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Analysis of Performance Improvement on PT. Distribusi Air Santri (PT. DAS) Using Business Model Canvas

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Abstract—Since 1975, the drinking habits of the Indonesian people began to change from being merely boiling water from tap to bottled water (AMDK), thus encourage drinking water producers to continue branch out in market share. In 2013, the market share of AMDK industry was Rp 22.51T and there were around 500 competing AMDK companies. PT. Distribusi Air Santri (PT. DAS) is a company engaged in the distribution of "Air Mineral Santri" brand which located in Surabaya. This company aims to increase the market in Surabaya by 10% or sell 142,000 items / month. So to achive company goals, company need to develop business models and plan business strategies using Business Model Canvas (BMC). In the BMC analysis, an analysis of environmental conditions was carried out using the 7sMcKinsey method, External Scanning and porter strength analysis. And validation is needed so that BMCs are made accurately and precisely with the help of a SWOT analysis.

Keywords—Business Model Canvas, SWOT Analysis.

I. INTRODUCTION

THE Bottled Drinking Industry in Indonesia (AMDK) began to develop since 1973, the Indonesian people began to change the habit of consuming water from boiled water to bottled drinking water (AMDK), which encouraged the producers of bottled drinking water to develop. According to the Indonesian Bottled Drinking Water Association (ASPADIN), in 2013, AMDK's market value was IDR 22.51 trillion and this industry will continue to grow 11.1% every year. This provides an opportunity for drinking water producers to compete in the bottled water market (AMDK).

Table 1 explains the assumptions of the needs and potential market of the AMDK in Surabaya. According to DISPENDUKCAPIL, in January 2019 the population of the city of Surabaya reached 3 million people. Meanwhile according to ASPADIN, 60% of Indonesian people consume bottled drinking water. If it is assumed that the price of 1 liter of water is IDR 1,000, the potential market of AMDK in Surabaya is IDR 27,000,000,000 / month. If the price per item is IDR 20,000. So the need for bottled water in Surabaya is 1,350,000 items / month. That is can be seen at Table 2.

PT. Distribusi Air Mineral (PT.DAS) is the main distributor of AMDK Air Mineral Santri in Surabaya. AMDK Air Mineral Santri is mineral water that uses natural raw materials taken from Umbulan's water springs, producing a large enough water discharge so that it's guaranteed quality, clarity, freshness and stability of mineral content. Raw

Table 1.
AMDK's Needs in Surabaya

AMDK's Needs in Surabaya					
AMDK's Needs in Surabaya					
Surabaya's population		3.000.000 people			
AMDK's consumption	60% people	1.800.000 people			
Assumption of AMDK's	500ml/day	900.000.000ml/day			
needs/day					
Assumption of AMDK's needs		27.000.000L/month			
/month					

Table 2. Potential market of AMDK in Surabaya Potential market of AMDK in Surabaya Assumption of AMDK's 27,000,000 needs /month L/month Rp 1.000,price of 1 liter of water potential market of AMDK 27.000.000.000,in Surabaya /month Assumption price per item Rp 20.000,-/item AMDK's Sales in 1.350.000 Surabaya/Month item/Bulan

materials are processed with Carbon Filter, Sand Filter, then sterilized using Technology Water Treatment (TWT) which is adjusted to the Indonesian National Standard (SNI) with ultraviolet light and ozone (O3).

Sales of AMDK Air Mineral Santri in 2019 are 60,000 items/month, or about 4.5% Air Santri controls the AMDK market in Surabaya. This company plan to increase sales in 2020 by controlling AMDK's market in Surabaya by 10% or selling 142,000 items/month.

The company needs to plan business strategies to achieve company goals, one of the solution is plan a business model that consists of various elements that can describe the strategy, goals, structure, technology, processes, value for customers so that companies can compete well in the business market. The business model helps to describe all sources of competitive advantage possessed by an organization that distinguishes it from company positioning of products in the same industry. In addition, the business model is also a value chain structure, creating value by defining a series of activities ranging from raw materials to raw materials to the final customer, where the specified value is added to the overall activity. Figure 1 describe the sales of of AMDK Air Mineral Santri by PT. DAS per year.

