Business Model Canvas Analysis and Development for Herry Furniture

Priskila C. Rahayu[a]*, Natalia Hartono[a] & Chrisda Agustina[a]

[a]*Department of Industrial Engineering, Universitas Pelita Harapan, Tangerang, Indonesia*

*priskila.christine@uph.edu

Abstract: Investable, revolution industry 4.0 that is based on integration of the online world, has an impact on all business sectors. It also felt by Herry Furniture, which is still sells office furniture conventionally. The company needs to improve its service and business models in order to stay competitive. The company needs to improve connectivity interaction and communication with customers. For that we have done the analyze and develop The company's business model canvas. To find the appropriate strategy, it will be developed by using SWOT analysis that analyze current business model canvas. The strategy obtained is using website as media for sales. This is supported by doing feasibility study (using TELOS) that value 8.4. After that, there is an analysis of business development's success by using balance scorecard method. It is said that the strategy effectively allows to improve the measurements of each choice in business model canvas to meet organization's goal. The sales also increased up to average 12.8% each month compared to sales using website and store. This strategy is then applied to company's business model canvas which resulting development on its three pillars which are key partners, key activities, and channels.

Keywords: business model canvas, balanced scorecard, SWOT analysis, and e-commerce

1. Introduction

Revolution industry 4.0 that is based on integration of the online world, has an impact on all business sectors. The impact leads to a rapid business growth and this affects on company's competition that is getting tighter. Statistics Indonesia stated there is enhancement in amount of company in Indonesia with value 3.98 million new company for period 2006-2016. Figure 1 shows the number of furniture production since 2012 has a positive trend, even though the industrial growth fell sharply in 2012 and later in 2016.

Figure 1. Product domestic bruto and growth of furniture industrial from Dataindustri Research

Hence, every company is forced to develop their business in order to be able to compete with the competitors. One of the method for business developing is creating strategy, moreover strategy itself is not sufficient. Good and proper business model is also needed to develop company's business.

Business model canvas is an organization's activity that creates, delivers, and evaluates company's values that can be reached by customers. There are some tools to evaluate a business model, one of them is business model canvas. Business model canvas is the basic idea how a company creates, delivers until the value can be captured by the customers.

Business Model Canvas according to Osterwalder and Pigneur (2010) consists of nine elements which are customer segments, value proposition, channel, customer relationship, revenue stream, key resource, key activities, key partnership and cost structure.

The company is one of organization that still growing their business from 2015. This company is a distributor of office's furniture and still runs their business conventionally with opening their store that located in North Jakarta. In this era of globalization, The company is facing some difficulties to grow their business. Hence, it is necessary to analyze and develop business model canvas on the company.

2. Methodology

Refers to the method used by Batocchio, Minatogawa, & Anholon (2017), the series of stages to develop a business in this research are:

1. Analyze the company's current business using Business Model Canvas, then analyze the weaknesses and strengths of each components of the business model using SWOT
2. Prepare and design the data that will be needed for process developing according to taken strategy
3. The strategy has been applied and tested in the company for a moments
4. The result of strategy implementation are analyzed by using Balanced Scorecard in order to see whether the strategy works for developing.
5. Create a recommend business model canvas for the company

3. Analyzing and Designing Business Model Development

According to the business processes running in the company, every transaction will occur when customers come to the store. When customers order products, they have to pay 50% of their total payment as a guarantee that they will not cancel the order. Then company would create a purchase order to the supplier. Supplier would deliver the products to company's store, so that the company would check whether the product is defect. If the product is defect, company would return to supplier in order to either fix or replace with new product. In the other hands, if the company found no defect, the product would be delivered to customer. While the product is delivered, customer should when the remaining payment and sign the delivery order that courier give. After that, courier will give the signed-delivery order to the company in order to record sales data.

Generally, company's income is only by selling product through store and reseller. Figure 2 performs company's income historical data from February 2016 – January 2018.
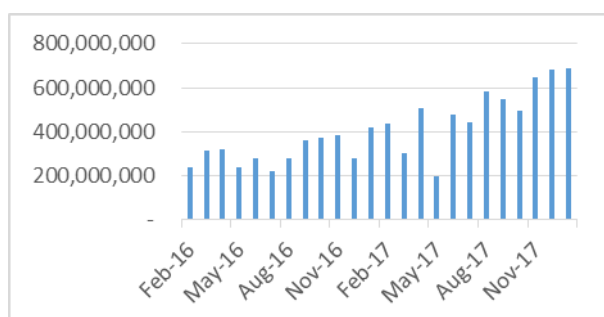

Figure 2. Company's Income Historical Data.

