

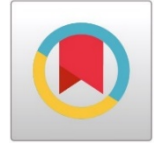
# THE ROLE OF THE GEOGRAPHIC INDICATION CERTIFICATION OF ARABIC COFFEE AS AN EFFORT OF LOCAL FARMERS



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DOI: <https://doi.org/10.29121/granthaalayah.v9.i2.2021.3102>



**Article Type:** Research Article

**Article Citation:** Luh Putu Kirana Pratiwi, Made Budiasa, and Nyoman Yudiarini. (2021). THE ROLE OF THE GEOGRAPHIC INDICATION CERTIFICATION OF ARABIC COFFEE AS AN EFFORT OF LOCAL FARMERS. International Journal of Research -GRANTHAALAYAH, 9(2), 330-338.  
<https://doi.org/10.29121/granthaalayah.v9.i2.2021.3102>

**Received Date:** 13 January 2021

**Accepted Date:** 31 January 2021

**Keywords:**

Strategy  
Empowerment  
Geographical Indication  
Certification  
Arabica Coffee

## ABSTRACT

The demand for coffee in Indonesia is relatively high because Indonesia is the fourth largest coffee producing country in the world. This indicates that there is a change in the lifestyle of world coffee consumers who prioritizes health and environmental sustainability. The development of sustainable coffee farming is carried out by increasing the quality and productivity of the coffee harvest through the Geographical Indication Certification program. The results show that the Geographical Indication Certification Strategy in empowering local farmers is the SO (Strength-Opportunities) Strategy, namely: 1) Making the Geographical Indication area an ecotourism area through the development of integrated arabica coffee-based agribusiness (2) Facilitating and stimulating investment in industrial development directed at increasing competitiveness through fostering improvement in the quality and appearance of products in Arabica coffee and other derivative products. Thus, it is necessary to have consistent quality control from the government so that products received by consumers follow the Geographical Indication label.

## 1. INTRODUCTION

### 1.1. BACKGROUND

Indonesia as the fourth largest coffee producing country in the world causes the average level of coffee demand in Indonesia from 2015 to 2019 projected to be 398,432 tons of coffee with an average growth rate of 5.09 percent (Directorate General of Plantation, 2016). This can encourage Indonesia to be able to increase coffee production and productivity. Soekartawi, et al (2011) states that global coffee consumer demand requires coffee producers to develop coffee farming sustainably with the quality and productivity of coffee harvests that are expected to always increase every year. The demand is caused by changes in patterns or lifestyles of world coffee consumers who prioritize health and environmental sustainability. Thus, one effort to increase coffee productivity is to include coffee commodities in the coffee geographical indication certification program (Mawardi, 2009).

Geographical Indication Certification is a part of IPR (Intellectual Property Rights) which originates from the potential of local Natural Resources in an area containing four things, namely: determination of the region producing products, specifications of production methods, specifications of product quality, as well as names and Specific product specifications that differentiate it from similar products (Adrian, 2009). Provisions in Article 56 of UUM PP No. 51 of 2007 states that the Certification of Geographical Indications is a sign that indicates the area of origin of an item, because geographic environmental factors include natural factors, human factors, or a combination of these two natural factors, by giving reputation, quality, and certain characteristics of the goods resulting from. The Geographical Indication Certification functions as an identifier that facilitates product identification by consumers. There are six stages as indicators of changes in Arabica coffee farmer groups with geographical indications, namely: 1) establishment of institutions, 2) involvement of institutions, 3) quality control, 4) market recognition, 5) monitoring the use of geographical indications, and 6) benefits for members. (Rivaldy, 2008).

