

The Causality Model of Maize Farmers' Income: Integrating Social Capital, Supply Chain, and Competitive Advantage

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Abstract— Social capital structure, effective supply chain, and competitive advantage have been expected to increase maize farmers' income. Maize, as a main income, has not been able to prosper farmers yet. Structural Equation Modelling was applied to analyze the effectiveness of social capital, supply chain, and competitive advantage on the maize farmers' income. This study was conducted with 120 maize farmers as samples in one of Indonesia's maize production centers. Three indicators measure each variable. Social capital indicators are trust, social network, and norm; supply chain is the flow of goods, flow of information, and flow of capital; the competitive advantage is cost leadership, product differentiation, and focus. Furthermore, the indicators of farmers' income are land area, production, and labor. The study revealed that social capital did not directly impact maize farmers' income by the test variables of social capital, supply chain, and competitive advantage. In this case, in increasing maize farmers' income, social capital needs to be supported by supply chain and competitive advantage as intervening variables. The study further revealed that social capital significantly affected the supply chain and competitive advantage, in which these two variables significantly influenced maize farmers' income. Moreover, supply chain and competitive advantage have reinforced social capital to increase maize farmers' income. From the intervening variables, competitive advantage was more vital to reinforce social capital than supply chain in increasing maize farmers' income.

Keywords— Social capital; supply chain; competitive advantage; farmers' income.

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I. INTRODUCTION

South Sulawesi is one of the national maize production centers ranked fourth after East Java, Central Java, and Lampung in Indonesia [1]. The total production of maize in South Sulawesi reached 1,515,329 tons. This condition places South Sulawesi as the second-largest producer outside Java after Lampung as the first. Maize production in South Sulawesi was spread throughout all-region with production centers in Jeneponto, Bone, Gowa, Bantaeng and Bulukumba Regencies. The highest maize production is in Jeneponto which reached a harvest area of 47,663 hectares and production of 201,446 tons. The South Sulawesi Agricultural Census results showed that most of the population in Jeneponto Regency became farmers (76.27%) out of 59,247 head of population [2].

Sulawesi has the potential to be the biggest contributor to maize production outside Java by paying attention to the

potential of land that can still be developed for maize cultivation, but it has not happened. Ironically, the import of maize reached a high number. Indonesia's Ministry of Agriculture released that estimated maize need in Indonesia reached 7,468,885 tons, whereas the maize stock only about 470,422 tons from May to September 2020. This condition showed that most of the maize needs should be imported from other countries. Thus, good social capital and supply chains are vital in handling maize agribusiness in South Sulawesi and the increasing competitive advantage of maize production.

Social capital is an investment to get new resources in society. Weak social capital will dim the spirit of cooperation, exacerbate poverty, increase unemployment, crime, and hinder efforts to improve the population's welfare. Communities that can utilize the potential of social capital have been able to contribute to improving rural communities' welfare.

Jeneponto Regency, as a center of maize production in South Sulawesi had adequate social capital. The social capital