 - b. Supply and install
 - c. Stainless steel product demand is increasing
 - d. Roll on site is becoming trend
 - e. High growth in iconic building
- 4. Threats
 - a. Aggressive competitor's pricing scheme
 - b. Regulation of product and service procurements
 - c. Subsitute products

Analysis of Strategy Canvas

The results of whole analysis that is including interviews, and surveys, observations and document studies, it is obtained several factors which are being compared in competition. These factors are as follow: (1) price, (2) decking Sales, (3) showroom and dealership retail, (4) Product Variations, (5) stock contingency, (6) the quality of products, (7) Management Relations, (8) EPC.

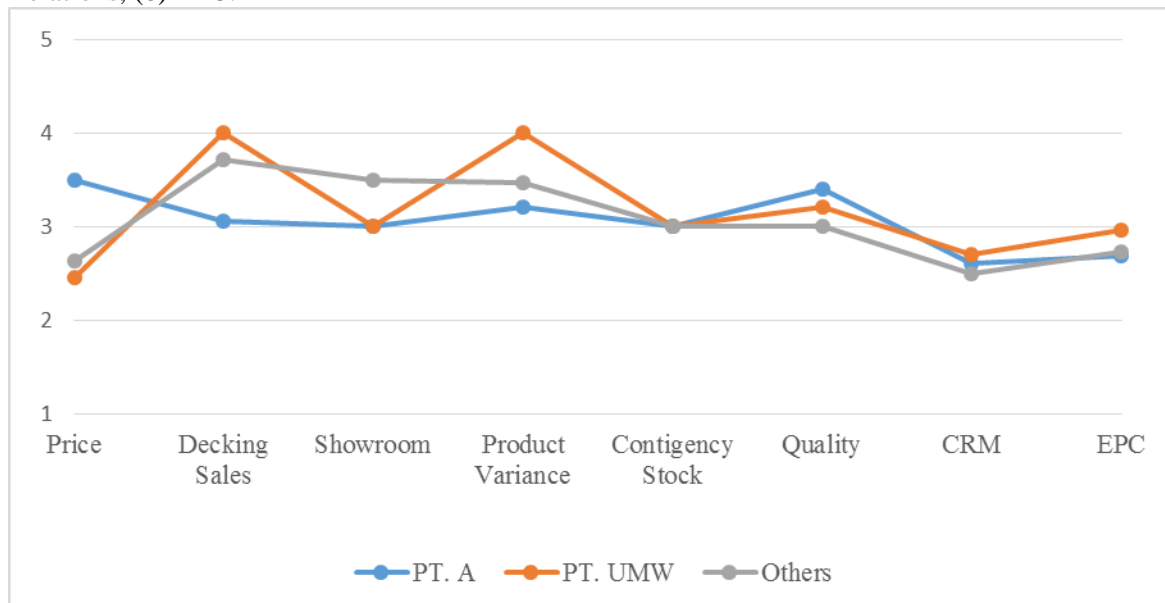


Figure 6. Existing Strategy Canvas

Analysis of Four Actions Framework and Scheme E-R-R-C

Berdasarkan analisis kerangka kerja empat langkah sebelumnya, dapat dibentuk skema hapuskan-kurangi-tingkatkan-ciptakan sebagai berikut.

Based on the analysis of four actions framework, can be formed the scheme erase-reduce-raise-create as follows.

Erase	Raise
Decking sales	Quality
Showroom	CRM
	EPC
Reduce	Create
Product variance	High-rib
Contingency stock	Stainless steel
	≥ 0.75 mm

Figure 7. Scheme E-R-R-C

Based on scheme E-R-R-C above it can set up a new strategy canvas as in Figure 8. A unique value creation curve and open blue ocean. As indicated in the new strategy canvas, PT. A does not spread its operations into all the major factor in the competition. Shaping curve away from competitors PT. UMW and the average of other players. This is a result of the search and view the alternatives and instead of comparing with competitors. Thus PT. A will be in the level of competition is different from before, make the competition irrelevant.