Income of the company tends to increase from June until the end of the year. This can be happened because in June, educational institution usually renovate their classes in order to welcoming new academic year. In the other hand, there are also some customer segment in the company as in figure 3.
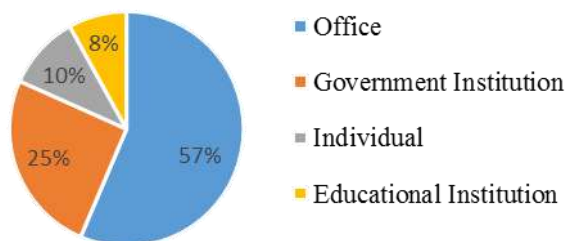
IC⬤NIET 2018

Proceedings of the International Conference on Innovation, Entrepreneurship and Technology,
30-31 October 2018, BSD City, Indonesia,
ISSN: 2477-1538

Figure 3. Company's Income Historical Data by Its Customer Segments.

The company has difficulty to increase the number of buyer from individual and educational institution. This can be caused of company's focus for prioritizing office than individual or educational institution. This company also only sell their product around store area such as Jakarta, Bogor, Depok, Tangerang, Bekasi as in the figure 4.
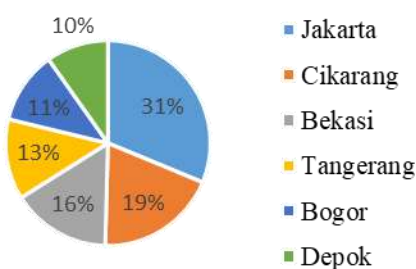
Figure 4. Company's Income Historical Data by Delivery Area

3.1. Current Company's Business Analysis

The analyzed results using business model canvas that consists of 9 pillars which are:

1. Customer segments

   Customer is the fundamental aspect in business transaction. The company divides their customer into 4 segments that are office, government institution, individual and educational institution. From the presented customer segments, office is the prioritize for the company.

2. Value Proposition

   This pillar consists of values that company deliver to their customer. The company is product oriented, so that product quality is truly matter for company. In addition, product that company sell can be dimensionally customized as customer's order. However, this company also sell the product with affordable price since they order directly to the supplier.

3. Channels

   The company only has two channels from direct and indirect. From direct channels, company sells the product through their store. On the other hand for the indirect channels, company sells the product through reseller.

4. Customer Relationship

   The company rarely meets loyal customer, hence they only have transactional relationship and personal assistance.

5. Revenue Streams

   The company only gets revenue from selling product through their store.

6. Key Resource

Resources that important for the company are products, supplier, human resource, and logistic.

7. Key Activities

This pillars consist of activities that company do for delivery their service to customer. The important activity for the company is to maintain and improve their product quality. However, it is also important to maintenance good relationship with customers and suppliers.

8. Key Partnerships

There are two important aspects for the company, these are supplier and reseller of office furniture.

9. Cost Structure

The company has two kinds of cost structure that are fixed cost and variable cost. Fixed cost consists of employee salary, electricity charge, water charge, and telephone charge. However variable cost also consists of cost of product's delivery, delivery administration, truck maintenance, and income tax.

The current business model canvas of the company shown on figure 5 in accordance with the depiction method by Rosing, White, & Man (2012).

Figure 5. Company's Business Model Canvas.

The SWOT analysis of current business model canvas in order to discover company strength, weakness, opportunity, and threat for every pillars (Harrison, 2010).

1. Customer Segments

Strength for this pillar is the company has big segments such as offices and government institution. The weakness is the company only relies on buyer that come to store, hence the company not be able to increase number of buyer. Company opportunity is to endeavor the increasing number of customer for each segment such as advertise the company in the internet. Threat for company is competitors that have similar customer segment.

2. Value Proposition

Company strength for this pillar is product dimension that able to be customized as customer's demand. On the other hand, weakness in this pillar is company only sell product by supplier's design. Then opportunity for company is to develop their product design. Threat for company is competitor that accept customized design order from customer.

ICONIET 2018

Proceedings of the International Conference on Innovation, Entrepreneurship and Technology,
30-31 October 2018, BSD City, Indonesia,
ISSN: 2477-1538

3. Channels

Company strength for this pillar is the company has indirect channel that is reseller and the weakness is only has one direct channel that is store. Opportunity for develop this pillar is creating website as company selling media. Threat for company is competitors that already have branches in many areas.

