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To cite this article: G Anggadwita *et al* 2019 *IOP Conf. Ser.: Mater. Sci. Eng.* **505** 012098

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Analysis of Value Chain Model on Small and Medium Enterprises (SMEs): A Case Study of Coffee Shops in Bandung

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Abstract. Indonesia is one of countries as the best quality coffee producers in the world. Indonesia's geographical location is ideal for coffee growth and production, resulting in the diversity of coffee products with distinctive tastes. This led to the development of coffee shop business in Indonesia, especially in Bandung. Coffee business thrives in Indonesia and develops into a business with a scale of SMEs. This study aims to analyze the value chain model in coffee shop business in Bandung by mapping the input-output relationship, and identifying strength factors along the value chain. The research method used qualitative method with case study approach. The informant was determined by purposive sampling technique. Triangulation analysis is conducted to get more accurate and deep of data analysis. The results showed that the main activities and supporters in the coffee shop value chain in Bandung involve four main actors, namely local coffee farmers, coffee traders, processing industries, and coffee shops. This study contributes a similar trend to be observed in other coffee shop business value chains.

1. Introduction

Indonesia is one of the world's largest coffee beans. Various types of coffee grow and develop in Indonesia, including Aceh Gayo Coffee, Toraja Coffee, Charcoal Coffee, Kintamani Coffee, Luwak Coffee, Mandailing Coffee, Lintong Coffee, and coffee in other areas that have its own characteristics. Coffee serving technique is one of the main attraction for coffee connoisseurs, in Indonesia various types of coffee serving techniques ranging from traditional by boiling and splashing hot water into glass that has contained coffee beans powder, until modern techniques adopted from other countries such as espresso, macchiato, latte, cappuccino, and mocha [1]. Indonesia is the fourth largest producer and exporter of coffee in the world after Brazil, Vietnam and Colombia [2]. Based on data from the [3], in 2015, the area of coffee plantations reached 1,230,001 ha with production reaching 639,412 tons. In addition, the export value of coffee production in Indonesia reached 502,021 tons or reached 78.5%, while the rest to meet domestic demand.

Based on data of [4], during the period of 2011 - 2014, world coffee consumption increased by 2.4%. Especially for coffee exporting countries (coffee producers), the average increase of coffee consumption reached 2.8%. While coffee importing countries (consumers) the average consumption



increase reached 2.2%. Some exporting countries or coffee producers that experienced increased coffee consumption include Thailand 12.3%, Indonesia 8.8%, Vietnam 8.6%, Philippines 7.6%, and India 5.1%. The increase in coffee consumption in Indonesia reaching 0.98 kg per capita shows a positive trend for the development and growth of the national coffee processing industry, resulting in an impact on the increase of national coffee production.

Based on the phenomenon that occurs related to the increase in coffee consumption both national and world level, providing business opportunities for SMEs, especially in Indonesia. One of the coffee businesses is coffee shops, both micro and small and medium scale businesses. Various coffee shops offer a variety of different and distinctly different types of coffee, while some coffee shops also offer unique concepts and competitive prices as an appeal to consumers. Based on reports from [5], coffee shop growth in Indonesia reaches 16% every year. According to [6], the development of lifestyle of Indonesian people, especially the urban communities that have links with coffee shops cannot be separated from the entry of coffee shops from the United States to Indonesia, namely, Starbucks Coffee. Since then, the competition between coffee shops in Indonesia is getting tighter. The competition between coffee shops is not only from foreign coffee shops such as the Coffee Bean and Tea Leaf (United States), but also from great local coffee shops such as Cafe Excelso (Kapal Api Group).