In this study, the research conducted to analyze the business model using Business Model Canvas (BMC)

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Figure 1. (a) Sales chart of AMDK Air Santri by PT. DAS per year; (b) Sales chart of AMDK Air Santri by PT. DAS per month / per year.



Figure 2. Method.



Figure 3. Business model canvas.

alongside with SWOT Analysis. The Business Model Canvas is a business model that develops a business unit and has 9 components, each component can be the first step to determine where the company develops its business model business. An effective way to evaluate company business models is to combine the classic SWOT analysis with the business model canvas. The objectives of the research to develop business models using the Business Model Canvas approach with the help of a SWOT analysis.

Table 3.
Analysis of 7's mckinsey

	Analysis of	
Attribute	Definition	Analysis Results
Strategy	Organizational strategies used to achieve company goals (internal company)	As a Muslim product, AMDK Air mineral santri markets its products through collaboration with mosques, Muslim studies and activities, companies or agencies that prioritize Muslim products. Sedekah air mineral program Active sponsorship of several student activities and Islamic studies Providing offers to consumers as agents and retailers, making it easier for PT. Watershed to expand the network
Structure	The structural concept of the company, the responsibilities of each job	the organizational structure is divided 3. Man. Operations related to products and customers. Man Development for administration, finance and HR. Meanwhile, Man. Marketing for business strategy and company marketing
System	The method used to ensure the work is done well and the strategy to the evaluation	The company already has an SOP containing a job description for each employee from what needs to be done to the work process for each job One-way work systems, managers assign tasks to staff, then staff complete tasks, there is no gap for staff to make improvements to work
Shared Value	The values that are instilled by the company	Religious values, kinship and good cooperation. Understand the conditions of each employee and help one another Providing facilities and facilities for employees to work productively
Style	Leadership systems that affect the company	Instructive leadership style is a style that directly gives direction (instruction) work specifically to subordinates. Managers tend to have a strategy that provides direct instruction
Skills	Company human resources, employee recruitment systems, performance appraisals, rewards	Recruit employees in close recruitment and interview sessions Performance assessment is conducted every 6 months with rewards and pusnishment New employees are given training according to jobdesks for a maximum of 1 month Only provide training to
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II. METHOD

Data collection and processing in this chapter is obtained from the results of field observations and interviews with managers and employees. The results of the company's condition analysis are managed in the form of 7's Mckinsey analysis, external scanning and five forces porter model.

7's Mckinsey is a framework for analyzing how effective an organization is to achieve organizational goals which described through 7 elements namely strategy, structure, system, shared values, skills, style and staff. In the analysis of 7's Mckinsey in this research, the most emphasized thing by the company is to increase product sales and disseminate the brand "AMDK Air Mineral Santri" so that it is better known to the public.

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Table 4.

Analysis of external scanning

Attribute Natural Environment	Definition environmental, natural geographical	and	Result Analysis Warehouse location of PT. Santri Water Distribution is not known by the wider community so
		and	Warehouse location of PT. Santri Water Distribution is not known by the wider community so
Environment	geographical		
			it is safer from competitors' disturbances
			Surabaya's dry weather makes it easy to deliver products using pickups
			The location of the warehouse is quite strategic for shipping the Surabaya area (There are 3
			warehouses)
Technology	facility, an invention, information		Ordering products can be done online
	and communication technology		Marketing management is mostly done through information technology
External	sponsors, vendors, suppliers or		Supplier of Air Mineral Santri only PT. Sidogiri Mandiri Utama
Stakeholder	outside organizations that help		Warehouses and transportation equipment used by PT. DAS is the result of collaboration with
	achieve the company's goa	s	other parties
Socioculture	values, customs, character,	culture	The habit of drinking bottled mineral water, is more practical and guaranteed quality
and habits of the people.			People tend to use foreign products or products that are famous for expensive prices