Coffee Geographical Indication Certification is the initial standard created by contributions from representatives of companies, exporters, farmers, and coffee sector stakeholders to increase productivity, efficiency and market access, conditions of workers and their families, and protection of natural resources such as primary forests, water, land, biodiversity, and energy sources (Sommeng, et al. 2008). Kustiari (2009) mentioned, the openness of the Geographical Indications Certification program can provide access to coffee producers or coffee farmers to introduce access to the coffee market through sustainable business improvement schemes. Besides, certification of geographic indications provides a premium price which is realized by helping to improve coffee farming efficiency, improve coffee quality, and control coffee production costs and maintain coffee characteristics or reputation according to geographical indications (Todaro, 2006). The policy in the Geographical Indication Certification aims to provide legal protection for the geographical name of the origin of the product, guarantee the authenticity of origin of a product, and increase farmer acceptance. Thus, a consistent quality control is required from the Board of Trustees so that the products that consumers receive are following the Geographical Indication Certification label (Directorate General of Plantations, (2016).

Catur Village, Kintamani District, Bangli Regency with superior products Kintamani Arabica Coffee has received a Geographical Indication Certification. This is because the Kintamani Geographical Indication Protection Society was the first group to get a Geographical Indication Certification on December 5, 2008. Kintamani Arabica Coffee has characteristics and reputation that are influenced by geographical factors, natural factors, including human factors. Arabica coffee is the main source of income for farmers because Arabica coffee production is higher than other plantation crops. The quality of taste of Kintamani Arabica Coffee is quite good because it has a large seed size, the aroma of coffee-flavored in orange, and not too bitter. (Geographical Indication Protection Society, 2011). This is why Kintamani's Arabica Coffee is certified by a geographical indication. Thus this research examines the Role of Certification of Arabica Coffee Geographical Indications as an Effort to Empower Local Farmers (Case Study: Catur Village, Kintamani District, Bangli Regency).

## **1.2. RESEARCH PURPOSES**

This research aims to:

- 1) To determine the internal and external factors of the role of the Arabica Coffee Geographical Indication Certification as an effort to empower farmers in Catur Village, Kintamani District, Bangli Regency.
- 2) To find out alternative strategies for empowering local farmers in the Arabica Coffee Geographical Indication Certification in Catur Village, Kintamani District, Bangli Regency.

## **2. MATERIALS AND METHODS**

### **2.1. LOCATION AND RESEARCH TIME**

This research was carried out in Catur Village, Kintamani Subdistrict, Bangli Regency, this research took place from October to June 2020. The determination of the location of this research was carried out by purposive sampling, namely deliberate location research based on certain considerations as follows:

Catur Village is one of the Geographical Indication Certification locations which has the largest arabica coffee production in Bali.

Arabica Coffee Products in Catur Village are in high demand in the export market.

Similar research has never been carried out on the role of certifying the geographical indication of Arabica coffee as an effort to empower local farmers.

## **2.2. TYPES AND DATA SOURCES**

### **2.2.1. TYPE OF DATA**

The type of data used in this research is quantitative and qualitative data types. Quantitative data covering the area of land, the amount of production, the selling price of coffee, and the age and education of respondents or farmers and qualitative data covering the type of coffee cultivated, respondent's work, education, experience, and general description of research.

### **2.2.2. DATA SOURCES**

Sources of data in this study are primary data and secondary data. Primary data include farmer identity, area of land ownership, production, production value, and questions related to the role of the Geografis Indication Certification in empowering local farmers. Secondary data is supporting data obtained from related books, literature, internet and agencies or institutions that support this research such as the Plantation Service, Agriculture Service, the Directorate General of Plantation, the Central Statistics Agency of Bali, the Central Statistics Agency of Bangli Regency, and institutions and other agencies.

## **2.3. DETERMINATION OF RESPONDENTS**

### **2.3.1. POPULATION**

According to Sugiyono (2017) states that the population is a generalization area consisting of objects/subjects that have certain qualities and characteristics determined by researchers to be studied and then drawn conclusions. The population in this study is Arabica coffee farmers who have received Geographical Indication Certification in Catur Village, Kintamani District, Bangli Regency with a total population of 259 farmers.

