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## **THE OPPORTUNITIES AND CHALLENGES OF INSTITUTIONAL ARRANGEMENT FOR BESUKI NA-OOGST TOBACCO CULTIVATION BUSINESS: CASE STUDY IN JEMBER REGENCY INDONESIA**

**Purpose.** *This research aims at formulating the development strategy for institutional pattern amongst the stakeholders and the policy makers for Besuki Na-Oogst Tobacco in Jember Regency.*

**Methodology / approach.** *Analytical Hierarchy Process (AHP) and Qualitative Descriptive are applied to obtain and elaborate the perception of all stakeholders related to Besuki Na-Oogst Tobacco Institution in Jember Regency. Samples are collected by using in-depth interview and focus group discussion involving farmer groups, exporters, and policy makers (government).*

**Results.** *The analysis indicates that the main factor which becomes the priority for developing the institution for Besuki Na-Oogst Tobacco Cultivation is access to all stakeholders, amongst farmers, exporters and policy makers.*

**Originality / scientific novelty.** *The access to information and technology becomes crucial to increase productivity, the quality, and the sustainability of Besuki Na-Oogst Tobacco.*

**Practical value / implications.** *The effectiveness and the sustainability of producers as well as the institutional arrangement with market players and the policy makers are the result of the Besuki Na-Oogst Tobacco stakeholders' relation, which are bonding, bridging and linking. These are essential in the access to national and international market and also yield a positive sum game to cooperate, reach and increase profit as well as share advantages and loss.*

**Key words:** *Institutional, Arrangement, Besuki Na-Oogst Tobacco.*

**Introduction and review of literature.** The tobacco commodity in Indonesia has become one of plantation that has appeal and high selling power in both global and local market due to its 5<sup>th</sup> position in terms of quality under the United States' tobacco. Indonesia produces 196,300 tons of tobacco, meanwhile China becomes the largest tobacco producers with 2,995,400 tons followed by Brazil and India [1]. Based on the countries where tobacco is exported, United States dominates the position with 40 % followed by Srilanka and Netherlands with 15 % respectively [2]. However, during the past seven years, there has been export trend decline for tobacco and increase in the import. Hence, a paradox emerges in this global economy turmoil. The highest number of tobacco import is Virginia tobacco from China and India. Such condition causes a price decrease for local tobacco, further, the tobacco production does not sell in the market. On the other hand, the ratification policy Framework Convention on Tobacco Control (FCTC) to control tobacco and cigarette resulted in anxiety and concerns of farmers and company for the sustainability of Indonesia tobacco industry.

Indonesia Na-Oogst tobacco is one of tobacco species with the best export

quality for cigar production after Brazilian tobacco and is preferred by most tobacco export market such as premium market in Germany, Switzerland, Netherland, the U.S. and China [3]. Jember Regency becomes one of the tobacco producer areas with the biggest plantation area of 80 % of total plantation area and becomes the third biggest area in East Java for Cigar production business. The development of Besuki Na-Oogst as the export commodity tobacco plantation, in one hand, becomes the source of foreign income. On the other hand, several problems related to production technique and institution also obstruct the sustainability development of Besuki Na-Oogst Tobacco. In terms of institution, the interaction of the Besuki Na-Oogst Tobacco growers occurs amongst famers, traders, wholesalers, exporters, government and international buyers. The main determinant in the interaction pattern amongst the tobacco business players lies on the tobacco quality standardization based on the specification preferred by buyers which then results in tobacco selling price. Commercial pattern for Besuki Na-Oogst Tobacco tends to be included into oligopsony market structure in which price is determined by traders, wholesalers and exporters. Consequently, farmers have lower profit compared to other business players.

On the other hand, the problem of tobacco institution also related to the quality of tobacco seeding affecting the product quality and the selling price of tobacco for cigars [4]. Meanwhile, the institutional paradox emerges information asymmetry [5]. Generally the complex problems of cigar tobacco institution lie on the moral hazard within tobacco business resulting in inconsistency and distrusted relationship amongst the tobacco business players. It then leads to failure in the collaboration between farmers and exporters.

Other problems generated from global point of view related to tobacco competition also require concerns. The dynamic trend of global demand concerning tobacco quality such as the taste switch from big cigar to small cigar also requires new innovation supported by cultivation technique and efficient institutional matters. Hence, it can be utilized to face national and international market demand that global market competition can be challenged. In this phase the government's role as the mediator is very crucial within the interaction of tobacco business players by passing regulation concerning quality standardization for Besuki Na-Oogst Tobacco.

