

THE DYNAMICS OF INSTITUTIONAL ARRANGEMENT FOR IMPROVING EXPORT COMPETITIVENESS OF BESUKI NA-OOGST TOBACCO IN JEMBER REGENCY INDONESIA

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Abstract

The challenge of the demand dynamic for international market standard and quality becomes logical consequences for all parties to pay a serious attention. Specific attention should be addressed not only to cultivation technique but also to the institutional management in every chain of Besuki Tobacco Na-Oogst cultivation. This research is conducted to formulate the strategy to develop the institution amongst policy makers and farmers association of Besuki tobacco Na-Oogst in Jember Regency. The analysis method applied in this research is descriptive analysis using Analytical Hierarchy Process (AHP) to count for stakeholders' perception related to the development of institutional cultivation business of Besuki tobacco Na-Oogst in Jember Regency. Data are obtained by conducting in-depth interview and focus group discussion amongst all parties related including farmers, farmers' association, exporters, exporters association, and the local government. The findings shows that the main priority factors to develop institution is the access to policy making from the government and the business players. Farmers are the most prioritized in the institution development of Besuki Tobacco Na-Oogst. The access to information and knowledge is crucial to increase productivity and to sustain the production as well as the market access. The effectiveness and the producers' sustainability in the institutional management along with the market players and the policy makers are the result of the interrelation amongst three matters, bonding, bridging and linking. This becomes crucial in the national and international market access to generate positive sum game to collaborate, achieve and increase profit and to share benefit and loss.

Keywords: Institutional; Analytical Hierarchy Process; Besuki Na-Oogst Tobacco

INTRODUCTION

Tobacco commodity is a *fancy product* and one of plantation commodities with high selling power both in domestic and international market. It also plays important role to generate farmers' income especially in the dry areas [1]. Indonesia is one of six countries producing tobacco after the United States with production reaching 196,300 tons. China is on the first place with production of 2,995,400 tons and followed by Brazil India, and Malawi ([Http://faostat.fao.org/site/339/default.aspx](http://faostat.fao.org/site/339/default.aspx); Rokhmah and Khoiron, 2014). The main destination for Indonesia to export the tobacco is the United States for 40%, followed by Srilanka 15% and Netherland for 12% (Badan Pusat Statistik (Indonesia Statistics, 2017). The Indonesia export decreased after 2010 and has not yet compensated the higher necessity of import. The most imported tobacco is Virginia tobacco from China and India (Keyser and Juita, 2005; Negri and Porto, 2016). On the other hand, tobacco farmers are anxious about the ratifikasi *Framework Convention on Tobacco Control* (FCTC) in controlling the tobacco and cigarette, which brings impact to the sustainability of tobacco industry.

Besuki tobacco Na-Oogst (BesNO) is one of the flagship commodities oriented to be exported for cigar raw materials. The quality of BesNO tobacco produced is the best in Indoensia and placed the second in the world after Brazil and almost 90% preferred by international export market such as premium market in Germany, Swizerland, Netherland, the United States and China (Utami, Maharani and Seruni, 2014). The development of tobacco for cigar materials in Indonesia is focused on the three areas including Deli (North Sumatera), Klaten and Karesidenan Besuki [1], [6], [7]. Jember regency is one of biggest tobacco producers in Indonesia with plantation area reaching 10,009 hectare and tobacco production of 6,130 tons contributing 1.69% to the Gross Regional Domestic Product [7]. In 2011 there were 24,616 tobacco farmers in Jember spread out in 24 districts (Rokhmah and Khoiron, 2014)

Na-Oogst tobacco is a type of tobacco for cigar raw material and exported product. In Jember regency, Besuki tobacco Na-Oogst consists of several types of tobacco namely traditional Besuki tobacco Na-Oogst (BesNOTRA) planted in the middle of dry season and harvested in the rainy season, Besuki tobacco Na-Oogst early planted (BesNOTA) and tobacco under the shield (TBN) which is planted at the end of rainy season and harvested in the dry season. BesNOTRA and BesNOTA tobacco generally are cultivated by farmers, and TBN tobacco was planted by the exporters.