Increasing trend of coffee consumption especially in Bandung becomes an opportunity for business to open coffee shop business. Along with the increase of coffee shop business in Bandung and the high number of fans and lovers of coffee among young people, demanding the business of coffee shop to be more creative and innovative in terms of serving and more reach out to all circles. Coffee shop trends in Bandung were slightly changed, ranging from coffee shops to modern concepts, majestic and industrial-style, now many coffee shops with a small but comfortable place and serve coffee with a quality that is not less competitive. According to [7], Bandung as one of the symbols of culinary tourism, and coffee shop business is one of the culinary businesses that developed in Bandung. Since 2006, in Bandung began many emerging local coffee shops similar to foreign coffee shops. This coffee shop is built to meet the needs of the community in the culture of drinking coffee with facilities and infrastructure that provide convenience for consumers, such as the ease of internet access. In addition, some reputable coffee shops in Bandung have several outlets in strategic places.

The increasing number of coffee shops in Bandung brings complexity, competition, change, and uncertainty. In facing the level of competition, coffee shop businessmen are required to be able and ready to have high competitiveness. Every company should have a competitive advantage and maintain sustainable business growth in order to survive in today's business competition [8]. Business competitiveness is one of them influenced by effective value chain, so as to achieve optimal performance. Value chain analysis is conducted to analyse competitive advantage by describing the activities that occur within the company into relevant and strategic activities [9]; [10]. Through this value chain analysis can be known the value chain network in the coffee shop production process. In this study, there are several core processes that include inputs of raw materials, production processes, and sales process through coffee shops until finally enjoyed by consumers. Thus, this study aims to analyse the value chain model in coffee shop business in Bandung. A series of value chain processes in the coffee shop business in Bandung is expected to provide added value for both business and consumers.

2. Literature Review

The basic concept of the value chain is a business perspective seen as a chain of activities that transforms input into a valuable output for the customer. According to [11], value for customers comes from three basic sources of activity that include product differentiation, lower product costs, and which can immediately meet customer needs. The concept of the value chain provides an appropriate framework for explaining how an organizational unity can manage substantial considerations in allocating its resources, creating distinctions, and effectively managing its costs [9].

Value chain analysis seeks to understand how a business creates value for customers by examining the contribution of different activities in the business to that value [9]. Value chain analysis takes a

process perspective, this analysis divides the business into several business activity groups that start with inputs received by the company and finished with the company's products or services and after-sales service for the customer. Value chain analysis looks at the attributes of each different activity to determine the company's products and services. Previous research in relation to value chain analysis considers that this analysis allows managers to better identify the company's competitive advantage by viewing the firm as an actual process chain of activities in the business and not just division of the historical accounting organization or protocol. Value chain analysis can help the company to focus on the chosen strategy plan and strive for competitive advantage [11].

The value chain framework divides the company's activities into two broad categories: main activities and supporting activities. Main activities are activities involved in the physical creation of products, marketing and transfer to buyers, as well as after-sales service. Overall support activities by providing infrastructure or inputs that enable main activities to be carried out on an on-going basis [9].

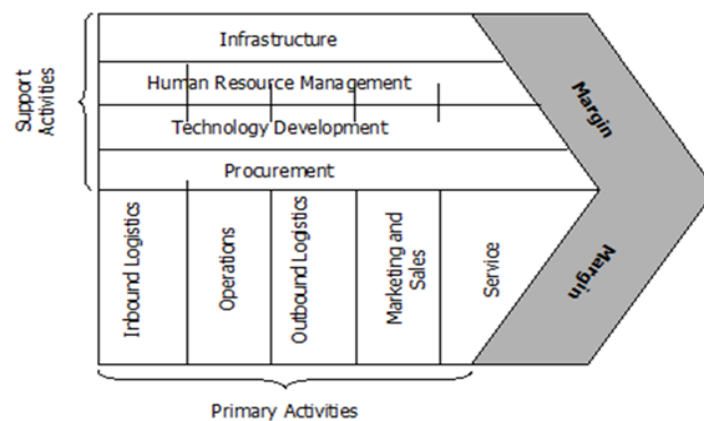


Figure 1. Value Chain [9]