Table 5. Analysis of external scanning

Attribute	Definition	Result Analysis
Threat of New Entrants	The threat of corporate competitors from new competitors. This causes companies have to share profits and market attractiveness with other companies.	The threat of corporate competitors from new competitors. This causes companies to share profits and market attractiveness with other companies.
Bargaining Power of Suppliers	Suppliers have the power to increase and decrease product prices and quality	PT. Sidogiri Mandiri Utama is a product supplier. In maintaining good relations, PT. DAS helps suppliers in the field of marketing and product branding, as well as helping cooperation with consumers in the Surabaya area.
Bargaining Power of Consumer	Customers want to get quality products at affordable prices.	Customers can get lower prices by collaborating with PT. DAS, a minimum order of product 50 items / shipping, customers will get a bonus Or enter into an MoU agreement with conditions agreed by two parties
Threat of Subtitute Products	Threats from products that have the same function and / or have better quality and more affordable prices.	Produk lain yang memiliki fungsi yang sama dengan air mineral adalah air kelapa, teh herbal, air lemon atau infused water. Saat ini ada beberapa merk yang memproduksi dan memasarkan produk dengan bahan tersebut, karena lebih memiliki rasa. Namun kebutuhan akan air mineral tidak mudah tergantikan seutuhnya dengan produk lain sehingga penjualan air minum masih lebih unggul daripada produk minuman lain
Competitive Rivalry within the Industry	Competition that occurs between one company and another to become a company that controls the market.	According to ASPADIN (there are already 700 registered companies of Bottled Drinking Water in Indonesia

In the external analysis for environmental scanning there are several components contained that function to analyze the condition of the company with external parties, namely natural environment, technology, external stakeholders, socio culture. In addition for external analysis, porter's five force model method is used to analyze companies on developing business strategies in the market. According to Porter, there are 5 things that determine the level of competition and product attractiveness in the Market, namely Threat of New Entrants, Bargaining Power of Suppliers, Bargaining Power of Consumer, Threat of Substitute Products and Rivalry within the Industry.

In the Business Model Canvas analysis at PT. DAS is carried out discussions and interviews with managers and employees from various divisions who act as respondents to define the business model canvas that is currently used by companies. The Business Model Canvas consists of 9 components, there is key partners, key activities, key resources, value proposition, customer relationships, channels, customer segments, cost structure, revenue stream.

SWOT analysis is shown by mapping the components of strengths, opportunities, weaknesses and threats of a company. In making a good SWOT analysis, the company must be as objective as possible to assess the company but also through consumer testimonials. SWOT analysis is performed on every element in the Business Model Canvas analysis which aims to perfect the business model owned by the company. For detail can see Figure 2 about method.

III. RESULT

A. Analysis of 7's Mckinsey

Analysis of 7's Mckinsey can be seen at Table 3, where explain about definition of a attribute and analysis result about the attribute.

B. Analysis of external scanning

Analysis of external scanning can be seen at Table 4, where explain about definition of a attribute and analysis result about the attribute.

C. Analysis of Porter's five forces model

Analysis of Porter's five forces model can be seen at Table 5, where explain about definition of a attribute and analysis result about the attribute.

1) Analysis of Business Model Canvas

Bussiness Model Canvas can be seen in Figure 3. For explain about it can be read in below.

