

Adding Value to Thailand Robusta Coffee through Geographical Indication

Wassana Suwanvijit, Faculty of Economics and Business Administration,
Thaksin University, Thailand
Sompong Promsa-ad, Faculty of Economics and Business Administration,
Thaksin University, Thailand

The IAFOR International Conference on the Social Sciences – Hawaii 2017
Official Conference Proceedings

Abstract

Coffee is the most valuable and widely traded tropical agricultural product. Thailand is one of the top coffee producers in the world. The country was also ranked third among the coffee producing countries of Asia with the Robusta coffee (*Coffea Canephora*) accounting for 99% of its production. Thus, Robusta coffee is the chief coffee crop grown which provides substantial economic return. Coffee is one of the few types of goods and products that are grown or produced highly correlated with the quality and reputation of the coffee flavor. Geographical indication has similar role as a trademark that is indicative of the popularity or goodwill of the product. It is a powerful tool for building brand for agricultural products using the image and reputation of community. GIs is also the key measures to distribute the coffee to the market.

This paper aims to study the possibility to add value to Thailand Robusta coffee through the geographical indications (GIs). In-depth interviews, survey, and literature review were used to gather information on the value chain. We found that the Robusta coffee processed by agricultural groups and community enterprise in southern Thailand had a great potential to be registered as GIs coffee. In addition, to convey the background landscape and culture of southern Thailand as a world-class tourist attraction in advertising or publicity, it would be advantageous and also lead to differentiation of coffee products and market access in the future.

Keywords: Adding value, Geographical Indications (GIs), Thailand Robusta coffee

iafor

The International Academic Forum
www.iafor.org

Introduction

Geographical indications (GIs) are a type of intellectual property for adding value to the brand. Thus, the registration of geographical indication is a significant step in raising a product to a higher level and creating a regional brand. GIs can also use as a tool to develop the rural sector policy and encourage local producers to earn more income that will lead to links to other industry sectors such as tourism, including to maintain and preserve local wisdom and traditional culture. GIs are used to identify products that come from certain regions and have particular characteristics that indicate the product's quality or reputation (e.g. "Champagne," "Roquefort"). GIs are protected by various legal principles and statutes - including sui generis GI laws, trademarks, certification marks, and collective marks - all GIs function to certify that a product possesses certain qualities, is made according to traditional methods, or enjoys a certain reputation due to its geographical origin. While the oldest and most developed systems of GI protection are found in Europe, other developing countries have recently begun implementing GI legislation domestically and seeking protection in international trade agreements, with the goals of promoting rural development and protecting local heritage and the natural environment (Barnette. 2012). Geographical Indications (GIs) has been well-known in Europe for quite some time as a values-based label on high quality products (Carpenter and Larceneux. 2008).

Coffee is the most valuable and widely traded tropical agricultural product. Thailand is one of the top coffee producers in the world as of 2014. The country is ranked third among the coffee producing countries of Asia with the Robusta coffee accounting for 99% of its production. Robusta coffee (*Coffea Canephora*) is the chief coffee crop grown in the country which provides substantial economic return (Fairtrade foundation. 2012; Wikipedia. 2016). Coffee is one of the few types of goods and products that are grown or produced highly correlated with the quality and reputation of the coffee flavor. Doi Tung and Doi Chaang, Arabica coffee is grown in the northern province of Chiang Rai. Doi Tung is single-origin, harvested only from the hills of Doi Tung in Chiang Rai. It is shade grown and undergoes careful processing starting from the selection of coffee species to roasting and packaging. Doi Tung was granted a Thai GI by the Department of Intellectual Property, Ministry of Commerce, in 2006. Doi Chaang coffee is produced in a village, known as Ban Doi Chang. Villagers, particularly Akha hilltribe farmers, were given Arabica plants of good quality for cultivation from a royally initiated program. After 20 years of successfully growing coffee, villagers grew frustrated at being exploited by middlemen when it came to prices. They decided to form their own business group, which was registered as Doi Chaang Coffee Original Company (Thailand Government Public Relation. 2015). So, Arabica-based Doi Chaang and Doi Tung coffee are the example of Thailand coffee's success cases with international recognition. Both are well-known as high-quality coffee producer with many carefully-designed procedures behind the scene. Consistent processing methods, self-processing with strictly quality control on entire value chain products, high-standard facilities are the main factors contributing to their fine taste. They also pay attention to the link between coffee with its origins and story of relevant people. Currently, both have been registered as geographical indication (GI) products in domestic as well as European Union market. Doi Tung and Doi Chaang brands were able to use the GI mark from 3 August 2015 onwards, 20 days after the announcement on the EU's Official Journal (Thailand Government Public Relation. 2015).

