The Influence of Certification of Gayo Coffee Geographical Indication Against Value Added of Coffee In Gayo Highlands, Aceh

Triska Damayanti, and Hafid Setiadi

Department of Geography, Faculty of Mathematics & Natural Science, Universitas Indonesia, Kampus UI Depok, Depok 16424, Indonesia
damayanti.triska30@gmail.com, hafid.setiadi@gmail.com

Abstract. Indonesia is the third largest coffee producing country in the world after Brazil and Vietnam. Coffee is one of the main commodities that bring foreign exchange for Indonesia. The natural characteristics of the Gayo Highlands, located in Aceh province, are particularly suitable for Arabica coffee plants. Gayo Coffee has been successfully sold to the International market with a strong and complex flavor and good viscosity. To avoid improper trade practices, Gayo Coffee currently has a Geographical Indication Certification or known as (GI) that has been running since the end of 2009. This study examines how GI's influence on the value-added chain that occurs in the Gayo Coffee trade process. The data collection method that will be used in this research is by directly interview with GI stakeholders, conduct a direct survey of the value chain actors and also make observations on farmers by participatory observation. The result is that GI does not affect the change of Gayo Coffee value chain, but GI has increased the value added of coffee by increasing the selling price of coffee from each value chain actor.

1. Introduction

Coffee in Indonesia has a long history and has an important role for the economic growth of people in Indonesia. Indonesia's location is ideal for microclimate for coffee growth and production. In the era of Cultivation or Cultuurstelsel around the year 1830 until 1870 during the Dutch colonial period in Indonesia, the Dutch government opened a commercial plantation in colonies in the Dutch East Indies, especially on the island of Java, the island of Sumatra and parts of Eastern Indonesia. The type of coffee planted in Indonesia is Arabica coffee imported directly from Yemen. Initially the Dutch government planted coffee in the area around Batavia (Jakarta), Sukabumi, Bogor, Mandailing and Sidikalang. Coffee is also grown in East Java, Central Java, West Java, Sumatra, Sulawesi, Timor and Flores. The opening of coffee plantation land makes the community around the plantation have jobs and loyalty to the coffee plantation, this creates a local cultural tradition that produces high coffee quality, so that Gayo arabica coffee is known as one of the original coffee (origin coffee) and specialty coffee (specialty coffee) in Indonesia [3].

Coffee is one commodity that plays an important role in the Indonesian economy. This fact is shown by the many countries that have imported coffee from Indonesia such as Japan, America, Germany, Britain, India, Singapore, and many other countries [1,2]. There are two types of coffee that became the flagship product of Indonesia namely Arabica Coffee and Robusta Coffee. Robusta coffee grows in low areas while Arabica coffee is grown in high areas. Aceh Province is the largest producer of Arabica Coffee in Indonesia [8]. Gayo Arabica Coffee is known as coffee with flavor and characteristic of complex aroma and perisa, and its strong viscosity [7]. Gayo Arabica Coffee Plant has been developed and flourish in DTG since 1926 until today. Most of the people living in the DTG support their lives from the coffee commodity. Most of them are farmers of coffee plantation and coffee collectors. Gayo Arabica Coffee marketing activities involve farmers, collectors and exporters until it finally boils down to the
consumer. The marketing function is an activity that includes the functions of exchange, physical function and facility function [4].

In the current era of global markets the role of production protection with Geographical Indication (GI) certification is important. This is because the local producer community needs legal protection in the name of the origin of the product so as not to be used by other parties to conduct fraudulent competition such as experience in the past few years. In 2008 there was a case where a coffee company located in the Netherlands had put the name “Gayo” on their coffee product. This is what makes the farmers and Gayo community at that time was moved to establish Masyarakat Perlindungan Kopi Gayo (MPKG) in english we call it with Gayo Coffee Protection Society. MPKG is a coffee community incorporated in an organization with the same vision and mission, to propose protection of geographical indication Gayo Arabica Coffee and benefit from the protection of geographical indication as much as possible for DTG communities, especially those engaged in coffee industry. Besides aiming to protect the production result with legal protection, the implementation of this certification is also expected to be able to increase the amount of production and the selling result of coffee until finally people at DTG area whom working in the process of producing coffee can prosper in their life.