### **2.3.2. RESEARCH SAMPLE**

According to Sugiyono (2017), the sample is part of the number and characteristics possessed by the population. The sampling method used in this study is that the random sampling was chosen for the reason of selecting the research sample through several considerations so that the data obtained were more representative. Based on the results of the Solvin formula the number of research sample determinations 72 Arabica coffee farmers.

## **2.4. DATA ANALYSIS METHODS**

According to Sugiyono (2017), the steps taken in the formulation of the strategy are as follows:

### **2.4.1. STAGE OF DATA COLLECTION**

This stage is not just data collection, but also a classification and pre-analysis activity. At this stage, the data can be divided into two namely internal and external data. The model used at this stage is the analysis of internal and external factors by compiling in a table, namely the IFAS (Internal Factor Analysis Summary) and EFAS (External Factor Analysis Summary) tables.

**2.4.2. ANALYSIS PHASE**

After all the data that influence the strategy of empowering local farmers in Certification of Geographical Indications of Arabica Coffee is collected, proceed to the analysis stage through a strategy formulation model with a SWOT matrix.

**Table 1:** Internal and External Factor Analysis Matrix

Description of Internal and External Factors	Weight	Rating	Score
Internal Factors			
Strength			
Weakness			
Internal Factor Total Score			
External Factors			
Opportunity			
Threat			
Total External Factor Score			

**2.4.3. PHASE MATCHING EMPOWERMENT STRATEGY FOR LOCAL FARMERS IN CERTIFICATION OF GEOGRAPHICAL INDICATIONS OF ARABICA COFFEE**

From the SWOT matrix we will get four possible alternative strategies as shown in the following figure:

**Table 2:** SWOT Matrix

IFAS/EFAS	STRENGTHS (S)	WEAKNES (W)
OPPORTUNITIES (O)	Strategy SO	Strategy WO
	Create strategies that use strength	Create strategies that minimize weaknesses
	Quadrant I	Quadrant III
TREATHS (T)	Strategy ST	Strategy WT
	Create strategies that use power to overcome threats.	Create strategies that minimize weaknesses and avoid threats.
	Quadrant II	Quadrant IV

**2.4.4. STAGE OF DECISION-MAKING DEVELOPMENT STRATEGY**

After matching the internal and external factors of the strategy of empowering local farmers in Certification of Geographical Indications of Arabica Coffee in Catur Village, Bangli District, a decision was made to determine the main strategy through the QSPM (Quantitative Strategic Planning Matrix) analysis tool. This technique objectively indicates which alternative strategies are the best of the available strategy choices. QSPM uses input from stage 1 (IE matrix) and matching results from stage 2 (SWOT). The steps that can be taken to create a QSPM matrix are as follows: (a) Make a list of internal and external key factors, (b) Give weight to each key factor, (c) Incorporate alternative strategies from the matching stage, (d) Determine the value of attractiveness (AS) of 1 = Not attractive, 2 = somewhat interesting, 3 = quite interesting and 4 = interesting, (d) Calculate the total value of attractiveness (TAS), (e) Calculate Addition TAS, and (f) Select the Strategy with the highest TAS value.

**3. RESULT AND DISCUSSION**

**3.1. INTERNAL AND EXTERNAL FACTOR WEIGHTING PROCESSES**

To develop alternative strategies for empowering local farmers in Certification of Geographical Indications of Arabica Coffee in Catur Village, Bangli Regency, it is necessary to first identify the internal and external factors in this

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Certification of Geographical Indications of Arabica Coffee. This is done so that the resulting alternative policies can provide solutions in dealing with problems faced in Arabica coffee agribusiness.

Because this strategy aims to empower local farmers in Certification of Geographical Indications of Arabica Coffee in Catur Village, Bangli Regency, what will be the focus of development is the role of Geographical Indication Certification that will identify the strengths and weaknesses in it. Internal factors are identified as things that can be controlled by the Arabica coffee Geographical Indication Certification system.