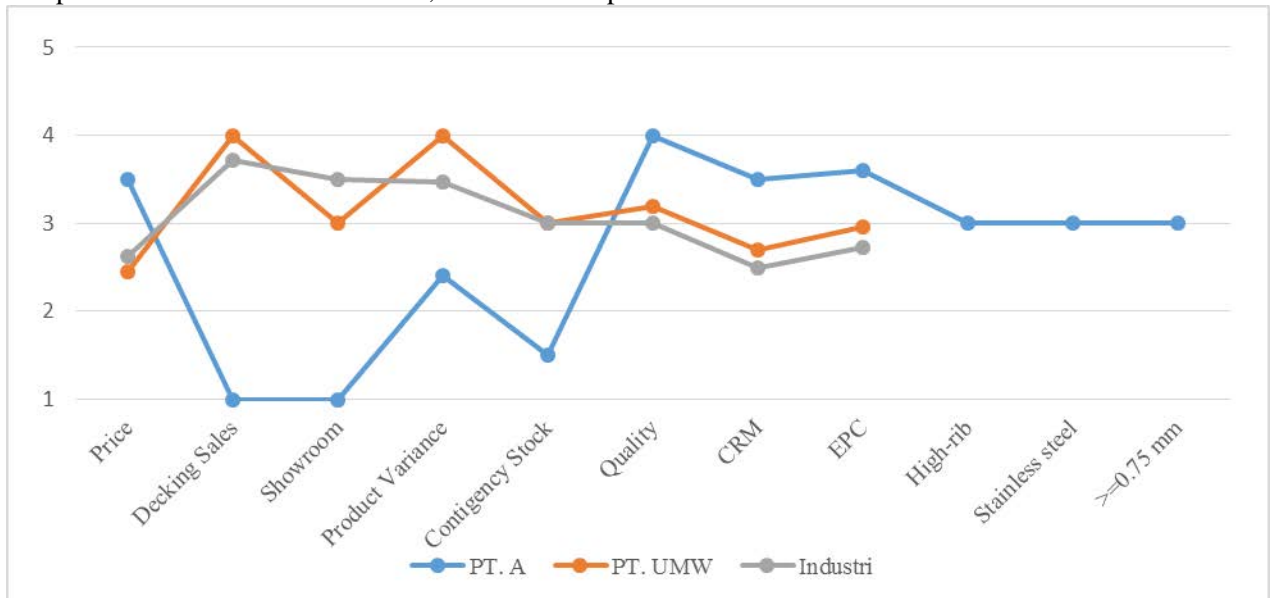


Figure 8. New Strategy Canvas

By combining the new strategy canvas with a business model PT. A previous, then obtained a new business model as in the following BMC

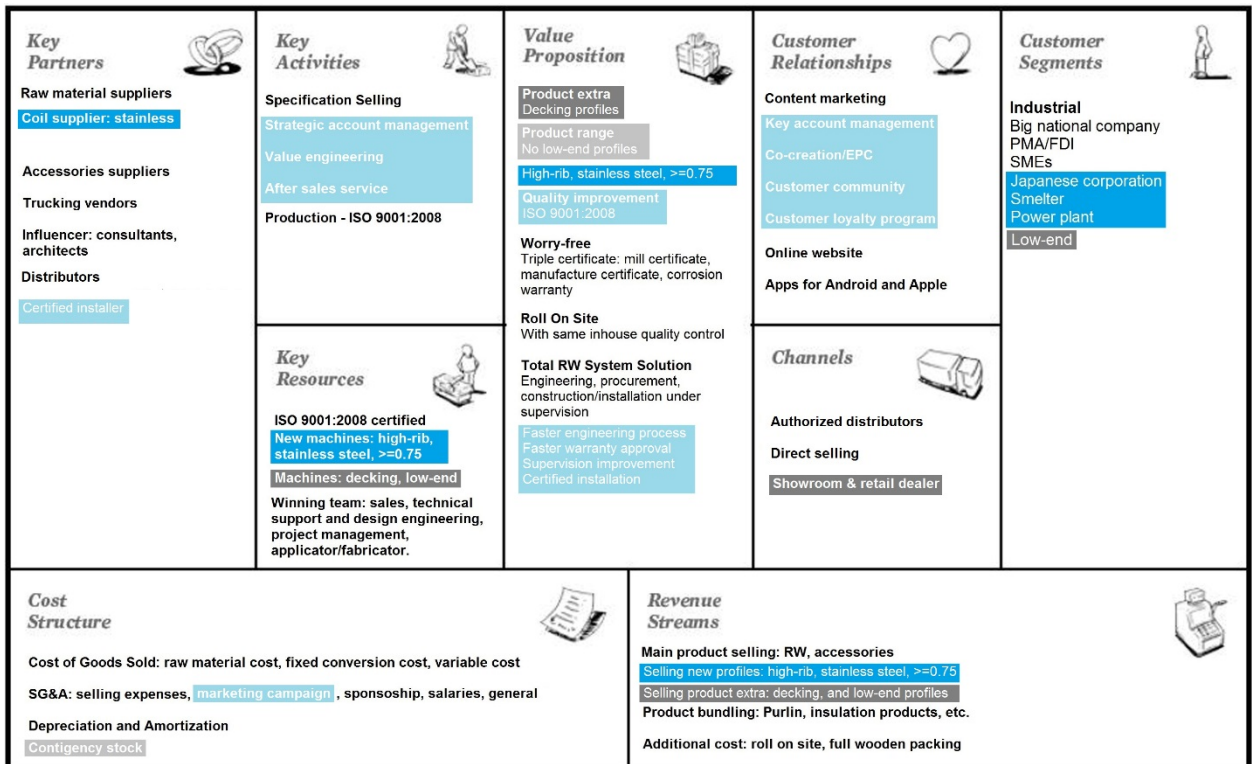


Figure 9

MANAGERIAL IMPLICATIONS

The following managerial implications on the company before and after implementing innovation strategies have suggested a new strategy based on the canvas.