The potential development of BesNO tobacco cultivation as the exported commodity can be a foreign exchange generating. On the other hand, the development of BesNo tobacco as the product prioritizing the quality can also be influenced by weather anomaly, pests, and diseases as well as the cultivation technology. The unpredictable

climate change after Mount Raung Eruption caused farmers experiencing harvest failure with low quality tobacco leaves. This then affected the traders' selling price causing economic loss and inability to cover and return the business capital. Uncertain weather anomaly, pest and disease also cultivation technique added more problems for farmers. The risk of failure led to the implication of farmers' decreasing motivation to cultivate tobacco although tobacco farming has been rooted in most farmers' life. Even some farmers switched their business to cultivate horticulture plants since it is considered to be more stable and more profitable.

Within the uncertain climate causing the risk of failure, the institutional pattern of business players of BesNO tobacco and the government still becomes a main problem in the cultivation of BesNO tobacco. The relation of institutions in the cultivation of BesNO tobacco consists of several players including farmers, wholesalers, exporters, government and international buyers. The main factor for the major consideration for cultivating BesNO is the quality standard affecting the tobacco selling price. The pattern of BesNO tobacco trade tends to be included into oligopsoni market structure in which price is determined by wholesalers and exporters. As a result farmers have lower profit compared to other business players.

Studi by Keyser, J. C and Juita, 2005; World Bank, 2010; Minet *et al.*, 2017), indicates that 73 percent of Na-Oogst selling chain from farmers are *blandang* (small wholesaler). This becomes one of obstacles in the way of successful partnership between farmers and exporters. The selling price remains to be the main benchmark for farmers in the tobacco trading. There is a tendency pattern that farmers sell directly to *blandang* (small wholesaler) to get higher price compared to selling to their company partners. The commitment and consistence in the partnership relation often trigger failure in the partnership pattern. The synergy amongst the business players and the policy makers is still low and tend to be egocentric causing complex problems in BesNO tobacco institution and to affect the sustainability of tobacco cultivation.

The dynamic and competitive global economy challenges such as change of trend in the world demand from large cigar to smaller cigar or cigarillos cannot be avoided and requires the importance of building good and profitable institutional pattern of BesNO tobacco cultivation to improve tobacco competitiveness in the international market. Therefore, responding to the problems, the challenge, and the opportunity in the cultivation of BesNO tobacco, this research aims at formulating strategy for developing the pattern of institution between policy makers and tobacco farmers association of Besuki tobacco Na-Oogst in Jember Regency.

METHODS

Method of Analysis

The study uses primary and secondary data as the supporting data. Secondary data were obtained from related institution including Statistics Centres in the province, regency or city, Technical Implementation Unit of Testing and Certification of Goods Quality The Tobacco Institution Jember, Fiber Plants Office (Balitas), Tobacco Association, and other related institutions. Primary data were obtained purposively using in-depth interview technique and focus group discussion with tobacco farmers, exporters association, local government and other related stakeholders. The research applies quantitative and qualitative. The quantitative method used in this research includes deterministic and inferential quantitative. Meanwhile, qualitative method is used as the analysis tool. It can be used to reveal and comprehend something behind unknown phenomena. Moreover, it can provide detail complexity of phenomena which cannot be revealed by quantitative method easily [10]–[12]. There are three main elements in the qualitative, first, the data can be obtained from observation or interview; second, the analysis procedure and interpretation used can be used to obtain the findings or theory (the procedures include techniques to understand data; third, written and oral [12]–[14]).

Analytical Hierarchy Process (AHP)

The Analytical Hierarchy Process is a model to support the decision developed by Thomas L. Saaty [15], [16]. The supporting model for decision will expose the multi factor problems or a complex multi criteria to construct hierarchy. Hierarchy is defined as a representation of a complex problems in a multi level structure in which the first level is objectives, followed by factor level, criteria, sub criteria and downward to the last level from the alternatives [14], [16], [17]. Using hierarchy, a complex problem can be elaborated into its classification then will be arranged into a hierarchy in which the problems can be more structured and systematic.