External factors are things that cannot be controlled by Arabica coffee farmers which consist of opportunities and threats in empowering local farmers in Certification of Geographical Indications of Arabica Coffee in Catur Village, Bangli Regency. External parties are the central government, namely the Ministry of Agriculture, the Office of Plantation and Food Crops of the Province of Bali, Development Planning Agency at Sub-National Level of the Province of Bali, consumers, and competitors. External factors identified are in the form of central government policies, competitor conditions, domestic, regional and global markets, regional political conditions, and other external factors that provide opportunities and threats for the empowerment of local farmers in Certification of Geographical Indications of Arabica Coffee.

**Table 3:** Internal and External Factor Analysis of the Empowerment Strategy for Local Farmers in Certification of Geographical Indications of Arabica Coffee in Catur Village

	Internal Strategic Factors	Weight	Rating	Score
<b>Strength</b>				
a	Enhance the image (brand) of Arabica coffee products	0.15	4	0.60
b	Increase productivity of Arabica coffee	0.10	4	0.40
c	Provide Arabica coffee market access	0.05	3	0.10
d	Control production costs	0.10	3	0.20
e	Maintaining the characteristics / reputation of Arabica coffee	0.10	4	0.40
	Sub Total			1.70
<b>Weakness</b>				
a	Arabica coffee cultivation is still not intensive and low productivity	0.10	2	0.20
b	Low farmer education level	0.10	2	0.20
c	The level of science and technology adoption is still low	0.05	2	0.10
d	Access to venture capital is still lacking	0.05	1	0.05
e	The quality of Arabica coffee is still low	0.05	1	0.05
f	Field Agricultural Extension Workers function is not optimal	0.10	2	0.20
g	There has not been a network of cooperation between institutions	0.05	2	0.10
	Sub Total			0.90
	Total	1.00		2.60
<b>Opportunity</b>				
a	Regional and national economies	0.10	2	0.30
b	Regional Autonomy	0.15	2	0.30
c	Local, Domestic and International Markets are still wide open	0.20	4	0.80
d	Good Agro-climate and Geomorphological Conditions	0.20	4	0.80
e	The existence of a Central Institution that controls the Performance Certification of Arabica Coffee Geographical Indications	0.15	4	0.60
	Sub Total			2.80
<b>Threat</b>				

a	The nature of open markets results in competition for products from other regions	0.20	3	0.90
b	Competitiveness that is still weak	0.10	1	0.10
	Sub Total			1.00
	Total	1.00		3.20

After all the data that influence the strategy of empowering local farmers in Certification of Geographical Indications of Arabica Coffee is collected, proceed to the analysis stage through a strategy formulation model with a SWOT matrix.

**Table 4:** SWOT Matrix Empowerment Strategy for Local Farmers in Certification of Geographical Indications of Arabica Coffee in Catur Village

	Internal factors	
	(Strength)	(Weakness)
	1. Increasing the image (brand) of Arabica coffee products	1. Arabica coffee cultivation is still not intensive and low productivity
	2. Increase Arabica coffee productivity	2. Low level of farmer education
	3. Provide Arabica coffee market access	3. The level of science and technology adoption is still low
	4. Control the cost of production	4. Access to venture capital is still lacking
	5. Maintaining the characteristics/ reputation of Arabica coffee	5. The quality of arabica coffee is still low
		6. Field Agricultural Extension Workers function is not optimal
		7. There is no collaboration network between institutions
External Factors	Strategy SO	Strategy WO
(Opportunities)		
1. The regional and national economy	Making the Geographical Indication area an ecotourism area through the development of an integrated Arabica coffee-based agribusiness (S1,4; O1,2,4)	Develop Geographical Indication Protection Society as a medium to develop efficient, productive and progressive coffee plantation management, especially in the case of the application of new technologies (W1,2,3,5,6; O2,3).
2. Regional Autonomy		
3. Local, Domestic and International Markets Still wide open		
4. Good Agro-climate and Geomorphological Conditions	Facilitating and stimulating investment in developing industries is directed at increasing competitiveness through fostering quality improvement and product appearance in Arabica coffee and other derivative products (S4; O1.2).	Develop other networking actors in the Arabica coffee Geographical Indication Certification (W4,7; O1,2,5).
5. There is a Central Institution that Controls the Performance of Arabica Coffee Geographical Indication Certification		
(Threat)	Strategy ST	Strategy WT
1. The nature of an open market results in competition for products from other regions	Development of a Geographical Indication Certification system in coffee processing and marketing efforts based on local resources and culture, utilization of environmentally friendly technology, and market orientation (S1,2,3,4,5; T1,2).	The development of a Geographical Indication Certification system in the processing and marketing of coffee products is directed at increasing competitiveness through fostering quality improvement and appearance of
2. Competitiveness is still weak		