Table 7. Managerial Implications

	Work Plan	Cost Budgetting
Pricing	• N/A	• N/A
Decking sales	• Eliminate decking sales	• Decking machine (+) IDR 1.89 B. Capex IDR 2.7 B (depreciation into IDR 0 after 10 years)
Showroom	• Eliminasi showroom	• Rent cost (+) IDR 120 M/year
	• Pengurangan karyawan	• Lay off (+) IDR 5 M x 4 persons = IDR 20 M/month
Product Variances	• Eliminate bolted round rib	• Machine (+) IDR 100 M
	• Eliminate bolted V rib	• Machine (+) IDR 100 M
	• Eliminate bolted 1035	• Machine (+) IDR 100 M
Contingency Stock	• Limit stock to maximum 5%	• Depreciation saving (+) IDR 168 M/year
Quality	• Recruit quality control supervisor 1 person	• QC Supervisor (-) Rp 8 M/month
CRM	• Customer loyalty program	• Budget IDR 200 M/year
	• Add KAM to 15	• N/A
Engineering, Procurement, Construction	• Value Engineering improvement	• Recruit additional technical engineer (-) IDR 5 M/month x 2 persons = IDR 10 M/month

	<ul style="list-style-type: none"> • Adding production team shift 2 	<ul style="list-style-type: none"> • Recruit manufacture worker (-) IDR 3 M x 6 persons = IDR 18 M/month
	<ul style="list-style-type: none"> • Third party worker routine training 	<ul style="list-style-type: none"> • Budget (-) IDR 30 m/semester
	<ul style="list-style-type: none"> • Adding project service team 	<ul style="list-style-type: none"> • Recruit 1 officer (-) IDR 7 M/month
High-rib Profiles	<ul style="list-style-type: none"> • Machine High-Rib 	<ul style="list-style-type: none"> • Machine (-) IDR 3.375 B
SS Product	<ul style="list-style-type: none"> • Machine roll stainless steel 	<ul style="list-style-type: none"> • Machine (-) IDR 3.375 B
Roll ≥ 0.75 mm	<ul style="list-style-type: none"> • Machine roll ≥ 0.75 mm 	<ul style="list-style-type: none"> • Machine (-) IDR 3.375 B

CONCLUSION AND SUGGESTION

This study aims to find an innovation strategy that is suitable to be applied to the plastic manufacturing company PT. A. The data was collected through interviews with the six respondents from different companies (GM principal, director of distribution channels, Project Manager, Technical Director, Procurement Manager). The researcher also participatory observation and documentation. From the results of data analysis using descriptive qualitative research method, it can be concluded as follows:

1. Based on the analysis of BMC, the company's current business model shows focus on product leadership, the value proposition. As for the power points are: (1) high-precision profile, (2) quality management system ISO 9001: 2008, (3) value engineering, (4) product variances, (5) B2B network. Meanwhile some weak points are: (1) do not have high-rib machine, stainless steel, (2) dependence on third parties in terms of installation, (3) a payment system that is less soft, (4) high cost vendor supplier.
2. Based on the analysis of four main points mapping, obtained a picture of the external environment such as: (1) rapidly growing of high-rib, (2) increasing demand trends in installation services, (3) SS product market demand increases, (4) the trend of roll on site increases, (5) the more creative and complex architectural, (6) the more aggressive price competition, (7) the growth of substitutive products.

Suggestion for Company Management

Results of the study showed that in fact the company has had a number of basic capital are as good as the quality management system ISO 9001: 2008, brand awareness inherent in the perception of a premium product with guaranteed quality. But hand in addition to product leadership, namely customer intimacy and operational excellence, there are many things that need to be developed such as quality control, relationship management, value engineering, installation and construction, after-sales service. While there are some things that need to be reduced as contingency stock, the number of product variations in order to pursue the company's operational excellence. Not in spite of some less product to sell, as well as facilities such as showroom showroom sales should be eliminated in order to reduce costs, and replaced with more productive machines. There are three kinds of products that look attractive to current and future market that is the high-rib, SS, and thickness $> = 0.75$ mm.

With the marketing team owned by the company, in addition to the aforementioned, the company can make more comprehensive business plan in implementing innovation strategies will be run, including cash flow projections for the next five years. Companies are also advised to perform an evaluation of the implementation of this innovation strategy on a regular basis in certain periods. It is useful to know how big an innovation strategy that is run a positive impact for the company's growth. For the future, the company sued always nimble and continue to

develop innovative strategies and agile and swift in decision making in the face of global competition era increasingly dynamic.

Suggestion for Future Research

In this study, it demonstrated financial statements and the old strategy canvas and canvas of the new strategy. Therefore, for further research is expected to make a projection of a new financial statement which refers to the canvas of the new strategy. Thus appears with detail differences in EBIT performance is expected to be reached in the future.

The other thing that needs to be examined in more depth is the pricing strategy. Seeing that the pricing scheme to be one of the factors considered in the competition customers. The purpose of this study was to obtain a blue ocean and leave the bloody red ocean, thus pricing scheme will still be an important topic for analysis.

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