4. Customer Relationships

Strength for this pillar is the company able to help and mentoring customer for a transaction individually and generally the owner that directly helps customers. Weakness of the company is the company only has transactional relationship, hence it is rare to meet loyal customer for the company. Opportunity for company is using internet for interact with customer easily such is social media, electronic mail or website. Threat for company is losing loyal customers.

5. Revenue Stream

Strength for this pillar is company able to analyze income report easily. The weakness of company for this pillar is the company only relies income on selling product. Opportunities for company is open paid advertising service. Threat for company is inflation that caused decreasing on sells.

6. Key Resources

Strength for this pillar is the company has their own logistic, hence they can assure the delivery timely. Weakness of the company for this pillar is lacking of human resource. However the opportunity for this business is to increase the number of supplier. The threat for company is inflation that affects supplier's value get higher and leads to decreasing sells number.

7. Key Activities

Strength for this pillar is company always ensures their product quality directly to supplier. Moreover, the weakness of company is the company still not be able to optimize the loyal customers. Opportunity for company is to develop their product towards trend nowadays. Threat for company is inflation that leads to downgrading product quality.

8. Key Partnerships

Strength of the company in this pillar is the success of relationship with supplier. This is proven by products that able to be customized. Weakness of the company is there is no written agreement between company and reseller. Opportunity for company is the company will be able to increase sells number if they can advertise their special customized product. Threat for company in this pillar reseller will be able to sell the product illegally.

9. Cost Structure

Strength for this pillar is organized cost structure as company differs in two types of cost both fixed and variable. Weakness of the company in this pillar is historical data still recorded manually that leads to presence human error. Opportunity for company is an easiness in analyzing cost structure in terms of any inflations. Threat for company is retarding business growth because of the system that still record the data manually.

From presented SWOT analysis above, chosen strategy objectives to covering company's weaknesses and decrease threat. From those weaknesses, through interview with the owner, he demanded to focus the developing on customer perspective. Hence, chosen strategy is to improve interaction business to customer (B2C) by ecommerce.

3.2. Designing Business Model Development

The strategy is to develop website for selling and span their market to reach their customer. Hence, this section discusses designing business model development application in the form of a website using the system development life cycle that consist feasibility study and master data required and the business process flow refers to what is conveyed by Granfelt (2017).

ICONIET 2018

Proceedings of the International Conference on Innovation, Entrepreneurship and Technology,
30-31 October 2018, BSD City, Indonesia,
ISSN: 2477-1538

3.2.1. Feasibility Study

Objective of this section is to discover whether the company is feasible to develop website. Because of the strategy is attached with information system, hence TELOS feasibility study will be used refers to the method of assessing the feasibility of the system used by Prakoso and Herlawati (2017). In this stage, feasibility study will be scored by system developer, company owner, and user. The scoring scales that will be used to analyze the result of this stage are 0-2.0: not feasible, 2.1-4.0: less feasible, 4.1-6.0: moderate, 6.1-8.0: feasible, and 8.1-10: totally feasible.

1. Technical Feasibility
    From required technical feasibility that consists hardware, software, database, and infrastructure, company technical is able to develop website. Hence, score for this technical feasibility study is 8.0.
2. Economic Feasibility
    There is no additional cost for developing this business model since the company already has computers and network. In addition, website also developed by open source that is Wikipedia for e-commerce. However, applying website for sales will be advantageous for the company. Hence, score for this economic feasibility study is 9.0.
3. Legal Feasibility
    This aspect shows whether this business model development would break government's law. Since Wikipedia is legal in Indonesia and website's data does not contain sensitive element, then scoring for this legal feasibility is 9.0.
4. Operational Feasibility
    Currently the company only sells their product through their store. Sales department has average 3 hours idle of 8 hours productive time. This department will be a user that managing the website. Hence it is still possible to develop website for the company, then scoring for this operational feasibility is 7.5.
5. Schedule Feasibility
    Designing business model development will run for 4 weeks and after the website is developed, data will be collected for 5 months in order to see whether the website is profitable. Since the website is quite easy to develop, hence the scoring for this schedule feasibility is 8.5.

Average result of all the feasibility study value 8.4 and it means that the company is totally feasible to develop website for their sales.

3.2.2. Required Master Data

There are three kind of master data needed for conducting the website that are supplier master data, product master data, and user master data.

1. Supplier Master Data
    There are 23 companies that always supply company's product. Every company will be included with supplier code identically in order to simplify supplier searching through system.
2. Product Master Data
    In the company, there are 8 categories of product that are chair, desk, filing cabinet, locker, shelves, wooden filing cabinet, safety-deposit box and partition. Hence, the product's code is identic with its categories and its brand company.
3. User Master Data
    User that will manage the website is sales department in the company. User now has additional job that is to manage sales via website.