**The purpose of the article.** Responding to the institutional complexity occurring in tobacco cultivation business for Besuki Na-Oogst, this study aims at identifying the institutional problems of Besuki Na-Oogst tobacco cultivation.

The data used in this research is primary and secondary data as the supporting data. Primary data was obtained by in-depth interview and focus group discussion with tobacco farmers, businessman and exporters, tobacco farmers association, exporters association, local government and other related stakeholders. Meanwhile, the secondary data was collected from several sources such as Province and City or Regency Statistics Agency, Province Plantation Service, Technical Implementation Unit of Testing and Certification of Quality of Goods Tobacco Institute Jember, Fiber Plant Research Institution, Tobacco Association and other institutions.

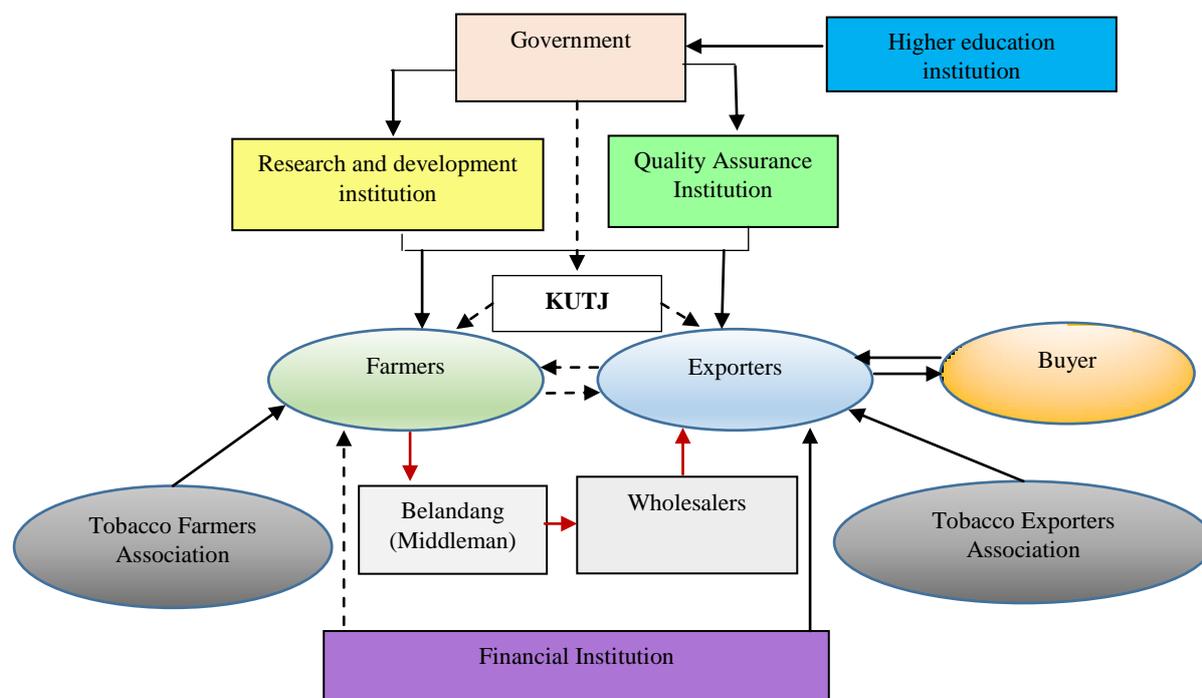
The Method of analysis used in the study is Analytical Hierarchy Process (AHP) developed by [6], which was applied to determine the value of each evaluation factors through quantitative analysis [7]. The AHP approach is used to learn about complex problems and multi attributes with quantitative calculation or qualitative one. Generally AHP is applied in strategic project evaluation to mark ecological compatibility from a number of plants [6]. Like other analysis AHP also possess strength and weakness in its system. The strength include (1) the unity to change problem became a flexible model which will be easy to comprehend, making it easier to solve; (2) complexity, a complex problem solver with deductive integration; (3) interdependence, having free system elements with no need of linear correlation; (4) structural and hierarchical through natural thought by classifying the system to different level according to the similar element; (5) having measurement using priority scale; (6) having logical consistence in the assessment; (7) ability to direct the overall approximation concerning alternative necessity; (8) considering relative factor priority on the system to select the best alternatives; (9) consent responsibility to combine different assessment; (10) a repetition to select definition of a problem [8].