3. Research Methodology

The formulation of descriptive problem helps the researcher to reveal or photographing the social situation of the research thoroughly, broadly and deeply [12], so that descriptive qualitative method is more appropriate when used to research problems requiring in-depth study [13]. The sampling technique used is purposive sampling. In this study conducted interviews to key informants who are considered to master, understand the data, information or facts of the research object [13]. We interviewed 4 informants; we used the initials name to provide comfort for the informants because some of them did not approve their real names mentioned in this study. Some informants include: here are 2 owners of Coffee Shops in Bandung. The first, we gave the initial name of WI, he started his business 3 years ago, and currently he has 2 Coffee Shops in Bandung and 10 employees. Meanwhile, we gave the initial name for the second owner is FW, he started his business 7 years ago, now he has 5 Coffee Shops in Bandung, and he has 27 employees. Another informant is RW, he is the Head of the Barista at one of the Coffee Shops in Bandung, he has about 5 years' experience in the job. And, the last informant was WB, he was Roaster at one of the Coffee Shops in Bandung, he was also an expert in his field.

Data source in this research consist of primary data and secondary data. Primary data was obtained through interviews to key informants, while secondary data was obtained through literature review, journal, online article and other references so as to add information in helping problem solving research. Data collection techniques are conducted through semi-structured interviews that aim to obtain information in depth. Meanwhile, triangulation technique is conducted to get more accurate data. The triangulation technique used in this research is source triangulation.

The focus of this research includes a series of value chains in the coffee shop business that includes inbound logistics, operations, outbound logistics, marketing and sales, service, procurement, technology development, human resource management, and firm infrastructure [9].

This study uses data analysis techniques that include the stages of data collection through qualitative data collection techniques are interviews; reduction of data by selecting the focus of the research; presentation of data in the form of brief descriptions, tables, and analysis of the value chain model; and, conclusions/verification of research results [14].

4. Finding and Discussions

Here are the findings of research and discussion of the value chain in coffee shop business in Bandung to see how important the resources, technology and business capabilities are in shaping business competitiveness.

4.1. Main Activities

Main activities is a series of activities in creating an industry value chain that seeks to satisfy and meet customer needs for services or products provided, and evaluate the immediate effects of the activities undertaken [11]. Not only should each activity be well implemented, but it must also be effectively connected if overall business performance is optimized. These activities are:

4.1.1. Inbound Logistics

Based on the results of interviews with WI, the owner of one of the coffee shops in Bandung about the groove of acceptance of raw materials from suppliers to enter the coffee shop revealed that:

“...there is a direct relationship with the farmers, there are farmers that we coach our own so we can supply directly from the garden, and there are also farmers who came here... There are also from friends whose term is a trader, they are also a supplier of several cafes, and they also have links to various farmers in Indonesia from Gayo to Papua ...”

In addition, FW, the owner of other coffee shops in Bandung revealed that the control of raw materials as follows:

“...because we only have a small inventory so we only use the record of which copies run out, but generally the coffee supply is under control because we control it with daily roasting.”

Based on interviews with WI and FW, logistic activity from coffee shops in Bandung is the provision of raw materials from local coffee farmers and local coffee traders. Local coffee farmers are from Aceh Gayo to Papua, as well as having their own farmers. Local coffee traders also supply their coffee products to cafes or other coffee shops. Suppliers of these raw materials supply their coffee products by delivering coffee directly to coffee shops in Bandung, while for coffee supply location outside Java Island is sent through a special package. The coffee shop in Bandung averages its self-organizing of raw materials ranging from raw material shipping, raw material financing, to storage into warehouses. The raw material inventory control is conducted every day and the ordering time of raw material is processed before the raw material inventory runs out.

This is supported by research from [15] on inbound logistics of goat milk of UD. Barokah Bogor, where the company intentionally take raw materials of goat milk from their own farm because it already knows the quality of milk produced. Based on the results of the research, the activities undertaken in accordance with the opinions expressed by [11], which inbound logistics, is an activity associated with the acquisition, receipt, storage, and regulation of key inputs and resources in the amount and quality appropriate for business.