3.3. Application and Analysis of Developing Business Model

After implementation of design web application, we collect data and analysis towards balanced scorecard.
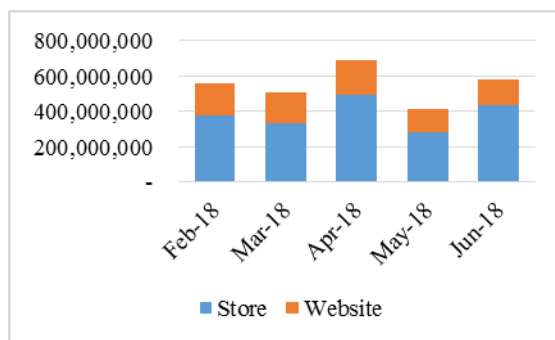
IC NIET 2018

Proceedings of the International Conference on Innovation, Entrepreneurship and Technology,
30-31 October 2018, BSD City, Indonesia,
ISSN: 2477-1538

Figure 6. Date of Sales After Developing

Figure 6 shows sales data after developing business model using website. Number of sales from website still lower than store, this happened because website just only developed for these 5 months. The figure 7 performs an increase on sales compared to amount of sales last year with average increase value 19.27% on each month.
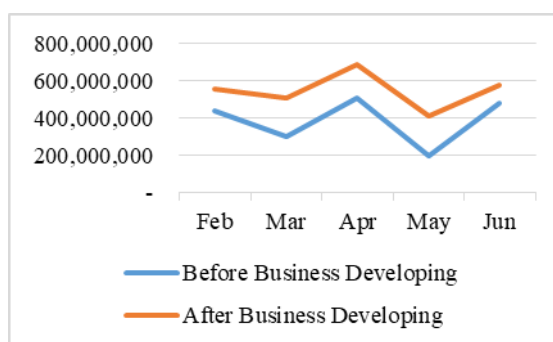

Figure 7. Comparation Sales Data Between 2017 and 2018

In addition, the company is also able to span their business via website which showed by application result. The result shows that the company accepted order from Kalimantan and Sumatera as in figure 8.
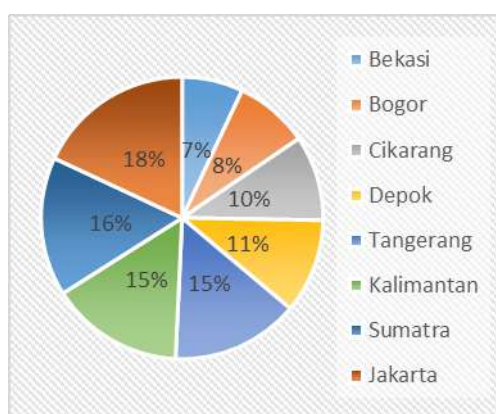

Figure 8. Comparation Sales Data Divided by Delivery Area

Not only able to span the market, developing website also helps company reach their costumer especially individual customer segment. Figure 9 and 10 below show an increase in number of customer from individual with average value until 41.8%.
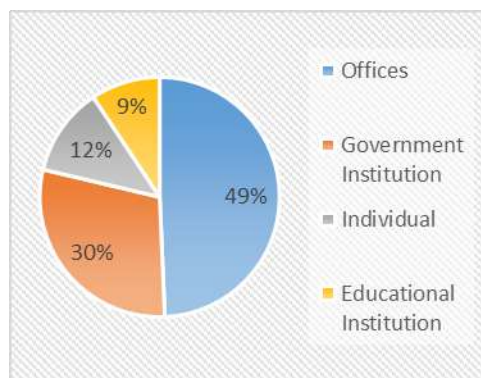
IC☮NIET 2018

Proceedings of the International Conference on Innovation, Entrepreneurship and Technology,
30-31 October 2018, BSD City, Indonesia,
ISSN: 2477-1538

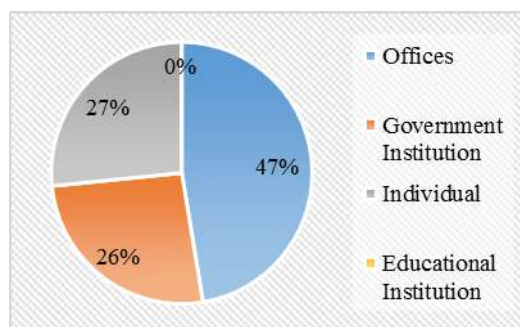**Figure 9.** Sales Data by Customer Segment 2017

Figure 10. Sales Data by Customer Segment 2018

3.4. Analysis The Result of Developing Business Model

The success result of developing business model canvas using balanced scorecard. Strategy that chosen for developing business model canvas is only focus on customer perspective. Hence, pillars that will be analyzed are only those that belong to customer perspective such as customer segments, customer relationship, and channels.