The coffee which has the geographical indication can be a monopoly or semi-monopoly market structure. It also highlights the product differentiation using an intellectual property. In addition, it can be controlled inputs and output to the standard level, and has the power to set prices in the market. Elevation the Thailand Robusta coffee using a geographical indication is an important strategy to add value to coffee industry to create sustainable local economies and communities more effectively, in addition to sale only the raw coffee bean. However, to get up into geographical indication, the product must be produced by a given process since seeds, seedlings, maintenance, harvesting, roasting, and grinding coffee. Promoting the coffee to register as a geographical indication can also rely on the value chain analysis. However, when looking at the overall creation value of Thailand Robusta coffee, the developmental process has been delayed and does not clear about the identity. Thus, the coffee industry in Southern Thailand wasted a huge opportunity to add value to coffee production. The return was not enough to propel the community or encourage farmers to produce the lifestyle and sustainable growth, as they should be. In spite of, there are the development opportunities when considering that the southern provinces are also known as a famous tourist places similar to Chiang Mai and Chiang Rai.

This paper aims to study the possibility of registration of a geographical indication to Thailand Robusta coffee by using the value chain analysis and studying the mechanisms of coffee market including the interaction of those involved in the market, whether they are buyers manufacturers to determine the level of supply and demand and prices in the market. The value chain in the production and distribution of Thailand Robusta coffee has core processes, which consists of pre-harvest, post-Harvest, manufacturing, and trading. In addition, there are three sub-processes as follows: (1) improving productivity and quality improvement include reducing production costs; (2) adding value by conversion into standard products; and (3) marketing and logistics. We also study about the support activities, including infrastructure, information systems, research and development, quality control, and how to create a story for marketing communications.

Literature Review

A geographical indication (GI) is a sign used on a product to denote its origin where a specific quality, characteristic or reputation of the product is essentially attributable to that origin. For example, “Bordeaux” is a GI for wine originating from the region of Bordeaux in the south of France, where it has been produced since the eighth century. Similarly, “Tequila” is a GI for liquor originating from the town of Tequila in the state of Jalisco, Mexico, where the liquor has been produced for over 200 years. Other examples of GIs include: “Champagne”, “Darjeeling Tea”, “Jamaica Blue Mountain Coffee”. A GI can be a geographical place name (e.g., “Champagne”), a symbol (e.g., a picture of the Eiffel Tower, the Statue of Liberty, orange tree), the outline of a geographical area (e.g., the outline of the state of Florida or a map of the Dominican Republic) or anything else capable of identifying the source of a product. Historically, there has been no uniform approach to the protection of GIs. Countries have adopted various legal principles and statutes to ensure the domestic protection of GIs. Some countries have enacted specific sui generis legislation to protect GIs; some afford protection under existing laws governing trademarks; others use a combination of both. GIs are also protected through unfair competition laws, consumer protection laws and laws protecting trade names or trademarks from passing off and other false

and misleading trade practices. An international framework for the protection of GIs has evolved over time, beginning with the Paris Convention, where a special form of GI referred to as an appellation of origin was afforded international protection. Most recently, the TRIPS Agreement internationalized the protection of GIs by promoting a standard definition of GIs and prescribing certain minimum standards by which they must be legally protected throughout WTO member states. A number of countries have entered into various bilateral, multilateral and international arrangements to bolster the protection of their GIs in foreign territories (International Trademark Association. 2015). Geographical indications are a current topic at the international level. The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs), which became effective in 1995, is considered the first multilateral agreement giving an explicit definition of the term “geographical indication”. According to the TRIPs definition “geographical indications” are “indications, which identify a good as originating in the territory of a Member, or a region or locality in that territory, where a given quality, reputation or other characteristics of the good is essentially attributable to its geographical origin” (TRIPs Article 22.1). Furthermore, TRIPs requires from every signatory to establish minimum standards for the protection of GIs through their national law. Developed countries had to implement the TRIPs requirements by 1996, developing and transition countries by 2000 and for the least developed countries the final date for the implementation was extended to the year 2006 (Calboli. 2006). Protected Geographical Indication (PGI) name of a region, a specific place or a country, used to describe an agricultural product or a foodstuff originating in that region, specific place or country, and which possesses a specific quality, reputation or other characteristics attributable to that geographical origin, and the production and/or processing and/or preparation of which take place in the defined geographical area. GI’s fit perfectly with the differentiation goals because: (1) it provides producers the opportunity to position their origin and communicate directly with consumers who demand it; (2) it protects the reputation that producers of well-known origins have built; (3) it is an effective and reliable instrument to ensure fair labeling; (4) it is a tool to educate and generate less price sensitive and loyal consumers. GI’s also benefit all actors in the coffee chain as follows: (1) Producers: opportunity to position their origin and communicate directly with consumers who demand it. Accordingly, they can be rewarded for their quality efforts; (2) Roasters: using GI’s allow them to protect their quality and reputation and know who and what is behind the product they bought; (3) Retailers: traceability requirements, food safety and high value products are usually associated with GIs; (4) Consumers: Demand more accurate information about products and their link to quality factors. GI’s are the perfect and reliable instrument (Silva. 2008).