Analytical Hierarchy Process (AHP) is applied to generate criteria assessment and consistent activity from the experts and stakeholder [9]. According to [10] AHP is based three basic principles consisting of (1) decomposition (by dividing problem structure of complex problems using hierarchy based on the purpose from general to specific); (2) assessment comparison and consideration (by constructing paired comparison for all elements with purpose to generate relative interest scale from the assessment element); (3) priority synthesis (done by diverting local priority by the upper level criteria priority and add it to every element in the level affected by the criteria. Moreover, Analytical Hierarchy Process method also has three basic axioms including reciprocal axiom, homogeneity axiom and dependability axiom stating that element priority in the hierarchy does not depend on the lower element.

**Results and discussion.** The success of managing the cultivation of Besuki Na-Oogst Tobacco as qualified product with export orientation is not only determined by good cultivation technique but also is supported by the institutional pattern occurring amongst business players and policy makers or government. Institutional reinforcement the cultivation of Besuki Na-Oogst Tobacco should be integrative from the upstream to downstream, starting from on-farm to off-farm by involving every component and interaction space in every chain. The important agent playing its role in growing Besuki Na-Oogst Tobacco is farmers with their tobacco association, *belandang* (middleman), wholesalers, exporters with exporters association, government, and the commission for Jember Tobacco (KUTJ), and international buyers.

The interaction in figure 1 is real description of institution for tobacco cultivation in Jember Regency. In this pattern of interaction, the farmers, who are not in association with exporters or the companies, sell directly to the wholesalers although it makes the marketing chain longer compared to selling the tobacco to their associated exporters or factories. Although in this case, the tobacco wholesalers are

regarded as new players causing longer chain of marketing in the commerce of Na-Oogst tobacco. However, their existence is important for several farmers since they are willing to buy with higher price even when farmers fail to crop due to climate anomaly. In the concept of institution, the longer the chain, the higher the inefficiency cost will be due to the transaction will be due to the transaction cost. The transaction cost is a cost to negotiate, measure and force the exchange.



**Fig. 1. Interaction pattern amongst Besuki Na-Oogst Tobacco business players in Jember Regency**

Note. ---- weak coordination line.

Source. Primary Data Processed in 2017.

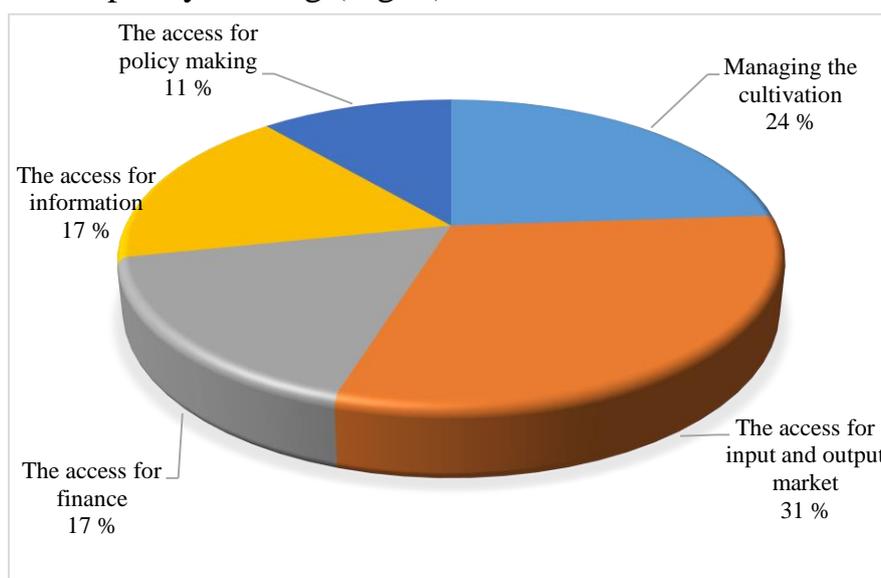
The partnership pattern amongst farmers and exporters are based on the mutual benefit principles. The reinforcement institution amongst the Besuki Na-Oogst Tobacco farmers with company partner today are stated formally in the form of Memorandum of Understanding (MoU). The MoU states that the selling price estimation are agreed by the farmers. Generally, the best buying from farmer partners' tobacco for fillers reached 65 to 70 %. Meanwhile the *dek-omblad* reached 30 to 35 %. The buying price determination by exporters uses Quality Index (QI) assessment based on the export quality standardization grade, which means grade, packing, HPT value and other quality requirements. Exporters normally apply Good Tobacco Practices (GTP) and Good Manufactured Practices (GMP). Export quality standard becomes the main requirements for Besuki Na-Oogst Tobacco cultivation, where buyers come to see directly the early stage starting from seeding to sampling. In this phase, the role of government related to the export is limited only for facilitating the export document requirements.