2. Methods
To find out how the influence of Gayo Coffee GI certification on the value added chain of coffee in DTG, the researcher will examine in advance how the form of Gayo Coffee value chain before GI certification is applied. In addition, researchers will also conduct a literature study on GI certification policies established by the Indonesian government. After conducting a study of literature on GI certification policy and see how Gayo Coffee value-added form before GI certification, the researcher will be able to know how the difference of value chain added Gayo Coffee after the implementation of GI certification policy, which will eventually guide researchers to analyze whether the application of GI has been working as it should and has a good impact on coffee farmers as the main link of the coffee industry (figure 1).

![Conceptual framework of The Influence](image)

**Figure 1.** Conceptual framework of The Influence

The data collected by the researcher is using literature survey and conducting field study with active primary data collection, such as:

- Interviews with stakeholders from GI institutions.
• Interviews and surveys of coffee farmers, collectors and exporters to find out the value-added chain of coffee.

• Participatory observation of coffee farmers to see the impact of GI on coffee farmers.

To be able to analyze, first the researchers process the data obtained. Data processing is described in the following stages:

1. Make an interview transcript (Verbatim), which is a detailed and complete written description of what is heard directly (note) and from the recording. The transcript is made as it is according to the words (language & accent) of the informant. Interview transcripts were made to support in proof of field results data for both value-added coffee chains.

2. Data reduction, which is choosing the main things that fit with the focus of research. Data reduction is the activity of classifying, directing, disposing of unnecessary, and organizing data that has been reduced to give a sharper picture of the results of observation.

3. Making a value chain sketch of Gayo Coffee. The value-added chain sketch of Gayo Coffee is made in two pattern forms, that is the pattern before the GI certification and the pattern after the application of GI certification. The making of this sketch aims to enable the researcher to fully explain the value chain and value added in two drawing sketches.

4. Presentation of data with narrative descriptions, maps, charts, and photographs. Analysis in this research use descriptive analysis in the form of triangulasi toward result of data processing of promer and secondary and build narration as final output of research. The descriptive purpose is to make systematic, factual, and accurate description and description of facts, traits, and relationships between the phenomena investigated [5]. The analysis is done from the beginning of data processing, during the making of interview transcript, data reduction, data presentation, and conclusion. Triangulation is a technique of examining the validity of data that utilizes something other than that data for the purposes of checking them by using literature (theoretical basis), maps and tables of secondary data processing and primary data, as well as verbatim script from the primary data processing. The triangulation process is done by comparing and correlating the variables studied.

3. Result and Discussion

From the results of the research shows that the shape of the coffee value chain in the DTG has changed. There are some intermediary actors missing from the value chain form before GI, the actors are the subdistrict toke and the district. The loss of some of these intermediary merchant actors was replaced by the presence of new intermediary trader actors, collectors. Collector is an intermediary merchant actor under MPKG as well as an Exporter. In addition to the change in the value chain form of coffee, there is also an increase in the amount of added value in each node in the chain of coffee value chain. There are two versions of the change in the value chain of coffee occurring in the DTG, the value chain after GI according to the MPKG and also the value chain after GI according to fieldwork conditions derived from the description from the farmers.

According to the information the researchers could from the MPKG Chairman during the field interview said that the existence of Geographical Indication of Gayo Arabica Coffee Production has made changes to the continuity of coffee production in DTG. The MPKG Chair said that prior to the Geographical Indication, communities and coffee farmers simply plant and sell their products without being under the auspices of an institution that serves to protect and provide the necessary training, information and assistance. However, since the Geographical Indication has been applied to Gayo Arabica Coffee, the presence of MPKG has been instrumental in coffee production activities and value chain of coffee marketing. Chairman of
MPKG said that MPKG has socialized about Geographical Indication along with its purpose and its benefits. They also serve every actor wishing to register their products in order to obtain a Geographical Indication label. MPKG also said that the existence of Geographical Indication has brought changes from the procedure of planting coffee in order to get good results, quality and in accordance with the standard achievement of Geographical Indication.

But unfortunately the purpose and benefits of the application of Geographical Indications is not widely known and understood by Indonesian people. In this study most of actors from Gayo Arabica Coffee Value Chain did not know what Geographical Indications were. Most people who know about Geographical Indications are only the final actors like exporters. Unfortunately, coffee farmers who are the main producers of coffee production do not know the purpose and benefits they can derive from the application of the Geographical Indication. From the map below can be seen the low level of knowledge of coffee farmers against the policy and sustainability Geographical Indications that have been applied in the DTG. Most of the coffee farmers say they do not know what Geographical Indications are, as well as the benefits because they never get socialization of it from the local government, nor from MPKG and exporters.