GIs are a form of intellectual property, thus requiring regulation and enforcement of protection in order to be used as a value-enhancement tool. The EC-ASEAN intellectual property rights cooperation program (ECAP-II) represents one of the many food-related alternatives the European Union (EU) has been involved in with regards to Thailand. In this framework, the promotion of GIs for food products has been one of the key activities (Hamburger. 2010). In Thailand, the government officially launched the framework law to recognize and protect Geographical Indications in 2003: the Geographical Indication Act of B.E. 2546 (2003) followed by Thai Geographical Indication Logo Approval B.E. 2008 under the charge of Department of Intellectual Property, Ministry of Commerce. As of June 2010, Thailand had registered 35 GI products, 29 of which were from Thailand, 5 from the

EU and one from Peru. Despite the fact that Thai regulations do not require products to subject to third party inspection and certification procedures, it is remarkable to note that a certain number of Thai registered GIs are under external control by accredited certification bodies (ten products as of June 2010). Besides the already registered GIs products in Thailand, 34 other products have applied and are currently undergoing the process of evaluation, showing an interesting trend in product application to Thai regulations on geographical indication. Geographical Indications product registration should not be considered the ultimate arrival point for Thai products in the European market, but rather the first step to communicating the high quality and added value characterized by GIs products. Information provision, promotion and proper marketing strategies should be designed and implemented to stimulate the interest of gatekeepers, and among consumers at large, an understanding and appreciation of the diverse array of unique and high-quality products bearing the Thai Geographical Indications label. There are numbers of potential marketing strategies suggested by gatekeepers that could be used to introduce Thai GIs products as follows: (1) information provision through public relations and communication; (2) showing the region of origin of products and telling the stories behind them; (3) assuring product safety and guaranteeing quality; (4) demonstrating products and letting consumers try them; (5) developing export platforms for Thai cuisine and fruits; (6) starting with pilot products which are typical, high quality, and without environmental and social problems; (7) differentiating Thai GIs products from other products by quality, healthiness, and packaging; (8) offering promotions to gatekeepers; and finally, (9) selecting the proper distributors through which to channel Thai GIs products (Canavari et al. 2010).



Figure 1. GI Thai Public brand
(Department of Intellectual Property's Regulation for Thai GI Logo Approval. 2008.)

So far no international register for GIs does exist. Therefore, an overview of already protected and registered GIs in the coffee market will be provided by surveying the literature and using data from trademark bases as well as from governments and grower associations. In this context it is necessary to distinguish between the domestic and the foreign market. Since coffee consumption in producing countries is still at a low level with the exception of Brazil, the export markets are more important in terms of income than the domestic market (Lewin et al. 2004:59). The ASEAN countries of Malaysia, Indonesia and Thailand also stand on a similar footing with other developing countries and therefore increased levels of protection would be advantageous to their economies. Since the natural resource and traditional knowledge form the fundamental elements for the development of grass root economy, GIs can be used as effective marketing of economic value (Jaovisidha. 2003). According to the Department of Agriculture (2015), the coffee planting area in

Thailand covers 290,000 rai, or 116,000 acres, while production are 30,000 tons a year. Out of this production, 8,000 tons are Arabica beans. In 2014, Thailand exported 700 tons of coffee, valued at 3.6 million US dollars. Out of this amount, 10 percent was exported to EU. Doi Chaang is exported to Canada, the United Kingdom, Italy, Malaysia, South Korea, and Australia, while Doi Tung coffee is exported mainly to Japan. Demand for coffee in the global market has been increasing. It stood at eight million tons annually during the past three years. Statistics show that, in 2012, demand for coffee beans by processing plants in Thailand came to 67,620 tons, up from 61,480 tons recorded in 2011. The volume rose to about 70,000 tons in 2013.