		coffee and processed products (W1,2,3,4,5; T1,2)
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Source: Data Processed, 2020

Of the several alternative strategies obtained from the matching stage of the strategy of empowering local farmers in Certification of Geographical Indications of Arabica Coffee in Catur Village, Bangli Regency, above, two alternative strategies were taken to analyze the strategic decision making that is most appropriate for the role of the Geographical Indication Certification role. Arabica coffee. Based on the analysis above has the most fundamental problem in the low quality of the products produced. This is caused by farm management that is still not intensive and there is no development of processed Arabica coffee products produced other than rice coffee products at the farm level and coffee powder at the household business level. Thus, the empowerment of local farmers in Certification of Geographical Indications of Arabica Coffee in Catur Village, Bangli Regency is focused on improving and rehabilitating existing plantations to improve existing yields and improve yield quality, so that the products produced can be competitive in the domestic and international markets, given Arabica coffee is one of the many export commodities traded in international markets.

Kirana (2018:85) states that empowering local communities, especially farmers through active participation in the management of Geographical Indications Certification, can increase farmers' incomes in managing agribusiness-based coffee.

From the alternative strategies obtained in the SWOT diagram above, the three appropriate alternative strategies to be chosen as the main strategy are:

Making the Geographical Indication area as an ecotourism area through the development of an integrated Arabica coffee-based agribusiness

Facilitating and stimulating investment in developing industries directed at increasing competitiveness through fostering quality improvement and product appearance in Arabica coffee and other derivative products.

#### 4. CONCLUSIONS AND RECOMMENDATIONS

##### 4.1. CONCLUSION

- 1) The role of Geographical Indication Certification in the effort to empower local farmers in Catur Village, Bangli Regency, among others: 1) clarifying product identification, setting production standards, processes, among the stakeholders of Geographical Indications; 2) Avoiding cheating competition practices, providing consumer protection from misuse of the reputation of Geographical Indications; 3) Ensuring the quality of Geographical Indication products as original products so as to provide consumer confidence; 4) Fostering local producers, supporting coordination, strengthening the coordination of fellow rights holders in order to create, provide, strengthen the image of the name, product reputation; 5) Increasing production because in the Geographical Indication Certification it is explained by provinces about unique and character products; 6) The reputation of a Geographical Indication area is also elevated; 7) Certification of Geographical Indications can preserve natural beauty, traditional knowledge, biological resources, so that it will have an impact on the development of agro-tourism.
- 2) Alternative strategic research is the SO (Strength-Opportunities) Strategy, namely: (1) Making the Geographical Indication area an ecotourism area through the development of an integrated Arabica coffee-based agribusiness (2) Facilitating and stimulating investment in developing industries directed at increasing competitiveness through fostering quality improvement and product appearance on Arabica coffee and other derivative products. It is suggested that consistent quality control is needed from the development agency so that the products that consumers receive are following the Geographical Indication label.