In the AHP method, some steps are done as follows: [14], [15], [17] :

1. defining problems and determining solution clearly, in detailed to be easy to understand,
2. making a hierarchical structure starting with the main objectives in the highest level, then next lower levels are arranged based on suitable criteria to consider or to assess the alternatives we give and determine the alternatives.
3. Making binary comparison matrix to describe the relative contribution or effect of every element towards the objective or one level criteria above it. To start the binary comparison process, criteria are selected from

the highest level of the hierarchy i.e. K and then from the lower level elements are also selected i.e. E1, E2, E3, E4, E5.

4. Defining the binary comparison to obtain the sum total of value as many as $n \times [(n-1)/2]$ with n value of sum of elements compared. The comparison result of each element will be numbers from 1 to 9 indicating the comparison of an element's the level of importance. If an element in the matrix is compared to its own then the result of the comparison is given the value of 1. The scale 9 has been approved as being accepted and is able to differentiate the intensity amongst the elements.
5. Calculating the eigen value and testing its consistency. If it is not consistence, the data collection will be repeated.
6. Repeating steps 3, 4, and 5 for all level of hierarchy.
7. Calculating the eigen vector from all binary comparison matrix which are values for every element to determine the element priority on the lower hierarchy to achieve the objectives.
8. Checking the hierarchy consistency, what measured in AHP is a consistence ratio by looking at the consistence index. The expected consistence is the one close to perfection to yield a near valid decision. Although it is difficult to achieved, consistence ration is expected to be less or the same as 10 %.

Analytical Hierarchy Process is based on three basic principles as follows:

1. Decomposition, the structure of complex problems is divided into parts in the hierarchy. The purpose is defined from general to specific. In the simplest form, structure will be compared with objectives, criteria and alternative levels.
2. Comparative judgments, a comparison of binary comparison from all available elements with purpose of generating the scale of relative importance from the elements.
3. The synthesis of priority, multiplying the local priority from the related criteria from the above level and adding it to each element in the level influenced by the criteria.

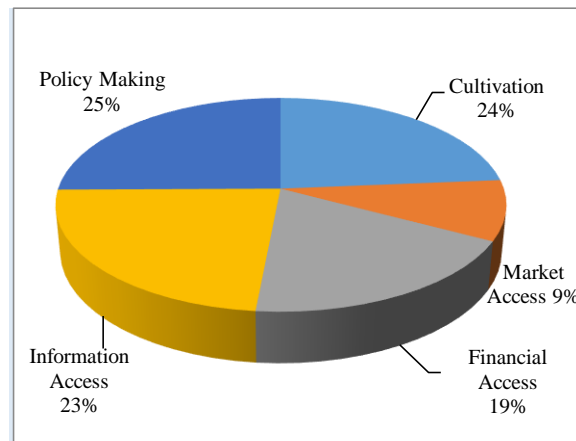
Analytical Hierarchy Process is based on three main axioms namely:

1. Reciprocal axiom
The axiom states that if PC (EA,EB) is a binary comparison between the element A and the element B, by considering C as the parent element, showing the frequency of more properties owned by element A toward B, such that PC (EB,EA)= 1/ PC (EA,EB). E.g. if A 5 times larger than B, then B=1/5 A.
2. Homogeneity axiom
The axiom states that the compared element will not be too different. If it is too different, the result obtained contains high falsity. When hierarchy is built, we should try to arrange the elements so that they do not generate low accuracy result with high inconsistency.
3. Dependence Axiom
The axiom states that the priority of the elements in the hierarchy does not depend on those in their lower levels. The axiom enables us to apply the hierarchy composition concept.

FINDINGS AND ARGUMENT

The partnership is a business strategy expressed in a relation or structured business collaboration by building the objectives and determining obstacles and an intensive relation amongst human [18]–[20]. It has basic principles in the form of mutual benefit by having an equal bargaining position and proportional risk and profit sharing [7], [9], [21].