1. Customer Segments
    There are four choices of customer segments, that are offices, government institution, individual, and educational institution. Table 1 shows balance scorecard of customer segments pillar.

Table 1: Balance Scorecard: Customer Segments

Choices	Indicators	Current	Goal	Initiative	Result
Offices	Amount of Buyer From Offices	581	1000	Developing Business Model Canvas Using Website for sells	729
Government Institution	Amount of Buyer From Government Institution	346	750		400
Individual	Amount of Buyer From Individual	141	500		409
Educational Institution	Amount of Buyer From Educational Institution	110	450		0

From table 1, after initiative applied, most of every choice increases the number of buyer. Especially, the company desires to increase and reach each customer segment especially individual customer segment.

2. Customer Relationship
    Customer relationship has two choices that are transactional relationship and personal assistance as in table 2.

ICONIET 2018

Proceedings of the International Conference on Innovation, Entrepreneurship and Technology,
30-31 October 2018, BSD City, Indonesia,
ISSN: 2477-1538

Table 2: Balance Scorecard: Customer Relationship

Choices	Indicators	Current	Goal	Initiative	Result
Transactional Relationship	Average Transaction Made for a day	321	500	Developing Business Model Canvas Using Website for sells	368
Personal Assistance	Average Response Time for Clients	4 hours	1 hours		3 hours

3. Channels

There are two choices in channels that are direct channel and indirect channel as shown in table 3. There are 2 indicators for direct channel and one indicator for indirect channel. Initiative leads to an increase for some indicators to meet company's goal.

Table 3: Balance Scorecard: Channels

Choices	Indicators	Current	Goal	Initiative	Result
Direct Channel	Amount of Store	1	2	Developing Business Model Canvas Using Website for sells	1
	Direct Selles Media	1	3		2
Indirect Channel	Amount of Reseller	1	1		1

All balanced scorecard for each pillar leads to an increase for every indicator to meet business goal. Hence, develop business model canvas using website as media sales is effectively able to develop the business more.

3.5. Recommend Business Model Canvas

After analyzing the success of development business model canvas using website, then the strategy applied to company's business canvas. Hence, there are developing in some pillars. Figure 11 shows recommended business model canvas for the company.

Figure 11. Recommend business model canvas for the company

ICONIET 2018

Proceedings of the International Conference on Innovation, Entrepreneurship and Technology,
30-31 October 2018, BSD City, Indonesia,
ISSN: 2477-1538

4. Conclusion

In order to answer the objective of this research, business model canvas development was analyze by using SWOT analysis that helps company to know their strength and weakness and conclude it with a strategy. This strategy then be focused on customer perspective only. Result of the application website was be recorded for 5 months and if the result compared with sales income last year, there is an increase with average value 12.8%. In addition, every balanced scorecard lead to an increase in every indicators. Hence, apply website for data sales can be developed and analyzed effectively.

References

Batocchio, A., Minatogawa, V. L. F., & Anholon, R. (2017). Proposal for a method for business model performance assessment: Toward an experimentation tool for business model innovation. Journal of Technology Management and Innovation, 12(1), 61–70. https://doi.org/10.4067/S0718-27242017000100007

Granfelt, S. A. (2017). Process Flow Documentation A Flowchart Guide For Micro & Small Business.

Harrison, J. P. (2010). Strategic Planning and SWOT analysis. Essentials of Strategic Planning in Healthcare, 1(12), 91–108. Retrieved from http://www.ache.org/pdf/secure/gifts/Harrison_Chapter5.pdf

Osterwalder, A., Pigneur, Y. (2010). Business model generation: a handbook for visionaries, game changers, and challengers. New Jersey: John Wiley & Sons, Inc.

Prakoso, M. D., & Herlawati. (2017). Sistem Informasi Pembayaran Biaya Pendidikan Siswa Pada SMK Perwira Bangsa Bekasi Utara. Bina Insani ICT Journal ISSN: 2355-3421 (Print) ISSN: 2527-9777 (Online), 4(1), 95–110. Retrieved from http://bit.ly/2mpMg61

Rosing, M. von, White, S., & Man, H. de. (2012). Business Process Model and Notation. The Complete Business Process Handbook (Vol. 1). https://doi.org/10.1007/978-3-642-33155-8