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Table 6. Analysis SWOT

Attribute BMC	Strength (S)	Weakness (W)	Opportunity (O)	Threat (T)
Key Partners	Have and establish good relationships with company partners	consumers, retailers and agents, tend to want lower product prices with maximum service	Current partners can help expand the network Opportunities to expand cooperation with potential companies	Partners who are not satisfied with PT. DAS can end collaboration
Key Activities	The factory works very professionally, the number of products and the time is always right Managers always monitor employee performance Operational activities are always carried out according to plan	The product is damaged due to the shipping or storage process HR does not comply with the SOP given by the manager Miscommunication with customers often occurs Too focused on online marketing	The existence of technology and information media make it easy in business matters	Marketing teams tend to wait for the ball rather than picking up the ball about prospective agents, retailers, or new partners
Key Resources	The number of human resources owned by the company is sufficient for operational activities Strategic warehouse location	Lack of HR depletes operational work (1 warehouse only has 1 admin) Only 1 warehouse has vehicles according to shipping requirements	The company has the opportunity to add resources in the form of HR and vehicles because adding resources provides convenience and fluency in work	The marketing team makes more use of online marketing, can be a threat the company cannot develop optimally in the market
Value Proposition	Distributing professionally Fast delivery Product quality is guaranteed Satisfy customers as needed	The product is still new so the proportion of values is not widely known	Products have a chance to sell in the market because of guaranteed product quality and good service	Substitution products and products from competing brands
Customer Relationships	Has many programs that can establish good relationships with old customers and add new customers	-	Opportunities to work with customers create an event that enhances the relationship between the company and regular customers	If the company's products or services are not satisfactory, customers can switch to other brands
Channels	There is a media to increase relationships with customer	Owned channels have not been able to reach new customers	The development of information technology and media facilitates the dissemination of information	Competitors may take the similar steps
Customer Segments	Products can be offered to various types of customers because of universal products and guaranteed quality	Some customers who are used to using other brands, do not want to use other brands	Opportunities to expand the network by maximizing the marketing team	Customer segment can be reduced if the competitor company maximizes the value proposition, channels and key resources
Cost Structure	Efficient and good financial management	Changes in operational costs	-	Unforeseen costs
Revenue Stream	Have a sustainable source of income from your collaboration with customers	Only has one source of income (Santri's AMDK sales) Includes new products that do not have affordable prices	Opportunity to sell other types of products, such as the Santri AMDK merchandise Opportunities to expand cooperation with more other large companies	Competition with other bottled water products

- 1. Key Partners: Other parties who work with companies to achieve company goals
- 2. Key Activities: The main activities undertaken by the company are key to the success of the company
- 3. Key Resources: Resources owned by the company or elements in the company that play a role in achieving company goals.
- 4. Value Proposition The proportion of the value of a product that is the reason consumers use the product (quality, price, brand, design, service, guarantee, ease of access, etc.).
- Customer Relationships: Steps or programs owned by the company to establish good relationships with customers to retain old customers and get new customers.
- 6. Channels: The media used to communicate, convey values and establish relationships with customers.

- 7. Customer Segments: Mapping customer segments or grouping customers according to the value offered by the company.
- 8. Cost Structure: Details of all costs used by the company for company activities. All costs to be incurred by the company have been calculated beforehand.
- 9. Revenue Stream: Revenues earned by the company from the company's key activities.

2) Analysis SWOT

For the analysis of SWOT, each variable of business model canvas is being analyze with SWOT criteria that is strength, weakness, opportunity and threat. Analysis SWOT can see in Table 6.

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3) SWOT Matrix Analysis

Table 7. Internal SWOT Matrix Analysis

	TABEL IFAS			
ło.	Strength (S)	Bobot	Rating	Score
	Relationship with business partners	0.051	4	0.204
	Manager supervise employee works	0.008	3	0.024
	Operational activities are carried out according to schedule	0.023	3	0.069
	lokasi gudang strategis	0.02	4	0.08
	distribution of goods is done professionally	0.045	4	0.18
	fast delivery distribution	0.097	4	0.388
	Product quality guaranteed	0.124	3	0.372
	salisfy customers as needed	0.11	3	0.33
	has some programs that can enhance good relations with customers	0.007	3	0.021
0	There's media to communicate with consumen	0.006	3	0.018
	the product sold is needed by all residents	0.076	4	0.304
2	Efficient and good financial management	0.006	3	0.018
	Have a sustainable source of income	0.017	3	0.051
No.	Weakness(W)	Bobot	Rating	Weigh
	Consumers tend to want affordable product prices and quality products	0.021	1	0.021
	Products can be damaged due to shipping or storage	0.087	1	0.087
	SDM does not comply with the SOP given by the manager	0.039	1	0.035
	Indirect communication, miscommunication occurs with the customer	0.07	1	0.07
8	Allow customers to pay not in time	0.013	1	0.013
	need to add employees to speed up work	0.034	1	0.034
,	lack of marketing employees	0.014	1	0.014
	each warehouse does not have a vehicle as needed	0.01	2	0.02
2	the product is not widely known by the public	0.058	1	0.058
	Owned channels have not been able to reach new customers	0.028	1	0.028
4	Only has one source of income	0.023	1	0.023
5	Change in operational cost	0.011	2	0.022
	TOTAL			