In Thailand, there are two coffee varieties grown commercially for consumption: Robusta and Arabica. The best coffee is usually produced from Arabica beans, which are usually roasted and made into fresh coffee. The Arabica variety is grown on highlands in the North, especially in Chiang Mai, Chiang Rai, Mae Hong Son, and Phetchabun province. The weather in these provinces is cool, in comparison with the rest of the country. While, the Robusta variety are widely grown as cash crop in the South, especially in Chumphon, Ranong, Nakorn Si Thammarat, Phang-Nga, and Krabi province, covering a total area of 423,947 rai. It is mainly used for instant or blended coffee. With topography and climate make quite a lot of different varieties grown coffee is a different breed. As domestic demand for coffee is on the rise, Thailand imports a great volume of coffee each year. Because of the higher quality of the Thai Arabica coffee, when compared with that of Laos and Myanmar, it is sold at higher prices. With the ASEAN Community, Thai coffee growers are likely to face greater competition. The Department of Agriculture pointed out that, coffee at lower prices from neighboring countries is likely to compete with Thai coffee. This situation would affect Thai coffee growers, so they need to adjust themselves by improving productivity and reducing production costs at the same time. According to the International Coffee Organization, statistics on coffee production in ASEAN countries in the 2011/2012 production year show that Viet Nam came first in terms of Robusta output, accounting for 37.8% of the global production. Indonesia came second, with 13%, followed by Thailand at 1.7%, Laos at 1.2%, and the Philippines at 0.7%. As for the Arabica variety, Indonesia came first, accounting for 2.2% of the global production, followed by Viet Nam at 1.2%. Looking at per capita consumption in 2011, Laos registered at 1.4%, followed by the Philippines at 1.38%, Vietnam at 1.07%, Indonesia at 0.86%, and Thailand at 0.44% (Thailand Government Public Relation. 2014).

Often Robusta has its taste described as burnt tires or rubbery, which sounds disgusting. One reason that the taste isn't as good for Robusta is that it has more caffeine compared to Arabica. Which may sound like a positive thing but caffeine carries a bitter taste which makes it an unpleasant drink. In fact the Robusta bean has 2.7% caffeine content, almost double the 1.5% of Arabica. Arabica contains almost 60% more lipids and almost twice the concentration of sugar than Robusta. This factor also probably has a big impact on why we prefer the taste of Arabica. From a price perspective, green bean of Robusta is about half the price of Arabica green beans on the commodity market. However, Robusta is easier to tend to on the farm, has a higher yield and is less sensitive to insects - the extra caffeine is a chemical defense for the coffee seed as the quantity in the Robusta is toxic to bug. All of these factors help bring up the supply and lower the input costs for farmers to produce. With this more attractive price point, a lot of roasters back in the day would

add Robusta to their blend in an attempt to reduce their costs and increase their profits. When coffee was initially sold in the 1900s the quality of coffee slowly and slowly deteriorated in an effort for companies to squeeze the most profit. Literally. Oddly enough, Robusta is still widely used as part of espresso blends – specifically Italian style blends. It is said to help improve the Crema. Robusta as being lower quality, it's not always the case. Top notch specialty Robusta coffee will usually taste as good as or better than low end Arabica. However, high end Robusta isn't widely used or available. Rather, Robusta is usually used as a filler or cost reducer. (Pabari. 2014). Specialty coffees are not precisely defined but cover a wide range of somehow differentiated coffees, such as organic, fair trade and bird-friendly coffee. Besides these kinds of coffee another type of specialty coffee called single-origin coffee or coffee with a geographical indication of origin (GI) has been emerging in recent years (Daviron & Ponte 2005; Lewin et al. 2004).