4.1.2. Operational

Based on an interview with RW a coffee roaster about the grooves of coffee making is:

“...roasting is indeed the process starts from the storage warehouse, we do roasting in accordance with the conditions of inventory of the coffee. Well, then we roast the coffee, after the heat we put green beans, green beans also have rules, roasting is usually not more than twelve minutes, yaaa ... some coffee has water content that may pass from it but in general we are roasting for twelve minutes,

after which we stop the roasting process. After that, we do the cooling and ready packed and can be brewed but usually require a poring time that could be eight hours or can be up to one day, so that the coffee aroma starts out and can be enjoyed.”

Based on interviews with RW, the activity of the operation is coffee roasting process. At this stage, starting from the selection of green raw bean (raw coffee) is selected based on the type of coffee then roasting using roasting machine, then burning green bean dried by looking at the level of water content of the coffee, then the process of stripping coffee and sorting coffee, where coffee that is too charred or not cooked can not be selected. Then, coffee that has a suitable black colour packed with a special plastic coffee then stored into the warehouse again for later black coffee supplies to be sold. Operational activity is related to changing inputs into products required by customers [11], in this study identified that the coffee shop operational process in Bandung includes roasting activities in an effort to turn coffee into ready-to-consumption products.

4.1.3. Outbound Logistics

Outbound logistics is an activity related to delivering products to consumers [11]. Based on an interview with WB, a barista head in a coffee shop, regarding the process of purchasing a coffee product at his shop explained that:

“...costumer comes to order and pay at the cashier, so the system is order, pay, and wait. So the customer orders and payments first, after that wait to be delivered or called his name that his coffee or order is ready.”

Based on interviews with WB, this activity is conducted by the baristas, this stage of activity is the ordering process of the visitors of the store then continued with the technique of making black coffee from various types of coffee. The technique of making coffee using manual brew, which consists of several coffee making techniques such as V60, French Press, Vietnamese Drip, Moka Pot, Ibrik, Syphon, Tubruk, and Luwak. In this activity, there is also a coffee grinder tool used to sprinkle coffee beans to be smooth before coffee brewing.

Meanwhile, WI explained that the process of drilling in the coffee shop does not take long, the maximum waiting time for consumers for 15 minutes. The same thing also conveyed by FW, that the standard waiting time of consumers get the product ordered maximum of 15 minutes.

4.1.4. Sales, Marketing, and Services

Based on interviews with WI and FW, the marketing mediums used by their coffee shops are social media such as Twitter and Instagram. Then FW added that his shop often gives free cupping session promotion that is free one cup of coffee for certain purchases. WI suggests that today young people tend to see coffee as a lifestyle, because coffee is often found in cafes and their interest in coffee making techniques. Thus, they take the initiative to provide special services in the form of education about coffee and consumers are given the opportunity to process their own coffee according to taste.

Based on the results of the interviews, the activities undertaken relate to the process by which customers are aware of the products and services, how they can obtain them, including persuading customers to purchase products and adding value, and ensuring that customers get value and profit from the product [11].

4.2. Supporting Activities

Supportive activities are necessary activities to control and grow the business over time and thus indirectly add to the values embodied in the success of the main activities (Pearce and Robinson, 2008). These activities include:

4.2.1. Procurement

Based on interviews with FW and WI related to the raw materials obtained as follows:

“...Indeed there are local farmers who bring their own here, there are also sent through the delivery service if from a distance.”

