QUALITY ASSURANCE STRATEGY DEVELOPMENT
(CASE STUDY IN SMALL SCALE TAPIOCA AGROINDUSTRY)

YAOI HIDETOSHI

GRADUATE SCHOOL
BOGOR AGRICULTURAL UNIVERSITY
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STATEMENT

I, Yaoi Hidetoshi, hereby truthfully stated that all of statement and data in my thesis which is entitled;

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are the results of the study for my thesis under the supervision and advice by the respected advisory committee, except for those which are indicated clearly as literatures cited. This thesis has never been published before.

All data information, which are explained in the thesis, were stated factually and the correctness can be reviewed.

Bogor, August 2006

Yaoi Hidetoshi
YAOI HIDETOSHI. F351038221. Quality Assurance Strategy Development (Case Study in Small Scale Tapioca Agroindustry)

ABSTRACT

The main food crops in Indonesia consist of paddy, cassava, maize, sweet potatoes, peanuts, and soybeans. Among these six main food crops, cassava is one of important crops in which cassava is the most potential and important in many kinds of tuber crop to produce starch as a raw material for agroindustries producing many commodities to customers.

Before processing tapioca, the crude tapioca so called “Aci” is produced from cassava by the small scale tapioca agroindustry (SSTA). In this particular two processing steps, the quality of Aci is a key issue to ensure its quality to produce tapioca in reliance of quality addressed to customers and end-users to satisfy their requirement including local food industries.

The objectives of this research were 1) to identify the factors including problems and issues in SSTA from viewpoint of quality assurance, and 2) to develop the necessary strategy for improving quality assurance in SSTA. The research was implemented by three components, namely field survey, data analysis, and Focus Group Discussion (FGD). Data analysis was done by Quality Function Deployment (QFD) and Strength Weakness Opportunity Threat (SWOT) method.

The determination for strategy development was carried out by QFD to identify the requirement by SSTA and processing importance. The result indicated that the requirements of cassava’s attribute identified in SSTA were freshness, discoloration, contaminant, variety, and size. The identifications of processing importance were cassava procurement, smashing, waste handling, sieving, sun drying, grinding, and marketing. Among these processing steps, the most important processing were cassava procurement and marketing of Aci.

The current condition of Aci producer was analyzed its position being in the quadrant-I with the value of 2.54 and 2.81 in SWOT matrix showing that Aci producer allows to take an aggressive strategy development approach to improve their quality assurance capability such as systems of the cassava procurement and its quality requirement, processing technology improvement, and diversification of Aci marketing. One of the conducive factors was a development of Aci quality standard for both Aci producer and customers. It also suggested that the external factors should be reviewed in order to extend support for SSTA to provide the better environment for Aci production.

Moreover, further study and or research is recommended to carry out from aspects of technology improvement of processing, quality standard of Aci, institutional supporting system, and marketing diversification. To study further, it is better to implement a baseline study involving the Aci producer, cassava producer, and the related institutions aiming at institutional building for better SSTA’s social and economic contribution.

Key Words: quality assurance, Aci and SSTA, strategy development
ABSTRAK

Tanaman pangan di Indonesia terdiri dari padi, ubi kayu, jagung, ubi jalar, kacang tanah, dan kacang kuning. Dari enam jenis tanaman ini, ubi kayu adalah tanaman yang paling penting potensial sebagai penghasil tepung untuk bahan baku industri agro.

Sebelum pemrosesan tapioka, tapioka kasar yang disebut “Aci” dihasilkan dari ubi kayu oleh industri tapioka skala kecil di Bogor. Kualitas Aci adalah kunci dalam penentuan kualitas untuk menghasilkan tapioka untuk memenuhi persyaratan pengguna termasuk industri makanan lokal.

Tujuan penelitian ini adalah 1) mengidentifikasi faktor-faktor penjaminan mutu dalam industri tapioka skala kecil, dan 2) mengembangkan strategi penting untuk meningkatkan penjaminan mutu pada industri tapioka skala kecil. Penelitian ini dilaksanakan dengan tiga komponen yaitu survei lapangan, analisa data dan diskusi kelompok terfokus (FGD: Focus Group Discussion). Analisa data dilakukan dengan QFD (Quality Function Deployment) dan SWOT (Strength, Weakness, Opportunity and Threat).