Even though Thailand exports green bean coffee to Europe, this product is roasted, blended and sold under various brands, which do not refer to the country of origin. As a result, the researcher could not find Thai coffee on the Italian, Austrian, or Swiss markets except in specialty shops. However, the researcher obviously did not visit every supermarket or shop in these countries and it is therefore possible Thai coffee might be available through other channels. The main products available in Thai specialty shops are instant coffee and diet coffee. Thai coffee is sold primarily to Thai people since European consumers tend to prefer their own coffee, which is famous for its high quality and suitability for different methods of preparation. It seems that strong information and promotion campaigns should steady partner Thai GIs products registration efforts since European consumers and gatekeepers do not know these products or cannot distinguish the differences of these products in terms of quality and taste out of other similar products. However, the participants in this study said that this could change if Thai suppliers are able to prove the distinguished quality of their products versus others and inform and communicate this information to consumers. The GIs label might be a good marketing tool to introduce quality Thai products in the European market. Thai GIs goods which are considered high quality products could be introduced to the market first, before introducing other, more standard products, so that Thailand can cultivate an image as a producer of high quality products in the minds of European consumers. It is also important to synchronize Thai GIs label from those countries with the European one (Mutual recognition) to maintain the same quality of labels (Canavari et al. 2010)

Methodology

This study was a qualitative research. In-depth interviews, survey, and literature review were used to gather information on the coffee value chain (from the raw material until the coffee is delivered to consumers). The sample included farmers and those involved in the Thailand Robusta coffee value chain. The data analysis was focused on the perspective of the privatization of coffee and the adding value process. We also learned the best practices from the success coffee in terms of getting a geographical indication including Doi Tung and Doi Chang coffee from the manufacturer in Chiang Rai. The knowledge was derived synthesis with the basics of Robusta coffee processing in southern Thailand, in order to lead to the registration of GIs including to suggest the story that can bring a narrative and create marketing communications.

Since the main objective of the research is to add value to Thailand Robusta coffee in the south through a geographical indication. Thus, the production and processing sample for in-depth study must contain all three parts as follows: (1) it is an area of growing coffee for a long time; (2) the products are already distributed and well known in the market; (3) the coffee plantation is unique, good quality, and located in a beautiful area which can be encouraged to travel by public authorities and can bring a narrative and create marketing communications. Robusta coffee produced in Southern Thailand meets the above criteria as a world-class tourist attraction, so there is also great potential to create a narrative marketing.

Results

Robusta coffee processed by agricultural groups and community enterprise in southern Thailand had a great potential to be registered as GIs, especially to combine with organic food. The value chain in the production and distribution of Thailand Robusta coffee had core processes, which consisted of pre-harvest, post-harvest, manufacturing, and trading. In addition, there were three sub-processes as follows: (1) improving productivity and quality improvement include reducing production costs; (2) adding value by conversion into standard products; and (3) marketing and logistics.

We also found that the Robusta coffee key distribution channels were as follows: (1) sold through the storefront and trade fair under the government support; (2) wholesaled to retail shops and international airports, mostly 3-in-1 coffee; (3) sold online of coffee roasted and coffee beans; (4) produced and sold to buyers.

Conclusion & Discussion

GIs has similar role as a trademark that is indicative of the popularity or goodwill of the product. It is a powerful tool for building brand for Thailand Robusta coffee products using the image and reputation of community. GIs is also the key measures to distribute the coffee to the market. The Robusta coffee which is registered as GIs must pass all of the production process, as stated in the registration process. So, the quality coffee does not have only in the major companies anymore. Elevating the value chain by coffee growers, coffee-related organizations are part of measures to cope with competition from trade liberalization. The guidelines are include lowering costs, increasing yields and adding value to the product by the agricultural institutions in order to avoid a competitive price. The value chain can be developed more efficiently with activity improvements and have a great deal of the components/elements as follows: (1) Package: change to modern image and tells the story of narrative marketing as a World-class tourist destination on the label and packaging. The GIs label also has a very high benefit for a country like Thailand, to show product quality and let the consumer learn how we take care of the product from production to processing in the food culture to show how they are prepared locally and the quality; (2) Distribution: introduce and build the brand awareness on One Tambon One Product (OTOP) fairs, both local and national level, including to publicity through news, documentary by television, magazines and newspapers and expand the customer base using the word of mouth. The marketing story can offer through a variety of media and opportunities. It can also add the contents of the

program of the Tourism Authority of Thailand, which promotes the festival to watch flowers bloom coffee. The coffee processed products can be the source of study by the local community. Thus, establishing a learning center for coffee learning combined with museum exhibits is another way to strengthen the cities of coffee. This will be the center of the coffee knowledge development and also as a communicate channel for the coffee story to consumers and people concern to study more effectively. The important strategies are information, public relations and communication in order to cope with the problem of consumers' lack of knowledge. Using new technology (such as QR code) so consumer can scan the coffee story and read through mobile devices and also in LINE application to serve consumer behavior at present.