Based on the analysis of Analytical Hierarchy Process (AHP) on the first level of some criteria or factor to develop the institution of Besuki Tobacco Na-Oogst is the management of tobacco cultivation, output and input access, financial access, information and knowledge access and access to policy making. The analysis demonstrates that the factor of access in the policy making becomes the main priority to develop the tobacco cultivation institution with the value of 25 percent and followed by institution with 24 persen, information access with 23 percent, and the least is the input and output market access. The index consistence shows the value of less than 0.1 indicating the level of respondent perception consistence.



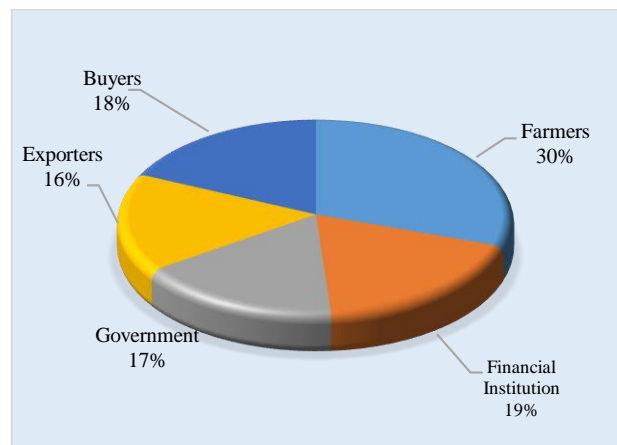
Note: Consistency index of 0.02

Source: Primary data, processed in 2017

Figure 1. The value of Factor Priority in Institutional Arrangement of Bes-NO Tobacco.

Transparency through dialog can reinforce the relation between the business players and the government to keep the trust and share value in the development [22]–[24]. The farmers or the producer do not only take the role in “play the game” in the managing the resources or accessing the input and output market, effective information and knowledge but also can affect the “rules of the game” as the part of the decision making process [11], [25], [26]. The government has an important role in the institutional relation in the form of partnership as facilitator, not only in technical assistance but also in being able to bridge the various interests and the asymmetric information amongst tobacco business players [12], [27], [28]. Hence, the access to information and knowledge becomes crucial to increase productivity and to preserve the productivity and the market access. The challenge of technology development and the market demand force the farmers to acquire knowledge and to innovate in tobacco cultivation. Transparency becomes the main factor to place all the business players in the rule of the game prioritizing behavioural norms and cultural values intended to reduce transaction cost.

The institutional success in the cultivation of Besuki tobacco cannot be separated from the function and the duty of each business players such as farmers, financial institution, government, exporters and buyers. The result of analysis indicates that the farmers’ role is significant with 30 percent followed by financial institution and international buyers. Consequently, this brings implication to the importance of knowledge and skill support in the cultivation with quality as demanded by the market. However, based on the result of in-depth interview with farmers, most of them still have low literacy about the quality of Besuki tobacco Besuki Na-Oogst. They still plant the seed they develop on their own without the quality testing process and low residue which becomes one of the requirements in the quality assessment.



Note: Consistency index of 0.02

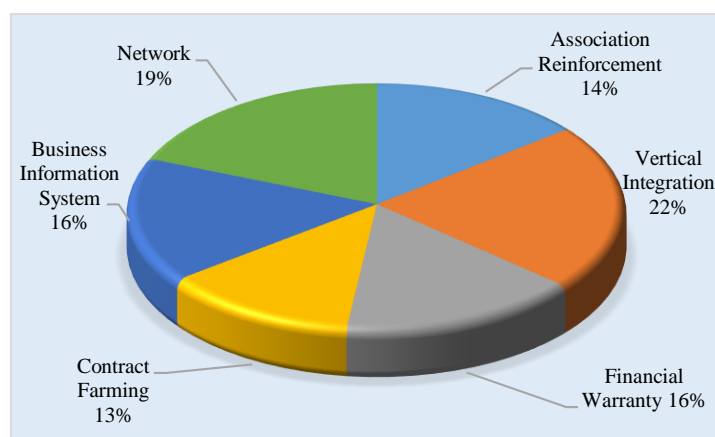
Source: primary data processed in 2017

Figure 2. The Priority Value of Sub factor of Institutional Development of Besuki Tobacco Na-Oogst Cultivation.