Based on interviews with FW and WI, the coffee shops owned by them come from personal funding. They control it themselves in the supply of raw materials from shipment to raw materials arrive, as well as the availability of raw material stocks that are controlled on a daily basis. In terms of supply providers, they cooperate with local coffee farmers and local coffee traders. For the procurement of coffee roasting equipment obtained from the Bandung area, and for the procurement of additional plastic wrapping of roasted coffee obtained at a specialty plastic shop roasted bean in the area of Bandung. In this study it was identified that the activities undertaken relate to supplier management, funding, subcontracting, and specification [11].

4.2.2. Technology Development

Based on the results of the study it was identified that FW and WI argue they have used technological developments in their coffee making process by using brewing tools to produce different tastes, but they also still use manual tools such as grinder to smooth the coffee beans.

Technology development can be done in various forms, such as process equipment, research design, basic development, and service delivery procedures. Based on interviews with FW and WI, raw material order process through BBM social media application, SMS, Whatsapp, this is done so that communication can be more effective and efficient between suppliers and also can avoid the mistake of ordering of raw material. The process of ordering done to farmers or traders in accordance with the current technological development is through communication media such as email or smartphone. In this shop operation using roasting machine tool to process the raw material of green bean coffee into roasted coffee, where the processing result using modern roasting machine. For single origin coffee processing using a black coffee grinder, and for brewing manual manufacturing techniques where there are various coffee making or brewing tools, such as syphon, V60, moka po, French Press, Vietnamese Drip and Ibrik. In customer ordering, all coffee shops have a checkout tool that is destined for ordering and selling data every day. In terms of promotion, all coffee shops in this study using social media technology through laptops or smartphones from the store or indirectly through word of mouth its customers. Activities undertaken in this study in accordance with the results of research [11] is the activity utilizing technological developments to improve production and operational processes in producing products or services.

4.2.3. Human Resource Management

Human resource management activities are activities involving recruitment, training, development and compensation of all personnel [11]. Based on interviews with FW and WI, the actors involved in the provision of raw materials are local coffee farmers, local farmers and local coffee traders from Aceh Gayo until Papua where the raw material products of these providers are checked to meet the standardization and fulfillment needs their coffee shop. For roasting coffee processing, they have a reliable and well known coffee roaster. In the production of single origin coffee, there are reliable baristas and understand about coffee and the process of making it. Their coffee shop also has a cashier clerk who understands coffee, kitchen division to handle food, marketing department in the concept of cupping class / cupping session and also has role in marketing through social media, for delivery service of product order done by the baristas. In the case of compensation, employees are paid in accordance with regional standard wage requirements as well as appropriate working hours. For the training the employees are done for 3 months trial and must understand about coffee.

4.2.4. Infrastructures

Based on interviews with FW related to accessibility to the coffee shop:

“...our shop is quite close and is in the center of the city and tourist area, so including a strategic place and easy to access.”

Based on interviews with FW, access to raw materials and customer distribution to the shop is quite adequate, where the concept of shop is in Tahura tourist area with a large enough road, and large parking so that all types of vehicles can pass. The coffee shop has a storage area of raw materials and roasted bean coffee, as well as a place for making coffee and roasting equipment is quite adequate. For the visitors, also provided adequate parking. Store concept presented by the view of nature along with the concept of wood, the concept of the shop using 60% outdoor and 40% indoor which also has a seat and a table that is adequate for its customers.

Based on the results of the research, infrastructure is an activity that includes general management, planning, finance, accounting, law, and government relationships, necessary to support the work of the entire value chain through this infrastructure, the company seeks to effectively and consistently identify opportunities and threats, identifying resources and capabilities, and supporting core competencies [11].

4.3. Conceptual Framework

Based on the interview result, this research tries to propose conceptual framework of value chain for coffee shop business especially in Bandung. Conceptual framework in this research is shown in the figure below.