Hasil analisa QGD menyajukkan bahwa persyaratan atribut ubi kayu adalah kesegaran, perubahan warna, pencemaran, jenis dan ukuran. Hasil identifikasi kepentingan proses adalah pengadaan ubi kayu, penghancuran, penanganan sampah, pengayakan, pengeringan matahari, penghalusan, dan pemasaran. Dari langkah-langkah proses ini yang paling penting adalah pengadaan ubi kayu dan pemasaran Aci.

Kondisi industri penghasil Aci saat ini posisinya berada pada kuadran I dengan nilai 2,54 dan 2,81 dalam matrik SWOT menunjukkan bahwa industri penghasil Aci dapat menggunakan strategi yang agresif untuk memperbaiki kemampuan penjaminan mutunya seperti sistem pengadaan ubi kayu dan persyaratan mutunya, perbaikan teknologi proses, dan diversifikasi pemasaran Aci. Salah satu faktor kondusif adalah pengembangan standar mutu Aci baik untuk industri penghasil Aci maupun pengguna faktor-faktor eksternal harus dikaji untuk memperluas dukungan industri Aci untuk menyediakan lingkungan yang lebih baik bagi produksi Aci.

Untuk implimentasinya perlu dilaksanakan penelitian lanjutan dari aspek perbaikan teknologi proses, standar mutu Aci, sistem kelembagaan, dan diversifikasi pemasaran. Selain itu juga perlu dilakukan penelitian tentang potensi dasar (baseline study) sebagai dasar untuk pengembangan kelembagaan industri kecil tapioka dan peningkatan kontribusi social dan ekonominya.

Kata Kunci: penjaminan mutu, Aci dan SSTA, pengembangan strategi
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YAOI HIDETOSHI

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Name : Yaoi Hidetoshi
Student Number : F 351038221

Approved by
Advisory Committee

Dr. Ir. Anas M. Fauzi, M.Eng
Chairman

Prof. Dr. Ir. Marimin, M.Sc
Member

Dr. Ir. Sutrisno, M.Agr
Member

Endorsed by
Chairman of Agroindustrial Technology Study Program
Dean of Graduate School

Dr. Ir. Irawadi Djamaran
Dr. Ir. Khairil Anwar Notodiputro, M.Sc.

Examination Date: 22 August 2006
Passed Date:
FOREWORD

During 1930s, tapioca factory had already initiated to produce tapioca in Bogor area in where cassava was widely cultivated in good production, and exported it to overseas country markets because of the quality of tapioca made in Bogor. This research is intended to clarify crude tapioca (so called as Aci) perspective processed by small scale tapioca agroindustry (SSTA) from aspect of quality assurance. It seems that both of cassava producer and Aci producer have been left behind their production pattern and value added process as it were since that time. The highlight of this research is focused to identify the factors and issues to improve quality assurance, and to develop the necessary strategy for improving quality assurance in SSTA.

It is hoped that SSTA and cassava producer will be more aggressive strategy and movement to be taken into place to improve their proud quality of product and to contribute their power to rural economic and capital development in the next decade.

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Bogor, August 2006
Yaoi Hidetoshi
NRP: F351038221
BIOGRAPHY

The author was born on 10th of February 1941 in Kobe city, Hyogo prefecture, Japan, whom farther is Yaoi Hidenori and mother is Yaoi Sueko. He is the first son and the second child out of five children.

He entered Komaba national high school in Tokyo affiliated to Tokyo University of Education (University of Tsukuba) in April 1956 and graduated in March 1959. In April 1960, he entered Faculty of Agriculture, Tokyo University of Education and graduated in March 1964.

After graduation of the university, he was employed by Japan International Cooperation Agency (JICA) in April 1964 engaging the works of overseas technical cooperation in the developing countries for almost 40 years. The last assignment before his pension was a project leader of tripartite project of “Higher Education Development Project (HEDS)” collaborated by Directorate General of Higher Education (DGHE) of the government of Indonesia, United States of Agency for International Development (USAID) and JICA during 12 years from 1990 in Jakarta, Indonesia.

After his resignation of chief advisor in 2002, he was enrolled as master course student at IPB in 2003 in where this thesis was submitted to fulfill the requirements.
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