Meanwhile, in the decision making process, farmers are influenced by other family members, a dominant wife. Farmers’ mindset is not oriented by economy condition but also social culture in sustaining the business. Other important aspects is capital which has been a classical problem, and the condition becomes more and more

complex with the uncertain weather anomaly. Some farmers obtained a capital assistance form company partnership, and some others still depend on the load from financial institutions without considering the harvest failure. Hal ini yang menjadi permasalahan utama yang dihadapi petani dalam menjaga keberlangsungan usaha. Hingga saat ini belum ada sistem asuransi dalam mengantisipasi risiko kegagalan panen tembakau.

On the other hand, the exporters' role is also important in the Besuki tobacco Na-Oogst trading chain. The partnership between exporters and farmers has been experiencing problems especially in the post harvest period. Amongst the obstacle was the uncommitted farmers to their agreement in which there are still a number of farmers sell their tobacco to blandang or other buyers offering higher prices to them. Meanwhile, the company partner or exporters has spent high investment and operational cost including supervision and counselling for farmers. So far, there is no formal legal protection for reinforcement of work.



Note: Consistency index of 0.02
Source: Primary data processed in 2017

Figure 3. The alternative Priority Value of Institutional Arrangement of Besuki Tobacco Na-Oogst Cultivation

Tobacco is grown by most farmers in the regency and town in East Java. The plantation areas owned by the farmers are in various ranges. Small scale farmers possess land less than 0.5 hectare, on the other hand, other farmers have more than 2 hectare. Most farmers have small range of plantation areas. Therefore, a system protecting the farming business is needed. Corporate Farming is the system enabling the farmer to cooperate in tobacco business. Partnership development such as Corporate Farming is arranged between company and farmers with agreement of corporate management in terms of capital, production and mechanism facilities including post harvest. On the other hand, for on farm and off farm with particular areas range is accomplished with partial management as agreed by the farmers and the company.

CONCLUSION

Besuki tobacco Na-Oogst is famous for the qualified tobacco for exported cigar materials. The cultivation of the Besuki tobacco Na-Oogst, particularly in Jember regency, is supported by geographical condition providing values added to the local government income. However, the cultivation of Besuki tobacco Na-Oogst still faces some challenges from the dynamic market demand for its best quality standard. Based on the analysis result, it can be concluded and some policies can be recommended as the followings:

1. A number of dynamic challenges on standard and international market quality demand brings about logical consequence requiring attention from all parties, not only in terms of cultivation techniques but also on the management of institution in each chain of cultivating Besuki tobacco Na-Oogst.
2. The main priority factor in the development of the institution is the access to policy making from the government and the related business players. All stakeholders are committed to play the rule of the game in every trading system of tobacco cultivation.
3. Farmers are positioned on the highest priority in developing the institution of Besuki tobacco Na-Oogst cultivation. The information access and knowledge is crucial to increase productivity and to preserve sustainable production and market access.
4. The activity and the sustainability of producers and the management of institution with the market players and policy making is a result of the interrelationship of three aspects, bonding bonding or intragroup relation between the association of producers and farmers, bridging or intergroup of farmers association to create bigger association.

5. The main priority to achieve success in the institution of farmers and exporters is to build mindset based on mutual and profitable partnership. Such partnership will be built starting from the government and stakeholders related to the policy which concerns about the potential business of Besuki tobacco Na-Oogst including coaching improvement allocating fund obtained from revenue sharing obtained from excise tax and tobacco (DBHCT) and constructing mitigation the risk of harvesting failure through capitalization and insurance.
6. Legal protection is important to reinforce the institution amongst the business players and government to preserve the sustainability of Besuki tobacco Na-Oogst cultivation

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