## 4.2. RECOMMENDATIONS

Based on the research results and conclusions, the suggestions that can be given are as follows:

To the Government, to provide intensive counseling so that farmers are able to increase their knowledge regarding the role of certification for geographical indications of Arabica coffee, so that farmers can make good use of indication certification.

To the Kintamani Geographical Indication Protection Society Institute to provide assistance to Arabica coffee farmers on a regular basis in determining prices, good markets, so that it will have an impact on increasing farmers' income.

Farmers are expected to take the role of geographic indication certification seriously, so that farmers can maintain the quality and characteristics of Kintamani Arabica coffee, so that consumers still trust the quality of the coffee produced.

## 5. APPENDICES



Kintamani Arabica Coffee Geographical Indication Certification Certificate

## SOURCES OF FUNDING

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

## CONFLICT OF INTEREST

The author have declared that no competing interests exist.

## ACKNOWLEDGMENT

We would like to express our gratitude to all those who have played a role in the continuity of research and produced a scientific paper entitled The Role of Certification of Geographical Indications for Arabica Coffee as Efforts to Empower Local Farmers (Case Study: Catur Village, Kintamani District, Bangli Regency) as a reference in developing the competitiveness of coffee farmers arabica forward. The author would like to thank Mahasaraswati University for funding support. The author also thanks all the speakers involved in this study, namely Mr. Ir. Ida Bagus Wisnuardhana, M, Si as the Head of the Bali Province Agriculture and Food Security Service, I Wayan Sukarata as the Head of Catur Village, Bangli Regency, and Mr. Ketut Jati as the Chairperson of the Kintamani Arabica Arabica Coffee Geographical Indication Protection Society, Bangli Regency, Bali Province.



## REFERENCES

- [1] Adrian, Sutedi. 2009. Intellectual Property Rights. Jakarta: Sinar Grafik.
- [2] Directorate General of Plantations. 2016a. Statistics of the Indonesian Plantation: Coffee. Directorate General of Plantations. Indonesian Coffee Certification. [https:// ditjenbun.deptan.go.id](https://ditjenbun.deptan.go.id). Accessed November 9, 2019.
- [3] Geographical Indication Protection Society. 2011. Book Requirements for Geographical Indications of Kintamani Arabica Coffee. Geographical Indication Society. Bangli.
- [4] Kirana Pratiwi, Luh Putu. 2018. Potential of Community-Based Ecotourism Development as Urban Community Empowerment Efforts in The Ayung River Flow Area. Case Study of Tukad Bindu, Kesiman Village, East Denpasar District. Journal on Socio-Economics of Agriculture and Agribusiness. Vol.12 No.1 December 2018 pages 76-86. <https://doi.org/10.24843/soca.2018.v12.i01.p06>. <https://ojs.unud.ac.id/index.php/soca>.
- [5] Kustiari, Reni. 2007. Development of the World Coffee Market and Its Implications for Indonesia. Journal of Agro-economic Research Forum. Vol 25 No. 1, Juli 2007 :43-55.
- [6] Mawardi, S. 2009. Certification of Coffee Products and Its Role in Marketing. Indonesian Coffee and Cocoa Research Center. Jember.
- [7] Rivaldi, H.2008. Protection of Geographical Indications, Benefits, Challenges and Processes, IPR Media. Indonesian Ministry of Law and Human Rights. Directorate General of Intellectual Property Rights. Jakarta. Vol.V/No.04/Agustus 2008.
- [8] Soekartawi, A. Soeharjo, JB Hardaker, JL Dillon. 2005. Farming Science and Research for Smallholder Development. Jakarta: Universitas Indonesia Press.
- [9] Sommeng, Andy Noorsaman, Agung Damarsasongko. 2008. Geographical Indications an Introduction. Jakarta: DJHKI.
- [10] Sugiyono 2017. Research Methods Qualitative and R&D Approach. Bandung: Alfabeta.
- [11] Todaro, Michael P. dan Stephen C. Smith. 2006. Economic Development (Ninth Edition, Volume I). Jakarta: Erlangga.