In the pattern of relation between farmers and government particularly in the seeding provision to technical assistance related to tobacco cultivation are in the form

of counseling and other technical supervisions. However, the problem still exists in the pattern of relationship since farmers sometimes still grow the seed they develop themselves without quality certification test. No regulation available for distribution of spread seed amongst the farmers and weak supervision of seed growing require serious concerns from the government through technical ministry in the area.

Meanwhile, from the point of finance, companies or exporters without financial problems can propose capital scheme to develop the business. However, farmers always face classical problems during the cultivation of Besuki Na-Oogst Tobacco. After Raung mount eruption, and climate anomaly, the farmers experienced harvesting failure and business failure that they are not able to cover the loss. There is no scheme available for farmers and this causes farmers be pessimistic to continue Besuki Na-Oogst Tobacco cultivation. It happens especially to farmers who do not belong to any association and working with their own capital.

The partnership becomes a business strategy in the relationship amongst stakeholders with mutual benefit principle. The first hierarchy of AHP consists of several criteria by managing the cultivation, the access for input and output, financial, information and for policy making (Fig. 2).



**Fig. 2. The priority factor value of institutional arrangement of Besuki Na-Oogst Tobacco**

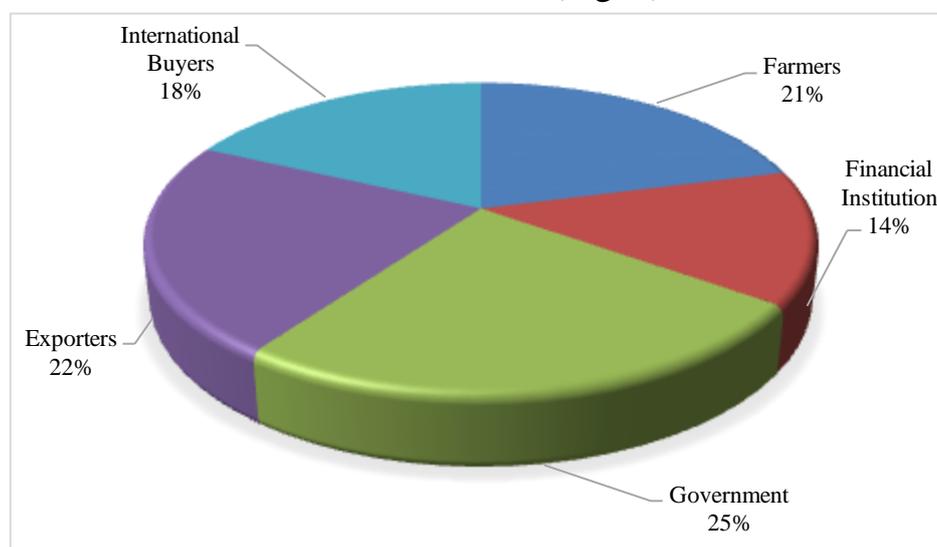
*Source:* Primary Data Processed in 2017.

The result of comparison between factors shows that the development of tobacco cultivation business institutions is access to input and output markets by 31 %, followed by 24 % cultivation management, access to finance and access to information and knowledge by 17 %, and access to decision making by 11 %. Input and output market access plays important role for stakeholder since it is crucial for market sustainability. This is related to the quality requirements that must be met by domestic and international access as demanded by the exporters' destination countries refereeing to international standard with ISO management. Until today, such standard becomes the main problems for Indonesian tobacco market access. The

important role of the market access is a challenge for the government to increase the competitiveness in the global market. Furthermore, the management of cultivation and financial access of tobacco farmers are closely related to the production process to be used to improve quality of Besuki Na-Oogst Tobacco to achieve global standardized quality demand.