However, registration GIs separated by region can cause lack of interesting. Alternatively, it is possible to gather registered GIs in group. However, it may cause the coffee of each group lacks a clear identity. Sometimes some areas do not know about a request by a group of farmers, although the Department of Intellectual Property is open to objection or dispute the registration. It would make the operation go smoothly and have more widely benefits, if there is cooperation from the acquisition of manufacturers and trader who want to use a geographical indication. In addition, in order to use the GIs to promote branding, the production process needs to be standardized.

Acknowledgements

This research was supported by Thaksin University (TSU, Thailand) Research Fund 2015.

Authors Information

Wassana Suwanvijit earned her PhD in Research Methodology at the Prince of Songkla University (PSU), Thailand, in 2010. Currently, she is an Assistant Professor of Business Administration, Faculty of Economics and Business Administration, Thaksin University, Songkhla, Thailand.

Sompong Promsa-ad is a lecturer of Business Administration, Faculty of Economics and Business Administration, Thaksin University, Songkhla, Thailand.

References

Banerji, Malobika. (2012). Geographical Indications: Which way should ASEAN go? Boston College Intellectual Property & Technology Forum. <http://www.bciptf.org>

Barnette, Jennifer. (2012). Geographic Indications as a Tool to Promote Sustainability? Café de Colombia and Tequila Compared. University of California, Berkeley, School of Law.

Calboli, I. (2006). Expanding the Protection of Geographical Indications of Origin under TRIPS: Old Debate or New Opportunity? Marquette University Law School Legal Studies Research Paper Series, Research Paper No.06-19. Wisconsin: Marquette. University Law School.

Canavari, M., Galanti, G., Haas, R. and Wongprawmas, R. (2010). Geographical Indications: Outlook on the European and Thai systems and overview of EU gatekeepers perceptions towards GI fruit and coffee products proceeding from Thailand. Thai-Italian Chamber of Commerce and Bioagricoop Scrl.

Carpenter, M. and Larceneux, F. (2008). Label equity and the effectiveness of values-based labels: an experiment with two French Protected Geographic Indication labels. *International Journal of Consumer Studies*, 32, 499-507.

Daviron, B. and Ponte, S. (2005). *The Coffee Paradox*. London: Zed Books.

Fairtrade foundation. (2012). Fairtrade and Coffee. http://www.fairtrade.net/fileadmin/user_upload/content/2009/resources/2012_Fairtrade_and_coffee_Briefing.pdf

International Trademark Association. (2015). Geographical Indications. Protection of Geographical Indications and Trademarks. <http://www.inta.org/TrademarkBasics/FactSheets/Pages/GeographicalIndicationsFactSheet.aspx>.

Jaovisidha, S. (2003). Protection of Geographical Indications: Thailand's Perspective, The EU-ASEAN Workshop on Geographical Indication: A way into the market Hanoi. http://www.ecaproject.org/archive/fileadmin/ecapII/pdf/en/activities/regional/gi_2003/gi_thailand_surapol.pdf.

Lewin, B., Giovannucci, D. and Varangis, P. (2004). *Coffee Markets. New Paradigms in Global Supply and Demand*. Agriculture and Rural Development Discussion Paper 3. Washington: The World Bank.

Pabari, Suneal. (2014). 10 Differences between Robusta & Arabica Coffee. <http://theroasterspack.com/blogs/news/15409365-10-differences-between-robusta-arabica-coffee>

Silva, G. (2008). Geographical Indications: The Case of Colombian Coffee. National Federation of Coffee Growers of Colombia.

Thailand Government Public Relation. (2014). Thai Coffee Growers to Face Greater Competition in ASEAN.

http://thailand.prd.go.th/ewt_news.php?nid=591&filename=index

Thailand Government Public Relation. (2015). Two Brands of Thai Coffee Granted EU's Geographical Indication.

http://thailand.prd.go.th/ewt_news.php?nid=1921&filename=index

Wikipedia. (2016). Coffee product in Thailand.

https://en.wikipedia.org/wiki/Coffee_production_in_Thailand

Contact email: swassana@gmail.com