Table 8. External SWOT Matrix Analysis

	TABEL EFAS			
No.	Atribut Peluang (O)	Bobot	Rating	Weig
	partners help expand the network	0.026	3	0.07
2	ease to expand cooperation with other companies	0.018	4	0.07
	the existence of technology and information media makes it easy to reach customers	0.115	4	0.4
4	opportunity to add resources (employee, Warehouse and vehicles)	0.018	3	0.05
5	the product will sell well on the market because of guaranteed quality and professional service	0.066	3	0.19
	custom channels by creating events with regular customers to improve relationships	0.121	3	0.36
	maximize offline marketing work	0.085	3	0.25
8	selling products other than AMDK Santri (such as merchandise, etc.)	0.04	3	0.13
No.	Atribut Ancaman (T)	Bobot	Rating	Weig
	Partners who are not satisfied with PT. DAS can stop cooperation	0.189	2	0.37
	The marketing team is less active and not maximally attracts new customers and partners, and tends to wait	0.074	1	0.07
11	offline marketing PT. DAS Underdeveloped	0.052	1	0.05
12	many substitute products	0.015	1	0.01
	customers are used to using other products, so it is not easy to replace with other brands	0.025	1	0.02
	If the company's products or services are not satisfactory, customers can switch to other brands	0.145	1	0.14
15	competing companies take similar steps	0.011	2	0.02
	TOTAL			0.71

In this step, analyze the power between internal and external component of company, strength and weakness variable for internal, while opportunity and threat variable for external. As describe at Table 7 and Table 8.

4) New Business Model Canvas

New Bussiness Model Canvas can be seen in Table 9. This section explain about new business model canvas at this case.

IV. CONCLUSION

Utilizing partners to expand the network to various new partners and collaborate with other companies. Adding other sources of income aside from selling Air Mineral Santri. Routinely provide punishment and reward to employees to increase employee motivation. The company should focus on attracting and selling products to agents and retailers. Distribute small consumer purchases to agents and retailers.

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Table 9. New business model canvas

Key Partner	Key Activities	Value Proposition		Customer
 PT. Şidogiri. Mandiri Utama. 	 Ordering and shipping 	 product distribution 	 Relationships Customer Service 	 Segments Household
(Supplier) • Retailers.	products to the warehouse of PT	services • Fast delivery, 1	Website & Social Media	customers • Retail
agents and	DAS.	day service	 Articles and tips 	customers and
Resource	 Receiving and storing products 	 Product quality is guaranteed 	 Program sedekah, air 	agents (product
providers (transportation	in warehouse Distribution of	 Serve customes in large quantities 		resellers) • The mosque
and	Poduk to	 Strategic 	cashback.	 Banks,
warehouses)	customer locations	warehouse location	 Bonus and cashbatk programs are only 	government agencies,
Brand ambassador	 Market analysis and planning 	Providing	for customers who pay on time	hotels, restaurants.
• investor	Maximize offline	training and advertising	Program greet	offices,
	promotion and marketing	services for new agents and	customers	hospitals, schools and
Non. government	• Training for	retailers	Collaboration	Determine 1 agent for
organization - humanity	employee	Process any	program with humanitarian NGOs	each region as a small
		complaints from customers	for program sedekab air minum	customer reference
		Routine	Hold regular events	101010100
		evaluation to	with regular customers	
1	Kev Resources	improve service	Channels	
	• Warehouse		Website and social media	
	 Transportation (Pickup & tossa) 		 Sponsorship 	
	 Information technology 		(sponsorship of student activities	
·	• HR		and Islamic events) Business and	
	 Company funds 		entrepreneur	
	Increase the number	1	exhibition	
	of employee	4	 Add radio networks, newspapers, 	
			magazines, broduses and online shop	
Cost Structure	4	venue Stream		
 Office operational Operational activ 			r MineralSantri Sales	-4444
 Sales and promot Inventory costs 	tion costs		olling merchandise such as by oves, coasters, etc.	stor, galon
 Cost of Human F 		-		
 Warehouse rental 	I and operational cost	5		

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