Meanwhile, the factor of decision making is dominated by social factor such as family factor particularly wife's decision to continue the tobacco cultivation. On the other hand, the tradition also becomes dominant factor affecting the decision to plant tobacco. Concerning the decision making process, the farmers also has capital problem. The partnership assisted the farmers as the partner but some of the capital for production still depends on the loan from financial institution without considering the risk of harvest failure. Such condition becomes a major problems for farmers to sustain the cultivation of Besuki Na-Oogst Tobacco. The policy related to insurance to minimize the loss in the harvesting failure has not yet available. The integration of farmers' role to identify market transition also requires supports from extrinsic and intrinsic factors as the realization of their contribution to reduce the failure and the market obstruction of the farmers' productivity [11].

The result of AHP on the institutional Besuki Na-Oogst tobacco shows that the main priority is on the criteria of the role of government with 25 %, then exporters become the second priority in the institutional Besuki Na-Oogst tobacco with the percentage of 22 %. However, farmers also have priority in the institutional criteria as a changer of criteria value as much as 21 % (Fig. 3).



**Fig. 3. The priority actor value of institutional arrangement of Besuki Na-Oogst Tobacco**

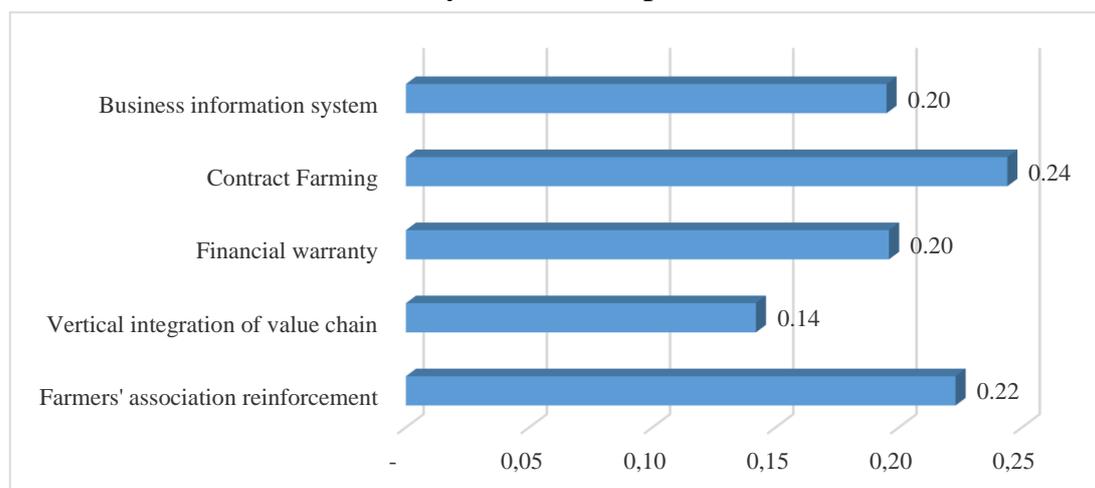
*Note.* Consistency Index 0.05.

*Source:* Primary Data Processed in 2017.

It can be concluded that government becomes the top priority to determine the quality policy strategy and tobacco standard to improve the competitiveness since government is the facilitator in the policy making process. Furthermore, the exporters in their second priority position with percentage of 22 % shows that in the

institutional standard and quality of Besuki Na Oogsttobacco, they have important role as a market wheel drive. In addition, farmers also play important role with percentage of 21 %, as shown by study by [12], which investigated the institutional Burley tobacco. The study reveals that in the institutional Burley tobacco, the association of tobacco farmers has significant influence by allocating farmers exchange value which is then used for selling power to control tobacco price as standardized. Consequently, a full access to market information is needed to improve farmers' exchange value that they can have a stable market price.

The level of purpose is analysed and studied in depth to reveal the priority of the objectives to achieve to improve the institutional cultivation of Besuki Na-Oogst Tobacco. The hierarchy of three objectives is classified into five categorization consisting business information, contract farming, financial warranty, vertical integration of value chain and farmers' association reinforcement. Based on the result of the analysis, contract farming is positioned on the top priority with percentage of 24 %, followed by farming association in as much as 22 %, financial warranty with along with business information with 20 % respectively and the vertical integration of chain with 14 % (Fig. 4). The production risk creates a great loss when it is not responded by mitigating the risk. Risk mitigation can be done by farmers by sharing the risk with other institutions in order that the farmers with contract tend to have higher profit than those who do not have one. Contract farming is an alternative to mitigate the risk and the uncertainty of tobacco production.



**Fig. 4. Priority alternative value of institutional arrangement of Besuki Na-Oogst Tobacco**

*Note.* Consistency Index 0.02.