Figure 2. Farmers Perceptions on GI

According to the MPKG chairman, since the GI comes, the chain of coffee marketing in the DTG region has become more structured. Actors within the value chain also become shorter and clearer. In addition he also stated that the control of Gayo coffee becomes stronger than before, so the quality of Gayo coffee is guaranteed. The explanation of the MPKG chairman on the value chain before and after the GI is contained in the chart below:
In addition to the low knowledge of farmers on GI, farmers also point out that although the current chain of sales is much better than before, but they sometimes still sell coffee to local collectors. Farmers said coffee sales from them are not a must be 100% sold to collectors to be distributed to exporters, but also to other actors.

In analyzing a coffee value chain system, we must first know the main activities and supporters. Refers to the concept of Porter [6], a chain system has two activities, namely the
main activity and the supporting activities. At the main activity allows the entire system beyond the borders of the State. In this Gayo Arabica value-added value chain research, it will only be discussed until stage three of the main activities, namely inbound logistic, operation and outbound logistics.

Inbound Logistics

Inbound logistic activities are different on each actor. Inbound logistics by farmers is the activity in the plantation by farmers, which starts from the planting of seeds, until the harvest in the form of coffee fruit. After the harvest, then done with local processing by farmers themselves. In the region of this penelian, in general, farmers sell coffee after local processing that is after the process of peeling the skin of coffee, then coffee fermentation, and early drying. But there are also farmers who sell their coffee directly in the form of fresh coffee obtained after harvest. The process of selling coffee from farmers is submitted to the next level of actors are intermediary traders, either a toke or a collector. As for intermediary traders and exporters, inbound logistics is seen from efforts to obtain (buy) coffee.

Operation

Operation activity is coffee processing activities. Processing is different according to the duties of the actors. The farmers are in charge of processing the coffee beans to produce wet / dry horns, the middlemen are in charge of sorting, and the exporter is in charge of turning the coffee horn into green bean grain.

Outbound Logistics

Outbound logistic activity is the activity of warehousing and distributing goods to different actors. For farmers, outbound logistics is distributing wet / dry horn coffee to intermediary traders either toke or collectors. Outbound logistics activities according to intermediary traders are distributing coffee bought from farmers to exporters such as cooperatives, PT, and CV. While exporters are doing warehousing activities until the delivery of green bean coffee get ready to be exported or processed into coffee powder for sale to consumers.

Generally in this research area, coffee farmers sell their products in the form of cherry and also sell it in the form of coffee beans horn (after passing the peeling process, fermentation and early drying. They call it Operation process). Selling price obtained by farmers when making sale and purchase transactions with second level actors are intermediary traders for coffee red fruit and coffee beans horn of course different. The price difference continues until the final stage where the selling price obtained by exporters from the consumer. It can be seen that there is a very different price difference between the final node on the exporter side and the initial node is the farmer.
Figure 6. Value Added before GI

There is an increase in the price before the existence of GI and after the GI in the final value chain actor that is approximately Rp 20,000. These changes occur in addition to the middle actors pruning, which is also due to diperlukannya several tools that can support coffee production activities. At the level of inbound logistic stage of the farmers, when they are in the garden they need a barrier grass trimmer tool so there is no disturber plant around the coffee tree. In addition, in the stage of operation farmers need a peel coffee exfoliator or known as a pulper and tarpaulin base that they use to make the drying process. For intermediary traders in addition to using tarpaulins for drying by way of drying, there are also brokers who build like greenhouses that function to dry coffee - even though conditions outside the rain they can still dry the coffee - coffee. In addition there is also a horn skin exfoliator to be green beans.
There are interesting conditions that researchers get when they are in the field, where farmers say they sometimes still sell their coffee or coffee beans to the toke. They said there was no mandatory rule that required them to sell all of their coffee to the collectors. They acknowledge there is a difference price they get between from collectors and also from toke. They say generally for collectors they sell in the form of fruit without any process first, so the selling price of cherry coffee to the collector with toke did not have much difference.

Figure 7. Value added after GI based on MPKG
Figure 8. Value added after GI based on work field information

4. Conclusion
Geographical indications do not affect the value chain change Gayo Coffee at the Gayo Highlands. This can be proved by the existence of farmers who choose to sell it to local collectors. However, the existence of Geographical Indication has added value added within the coffee value chain and has decided on some intermediary trader actors in the previous value chain that is collector at sub-district and collectors at district. This is due to the control of the selling price of coffee and the quality of coffee. Value-added chains obtained in the form of an increase in the selling price of coffee and the convenience obtained to distribute the production.

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