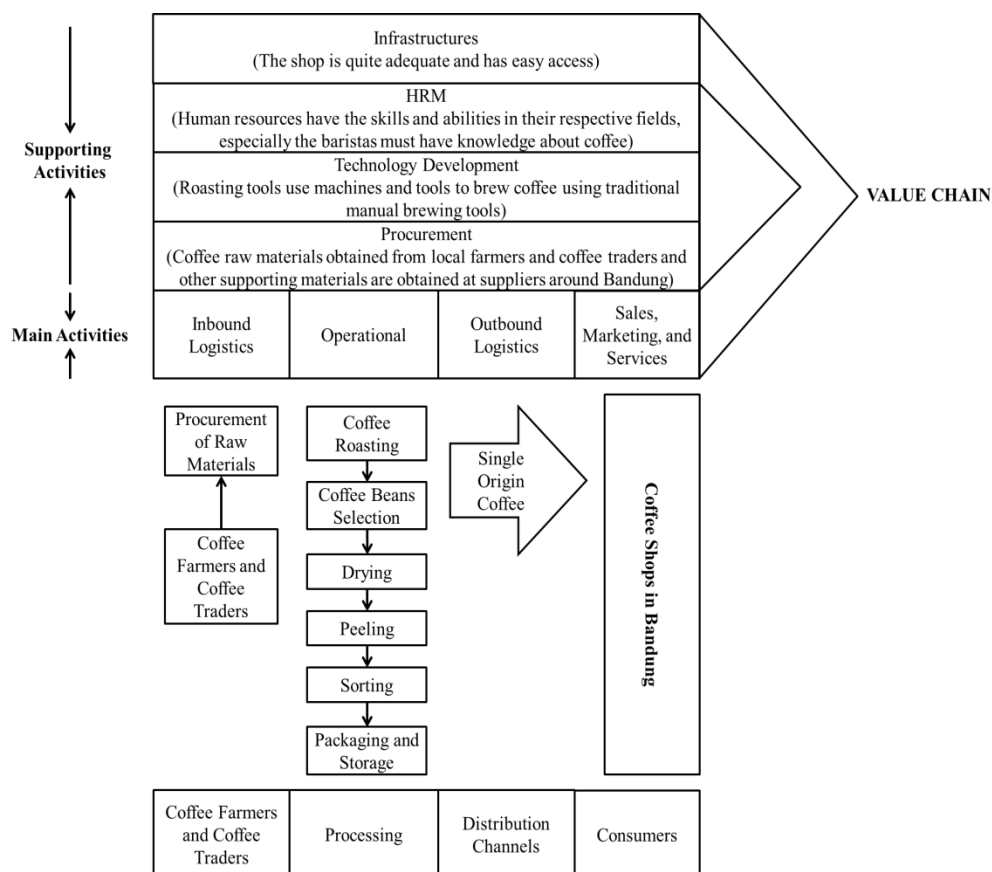


Figure 2. Conceptual Framework of Coffee Shop Business

5. Conclusion and Recommendation

Based on the result of the research, it can be concluded that the coffee shop value chain in Bandung generally involves three main actors, namely local coffee farmers and local coffee traders as providers of local coffee raw materials, coffee processing industry (roasting), and coffee shops as distributors who market and selling various types of coffee. The procurement of raw materials for roasting can be

met from local coffee farmers and local coffee traders. The coffee production process runs quite well because each shop has baristas with modern and manual coffee-making techniques. The process of raw material procurement and product distribution can be fulfilled due to the support of access and adequate shop facilities. Production technology used is still semi-modern. The ordering technology of coffee products is still semi-modern and not digital, so it needs to be developed to produce a regular and systematic product ordering and recording. In addition, the coffee shops have also had good human resources by having an expert roaster and the baristas are reliable in processing and manufacturing of coffee products.

Currently, coffee processing technology is quite modern, but manual coffee processing also still has a certain market share. Thus, further research can discuss about the benchmark of the effectiveness of coffee processing in a modern and manual. This research is expected to be a reference for further research on exploration of solutions in overcoming management and operational problems in coffee shops. In addition, a series of identification of value chain processes in this study is expected to provide added value for both business and consumers in coffee shops in general.

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