*Source:* Primary Data Processed in 2017.

The partnership is a realization of relation between association and the law firm creating mutual benefits that the risk mitigation can be easier to implement to guarantee the balance, harmony and business ethics implementation. Hence, from such definition, the objectives of contract farming for the institutional tobacco cultivation is (1) to increase economy and social value obtained by farmers or the company partners, and (2) to realize balance in tobacco agribusiness meeting the

economy scale in a particular area.

Tobacco has become commodities grown by most farmers in East Java particularly in Jember Regency. The plantation area is varied ranging from 0.5 hectare to 2–3 hectare [12]. The corporate farming is a form of partnership between farmers and exporters with agreement that all activities such as capital, production, production and mechanism facilities to post harvest time is performed with corporation management. Meanwhile on farm or off farm with specific plantation area is established with partial management as stated in the agreement between farmers and the business players. Other roles played by local institution or internal organisation is shown by empirical result of study done by [13] and [14] which observed the role of institutions for Burley tobacco farmers in Malawi by applying the analysis using matching methods and instrumental variable technique. It was able to identify the effect of internal organisation such as farmers association. The concept and the analysis were able to indicate the potentials and the improvement of quality and output productivity to approximately 40–74 % per hectare which then was responded positively by the market with the sales reaching 45–89 % per hectare. It indicates that the intern synergy yields high market power when it is able to work with maximum capacity.

The other evidence is study by [15; 16] which observed risk management and institution that information plays important role to add farmers' bargaining power in negotiating the price. Their research indicated that the risk management became the important instrument to minimize and to control the risk. Furthermore, it also balanced the variable affecting output in the form of both internal and external variable, in which one of them should be considered when related to the adequate infrastructure both for growing necessities, access to information and market [17]. Moreover, asymmetric information which has become one of the causes of price instability and problems in tobacco business can be minimized. Asymmetrical information occurs when synergy between farmers and exporters as well as the effort to gain their profit are not maximum. On the other hand, the tobacco policy paradox causes complex problems [18]. Consequently, an effective and selective policy is needed to control the tobacco. The institution basically becomes the principle of the rule of the game in the society [19] consisting regulation in the society by describing *institutional environment* legal rules for production, exchange and distribution activity.

**Conclusions.** Besuki Na-Oogst tobacco is a raw material for qualified cigar for export and become the world best quality within the international market. In the development of its cultivation, the institution aspect should be importantly put into consideration to create synergy amongst Besuki Na-Oogst tobacco stakeholders. Based on the analysis, it can be concluded that:

Various challenges from the dynamic of demand and international market quality standard has brought about logical consequences that requires serious consideration from all parties not only from production technique but also from the institution which becomes principles and the rule and also regulation to cultivate

Besuki Na-Oogst tobacco.

The access towards the government policy making is also the main factor to develop the institution of Besuki Na-Oogst Tobacco. The policy is intended for the stakeholders by sticking to the commitment of rule of game for every Besuki Na-Oogst Tobacco trading.

Farmers plays the main role to develop the institution of Besuki Na-Oogst Tobacco. The access to information and knowledge become crucial factor to increase productivity, quality and the sustainability of Besuki Na-Oogst tobacco. Technology advancement and market demand force farmers to innovate and to seek knowledge on the cultivation of Besuki Na-Oogst tobacco.

The effectiveness and the producers' sustainability as well the institutional management along with market players as well as the policy makers are the result of correlation amongst three things, including bonding (the relation between producers in organisation), bridging (farmers' association to form bigger association), Both are essential to improve the competence along with improving market obstruction, market control and access to market information. Meanwhile the link between farmers association with the market players as well as the policy makers are important for the access to national and international market and to yield positive sum game to collaborate and to achieve the profit increase as well as to share advantages and losses.

Based on the conclusion, there are *suggestions and the policy implications* as the followings: The mind-set in the collaboration principle or partnership with mutual benefit should become the top priority for farmers and exporters to achieve the success of institution that each can have strength to develop their business through their consistence to be committed to create optimum business sustainability. The policy makers, in this case the role of the government, are needed to consider the potentials of cultivating Besuki Na-Oogst Tobacco in the form of supervision by allocating funds from excise tax and tobacco (DBHCHT) and to construct model to mitigate the harvest failure risk by capital and insurance to anticipate the loss. Law is urgently required to strengthen the institution of tobacco stakeholders in their synergy to sustain the cultivation of Besuki Na-Oogst tobacco.

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