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**Abstract of the bachelor thesis**

**Economics Evaluation of Pepper Production in Cambodia**

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## **Summary**

Pepper is one of the king spices, and it is given name as 'Black Gold'. Black pepper (*piper nigrum*) is known as family of Piperaceae. It is flowering vine, and it is being cultivated when it become fruits, which is famous to get it dry and used as a spices and seasoning. Pepper had been found in India, and it was used to cook since the prehistoric time at least 2000 years BCE. Peppercorn had become much valuable prized trade good. In the middle age, it had been transferred to Europe, the Middle East and North America. Since that time the pepper has become one of the biggest valued products around the world as we can name it 'Black Gold'. In Cambodia, pepper has been found in Kom port province in 19<sup>th</sup> century. Before that time, due to Chinese emissary Zhou Daguan who documented much about early Cambodian history including the delectable, pepper had been grown along mighty temple in this written document at the time.

This thesis is written and designed to fulfill two objectives. First objective is to identify and evaluate the economics of Pepper Production from 2000 to 2011 and to study about keywords factors why it becomes influenced to Cambodian economic during that period. The factors are price of pepper production, import the quantity of pepper, export the quantity of pepper, the total of both domestic and foreign investment in agriculture sector, and natural disaster. The first objective was evaluated by using regression linear model and regression analysis the method of ordinary least square. Beside the first objective, there is also second objective which define how influence on harvest areas, and total product change in the whole period 2000-2011. The method to analysis is difference from first objective. It is done by logarithm dissolution method.

## **Keywords**

Pepper Production, Economics evaluation, Cambodia, Agriculture, Investment, direct domestic Trade

## **Introduction**

Pepper is one of the most famous species in the world. It was given name as black goal, and became king specie. It has come from a flowering vine in the family of Piperaceae, and mostly we cultivated for its fruit. After we cultivated, usually it is gotten dry and used as the spice and seasoning. In Cambodia, pepper has been found in 13<sup>th</sup> century next to Angkor wat temple (related to the diary of the Chinese explorer Tcheou Ta Kouan), but there was not much popular, and go back to the beginning of the Aceh war in Indonesia (1873-1908), the intensive of pepper production has been back. In 19<sup>th</sup> century it has been grown. In 21<sup>st</sup> century, it has been known as the agro-industry product which lives for long time in tropical area.

There are many reasons why this production is important to our live. First of all beside seasoning and cooking, we can also use it as the medicine or herb to cure some illnesses efficiently. More than 700 years ago in Cambodia has had tradition natural comparative pros in pepper cultivation.

About the climate, luckily Cambodia places in non-strong disaster or is caused by big natural disaster such as earthquake or tsunami. The climate condition performs well enough. Since 2008, Kom pot pepper commodity was opened, and in 2016, this small crop was labeled by European Union about the quality and productivity.

## **Objectives and Methodology**

### **Objectives**

The first objection of this thesis is to study and evaluate economics of pepper production In Cambodia from 2000-2011for whole periods, and to set key factor to study about how influenced it is during that periods and to estimate the relationship whether it is strong or not among of pepper production and the key factors such as

- Price of pepper production
- Import quantity of pepper production
- Export quantity of pepper production
- Invest on pepper production (both domestic and foreign investment)
- Natural disaster

The second objective is to study about the harvest areas and yield on pepper production in Cambodia annually from 2000-2011. The evaluation of second objective is used another different method from the first objective.

### **Methodologies**

In this thesis, Secondary data is used to fulfill hypothesis. Regression model analysis is used to fulfill the first objective and to find out how much influenced the key factors (price, import, export, and investment) together with the natural disaster which had caused on pepper production in the whole period of 2000-2011 as the following of secondary data:

- Pepper production in units of tones
- Price of pepper production in unit of USD per ton
- Import quantity of pepper production in unit of tones
- Export quantity of pepper production in unit of tones
- Investment in production (for both domestic and FDI) in unit of USD million
- Number of disaster in numerical occurrence

The second objection is to evaluate the harvest areas and yield that influence on the pepper production annually from 2000-2011 through the method of logarithm dissolution factor by using secondary data as the following:

- Harvest areas in unit of hectares
- Yield in unit of tons per hectare
- Pepper production in unit of tons

The method of logarithmic dissolution factors are described as following:

- $\Delta Q$  = change in pepper production
- $\Delta QY$  = change in pepper production influenced by change in yield
- $\Delta QH$  = change in pepper production influenced by in harvested area

$$\Delta Q = \Delta QY + \Delta QH$$

$$\Delta QH = (\Delta Q) * (\ln IH / \ln IQ)$$

$$\Delta QY = (\Delta Q) * (\ln IY / \ln IQ)$$

$$I = \text{Actual period} / \text{Base (last) period}$$

## **Conclusion**

In conclusion, after conducting those three analyses such as correlation matrix analysis, regression analysis, and logarithm dissolution factors analysis, pepper production in Cambodia from 2000-2011 go up and down from time to time base on price of pepper production, import and export quantity of pepper production, investment in agriculture sector, natural disaster, harvest area and yield.

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